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# ATTACHMENTS

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## **Ordinary Meeting of Council**

**Tuesday 26 September 2017**

6.00pm

City of Albany Council Chambers

ORDINARY COUNCIL MEETING  
ATTACHMENTS – 26/09/2017

**TABLE OF CONTENTS**

<b>Attachment</b>	<b>Report No.</b>	<b>Description</b>	<b>Page No.</b>
		<b>Commercial, Community &amp; Corporate Services</b>	
	CCCS053	Financial Activity Statement July 2017	1
	CCCS054	List of Accounts for Payment August 2017	10
	CCCS055	Delegated Authority Reports	27
	CCCS056	Adoption of the Budget Review for the Period Ending 31 July 2017	32
	CCCS057	Revised Community Strategic Plan and Corporate Business Plan-available here: <a href="#">Agenda and Minutes</a>	46
	CCCS058	Community Sporting and Recreation Facilities Fund 2017-18 Forward Planning Grant Round Application	239
		<b>Development &amp; Infrastructure Services</b>	
	DIS045	Frenchman Bay Heritage Trail-Feasibility Study available here: <a href="#">Agenda and Minutes</a>	247
	DIS046	Industry-Extractive (Gravel), Lot 56 Bon Accord Road, Kalgan available here: <a href="#">Agenda and Minutes</a>	317
	DIS047	Industry-Extractive (Lime), Lot 9005 Eden Road, Nullaki available here: <a href="#">Agenda and Minutes</a>	416
	DIS048	Endorse Minor Amendment to “Non Habitable Structure Policy”	597
	DIS049	Planning and Building Reports-August 2017	602

**City of Albany**  
**MONTHLY FINANCIAL REPORT**  
**For the Period Ended 31st July 2017**

**TABLE OF CONTENTS**

Compliance Report

Statement of Financial Activity

Note 1 Major Variances

Note 2 Net Current Funding Position

Note 3 Cash and Investments

Note 3A Cash and Investments- Graphical Representation

Note 4 Receivables

Note 5 Capital Acquisitions

City of Albany  
Compilation Report  
For the Period Ended 31st July 2017

**Report Purpose**

This report is prepared to meet the requirements of Local Government (Financial Management) Regulations 1996, Regulation 34 .

**Overview**

No matters of significance are noted.

**Statement of Financial Activity by reporting nature or type**

Is presented on page 3 and shows a surplus For the Period Ended 31st July 2017 of \$41,935,920.

Note: The Statements and accompanying notes are prepared based on all transactions recorded at the time of preparation and may vary.

**Preparation**

Prepared by: P Martin  
Reviewed by: D Olde  
Date prepared: 28/08/2017

REPORT ITEM CCCS 053 REFERS

City of Albany  
**STATEMENT OF FINANCIAL ACTIVITY**  
 (Nature or Type)  
 For the Period Ended 31st July 2017

Note	Original Annual Budget	Revised Annual Budget	YTD Budget (a)	YTD Actual (b)	Var. \$ (b)-(a)	Var. % (b)-(a)/(b)	
<b>Operating Revenues</b>							
	\$	\$	\$	\$	\$	%	
Rate Revenue	35,461,300	35,461,300	35,257,299	34,518,454	(738,845)	(2.1%)	▼
Grants & Subsidies	3,184,285	3,184,285	26,513	16,582	(9,931)	(59.9%)	
Contributions, Donations & Reimbursements	648,959	648,959	25,567	35,393	9,826	27.8%	
Profit on Asset Disposal	15,872	15,872	1,322	0	(1,322)	(100.0%)	
Fees and Charges	17,105,686	17,105,686	6,730,522	6,835,813	105,291	1.5%	▲
Service Charges	0	0	0	0	0		
Interest Earnings	1,134,492	1,134,492	54,513	63,818	9,305	14.6%	
Other Revenue	364,522	364,522	15,017	9,795	(5,222)	(53.3%)	
<b>Total</b>	<b>57,915,116</b>	<b>57,915,116</b>	<b>42,110,753</b>	<b>41,479,854</b>	<b>(630,899)</b>		
<b>Operating Expense</b>							
Employee Costs	(26,369,593)	(26,369,593)	(2,119,915)	(1,320,009)	799,906	60.6%	▼
Materials and Contracts	(17,285,414)	(17,285,414)	(1,047,464)	(805,854)	241,610	30.0%	▼
Utilities Charges	(1,850,099)	(1,850,099)	(75,028)	(40,933)	34,095	83.3%	
Depreciation (Non-Current Assets)	(16,910,453)	(16,910,453)	(1,409,206)	(1,409,206)	0	0.0%	
Interest Expenses	(871,085)	(871,085)	(69,916)	(5,091)	64,825	1273.4%	
Insurance Expenses	(708,302)	(708,302)	(11,391)	0	11,391	100.0%	
Loss on Asset Disposal	(608,999)	(608,999)	(50,729)	0	50,729	100.0%	
Other Expenditure	(2,911,281)	(2,911,281)	(217,241)	(160,691)	56,550	35.2%	
Less Allocated to Infrastructure	858,143	858,143	71,459	17,706	(53,753)	(303.6%)	
<b>Total</b>	<b>(66,657,083)</b>	<b>(66,657,083)</b>	<b>(4,929,431)</b>	<b>(3,724,078)</b>	<b>1,205,353</b>		
<b>Contributions for the Development of Assets</b>							
Grants & Subsidies	8,164,879	8,164,879	455,464	420,905	(34,559)	(8.2%)	
Contributions, Donations & Reimbursements	550,000	550,000	2,499	136,364	133,865	98.2%	▲
<b>Net Operating Result</b>	<b>(27,088)</b>	<b>(27,088)</b>	<b>37,639,285</b>	<b>38,313,045</b>	<b>673,760</b>		
<b>Funding Balance Adjustment</b>							
Add Back Depreciation	16,910,453	16,910,453	1,409,206	1,409,206	0	0.0%	
Adjust (Profit)/Loss on Asset Disposal	593,127	593,127	49,407	0	(49,407)	(100.0%)	
Movement From Current to Non-Current	0	0	0	0	0		
Add back Carrying Value of Investment Land	0	0	0	0	0		
<b>Funds Demanded From Operations</b>	<b>17,476,492</b>	<b>17,476,492</b>	<b>39,097,898</b>	<b>39,722,251</b>	<b>525,047</b>		
<b>Capital Revenues</b>							
Proceeds from Disposal of Assets	694,888	694,888	57,884	1,818	(56,066)	(3083.6%)	
<b>Total</b>	<b>694,888</b>	<b>694,888</b>	<b>57,884</b>	<b>1,818</b>	<b>(56,066)</b>		
<b>Acquisition of Fixed Assets</b>							
Land and Buildings	(7,985,196)	(7,985,196)	(150,402)	(109,323)	41,079	37.6%	
Plant and Equipment	(3,468,782)	(3,468,782)	(278,953)	(116,550)	162,403	139.3%	▼
Furniture and Equipment	(636,900)	(636,900)	(52,638)	(34,135)	18,503	54.2%	
Infrastructure Assets - Roads	(5,681,199)	(5,681,199)	(87,730)	(5,411)	82,319	1521.3%	
Infrastructure Assets - Other	(7,119,149)	(7,119,149)	(459,517)	(164,753)	294,764	178.9%	▼
<b>Total</b>	<b>(24,891,226)</b>	<b>(24,891,226)</b>	<b>(1,029,240)</b>	<b>(430,173)</b>	<b>599,067</b>		
<b>Financing/Borrowing</b>							
Debt Redemption	(2,216,361)	(2,216,361)	(29,857)	(22,698)	7,159	31.5%	
Loan Drawn Down	2,120,000	2,120,000	0	0	0		
Profit on Sale of Investments	0	0	0	0	0		
Self-Supporting Loan Principal	12,120	12,120	1,010	0	(1,010)	(100.0%)	
Self Supporting Loan Issued	0	0	0	0	0		
<b>Total</b>	<b>(84,241)</b>	<b>(84,241)</b>	<b>(28,847)</b>	<b>(22,698)</b>	<b>6,149</b>		
<b>Demand for Resources</b>	<b>(6,804,087)</b>	<b>(6,804,087)</b>	<b>38,097,695</b>	<b>39,271,198</b>	<b>1,074,197</b>		
<b>Restricted Funding Movements</b>							
Opening Funding Surplus(Deficit)	2,230,734	2,230,734	2,230,734	2,664,722	433,988	16.3%	▼
Restricted Cash Utilised - Loan	547,125	547,125	0	0	0		
Transfer to Reserves	(11,901,803)	(11,901,803)	0	0	0		
Transfer from Reserves	15,928,031	15,928,031	0	0	0		
<b>Closing Funding Surplus(Deficit)</b>	<b>0</b>	<b>0</b>	<b>40,328,429</b>	<b>41,935,920</b>	<b>1,508,185</b>		

# REPORT ITEM CCCS 053 REFERS

**City of Albany**  
**NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY**  
**For the Period Ended 31st July 2017**

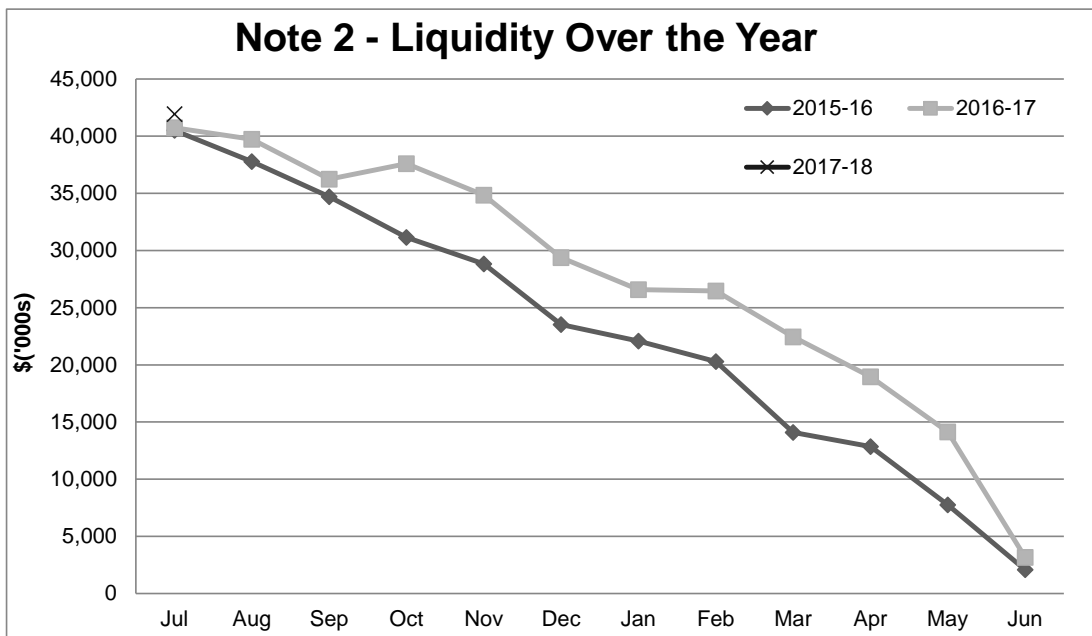
**Note 1: EXPLANATION OF MATERIAL VARIANCES IN EXCESS OF \$100,000**

	Var.	Var.	Timing/ Permanent	Explanation of Variance
	\$			
<b>1.1 Operating Revenues</b>				
Rate Revenue	(738,845)	▼	Timing	Variation due to ratepayers who have prepaid rates, and balance not yet allocated. Rates raised in the finance system in July, however formal issue date is the 9th of August.
Grants & Subsidies	(9,931)			No material variance.
Contributions, Donations & Reimbursements	9,826			No material variance.
Profit on Asset Disposal	(1,322)			No material variance.
Fees and Charges	105,291	▲	Timing	Primarily year end timing adjustments - income billed in 2016/17 for services in 2017/18. For example, 6 or 12 months memberships and annual lease payments.
Interest Earnings	9,305			No material variance.
Other Revenue	(5,222)			No material variance.
<b>1.2 Operating Expense</b>				
Employee Costs	799,906	▼	Timing	Subject to year end adjustments and accruals. \$663 000 accrued back to 2016/17.
Materials and Contracts	241,610	▼	Timing	Primarily timing delay in invoicing of waste and recyclable collection fees (\$256 000).
Utilities Charges	34,095			No material variance.
Depreciation (Non-Current Assets)	0			No material variance.
Interest Expenses	64,825			No material variance.
Insurance Expenses	11,391			No material variance.
Loss on Asset Disposal	50,729			No material variance.
Other Expenditure	56,550			No material variance.
Less Allocated to Infrastructure	(53,753)			No material variance.
<b>1.3 Contributions for the Development of Assets</b>				
Grants & Subsidies	(34,559)			
Contributions, Donations & Reimbursements	133,865	▲	Permanent	Timing of actual income receipt to budgeted timing of receipt.
<b>1.4 Funding Balance Adjustment</b>				
Add Back Depreciation	0			No material variance.
Adjust (Profit)/Loss on Asset Disposal	(49,407)			No material variance.
<b>1.5 Capital Revenues</b>				
Proceeds from Disposal of Assets	(56,066)			No material variance.
<b>1.6 Acquisition of Fixed Assets</b>				
Land and Buildings	41,079			No material variance.
Plant and Equipment	162,403	▼	Timing	Timing of major plant purchases. Some plant ordered, awaiting delivery.
Furniture and Equipment	18,503			No material variance.
Infrastructure Assets - Roads	82,319			No material variance.
Infrastructure Assets - Other	294,764	▼	Timing	Minimal capital work undertaken on drains, parks and reserves. Collingwood Park lights budgeted for, no payment yet made.
<b>1.7 Financing/Borrowing</b>				
Debt Redemption	7,159			No material variance.
Loan Drawn Down	0			No material variance.
<b>1.8 Restricted Funding Movements</b>				
Opening Funding Surplus(Deficit)	433,988	▼	Permanent	Projected surplus from 2016/17 subject to budget review.
Transfer to Reserves	0			No material variance.
Transfer from Reserves	0			No material variance.

**City of Albany**  
**NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY**  
 For the Period Ended 31st July 2017

**Note 2: NET CURRENT FUNDING POSITION**

		Positive=Surplus (Negative=Deficit)		
		2017-18		
	Note	This Period	Last Period	Same Period Last Year
		\$	\$	\$
<b>Current Assets</b>				
Cash Unrestricted		11,275,371	15,859,742	2,439,469
Cash Restricted		19,068,804	19,018,966	18,630,493
Receivable - Rates and Rubbish	4	44,192,017	1,218,088	42,993,982
Receivables - Other		1,681,867	1,332,468	1,581,557
Investments - LG Unit Trust Shares		205,605	205,605	205,605
Accrued Income		269,920	227,010	368,317
Prepaid Expenses		86,040	51,479	75,525
Investment Land		229,609	229,609	303,950
Investment Loan		12,120	12,120	0
Stock on Hand		602,372	658,426	634,081
		<b>77,623,726</b>	<b>38,813,516</b>	<b>67,232,979</b>
<b>Less: Current Liabilities</b>				
Payables		(5,956,131)	(2,485,696)	(5,115,165)
Accrued Expenses		(41,315)	0	(491,255)
Income in advance		(75,689)	(2,740)	(96,914)
Provisions		(4,187,114)	(4,173,640)	(3,815,739)
Retentions		(174,392)	(171,667)	(282,491)
		<b>(10,434,641)</b>	<b>(6,833,743)</b>	<b>(9,801,564)</b>
Add Back: Loans		2,113,918	2,136,616	2,026,659
Less: Cash Restricted		(25,992,610)	(25,072,583)	(18,213,089)
Unutilised - Loan		(939,259)	(939,259)	0
Investment land		(229,609)	(229,609)	(303,950)
Investments - LG Unit Trust Shares		(205,605)	(205,605)	(205,605)
<b>Net Current Funding Position</b>		<b>41,935,920</b>	<b>3,584,859</b>	<b>40,735,430</b>



**Comments - Net Current Funding Position**

**City of Albany**  
**NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY**  
**For the Period Ended 31st July 2017**

**Note 3: CASH INVESTMENTS**

Deposit Ref	Institution	Rating	Deposit Date	Term (Days)	Invested Interest rates	Amount Invested	Expected Interest
<b>General Municipal</b>							
2296986	Bendigo	BBB	13/06/2017	62	2.20%	1,500,000	5,605
10448422	NAB	AA	13/06/2017	62	2.20%	2,500,000	9,343
10451570	NAB	AA	23/06/2017	60	2.20%	2,000,000	7,233
4612055	Bankwest	AA	17/07/2017	91	2.35%	2,000,000	11,718
<b>Subtotal</b>						<b>8,000,000</b>	<b>33,899</b>
<b>Restricted</b>							
33822504	CBA	AA	28/04/2017	122	2.38%	3,000,000	23,865
4608126	Bankwest	AA	4/07/2017	62	2.50%	2,000,000	8,493
10444967	NAB	AA	29/05/2017	120	2.48%	2,000,000	16,307
406578	Westpac	AA	10/07/2017	92	2.45%	3,000,000	18,526
2247478	Bendigo	A	20/04/2017	183	2.50%	2,500,000	31,336
454361	Bank of Queensland	BBB	29/05/2017	150	2.60%	2,000,000	21,370
33822504	CBA	AA	3/07/2017	120	2.33%	2,000,000	15,321
<b>Subtotal</b>						<b>16,500,000</b>	<b>135,217</b>
<b>Total Funds Invested</b>						<b>24,500,000</b>	<b>169,116</b>

Amount Invested (Days)		
0 - 3 Months	3 - 6 Months	6 - 12 Months
1,500,000.00		
2,500,000.00		
2,000,000.00		
2,000,000.00		
<b>8,000,000</b>	<b>0</b>	<b>0</b>
2,000,000	3,000,000	
	2,000,000	
	2,000,000	
	3,000,000	
	2,500,000	
	2,000,000	
	2,000,000	
<b>2,000,000</b>	<b>14,500,000</b>	<b>0</b>
<b>10,000,000</b>	<b>14,500,000</b>	<b>0</b>

Comparative rate	
Prior Month Interest Rate	Interest Rate at time of Report
	2.20%
2.32%	2.20%
2.23%	2.35%
	2.38%
	2.50%
	2.48%
	2.32%
	2.50%
	2.60%
	2.33%

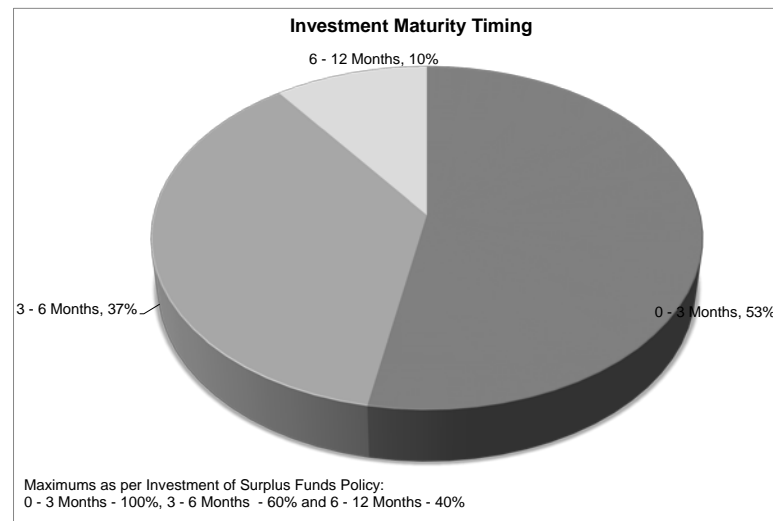
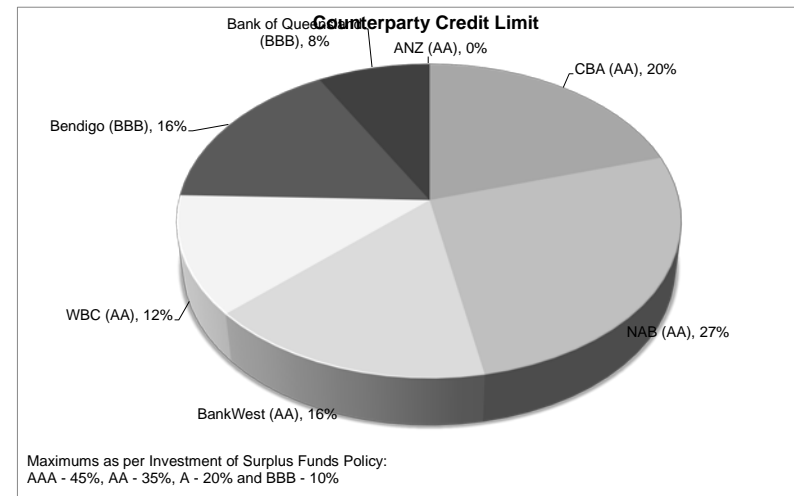
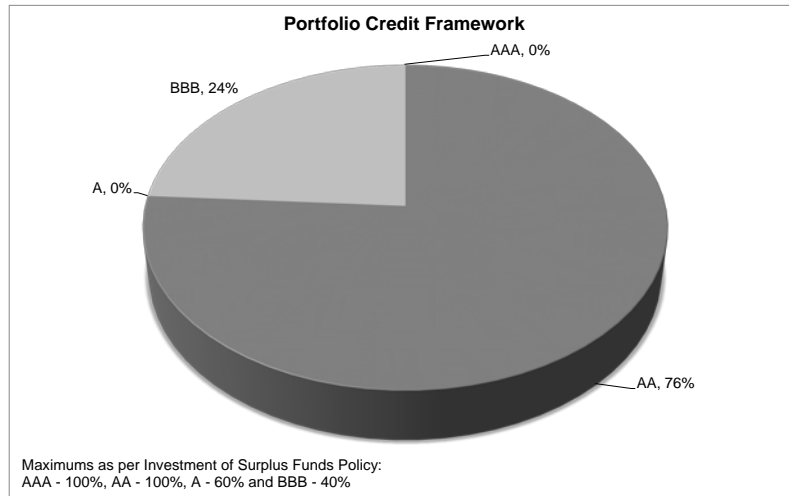
Budget v Actual		
Year to Date Budget	Year to Date Actual	Var.\$
17,425	20,364	2,938.58
27,873	37,495	9,621.87
<b>45,298</b>	<b>57,858</b>	<b>12,560.45</b>

Comments/Notes - Cash Investments



City of Albany  
 Monthly Investment Report  
 For the Period Ended 31st July 2017

**Note 3A: GRAPHICAL REPRESENTATION - CASH INVESTMENTS**



**City of Albany**  
**NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY**  
**For the Period Ended 31st July 2017**

**Note 4: RECEIVABLES**

**Receivables - Rates and Refuse**

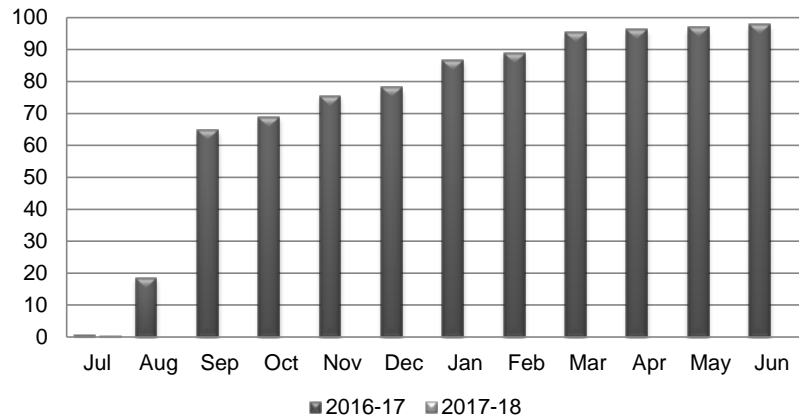
	<b>Current 2017-18</b>	<b>Previous 2016-17</b>	<b>Total</b>
	\$	\$	\$
Opening Arrears Previous Years		809,310	809,310
Rates Levied this year	34,518,454		34,518,454
Refuse Levied	6,005,623		6,005,623
ESL Levied	3,069,978		3,069,978
Other Charges Levied	6,766		6,766
<u>Less</u> Collections to date	<b>(142,594)</b>	<b>(75,519)</b>	<b>(218,113)</b>
<b>Equals Current Outstanding</b>	<b>43,458,226</b>	<b>733,791</b>	<b>44,192,017</b>
<b>Total Rates &amp; Charges Collectable</b>			<b>44,192,017</b>
% Collected			0.49%

**Receivables - General**

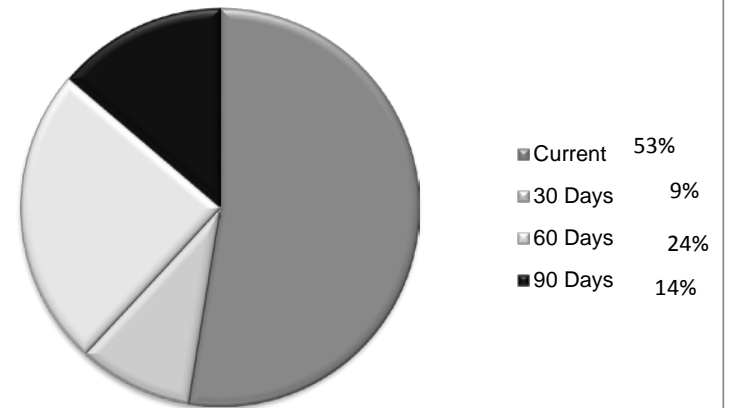
	<b>Current</b>	<b>30 Days</b>	<b>60 Days</b>	<b>90 Days</b>
	\$	\$	\$	\$
	517,323	91,402	239,849	135,577
<b>Total Outstanding</b>				<b>984,150</b>

Amounts shown above include GST (where applicable)

**Note 4 - Rates & Refuse % Collected**



**Note 4 - Accounts Receivable (non-rates)**



Comments/Notes - Receivables Rates and Refuse

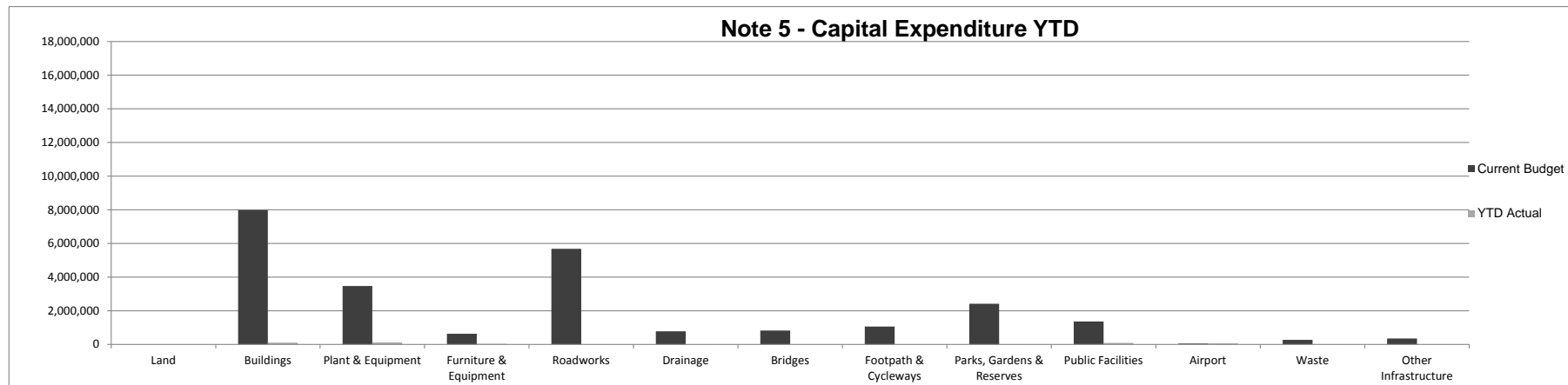
Comments/Notes - Receivables General

City of Albany  
 NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY  
 For the Period Ended 31st July 2017

Note 5: CAPITAL ACQUISITIONS

Contributions Information					Summary Acquisitions	Original Budget	Current Budget	YTD Budget	Actual	Variance
Grants	Reserves	Borrowing	Restricted	Total						
\$	\$	\$		\$		\$			\$	\$
0	0	0	0	0	<b>Property, Plant &amp; Equipment</b>					
1,327,500	770,000	1,000,000	0	3,097,500	Land	0	0	0	0	0
50,000	0	0	0	50,000	Buildings	7,985,196	7,985,196	150,402	109,323	(41,079) ▼
0	0	0	0	0	Plant & Equipment	3,468,782	3,468,782	278,953	116,550	(162,403) ▼
					Furniture & Equipment	636,900	636,900	52,638	34,135	(18,503) ▼
					<b>Infrastructure</b>					
1,500,000	200,000	0	0	1,700,000	Roadworks	5,681,199	5,681,199	87,730	5,411	(82,319) ▼
0	0	0	0	0	Drainage	781,000	781,000	0	9,174	9,174 ▲
825,000	0	0	0	825,000	Bridges	824,734	824,734	68,701	0	(68,701) ▼
20,000	0	0	0	20,000	Footpath & Cycleways	1,065,482	1,065,482	26,202	1,017	(25,185) ▼
605,700	483,300	0	0	1,089,000	Parks, Gardens & Reserves	2,414,314	2,414,314	209,942	4,612	(205,330) ▼
13,035,092	467,820	500,000	0	14,002,912	Public Facilities	1,362,092	1,362,092	107,910	87,138	(20,772) ▼
0	0	0	0	0	Airport	50,000	50,000	0	60,728	60,728 ▲
0	273,286	0	0	273,286	Waste	273,286	273,286	23,579	309	(23,270) ▼
0	0	0	0	0	Other Infrastructure	348,241	348,241	23,183	1,775	(21,408) ▼
<b>17,363,292</b>	<b>2,194,406</b>	<b>1,500,000</b>	<b>0</b>	<b>21,057,698</b>	<b>Totals</b>	<b>24,891,226</b>	<b>24,891,226</b>	<b>1,029,240</b>	<b>430,172.79</b>	<b>(599,067)</b>

Comments - Capital Acquisitions



REPORT ITEM CCCS 054 REFERS

TRUST CHEQUES AND ELECTRONICS FUNDS TRANSFER PAYMENTS

TRUST PAYMENTS

Date	Description	Amount
EFT118922 10/08/2017	WESTERN AUSTRALIAN MUSEUM FOUNDATION Distribution Of Amounts Held In Trust For Brig Amity - Invoice 00000305	\$ 31,302.00
<b>Total</b>		<b>\$ 31,302.00</b>

MASTERCARD TRANSACTIONS - JULY 2017

Date	Payee	Description	Amount
10/07/2017	REGIONAL EXPRESS	Flights - WA Cruise Exchange - M Hammond	\$ 444.65
10/07/2017	REGIONAL EXPRESS	Flights - NAC Advisory Group - M Hammond & A Cousins	\$ 1,046.68
25/07/2017	REGIONAL EXPRESS	Flights - Econnect Selector Meeting - K Houderrani	\$ 402.13
25/07/2017	REGIONAL EXPRESS	Flights - PLWA Meeting & AGM, Regional Librarians Meeting - P Nielsen	\$ 424.61
05/07/2017	RENDEVOUS HOTEL	Cr Hollingworth - Accommodation - WALGA Conference	\$ 485.25
07/07/2017	REGIONAL EXPRESS	Flights - A Sharpe - WARCA Meeting	\$ 444.65
07/07/2017	REGIONAL EXPRESS	Flights - A McEwan - NAC Advisory Group meeting	\$ 489.61
12/07/2017	REGIONAL EXPRESS	A Sharpe - Flights - WARCA Meeting	\$ 489.61
05/07/2017	REGIONAL EXPRESS	Flights - H Bell LG Professionals Conference	\$ 399.67
06/07/2017	QANTAS AIRWAYS	Flights - ALAC Facilities Manager Interviews	\$ 832.70
06/07/2017	REGIONAL EXPRESS	Flights - ALAC Facilities Manager Interviews	\$ 467.13
06/07/2017	REGIONAL EXPRESS	Flights - ALAC Facilities Manager Interviews	\$ 422.15
10/07/2017	DIGICERT INC	Registration - Spydus Software - Library	\$ 552.26
19/07/2017	WRISTBAND FACTORY	Material Supply - Wristbands for ALAC	\$ 903.00
19/07/2017	SWIFTYPE.COM	Website Monthly Fee	\$ 314.97
30/06/2017	DOC WORKSAFE	High Risk Work Licence Assessment	\$ 280.00
03/07/2017	WATTLE GROVE MOTEL	Accommodation - T Bond - Training	\$ 420.00
17/07/2017	GALLERY HOTEL BIBRA LAKE	Accommodation - J Woods - Training	\$ 773.50
17/07/2017	GALLERY HOTEL BIBRA LAKE	Accommodation - S Woods - Training	\$ 773.50
29/06/2017	INDIAN OCEAN HOTEL	Accommodation - Rangers - Training Course	\$ 333.20
26/07/2017	AUSTRALIAN INSTITUTE OF BUILDING SURVEYORS	Conference Registration - S Fitzgerald	\$ 1,654.00
Various	SUNDRY < \$ 200.00		3,664.19
<b>Total</b>			<b>\$ 16,017.46</b>

PAYROLL 16/07/2017 - 15/08/2017

Date	Description	Amount
20/07/2017	COA Salaries	\$ 609,165.51
25/07/2017	COA Salaries	\$ 6,512.07
25/07/2017	COA Salaries	\$ 1,807.76
26/07/2017	COA Salaries	\$ 1,653.14
03/08/2017	COA Salaries	\$ 617,766.22
03/08/2017	COA Salaries	\$ 1,551.31
04/08/2017	COA Salaries	\$ 821.41
<b>Total</b>		<b>\$ 1,239,277.42</b>

REPORT ITEM CCCS 054 REFERS

Chq	Date	Name	Description	Amount
31675	20/07/2017	I LOVE	Refund	\$ 150.00
31676	20/07/2017	WEST AUSTRALIAN SYMPHONY ORCHESTRA	Refund	\$ 60.00
31677	20/07/2017	MOUNT BARKER ROLLER TAG	Kidsport Vouchers	\$ 200.00
31678	20/07/2017	GIRL GUIDES WESTERN AUSTRALIA	Kidsport Vouchers	\$ 600.00
31679	20/07/2017	PETTY CASH	Reimbursement Of Petty Cash	\$ 118.45
31680	20/07/2017	PETTY CASH	Reimbursement Of Petty Cash	\$ 82.80
31681	20/07/2017	PIVOTEL SATELLITE PTY LIMITED	Satellite Phone Charges	\$ 250.00
31682	20/07/2017	TELSTRA CORPORATION LIMITED	Telephone Charges	\$ 18,632.04
31683	20/07/2017	TOTALLY SPORTS AND SURF	Compressor For Programs And Gym	\$ 240.00
31684	20/07/2017	WATER CORPORATION	Water Charges	\$ 4,624.55
31685	27/07/2017	D & K WHITE	Crossover Subsidy	\$ 205.66
31686	27/07/2017	T CHAPMAN & C LYNCH	Crossover Subsidy	\$ 229.22
31687	27/07/2017	S HILLS	Crossover Subsidy	\$ 161.49
31688	27/07/2017	S MATOWITZ	Crossover Subsidy	\$ 173.27
31689	27/07/2017	J DODD	Crossover Subsidy	\$ 211.55
31690	27/07/2017	H WOLFENDEN	Crossover Subsidy	\$ 211.55
31691	27/07/2017	F GEERS	Crossover Subsidy	\$ 176.22
31692	27/07/2017	E WELLSTEAD	Crossover Subsidy	\$ 137.93
31693	27/07/2017	G & J CONNELL	Crossover Subsidy	\$ 152.66
31694	27/07/2017	DEPARTMENT OF MINES AND PETROLEUM	Dangerous Goods Licence	\$ 235.50
31695	27/07/2017	DEPARTMENT OF TRANSPORT	Transfer Fee	\$ 16.40
31696	27/07/2017	PORTNER PRESS PTY LTD	Law Update 4 - 2017	\$ 97.00
31697	27/07/2017	TELSTRA CORPORATION LIMITED	Telephone Charges	\$ 10,141.93
31698	27/07/2017	WATER CORPORATION	Works Complete - Manholes	\$ 3,757.85
31699	03/08/2017	C & M DAW	Refund	\$ 97.70
31700	03/08/2017	PIVOTEL SATELLITE PTY LIMITED	Satellite Phone Charges	\$ 124.00
31701	03/08/2017	WATER CORPORATION	Water Consumption	\$ 5,086.74
31702	10/08/2017	D ANNISON	NAC Inventory	\$ 293.70
31703	10/08/2017	DEPARTMENT OF TRANSPORT	Vehicle Registration	\$ 394.70
31704	10/08/2017	RAC	Light Fleet Break Down Cover Annual Account Fee	\$ 300.00
31705	10/08/2017	WATER CORPORATION	Water Consumption	\$ 9,945.23
31706	10/08/2017	THE WEST AUSTRALIAN	Newspaper Subscription	\$ 320.37
31707	15/08/2017	PETTY CASH	Umpire Payments For Social Ladies Netball	\$ 2,360.00
<b>Total</b>				<b>\$ 59,788.51</b>

REPORT ITEM CCCS 054 REFERS

EFT	Date	Name	Description	Amount
EFT118455	20/07/2017	ABBOTTS LIQUID SALVAGE PTY LTD	Grease Arrestor Service	\$ 258.50
EFT118456	20/07/2017	ACORN TREES AND STUMPS	Vegetation clearance for Vehicle Access	\$ 946.00
EFT118457	20/07/2017	ACURIX NETWORKS PTY LTD	Monitoring, Licensing, Support, ADSL Service 2017-0028	\$ 16,394.40
EFT118458	20/07/2017	AD CONTRACTORS PTY LTD	Material Supply - Turf Sand	\$ 93,634.10
EFT118459	20/07/2017	AECOM AUSTRALIA PTY LTD	Interpretive Signage Suite Design Report	\$ 9,933.00
EFT118460	20/07/2017	AHA! CONSULTING PTY LTD	Delivery Of Iap2 Modules	\$ 31,186.25
EFT118461	20/07/2017	ALBANY V-BELT AND RUBBER	Material Supply - Vehicle Parts	\$ 401.10
EFT118462	20/07/2017	COASTAL CRANES ALBANY	Mobile Crane Hire	\$ 143.00
EFT118463	20/07/2017	ALBANY AGRICULTURAL SOCIETY INCORPORATED	Rent - Storage Unit	\$ 2,970.00
EFT118464	20/07/2017	ALBANY REFRIGERATION	Air Conditioning Maintenance	\$ 2,462.50
EFT118465	20/07/2017	ALBANY LANDSCAPE SUPPLIES	Material Supply - Pea Gravel	\$ 3,300.00
EFT118466	20/07/2017	ALBANY AUTO ONE	Materials For Mosquito Program/Noise Control	\$ 1,656.70
EFT118467	20/07/2017	ALBANY OFFICE PRODUCTS DEPOT	Material Supply - Office Seats	\$ 10,195.32
EFT118468	20/07/2017	ALBANY BLINDS	Supply & Install - Roller Blinds	\$ 528.00
EFT118469	20/07/2017	ALBANY DOMESTIC SERVICES	Waste Services	\$ 160.00
EFT118470	20/07/2017	ALBANY AUTOMOTIVE GROUP PTY LTD	Material Supply - New Vehicle	\$ 18,127.50
EFT118471	20/07/2017	ALBANY YOGA ROOM	Silversport Vouchers	\$ 360.00
EFT118472	20/07/2017	ALBANY AERIAL IMAGING	Aerial Photography Imaging Services	\$ 250.00
EFT118473	20/07/2017	ALTIFORM PTY LTD	Material Supply - Decking Boards	\$ 6,270.00
EFT118474	20/07/2017	AMPHIBIAN PLUMBING AND GAS	Labour & Electrical - ALAC Pumps	\$ 11,919.48
EFT118475	20/07/2017	APPRENTICE & TRAINEESHIP COMPANY	Casual Staff/Apprentice Fes	\$ 821.87
EFT118476	20/07/2017	ARTHRITIS FOUNDATION OF WA	Silversport Vouchers	\$ 1,600.00
EFT118477	20/07/2017	ASSETVAL PTY LTD	Fees - Valuation Land & Buildings	\$ 4,400.00
EFT118478	20/07/2017	ATC WORK SMART	Casual Staff/Apprentice Fees	\$ 35,589.68
EFT118479	20/07/2017	AUSTSWIM LTD	Swim School Conference - N Osborne	\$ 334.00
EFT118480	20/07/2017	BAREFOOT CLOTHING MANUFACTURERS	Staff Uniforms	\$ 264.00
EFT118481	20/07/2017	BARRETT'S MINI EARTHMOVING & CHIPPING	Removal Of Trees	\$ 720.00
EFT118482	20/07/2017	BATTERY WORLD	Material Supply - Batteries	\$ 65.00
EFT118483	20/07/2017	BENARA NURSERIES	Nursery Supplies	\$ 3,694.83
EFT118484	20/07/2017	BENNETT'S BATTERIES	Material Supply Battery Charger	\$ 528.00
EFT118485	20/07/2017	ADVANCED TRAFFIC MANAGEMENT WA PTY LTD	Traffic Management Services	\$ 9,498.35
EFT118486	20/07/2017	E BENWELL	Refund	\$ 101.25
EFT118487	20/07/2017	BERTOLA HIRE SERVICES ALBANY PTY LTD	Hire Equipment	\$ 257.40
EFT118488	20/07/2017	BEST OFFICE SYSTEMS	Photocopier Charges	\$ 344.00
EFT118489	20/07/2017	J. BLACKWOOD & SON PTY LTD	Stock Materials	\$ 27.50
EFT118490	20/07/2017	BOOKEASY AUSTRALIA PTY LTD	Bookeasy Booking Returns	\$ 1,435.87
EFT118491	20/07/2017	CARDNO BSD PTY LTD	Road Safety Advice	\$ 18,260.00
EFT118492	20/07/2017	BULLIVANT'S HANDLING SAFETY	Material Supply - Training Equipment	\$ 8,107.00
EFT118493	20/07/2017	BUNNINGS GROUP LIMITED	Material Supply - Hardware & Tools	\$ 231.28
EFT118494	20/07/2017	CALTEX AUSTRALIA PETROLEUM PTY LTD	Litres Diesel Fuel For Depot	\$ 12,245.67
EFT118495	20/07/2017	J & S CASTLEHOW ELECTRICAL SERVICES	Sports Field Lighting Installation	\$ 52,143.49
EFT118496	20/07/2017	CENTRAL REGIONAL TAFE	Training Course	\$ 1,660.58
EFT118497	20/07/2017	CLARK EQUIPMENT SALES PTY LTD	Material Supply - Track Rollers	\$ 863.87
EFT118498	20/07/2017	COLES SUPERMARKETS AUSTRALIA PTY LTD	Groceries	\$ 118.03
EFT118499	20/07/2017	K COLTON	Refund	\$ 139.00
EFT118500	20/07/2017	COOKS TOURS PTY LTD	Advertising	\$ 850.00
EFT118501	20/07/2017	COURIER AUSTRALIA	Freight Charges	\$ 482.83
EFT118502	20/07/2017	ALBANY SIGNS	Assorted Signage	\$ 2,035.00
EFT118503	20/07/2017	CGS QUALITY CLEANING	Cleaning Services	\$ 317.56
EFT118504	20/07/2017	LANDGATE - PROPERTY & VALUATIONS	Valuations	\$ 364.00
EFT118505	20/07/2017	DEPARTMENT OF TRANSPORT	Vehicle Search Fees - June 2017	\$ 95.70

## REPORT ITEM CCCS 054 REFERS

EFT118506	20/07/2017 S DIXON	E.A.P. Counselling	\$ 140.00
EFT118507	20/07/2017 DOG ROCK MOTEL	Accommodation for Consultant	\$ 165.20
EFT118508	20/07/2017 DOWNUNDER CONTRACTING PTY LTD	Supply & Install of Fencing	\$ 9,471.00
EFT118509	20/07/2017 DYLAN'S ON THE TERRACE	Catering Services	\$ 1,042.20
EFT118510	20/07/2017 ELDERS LIMITED	Material Supply - Fencing Material	\$ 1,483.34
EFT118511	20/07/2017 E-STRAILIAN PTY LTD	Ebike Leases	\$ 182.18
EFT118512	20/07/2017 THE FIXUPPERY	Cleaning Services	\$ 2,821.59
EFT118513	20/07/2017 FOOD STANDARDS AUSTRALIA NEW ZEALAND	Safe Food Australia Publication	\$ 66.00
EFT118514	20/07/2017 FRONTLINE FIRE & RESCUE EQUIPMENT	Material Supply - Fire Equipment	\$ 7,872.70
EFT118515	20/07/2017 GLASS SUPPLIERS	Supply & Install Office Partition Wall	\$ 7,095.79
EFT118516	20/07/2017 GREAT SOUTHERN SUPPLIES	Material Supply - Cleaning Items	\$ 2,745.89
EFT118517	20/07/2017 GREAT SOUTHERN LIQUID WASTE	Waste Removal	\$ 2,060.00
EFT118518	20/07/2017 GREENLITE ELECTRICAL CONTRACTORS PTY LTD	Supply & Install A Smartmax Modem To Yakamia Pump Station	\$ 4,703.06
EFT118519	20/07/2017 GROVE PARK SENIORS GOLF CLUB (INC)	Silversport Vouchers	\$ 200.00
EFT118520	20/07/2017 HARVEY NORMAN ALBANY	Material Supply - Washing Machine, Microwave, Sandwich Press	\$ 1,078.00
EFT118521	20/07/2017 HAVOC BUILDERS PTY LTD	Building Services	\$ 4,537.50
EFT118522	20/07/2017 E HOWARD	Inspections Of Food Business	\$ 1,600.00
EFT118523	20/07/2017 S INGELBRECHT	Writing Facilitator & Artistic Lead	\$ 1,000.00
EFT118524	20/07/2017 JACK THE CHIPPER	Invasive Species Management - Woody Weeds	\$ 687.50
EFT118525	20/07/2017 JASON SIGNMAKERS	Custom Signs	\$ 1,008.80
EFT118526	20/07/2017 KANGA LOADERS WA	Plant Parts And Repairs	\$ 137.96
EFT118527	20/07/2017 KMART ALBANY	Material Supply - Meeting Rooms At Major Stadium	\$ 420.00
EFT118528	20/07/2017 LA FREEGARD	Mulch Pushed Up Sydney Golden Wattle	\$ 590.00
EFT118529	20/07/2017 LATRO LAWYERS	Professional Service	\$ 736.34
EFT118530	20/07/2017 LEASE CHOICE	Monthly Lease Photocopiers	\$ 1,246.83
EFT118531	20/07/2017 LOCHNESS LANDSCAPE SERVICES	Contract Mowing	\$ 8,526.50
EFT118532	20/07/2017 ALBANY CITY MOTORS	Supply Filters	\$ 425.63
EFT118533	20/07/2017 MCLAUGHLIN CLIFFORD EDWARD	Staff Reimbursement	\$ 47.80
EFT118534	20/07/2017 AIRPORT SECURITY PTY LTD	Aviation Security Identification Card	\$ 220.00
EFT118535	20/07/2017 WESTERN AUSTRALIAN RANGERS ASSOCIATION INC	Workshop - Dangerous Dog Assessing And Handling	\$ 250.00
EFT118536	20/07/2017 MOSTERT, DJ & H	Visitors Centre Inventory	\$ 60.00
EFT118537	20/07/2017 LGIS INSURANCE BROKING	Insurance Policy - 2017/18	\$ 175,503.81
EFT118538	20/07/2017 LGIS PROPERTY	Insurance Policy - 2017/18	\$ 497,948.13
EFT118539	20/07/2017 NEVILLES HARDWARE & BUILDING SUPPLIES	Hardware Supplies	\$ 320.95
EFT118540	20/07/2017 ALBANY NEWS DELIVERY - NORTH ROAD - NEW	Newspaper deliveries	\$ 25.04
EFT118541	20/07/2017 ALBANY NEWS DELIVERY - ALAC - NEW	Newspaper deliveries	\$ 220.52
EFT118542	20/07/2017 OFFICEWORKS SUPERSTORES PTY LTD	Stationery Supplies	\$ 185.00
EFT118543	20/07/2017 IXOM	Chlorine Supplies	\$ 2,824.80
EFT118544	20/07/2017 THE PERTH MINT SHOP	NAC Inventory	\$ 682.86
EFT118545	20/07/2017 PERTH SAFETY PRODUCTS PTY LTD	Supply Of Signs	\$ 1,062.60
EFT118546	20/07/2017 PIONEER HEALTH ALBANY	Employee Level B Consultation	\$ 82.00
EFT118547	20/07/2017 4 STEEL SUPPLIES	Supply of steel	\$ 1,738.06
EFT118548	20/07/2017 PRE-EMPTIVE STRIKE PTY LTD	Graphic Design Services	\$ 3,718.00
EFT118549	20/07/2017 REVOLUTION APPS PTY LTD	Regional Waste Alliance Project: Compost Revolution Membership	\$ 1,380.06
EFT118550	20/07/2017 RICOH	Photocopier Charges	\$ 10,664.31
EFT118551	20/07/2017 ROADSIDE PRODUCTS PTY LTD	Material Supply - Vehicle Parts	\$ 1,138.50
EFT118552	20/07/2017 HASKONING AUSTRALIA PTY LTD - ROYAL HASKONING	Extension Of AWAC At Middleton Beach	\$ 4,900.50
EFT118553	20/07/2017 SAXXON IT	IT Support	\$ 8,745.00
EFT118554	20/07/2017 SECUREPAY PTY LTD	Web Payments Security - Transaction Fee	\$ 31.42
EFT118555	20/07/2017 SEEK LIMITED	Job Advertisement	\$ 302.50
EFT118556	20/07/2017 SKILL HIRE WA PTY LTD	Casual Staff/Apprentice fees	\$ 9,600.21
EFT118557	20/07/2017 SKIPPER TRANSPORT PARTS	Material Supply - Vehicle Parts	\$ 264.25

## REPORT ITEM CCCS 054 REFERS

EFT118558	20/07/2017 SOIL SOLUTIONS PTY LTD	Material Supply - Soil	\$ 1,342.14
EFT118559	20/07/2017 SOUTHERN TOOL AND FASTENER CO	Material Supply - Chainsaws	\$ 19,483.77
EFT118560	20/07/2017 SOUTHCOAST SECURITY SERVICE	Security Services	\$ 21,977.20
EFT118561	20/07/2017 STAR SALES AND SERVICE	Material Supply - Brush Cutter Cord	\$ 356.40
EFT118562	20/07/2017 STATEWIDE BEARINGS	Material Supply - Vehicle Parts	\$ 7.79
EFT118563	20/07/2017 ST JOHN AMBULANCE ASSOCIATION WA INC	Heart Safe And Awareness Training	\$ 120.00
EFT118564	20/07/2017 ST JOHN AMBULANCE WESTERN AUSTRALIA LTD	First Aid Training	\$ 199.00
EFT118565	20/07/2017 SWEETNAM FURNITURE REMOVALS	Delivery Charges	\$ 275.00
EFT118566	20/07/2017 SYNERGY	Electricity Supplies - Street Lighting	\$ 2,080.55
EFT118567	20/07/2017 T & C SUPPLIES	Materials For BFB	\$ 3,679.72
EFT118568	20/07/2017 M Taylor	Staff Reimbursement	\$ 96.00
EFT118569	20/07/2017 TECTONICS CONSTRUCTION GROUP PTY LTD	Progress Claim - Albany Tourism & Information Hub Construction	\$ 77,821.83
EFT118570	20/07/2017 TECHWEST SOLUTIONS PTY LTD	Material Supply - Head Worn Sweat Resistant Aerobics Microphone	\$ 519.20
EFT118571	20/07/2017 TELSTRA LICENSED SHOP ALBANY	Mobile Broadband Dongle	\$ 96.00
EFT118572	20/07/2017 THE 12 VOLT WORLD	Material Supply - Batteries	\$ 21.00
EFT118573	20/07/2017 TRUCKLINE	Material Supply - Vehicle Parts	\$ 178.20
EFT118574	20/07/2017 ALBANY TYREPOWER	Material Supply - Vehicle parts	\$ 349.70
EFT118575	20/07/2017 IT VISION AUSTRALIA PTY LTD	System Health Check Audit	\$ 484.00
EFT118576	20/07/2017 THE IT VISION USER GROUP (INC)	IT Vision User Group Membership Fee 2017/2018	\$ 715.00
EFT118577	20/07/2017 ALBANY & GREAT SOUTHERN WEEKENDER	Advertising	\$ 2,241.75
EFT118578	20/07/2017 WESTRAC EQUIPMENT PTY LTD	Materials - Vehicle Parts	\$ 154.77
EFT118579	20/07/2017 WESTERN AUSTRALIAN LOCAL GOVERNMENT ASSOCIATION	Membership Fees	\$ 53,677.33
EFT118580	20/07/2017 WEST AUSTRALIAN NEWSPAPERS LIMITED	Advertising	\$ 248.76
EFT118581	20/07/2017 WESTSHRED DOCUMENT DISPOSAL	Document Disposal	\$ 499.40
EFT118582	20/07/2017 HOLIDAY GUIDE PTY LTD	Completed Bookings Marketing Fee	\$ 312.30
EFT118583	20/07/2017 WEST AUSTRALIAN NEWSPAPERS LIMITED	Advertising	\$ 288.00
EFT118584	20/07/2017 WORLDWIDE PRINTING SOLUTIONS	Printing - Marketing Cards	\$ 1,386.42
EFT118585	20/07/2017 WURTH AUSTRALIA PTY LTD	Materials -Vehicle Parts	\$ 313.05
EFT118586	20/07/2017 ZENITH LAUNDRY	Laundry Services	\$ 28.88
EFT118587	21/07/2017 TELSTRA CORPORATION LIMITED	Telephone Charges	\$ 9,621.94
EFT118588	21/07/2017 WA SUPER	Superannuation Contributions	\$ 12.97
EFT118589	27/07/2017 ACORN TREES AND STUMPS	Tree Pruning	\$ 1,809.50
EFT118590	27/07/2017 ADAPPTOR PTY LTD	City Of Albany App Report It Functionality	\$ 9,680.00
EFT118591	27/07/2017 AD CONTRACTORS PTY LTD	Demolition Services	\$ 30,999.86
EFT118592	27/07/2017 ADVERTISER PRINT	Business Cards	\$ 65.00
EFT118593	27/07/2017 ALBANY BRAKE AND CLUTCH	Vehicle Maintenance	\$ 29.70
EFT118594	27/07/2017 ALBANY INDUSTRIAL SERVICES PTY LTD	Heavy Equipment Hire	\$ 19,907.25
EFT118595	27/07/2017 OPTEON (ALBANY AND GREAT SOUTHERN WA)	Valuation Services	\$ 770.00
EFT118596	27/07/2017 ALBANY PRINTERS	Printing Services	\$ 4,955.00
EFT118597	27/07/2017 ALBANY SOIL AND CONCRETE TESTING	Soil Testing	\$ 517.00
EFT118598	27/07/2017 ALBANY V-BELT AND RUBBER	Material Supply - Vehicle Parts	\$ 250.27
EFT118599	27/07/2017 ALBANY SWEEP CLEAN	Cleaning Services	\$ 6,072.00
EFT118600	27/07/2017 ALBANY COMMUNITY HOSPICE	Payroll Deductions	\$ 64.00
EFT118601	27/07/2017 ALBANY INDOOR PLANT HIRE	Indoor Plant Hire	\$ 1,175.02
EFT118602	27/07/2017 ALBANY CHAMBER OF COMMERCE AND INDUSTRY	Sponsorship ACCI 2017 Business Awards	\$ 3,300.00
EFT118603	27/07/2017 ALBANY RETRAVISION	Material Supply - Television & Associated Items	\$ 898.00
EFT118604	27/07/2017 ALBANY LANDSCAPE SUPPLIES	Material Supply - Pea Gravel	\$ 704.00
EFT118605	27/07/2017 ALBANY SKIPS AND WASTE SERVICES PTY LTD	Equipment Hire	\$ 871.25
EFT118606	27/07/2017 ALBANY OFFICE PRODUCTS DEPOT	Stationery Supply	\$ 4,173.84
EFT118607	27/07/2017 ALBANY CENTRAL CABINETS PTY LTD	Kitchen Cabinets & Workstation Benchtops	\$ 2,354.00
EFT118608	27/07/2017 ALBANY COMMUNITY FOUNDATION	Payroll Deductions	\$ 10.00
EFT118609	27/07/2017 ALBANY DOMESTIC SERVICES	Waste Removal	\$ 130.00



## REPORT ITEM CCCS 054 REFERS

EFT118610	27/07/2017 ALBANY AUTOMOTIVE GROUP PTY LTD	Material Supply - New Vehicles	\$ 59,668.11
EFT118611	27/07/2017 ALINTA	Gas Usage Charges	\$ 31.75
EFT118612	27/07/2017 ATCO GAS AUSTRALIA PTY LTD	Plumbing Repairs & Maintenance	\$ 402.60
EFT118613	27/07/2017 AMITY PAINTING AND DECORATING	Paint/Painting Supplies	\$ 286.00
EFT118614	27/07/2017 AMPHIBIAN PLUMBING AND GAS	Plumbing Repairs & Maintenance	\$ 18,934.00
EFT118615	27/07/2017 APPRENTICE & TRAINEESHIP COMPANY	Casual Staff/Apprentice Fees	\$ 2,209.40
EFT118616	27/07/2017 ARTSHUB	Albany Art Prize 2018	\$ 962.50
EFT118617	27/07/2017 ATC WORK SMART	Casual Staff/Apprentice Fees	\$ 20,758.48
EFT118618	27/07/2017 AUSTRALIAN TAXATION OFFICE	Payroll Deductions	\$ 375,794.76
EFT118619	27/07/2017 AUSTRALIAN SERVICES UNION WA BRANCH	Payroll Deductions	\$ 3,584.20
EFT118620	27/07/2017 BADGEMATE	Staff Name Badges	\$ 40.65
EFT118621	27/07/2017 BANK OF I.D.E.A.S.	Workshop Delivery By Peter Kenyon	\$ 3,200.00
EFT118622	27/07/2017 BAREFOOT CLOTHING MANUFACTURERS	Staff Uniforms	\$ 105.00
EFT118623	27/07/2017 BENARA NURSERIES	Materials - Street Tree Supplies	\$ 12,760.00
EFT118624	27/07/2017 BENNETTS BATTERIES	Material Supply - Vehicle Oil	\$ 668.80
EFT118625	27/07/2017 ADVANCED TRAFFIC MANAGEMENT WA PTY LTD	Traffic Management Services	\$ 7,348.90
EFT118626	27/07/2017 ALBANY BITUMEN SPRAYING	Bitumen Sealing Work	\$ 2,821.50
EFT118627	27/07/2017 CONSTRUCTION TRAINING FUND	Additional Levy Centennial Park East Precinct Football Stadium	\$ 52.79
EFT118628	27/07/2017 BUNNINGS GROUP LIMITED	Hardware Supplies/Tools	\$ 124.82
EFT118629	27/07/2017 BUSY BLUE BUS	Hire Of Bus	\$ 650.00
EFT118630	27/07/2017 C&C MACHINERY CENTRE	Material Supply - Fuel Cap	\$ 157.40
EFT118631	27/07/2017 CALTEX AUSTRALIA PETROLEUM PTY LTD	Diesel Fuel For Depot	\$ 10,308.69
EFT118632	27/07/2017 CAMLYN SPRINGS	Water Container Refills June 2017	\$ 1,246.00
EFT118633	27/07/2017 J & S CASTLEHOW ELECTRICAL SERVICES	Electrical Services	\$ 14,186.62
EFT118634	27/07/2017 CHILD SUPPORT AGENCY	Payroll Deductions	\$ 1,076.24
EFT118635	27/07/2017 CIVICA PTY LTD	Spydus Managed Services Fee	\$ 37,390.10
EFT118636	27/07/2017 COATES HIRE OPERATIONS PTY LIMITED	Equipment Hire	\$ 574.55
EFT118637	27/07/2017 COLES SUPERMARKETS AUSTRALIA PTY LTD	Groceries	\$ 131.80
EFT118638	27/07/2017 COOKS TOURS PTY LTD	Advertising Beautiful South	\$ 590.00
EFT118639	27/07/2017 CRANBROOK DISTRICTS MOTORCYCLE CLUB INC	Kidsport Vouchers	\$ 270.00
EFT118640	27/07/2017 CREATIVE PLAYING	NAC Inventory	\$ 175.11
EFT118641	27/07/2017 CRUMPS CANVAS	Repairs To Annex	\$ 523.60
EFT118642	27/07/2017 HOLCIM (AUSTRALIA) PTY LTD	Materials - Concrete	\$ 1,910.18
EFT118643	27/07/2017 THE LAMINEX GROUP (CULLITY'S)	Material Supply - Wood	\$ 298.12
EFT118644	27/07/2017 AL CURNOW HYDRAULICS	Materials - Vehicle Parts	\$ 152.59
EFT118645	27/07/2017 CGS QUALITY CLEANING	Cleaning Services	\$ 41,339.95
EFT118646	27/07/2017 DE LAGE LANDEN PTY LIMITED	Monthly Rental	\$ 6,319.50
EFT118647	27/07/2017 DENMARK VISITOR CENTRE	Brochure Racking Fee	\$ 155.00
EFT118648	27/07/2017 DENMARK WALPOLE JUNIOR FOOTBALL CLUB	Kidsport Vouchers	\$ 240.00
EFT118649	27/07/2017 DENMARK CO-OPERATIVE CO LTD	Materials - Chemicals	\$ 370.00
EFT118650	27/07/2017 LANDGATE - PROPERTY & VALUATIONS	Land Enquiries/Title Searches	\$ 37.90
EFT118651	27/07/2017 G & M DETERGENTS & HYGIENE SERVICES ALBANY	Cleaning Products	\$ 460.35
EFT118652	27/07/2017 J DOWNES	Refund	\$ 56.00
EFT118653	27/07/2017 DYLAN'S ON THE TERRACE	Catering Services	\$ 700.00
EFT118654	27/07/2017 EASIFLEET MANAGEMENT	Payroll Deductions	\$ 13,984.42
EFT118655	27/07/2017 ELDERS LIMITED	Material Supply	\$ 581.40
EFT118656	27/07/2017 EXISLE PUBLISHING	NAC Inventory	\$ 1,474.15
EFT118657	27/07/2017 FORPARK AUSTRALIA	Replaced Swing Sets	\$ 2,882.00
EFT118658	27/07/2017 FOXTEL MANAGEMENT PTY LTD	Business Package Subscription	\$ 840.00
EFT118659	27/07/2017 FREDERICKS CAFE	Catering Services	\$ 149.50
EFT118660	27/07/2017 GOLDEN WEST NETWORK PTY LTD	Advertising	\$ 3,169.10
EFT118661	27/07/2017 GREEN SKILLS INCORPORATED	Reserves Maintenance	\$ 3,500.00

## REPORT ITEM CCCS 054 REFERS

EFT118662	27/07/2017 ALBANY PEST & WEED CONTROL	Pest Control Services	\$ 142.00
EFT118663	27/07/2017 SOUTHERN SHARPENING SERVICES	NAC Inventory	\$ 717.00
EFT118664	27/07/2017 GREAT SOUTHERN PERSONNEL INC	Gardening Labour	\$ 199.50
EFT118665	27/07/2017 GREAT SOUTHERN SUPPLIES	Staff Uniforms	\$ 1,674.71
EFT118666	27/07/2017 GREAT SOUTHERN LIQUID WASTE	Cleaning Services	\$ 184.80
EFT118667	27/07/2017 GROVE PARK SENIORS GOLF CLUB (INC)	Silversport Vouchers	\$ 200.00
EFT118668	27/07/2017 GWN GREAT SOUTHERN	Advertising	\$ 1,017.50
EFT118669	27/07/2017 S HARRISON	Sale of Artwork	\$ 185.19
EFT118670	27/07/2017 HAVOC BUILDERS PTY LTD	Repair & Labour Services	\$ 4,922.50
EFT118671	27/07/2017 AFGRI EQUIPMENT AUSTRALIA PTY LTD	Materials - Vehicle Parts	\$ 83.60
EFT118672	27/07/2017 H AND H ARCHITECTS	Architectural Services	\$ 7,045.78
EFT118673	27/07/2017 HHG LEGAL GROUP	Professional Services	\$ 994.40
EFT118674	27/07/2017 STATEWIDE RACKING & STORAGE SOLUTIONS	Shop fittings for Forts Store	\$ 960.50
EFT118675	27/07/2017 INTANDEM	Advertising	\$ 275.00
EFT118676	27/07/2017 ISENTIA PTY LTD	Advertising	\$ 2,013.73
EFT118677	27/07/2017 JACK THE CHIPPER	Tractor Mulching	\$ 508.20
EFT118678	27/07/2017 KELYN TRAINING SERVICES	Training - Course Fees	\$ 1,047.00
EFT118679	27/07/2017 KERRICK INDUSTRIAL EQUIPMENT	Cleaning Services	\$ 3,272.50
EFT118680	27/07/2017 KESTON TECHNOLOGIES PTY LTD	Professional Services	\$ 5,390.00
EFT118681	27/07/2017 KMART ALBANY	Material Supply - Sporting Equipment	\$ 68.00
EFT118682	27/07/2017 KOSTER'S OUTDOOR PTY LTD	Repairs & Maintenance	\$ 2,623.00
EFT118683	27/07/2017 LADELLE PTY LTD	NAC Inventory	\$ 1,822.71
EFT118684	27/07/2017 THE LAKE HOUSE DENMARK	NAC Inventory	\$ 427.00
EFT118685	27/07/2017 STATE LIBRARY OF WESTERN AUSTRALIA	Library Resources	\$ 2,062.50
EFT118686	27/07/2017 CALTEX ENERGY WA	Materials - Kerosene	\$ 1,148.00
EFT118687	27/07/2017 M AND B SALES PTY LTD	Material Supply - Plywood	\$ 17.61
EFT118688	27/07/2017 SOUTH COAST WOODWORKS GALLERY	NAC Inventory	\$ 1,097.80
EFT118689	27/07/2017 ALBANY CITY MOTORS	Material Supply - New Truck	\$ 107,380.14
EFT118690	27/07/2017 MASTER BUILDERS ASSOCIATION OF WESTERN AUSTRALIA	Venue Hire	\$ 670.00
EFT118691	27/07/2017 MCGUFFIE TILT TRAY HIRE	Transport Container	\$ 253.00
EFT118692	27/07/2017 METCO FARM	NAC Inventory	\$ 825.00
EFT118693	27/07/2017 MICHAEL & HONOR THWAITES HERITAGE ASSOCIATION	Printing	\$ 120.00
EFT118694	27/07/2017 MJB INDUSTRIES PTY LTD	Materials - Concrete	\$ 6,936.60
EFT118695	27/07/2017 MOUNT ROMANCE AUSTRALIA PTY LTD	NAC Inventory	\$ 3,339.23
EFT118696	27/07/2017 MULE CREATIVE	Graphic Design Services	\$ 2,970.00
EFT118697	27/07/2017 NLC PTY LTD	Novated Lease And Associated Costs	\$ 1,351.30
EFT118698	27/07/2017 NORTH METROPOLITAN TAFE	Staff Training - Course Fees	\$ 1,794.03
EFT118699	27/07/2017 KOMATSU AUSTRALIA PTY LTD	Material Supply - Vehicle Parts	\$ 185.99
EFT118700	27/07/2017 OCS SERVICES PTY LTD	Cleaning Services	\$ 152.78
EFT118701	27/07/2017 OFFICEWORKS SUPERSTORES PTY LTD	Material Supply - IT Equipment	\$ 650.70
EFT118702	27/07/2017 OKEEFE'S PAINTS	Paint & Painting Supplies	\$ 462.50
EFT118703	27/07/2017 IXOM	Chlorine Supplies	\$ 348.50
EFT118704	27/07/2017 PALMER EARTHMOVING - PALMER CIVIL CONSTRUCTION	Norwood Road Slk 0.0-1.1 Retention	\$ 13,274.78
EFT118705	27/07/2017 L PAMBERGER	Professional Services	\$ 660.00
EFT118706	27/07/2017 PERTH THEATRE TRUST	Albany Entertainment Centre Contribution	\$ 40,462.10
EFT118707	27/07/2017 PERTH SAFETY PRODUCTS PTY LTD	Material Supply - Install signage	\$ 4,675.00
EFT118708	27/07/2017 PFD FOOD SERVICES PTY LTD	Catering Supplies	\$ 142.60
EFT118709	27/07/2017 FULTON HOGAN INDUSTRIES	Material Supply - Road Materials	\$ 3,281.30
EFT118710	27/07/2017 PRINTSYNC BUSINESS SOLUTIONS	Photocopy Charges	\$ 21.37
EFT118711	27/07/2017 PUBLIC LIBRARIES AUSTRALIA LTD	PLA Subscription	\$ 652.40
EFT118712	27/07/2017 RAMPED TECHNOLOGY	Professional Services	\$ 9,317.00
EFT118713	27/07/2017 RAMM SOFTWARE PTY LTD	RAMM Software Support & maintenance	\$ 11,756.02

## REPORT ITEM CCCS 054 REFERS

EFT118714	27/07/2017 RECONNECT HEALTH AND WELLBEING	Professional Services	\$ 165.00
EFT118715	27/07/2017 REDFISH TECHNOLOGIES PTY LTD	Maintenance and Subscription Fees	\$ 4,620.00
EFT118716	27/07/2017 REEVES ON CAMPBELL	Catering	\$ 400.00
EFT118717	27/07/2017 REXEL AUSTRALIA	Material Supply- Heavy Duty Conduit	\$ 29.30
EFT118718	27/07/2017 BASKETBALL RINGLEADER	Material Supply - Sporting Equipment	\$ 4,796.00
EFT118719	27/07/2017 HAZEL ROOME - SOUTH COAST COUNSELLING SERVICES	Professional Services	\$ 250.00
EFT118720	27/07/2017 THE ROYAL LIFE SAVING SOCIETY WA INC	Material Supply - Swim School	\$ 467.56
EFT118721	27/07/2017 UNITED TOOLS ALBANY	Material Supply - Tools	\$ 170.51
EFT118722	27/07/2017 SHENTON ENTERPRISES	Plumbing Repairs & Maintenance	\$ 2,115.95
EFT118723	27/07/2017 SKILL HIRE WA PTY LTD	Casual Staff/Apprentice Fees	\$ 3,925.76
EFT118724	27/07/2017 SKIPPER TRANSPORT PARTS	Material Supply - Vehicle Parts	\$ 76.67
EFT118725	27/07/2017 SMITHS ALUMINIUM AND 4WD CENTRE	Material Supply - Vehicle Parts	\$ 31,450.00
EFT118726	27/07/2017 SOIL SOLUTIONS PTY LTD	Material Supply - Bulk Green Waste	\$ 56,648.88
EFT118727	27/07/2017 SOUTHERN DISTRICTS JUNIOR FOOTBALL ASSOCIATION	Kidsport Vouchers	\$ 120.00
EFT118728	27/07/2017 SOUTHERN EDGE ARTS INC	Kidsport Vouchers	\$ 280.50
EFT118729	27/07/2017 SOUTHERN MODEL SUPPLIES	NAC Inventory	\$ 568.32
EFT118730	27/07/2017 G SPENCE	Lawn Mowing & Maintenance	\$ 120.00
EFT118731	27/07/2017 SPIRAL CONSULTING	Consultancy Fees	\$ 2,200.00
EFT118732	27/07/2017 STAR SALES AND SERVICE	Material Supply - Hardware/Vehicle Parts	\$ 12.00
EFT118733	27/07/2017 STIRLING PRINT	Printing	\$ 247.50
EFT118734	27/07/2017 ALBANY LOCK SERVICE	Material Supply - Locks	\$ 2,230.90
EFT118735	27/07/2017 THE SURGERY - DR SHAZA SALLEH	Professional Services	\$ 65.00
EFT118736	27/07/2017 SYNERGY	Electricity Supplies - Grouped Account	\$ 32,222.35
EFT118737	27/07/2017 T & C SUPPLIES	Material Supply - Hardware & Tools	\$ 431.19
EFT118738	27/07/2017 JTAGZ PTY LTD	Purchase Of Artwork	\$ 649.00
EFT118739	27/07/2017 TALIS CONSULTANTS PTY LTD	Consultancy Services	\$ 23,629.30
EFT118740	27/07/2017 TEEDE & CO	Catering	\$ 165.00
EFT118741	27/07/2017 TELFORD INDUSTRIES	Material Supply - Chlorite	\$ 235.84
EFT118742	27/07/2017 THINKWATER ALBANY	Material Supply - Irrigation Supplies	\$ 4,653.92
EFT118743	27/07/2017 THURLBY HERB FARM	NAC Inventory	\$ 708.99
EFT118744	27/07/2017 THE TOFFEE FACTORY	NAC Inventory	\$ 1,333.70
EFT118745	27/07/2017 TRUCK CENTRE WA PTY LTD	Material Supply - Oil Filter	\$ 53.58
EFT118746	27/07/2017 ALBANY TYREPOWER	Material Supply - Vehicle Supplies	\$ 524.50
EFT118747	27/07/2017 T VAN IRSEN	2017 Great Southern Art Award	\$ 1,000.00
EFT118748	27/07/2017 N WALKER	Staff Reimbursement	\$ 83.87
EFT118749	27/07/2017 WATERCRAFT MARINE	Service Outboard Marine Motor	\$ 291.75
EFT118750	27/07/2017 ALBANY & GREAT SOUTHERN WEEKENDER	Advertising	\$ 4,067.47
EFT118751	27/07/2017 ABH (BBW) PTY LTD - WELLSTEAD RURAL	Gas Bottles	\$ 80.00
EFT118752	27/07/2017 WESTRAC EQUIPMENT PTY LTD	Material Supply - Vehicle Parts	\$ 158.60
EFT118753	27/07/2017 WESTSHRED DOCUMENT DISPOSAL	Document Disposal	\$ 41.80
EFT118754	27/07/2017 TEENA-LOUISE WILLIAMS	Cleaning Services	\$ 1,040.00
EFT118755	27/07/2017 E WITT	Replacement Payment	\$ 182.11
EFT118756	27/07/2017 WOOD AND GRIEVE ENGINEERS	Engineering Services	\$ 1,496.00
EFT118757	27/07/2017 WORLD MANAGER PTY LTD	World Manager August 2017	\$ 2,640.00
EFT118758	27/07/2017 WESFARMERS LTD - WORKWEAR GROUP	Staff Uniforms	\$ 292.42
EFT118759	27/07/2017 ZENITH LAUNDRY	Laundry Services/Hire	\$ 30.02
EFT118760	27/07/2017 ZIRCODATA PTY LTD	Archive Boxes For Records Department	\$ 143.00
EFT118761	27/07/2017 PHILLIP BEST PLUMBING PTY LTD	Plumbing Repairs & Maintenance	\$ 5,421.45
EFT118762	27/07/2017 SYNERGY	Electricity Charges	\$ 53,703.15
EFT118763	28/07/2017 CAROLYN DOWLING	Councillor Allowances & Sitting Fees	\$ 2,909.47
EFT118764	28/07/2017 ALISON GOODE	Councillor Allowance & Sitting Fees	\$ 2,909.47
EFT118765	28/07/2017 RAY HAMMOND	Councillor Allowances & Sitting Fees	\$ 2,909.47

REPORT ITEM CCCS 054 REFERS

EFT118766	28/07/2017 BILL HOLLINGWORTH	Councillor Allowances & Sitting Fees	\$	2,909.47
EFT118767	28/07/2017 ANTHONY MOIR	Councillor Allowances & Sitting Fees	\$	2,909.47
EFT118768	28/07/2017 JANELLE PRICE	Councillor Allowances & Sitting Fees	\$	2,909.47
EFT118769	28/07/2017 JOHN SHANHUN	Councillor Allowances & Sitting Fees	\$	2,909.47
EFT118770	28/07/2017 SANDIE SMITH	Councillor Allowances & Sitting Fees	\$	2,909.47
EFT118771	28/07/2017 GREGORY BRIAN STOCKS	Deputy Mayoral Allowances & Sitting Fees	\$	4,760.83
EFT118772	28/07/2017 ROBERT SUTTON	Councillor Allowances & Sitting Fees	\$	2,909.47
EFT118773	28/07/2017 PAUL TERRY	Councillor Allowances & Sitting Fees	\$	2,909.47
EFT118774	28/07/2017 DENNIS WELLINGTON	Mayoral Allowances & Sitting Fees	\$	11,621.69
EFT118775	28/07/2017 NICOLETTE MULCAHY	Councillor Allowances & Sitting Fees	\$	2,909.50
DD25130.1	18/07/2017 WA SUPER	Payroll Deductions	\$	79,217.84
DD25130.2	18/07/2017 COLONIAL FIRST STATE FIRSTCHOICE PERSONAL	Superannuation Contributions	\$	637.50
DD25130.3	18/07/2017 AUSTRALIAN SUPER	Payroll Deductions	\$	8,317.80
DD25130.4	18/07/2017 ASGARD	Superannuation Contributions	\$	1,271.72
DD25130.5	18/07/2017 DESMO SUPERANNUATION FUND	Superannuation Contributions	\$	532.55
DD25130.6	18/07/2017 CBUS	Superannuation Contributions	\$	392.63
DD25130.7	18/07/2017 AMP SUPERANNUATION SAVINGS	Payroll Deductions	\$	1,912.84
DD25130.8	18/07/2017 HOSTPLUS PTY LTD	Superannuation Contributions	\$	554.63
DD25130.9	18/07/2017 BT SUPER FOR LIFE	Superannuation Contributions	\$	359.76
DD25155.1	18/07/2017 WA SUPER	Superannuation Contributions	\$	64.65
DD25156.1	18/07/2017 MTAA SUPERANNUATION FUND	Superannuation Contributions	\$	260.66
DD25161.1	18/07/2017 UNI SUPER	Superannuation Contributions	\$	54.76
DD25130.10	18/07/2017 BT SUPER FOR LIFE	Superannuation Contributions	\$	152.47
DD25130.11	18/07/2017 REST SUPERANNUATION	Payroll Deductions	\$	2,100.18
DD25130.12	18/07/2017 TAL SUPERANNUATION LIMITED	Superannuation Contributions	\$	208.60
DD25130.13	18/07/2017 WEALTH PERSONAL SUPER AND PERSONAL PENSION	Superannuation Contributions	\$	35.13
DD25130.14	18/07/2017 WEALTH PERSONAL SUPER AND PERSONAL PENSION	Superannuation Contributions	\$	22.19
DD25130.15	18/07/2017 BT SUPER FOR LIFE	Superannuation Contributions	\$	316.37
DD25130.16	18/07/2017 NATIONAL MUTUAL RETIREMENT FUND	Superannuation Contributions	\$	126.47
DD25130.17	18/07/2017 PRIME SUPER	Superannuation Contributions	\$	756.52
DD25130.18	18/07/2017 MLC MASTERKEY BUSINESS SUPER	Superannuation Contributions	\$	935.86
DD25130.19	18/07/2017 SUPERWRAP PERSONAL SUPER PLAN	Superannuation Contributions	\$	418.18
DD25130.20	18/07/2017 COLONIAL FIRST STATE FIRSTCHOICE PERSONAL SUPER	Payroll Deductions	\$	977.13
DD25130.21	18/07/2017 OAK TREE SUPERANNUATION FUND	Superannuation Contributions	\$	220.50
DD25130.22	18/07/2017 BT SUPER FOR LIFE	Superannuation Contributions	\$	131.62
DD25130.23	18/07/2017 FIRST SUPER	Superannuation Contributions	\$	194.51
DD25130.24	18/07/2017 HESTA SUPER FUND	Superannuation Contributions	\$	545.46
DD25130.25	18/07/2017 CARE SUPER PTY LTD	Superannuation Contributions	\$	388.85
DD25130.26	18/07/2017 FIRST STATE SUPER	Superannuation Contributions	\$	764.43
DD25130.27	18/07/2017 SPECTRUM SUPER	Superannuation Contributions	\$	334.54
DD25130.28	18/07/2017 WEALTH PERSONAL SUPERANNUATION AND PENSION FUND	Payroll Deductions	\$	1,100.93
DD25130.29	18/07/2017 SUPERWRAP PERSONAL SUPER PLAN	Superannuation Contributions	\$	249.03
DD25130.30	18/07/2017 NORTH PERSONAL SUPERANNUATION & PENSION FUND	Superannuation Contributions	\$	208.59
DD25130.31	18/07/2017 AJW SUPERANNUATION FUND	Superannuation Contributions	\$	262.56
DD25130.32	18/07/2017 TTCSL ATF CRUELTY FREE SUPER	Superannuation Contributions	\$	49.18
DD25130.33	18/07/2017 AUSTRALIAN CATHOLIC SUPERANNUATION	Superannuation Contributions	\$	43.82
DD25130.34	18/07/2017 SUNSUPER SUPERANNUATION	Superannuation Contributions	\$	515.19
DD25130.35	18/07/2017 MTAA SUPERANNUATION FUND	Superannuation Contributions	\$	222.93
DD25130.36	18/07/2017 IOOF EMPLOYEE SUPER	Superannuation Contributions	\$	217.80
DD25130.37	18/07/2017 RUSSELL SUPERSOLUTION MASTER TRUST	Superannuation Contributions	\$	199.84
DD25130.38	18/07/2017 ASGARD	Superannuation Contributions	\$	88.53
DD25130.39	18/07/2017 ONEPATH MASTERFUND	Superannuation Contributions	\$	225.48

## REPORT ITEM CCCS 054 REFERS

DD25130.40	18/07/2017 MLC MASTERKEY SUPERANNUATION	Superannuation Contributions	\$ 198.47
DD25130.41	18/07/2017 UNI SUPER	Superannuation Contributions	\$ 175.52
DD25130.42	18/07/2017 THE UNIVERSAL SUPER SCHEME	Superannuation Contributions	\$ 198.47
DD25130.43	18/07/2017 AMP SUPERANNUATION SAVINGS	Superannuation Contributions	\$ 66.41
DD25130.44	18/07/2017 MACAULAY SUPER FUND	Superannuation Contributions	\$ 259.17
DD25130.45	18/07/2017 ANZ SMART CHOICE SUPER	Superannuation Contributions	\$ 220.50
DD25130.46	18/07/2017 FUTURE SUPER	Superannuation Contributions	\$ 120.64
DD25130.47	18/07/2017 AUSTRALIAN ETHICAL SUPERANNUATION FUND	Superannuation Contributions	\$ 227.04
DD25130.48	18/07/2017 COLONIAL SUPER RETIREMENT FUND	Superannuation Contributions	\$ 200.45
DD25130.49	18/07/2017 BT SUPER	Superannuation Contributions	\$ 236.78
DD25130.50	18/07/2017 BT SUPER FOR LIFE 8	Superannuation Contributions	\$ 226.51
DD25130.51	18/07/2017 MACQUARIE SUPER CONSOLIDATOR	Superannuation Contributions	\$ 198.77
DD25130.52	18/07/2017 BT SUPER FOR LIFE 9	Superannuation Contributions	\$ 287.10
DD25130.53	18/07/2017 MASON SUPERANNUATION FUND	Superannuation Contributions	\$ 134.33
DD25130.54	18/07/2017 IOOF INVESTMENT MANAGEMENT LTD	Superannuation Contributions	\$ 191.44
DD25130.55	18/07/2017 COLONIAL FIRST STATE WHOLESALE PERSONAL SUPER	Superannuation Contributions	\$ 201.11
DD25130.56	18/07/2017 IOOF GLOBAL ONE (EX SKANDIA GLOBAL)	Superannuation Contributions	\$ 102.12
DD25130.57	18/07/2017 AMP SUPERANNUATION SAVINGS (SIGNATURE SUPER)	Superannuation Contributions	\$ 765.03
DD25130.58	18/07/2017 KEZ AND JOHN MITCHELL SUPERANNUATION FUND	Superannuation Contributions	\$ 279.30
DD25130.59	18/07/2017 WEALTH PERSONAL SUPER AND PERSONAL PENSION	Payroll Deductions	\$ 224.85
EFT118776	03/08/2017 TELSTRA CORPORATION LIMITED	Telephone Charges	\$ 4,390.60
EFT118777	03/08/2017 ABA SECURITY	Security Services	\$ 1,379.91
EFT118778	03/08/2017 ABORIGINAL PRODUCTIONS AND PROMOTIONS	Keynote Talk & Performance For NAIDOC Week	\$ 1,650.00
EFT118779	03/08/2017 ACORN TREES AND STUMPS	Tree Removal Services	\$ 15,873.00
EFT118780	03/08/2017 AD CONTRACTORS PTY LTD	Equipment Hire	\$ 7,735.50
EFT118781	03/08/2017 ADVERTISER PRINT	Fire Management Requirements Notices	\$ 2,885.00
EFT118782	03/08/2017 ALBANY BRAKE AND CLUTCH	Vehicle Maintenance/Parts	\$ 8.25
EFT118783	03/08/2017 ALBANY CHAMBER OF COMMERCE AND INDUSTRY	Publications	\$ 2,499.55
EFT118784	03/08/2017 ALBANY POWDER COATERS	Material Supply - Powder Coating	\$ 264.00
EFT118785	03/08/2017 ALBANY LANDSCAPE SUPPLIES	Material Supply - Crushed Limestone	\$ 635.00
EFT118786	03/08/2017 ALBANY OFFICE PRODUCTS DEPOT	Stationery Supplies	\$ 1,361.32
EFT118787	03/08/2017 ALBANY LASERSCAPE	School Holiday Programme	\$ 1,320.00
EFT118788	03/08/2017 ALBANY NETBALL ASSOCIATION	Kidsport Vouchers	\$ 4,950.00
EFT118789	03/08/2017 ALBANY RECORDS MANAGEMENT	Archive Boxes Storage	\$ 507.48
EFT118790	03/08/2017 ALBANY MOUNTAIN BIKE CLUB INC	Community Grant Funding	\$ 10,000.00
EFT118791	03/08/2017 ALBANY DOMESTIC SERVICES	Waste Removal	\$ 160.00
EFT118792	03/08/2017 ALBANY YOGA ROOM	Silversport Vouchers	\$ 400.00
EFT118793	03/08/2017 ALLAMBIE PARK CEMETERY AND CREMATORIUM	Capital Works - Reserve Account Cemetery	\$ 57,278.00
EFT118794	03/08/2017 PAPERBARK MERCHANTS	Newspapers	\$ 241.00
EFT118795	03/08/2017 ATC WORK SMART	Casual Staff/Apprentice Fees	\$ 2,572.20
EFT118796	03/08/2017 BAREFOOT CLOTHING MANUFACTURERS	Repair Of Flags	\$ 195.00
EFT118797	03/08/2017 THE BEACH HOUSE AT BAYSIDE	Accommodation - Tourism Judging	\$ 615.00
EFT118798	03/08/2017 H BECK	Reimbursement	\$ 398.72
EFT118799	03/08/2017 T BELL	Reimbursement	\$ 80.00
EFT118800	03/08/2017 BENNETTS BATTERIES	Material Supply - Batteries	\$ 228.80
EFT118801	03/08/2017 ADVANCED TRAFFIC MANAGEMENT WA PTY LTD	Traffic Management Services	\$ 4,895.00
EFT118802	03/08/2017 J. BLACKWOOD & SON PTY LTD	General Supplies	\$ 1,142.69
EFT118803	03/08/2017 BLOOMIN FLOWERS	Bereavement Flowers	\$ 70.00
EFT118804	03/08/2017 BODYCARE PHYSIOTHERAPY	Silversport Vouchers	\$ 400.00
EFT118805	03/08/2017 BOXWOOD HILL COMBINED SPORTS CLUB	Kidsport Vouchers	\$ 154.00
EFT118806	03/08/2017 AIR BP	Aviation Gas Purchase	\$ 168.63
EFT118807	03/08/2017 BRANDNET PTY LTD T/AS MILITARY SHOP	NAC Inventory	\$ 1,790.56

## REPORT ITEM CCCS 054 REFERS

EFT118808	03/08/2017 BRIEF INTERVENTION COUNSELLING	Professional Services	\$ 220.00
EFT118809	03/08/2017 BUILDERS REGISTRATION BOARD	BSL Levy Collected	\$ 20,934.77
EFT118810	03/08/2017 BULLSEYE PLUMBING & GAS	Plumbing Repairs & Maintenance	\$ 1,925.00
EFT118811	03/08/2017 BUNNINGS GROUP LIMITED	Hardware/Tool Supplies	\$ 323.58
EFT118812	03/08/2017 CABCHARGE AUSTRALIA LIMITED	Taxi Fares	\$ 32.00
EFT118813	03/08/2017 CALTEX AUSTRALIA PETROLEUM PTY LTD	Litres Diesel Fuel For Depot	\$ 13,958.23
EFT118814	03/08/2017 J & S CASTLEHOW ELECTRICAL SERVICES	Electrical Services - Centennial Park Precinct	\$ 19,661.99
EFT118815	03/08/2017 CENTIGRADE SERVICES	HVAC Repairs & Maintenance	\$ 2,132.50
EFT118816	03/08/2017 SUE CODEE (THIS PAPER CUT LIFE)	NAC Inventory	\$ 783.90
EFT118817	03/08/2017 COURIER AUSTRALIA	Freight Charges	\$ 1,691.53
EFT118818	03/08/2017 ALBANY SIGNS	Material Supply - Signage	\$ 924.00
EFT118819	03/08/2017 HOLCIM (AUSTRALIA) PTY LTD	Concrete Supply	\$ 1,514.70
EFT118820	03/08/2017 AL CURNOW HYDRAULICS	Material Supply - Vehicle Parts	\$ 29.81
EFT118821	03/08/2017 CYNERGIC COMMUNICATIONS	Domain Name Registration	\$ 909.90
EFT118822	03/08/2017 DE JONGE MECHANICAL REPAIRS	Vehicle Repairs/Maintenance	\$ 1,000.00
EFT118823	03/08/2017 G & M DETERGENTS & HYGIENE SERVICES ALBANY	Material Supply - Cleaning Items	\$ 44.00
EFT118824	03/08/2017 DISCOVER ALBANY FOUNDATION LTD	Consulting Fees	\$ 11,000.00
EFT118825	03/08/2017 DISCOVERY PARKS - PERTH VINEYARDS	Staff Accommodation - Training	\$ 1,390.00
EFT118826	03/08/2017 SET APART DJ SERVICES	School Holiday Programme - Bubble Soccer	\$ 160.00
EFT118827	03/08/2017 R DOWELL	Reimbursement	\$ 257.40
EFT118828	03/08/2017 DYLAN'S ON THE TERRACE	Catering	\$ 1,519.80
EFT118829	03/08/2017 E-STRALIAN PTY LTD	Weekly E-Bike Lease	\$ 182.18
EFT118830	03/08/2017 EVERTRANS	Hydraulic Tank	\$ 635.80
EFT118831	03/08/2017 ALL TRUCK REPAIRS	Vehicle Repairs	\$ 3,285.83
EFT118832	03/08/2017 FLIGHT CENTRE GLOBAL PRODUCT	Software Licence - IT Load Fee	\$ 550.00
EFT118833	03/08/2017 IMPERIAL GROUP PTY LTD T/A GARRISONS	Catering	\$ 819.50
EFT118834	03/08/2017 GREEN SKILLS INCORPORATED	Reserves Maintenance - Cosy Corner	\$ 6,138.00
EFT118835	03/08/2017 SOUTHERN SHARPENING SERVICES	Fire Extinguisher Maintenance	\$ 558.00
EFT118836	03/08/2017 GREAT SOUTHERN SUPPLIES	Material Supplies - Cleaning	\$ 463.70
EFT118837	03/08/2017 GREAT SOUTHERN TURF	Material Supply - Turf	\$ 1,056.00
EFT118838	03/08/2017 GREAT SOUTHERN LIQUID WASTE	Waste Services	\$ 2,057.00
EFT118839	03/08/2017 GRESLEY ABAS PTY LTD	C13024 - Full Service Consultant - Centennial Park	\$ 5,926.25
EFT118840	03/08/2017 K GRIFFITHS	Visitors Centre Inventory	\$ 418.50
EFT118841	03/08/2017 HARVEY NORMAN ALBANY	Material Supply - Heater North Rd Offices	\$ 199.00
EFT118842	03/08/2017 HARPER COLLINS PUBLISHERS AUSTRALIA PTY LTD	NAC Inventory	\$ 1,389.30
EFT118843	03/08/2017 YOGASUN STUDIO - HELEN LEEDER-CARLSON	Weekly Art Classes	\$ 240.00
EFT118844	03/08/2017 S HOPPER	Strategic Advice Albany Heritage Park Master Plan	\$ 375.00
EFT118845	03/08/2017 HYDROWEST PLUMBING SERVICES	Aquatherm Piping	\$ 17,044.00
EFT118846	03/08/2017 QUBE LOGISTICS (WA2) PTY LTD	Chlorine Drum & Fuel Levy	\$ 2,263.59
EFT118847	03/08/2017 ITOMIC WEB SPECIALISTS	Online Integration - National Anzac Centre	\$ 14,850.00
EFT118848	03/08/2017 JASON SIGNMAKERS	Braille Signs	\$ 1,751.20
EFT118849	03/08/2017 JOHN KINNEAR AND ASSOCIATES	Professional Services	\$ 5,890.50
EFT118850	03/08/2017 JO-JOES PIZZA AND KEBABS	Catering	\$ 210.00
EFT118851	03/08/2017 JUST A CALL DELIVERIES	Internal Mail Deliveries	\$ 1,554.56
EFT118852	03/08/2017 KANGAS NETBALL CLUB	Kidsport Vouchers	\$ 390.00
EFT118853	03/08/2017 KANGA LOADERS WA	Materials - Vehicle Parts	\$ 17.16
EFT118854	03/08/2017 KBUILT CONSTRUCTION PTY LTD	C17011 - Construction Of Patient Transfer Building Albany Airport	\$ 91,408.45
EFT118855	03/08/2017 KLB SYSTEMS	Material Supply - IT Hardware	\$ 12,831.50
EFT118856	03/08/2017 D KOSTER	Staff Reimbursements	\$ 47.00
EFT118857	03/08/2017 LATRO LAWYERS	Professional Fees	\$ 429.75
EFT118858	03/08/2017 LED SIGNS PTY LTD	Material Supplies - Battery Packs For Electronic Scoreboards	\$ 1,039.50
EFT118859	03/08/2017 LIBERTE AT THE LONDON HOTEL	Catering	\$ 550.00

## REPORT ITEM CCCS 054 REFERS

EFT118860	03/08/2017 LOCAL GOVERNMENT PROFESSIONALS AUSTRALIA WA	Staff Training - PA Corporate Services	\$ 870.00
EFT118861	03/08/2017 LORLAINE DISTRIBUTORS PTY LTD	Material Supplies - Cleaning	\$ 109.60
EFT118862	03/08/2017 M AND B SALES PTY LTD	Material Supplies - MDF	\$ 68.17
EFT118863	03/08/2017 S MAHAR	School Holiday Art Class Programme	\$ 70.00
EFT118864	03/08/2017 MARWICK BROTHERS MEDIA	Advertising	\$ 5,000.00
EFT118865	03/08/2017 MCGUFFIE TILT TRAY HIRE	Deliveries	\$ 253.00
EFT118866	03/08/2017 MCKAILS GENERAL STORE	Catering Supplies	\$ 344.70
EFT118867	03/08/2017 MOLONEY ASSET MANAGEMENT SYSTEM	Subscriptions - Moloney Financial Modelling Software	\$ 440.00
EFT118868	03/08/2017 MOMAR AUSTRALIA PTY LTD	Materials - Solvent	\$ 1,309.00
EFT118869	03/08/2017 S MORRIGAN	Professional Services	\$ 220.00
EFT118870	03/08/2017 MOSTERT, DJ & H	NAC Inventory	\$ 60.00
EFT118871	03/08/2017 NURRUNGA COMMUNICATIONS	Repairs & Maintenance - UVF Radios	\$ 751.12
EFT118872	03/08/2017 N & S ELECTRONICS	Material Supply	\$ 200.00
EFT118873	03/08/2017 ALBANY NEWS DELIVERY - ALAC - NEW	Newspapers	\$ 330.78
EFT118874	03/08/2017 OCS SERVICES PTY LTD	Cleaning Services	\$ 28,245.00
EFT118875	03/08/2017 ORANA CINEMAS ALBANY PTY LTD	Survey Prizes	\$ 65.00
EFT118876	03/08/2017 PARCHEM CONSTRUCTION SUPPLIES PTY LTD	Material Supply - Cage	\$ 982.58
EFT118877	03/08/2017 PENROSE PROFESSIONAL LAWNCARE	Lawnmowing Services	\$ 264.00
EFT118878	03/08/2017 PERTH SAFETY PRODUCTS PTY LTD	Material Supply - Safety Products	\$ 1,260.60
EFT118879	03/08/2017 PETER GRAHAM AND COMPANY LTD	Material Supply - Fencing Material	\$ 9,405.85
EFT118880	03/08/2017 JOHN PHILLIPS CONSULTING	Professional Fees	\$ 3,850.00
EFT118881	03/08/2017 PLASTICS PLUS	Material Supply - Cleaning	\$ 90.21
EFT118882	03/08/2017 @THE POOLSIDE	Catering	\$ 312.50
EFT118883	03/08/2017 PRE-EMPTIVE STRIKE PTY LTD	Design Services	\$ 66.00
EFT118884	03/08/2017 PRINCESS ROYAL SAILING CLUB	Kidsport Vouchers	\$ 880.00
EFT118885	03/08/2017 RECONNECT HEALTH AND WELLBEING	Professional Services	\$ 165.00
EFT118886	03/08/2017 REECE PTY LTD	Plumbing Repairs & Maintenance	\$ 49.95
EFT118887	03/08/2017 REXEL AUSTRALIA	Electrical Supplies	\$ 42.84
EFT118888	03/08/2017 THE ROYAL LIFE SAVING SOCIETY WA INC	Life Guard Requalification	\$ 140.00
EFT118889	03/08/2017 HASKONING AUSTRALIA PTY LTD - ROYAL HASKONING	Q17005 - Emu Point To Middleton Beach Coastal Adaptation & Protection Strategy	\$ 12,718.20
EFT118890	03/08/2017 MIKE RUTTICO	Equipment Repairs & Maintenance	\$ 240.00
EFT118891	03/08/2017 SCHOLASTIC AUSTRALIA PTY LTD	NAC Inventory	\$ 295.01
EFT118892	03/08/2017 S SCOTT	Reimbursement	\$ 84.00
EFT118893	03/08/2017 SEEK LIMITED	Advertising - Jobs	\$ 302.50
EFT118894	03/08/2017 ALBANY SEGWAY TOURS	AHP Sales Less Commission - June 2017	\$ 457.20
EFT118895	03/08/2017 SKILL HIRE WA PTY LTD	Casual Staff/Apprentices	\$ 2,957.04
EFT118896	03/08/2017 SOIL SOLUTIONS PTY LTD	Material Supply - Aggregate	\$ 4,278.24
EFT118897	03/08/2017 SOUTHERN EDGE ARTS INC	Kidsport Vouchers	\$ 165.00
EFT118898	03/08/2017 SOUTH COAST NATURAL RESOURCE MANAGEMENT INC	Leasing Costs	\$ 4,750.49
EFT118899	03/08/2017 SOUTHERN CROSS MILITARIA	Material Supply - Forts Display	\$ 750.00
EFT118900	03/08/2017 SPM ASSETS PTY LTD	Subscriptions - Assets Subscription Licence	\$ 4,039.20
EFT118901	03/08/2017 STATEWIDE BEARINGS	Material Supplies - Vehicle Parts	\$ 79.53
EFT118902	03/08/2017 R STEPHENS	Reimbursements	\$ 432.20
EFT118903	03/08/2017 STIRLING PRINT	Printing	\$ 1,100.00
EFT118904	03/08/2017 SUBWAY	Catering	\$ 50.00
EFT118905	03/08/2017 ALBANY LOCK SERVICE	Material Supply - Locks	\$ 473.40
EFT118906	03/08/2017 SYNERGY	Street Lighting Charges	\$ 66,528.45
EFT118907	03/08/2017 T & C SUPPLIES	Material Supply - Hardware & Tools	\$ 155.99
EFT118908	03/08/2017 ARTSOURCE, THE ARTISTS FOUNDATION OF WA	Sale of Artwork	\$ 275.00
EFT118909	03/08/2017 THINKWATER ALBANY	Material Supply - Irrigation Supplies	\$ 513.70
EFT118910	03/08/2017 TOURISM COUNCIL WESTERN AUSTRALIA	2017 WA Regional Tourism Conference Partnership	\$ 1,092.00
EFT118911	03/08/2017 TRISLEY'S HYDRAULICS SERVICES	Vehicle Parts/Maintenance	\$ 779.90

## REPORT ITEM CCCS 054 REFERS

EFT118912	03/08/2017 ALBANY TYREPOWER	Vehicle Repairs/Maintenance	\$ 1,939.00
EFT118913	03/08/2017 ALBANY & GREAT SOUTHERN WEEKENDER	Advertising	\$ 2,259.63
EFT118914	03/08/2017 WESTRAC EQUIPMENT PTY LTD	Material Supply - Vehicle Parts	\$ 678.25
EFT118915	03/08/2017 LANDMARK LIMITED	Material Supply - Fertiliser	\$ 440.00
EFT118916	03/08/2017 WEST COAST ANALYTICAL SERVICES	Water Monitoring & Reporting Services	\$ 10,171.00
EFT118917	03/08/2017 WILD EYED PRESS PTY LTD	NAC Inventory	\$ 1,079.28
EFT118918	03/08/2017 WOODLANDS DISTRIBUTORS AND AGENCIES	Material Supply - Bag Dispensers	\$ 526.35
EFT118919	03/08/2017 ZENITH LAUNDRY	Laundry Services/Hire	\$ 7.28
EFT118920	07/08/2017 AD CONTRACTORS PTY LTD	Equipment Hire	\$ 10,581.01
EFT118921	07/08/2017 IMPERIAL GROUP PTY LTD T/A GARRISONS	Tourism WA Function	\$ 1,000.00
EFT118923	10/08/2017 JADES @ 14 PEELS PLACE	Catering	\$ 894.50
EFT118924	10/08/2017 ACORN TREES AND STUMPS	Tree Removal Services	\$ 32,458.25
EFT118925	10/08/2017 AD CONTRACTORS PTY LTD	Material Supply - Emulsion	\$ 1,262.31
EFT118926	10/08/2017 AIRPORT LIGHTING SPECIALISTS PTY LTD	Lighting For Airport	\$ 537.90
EFT118927	10/08/2017 ALBANY FARM TREE NURSERY	Nursery Supplies	\$ 154.22
EFT118928	10/08/2017 ALBANY TRUCK AND CAR HIRE	Equipment Hire	\$ 90.00
EFT118929	10/08/2017 ALBANY V-BELT AND RUBBER	Material Supply - Vehicle Parts	\$ 366.66
EFT118930	10/08/2017 ALBANY REFRIGERATION	Airconditioning Repairs & Maintenance	\$ 1,716.61
EFT118931	10/08/2017 ALBANY SURF LIFE SAVING CLUB	Community Funding And Event Sponsorship Program	\$ 1,650.00
EFT118932	10/08/2017 ALBANY GOLF CLUB	Silversport Vouchers	\$ 1,600.00
EFT118933	10/08/2017 ALBANY RSL SUB BRANCH	NAC Inventory	\$ 762.50
EFT118934	10/08/2017 MASTERS SWIMMING CLUB ALBANY	Community Funding	\$ 1,000.00
EFT118935	10/08/2017 ALBANY AUTO ONE	Vehicle Parts/Maintenance	\$ 275.00
EFT118936	10/08/2017 ALBANY MARITIME FOUNDATION	Community Funding And Event Sponsorship	\$ 2,200.00
EFT118937	10/08/2017 ALBANY PSYCHOLOGICAL SERVICES	Professional Fees	\$ 693.00
EFT118938	10/08/2017 ALBANY CENTRAL CABINETS PTY LTD	Kitchen Cabinets & Workstation Benchtops	\$ 2,354.00
EFT118939	10/08/2017 ALBANY MILK DISTRIBUTORS	Milk Deliveries	\$ 601.94
EFT118940	10/08/2017 ALBANY RECORDS MANAGEMENT	Storage Of Archive Boxes	\$ 462.00
EFT118941	10/08/2017 ALBANY DOMESTIC SERVICES	Waste Services	\$ 160.00
EFT118942	10/08/2017 ALINTA	Gas Usage Charges Various Locations	\$ 78.65
EFT118943	10/08/2017 ALL EVENTS HIRE AND PRODUCTION	Equipment Hire	\$ 1,003.00
EFT118944	10/08/2017 PAPERBARK MERCHANTS	Newspapers/Books/Magazines/Stationery	\$ 762.81
EFT118945	10/08/2017 APPRENTICE & TRAINEESHIP COMPANY	Casual Staff/Apprentice Fees	\$ 1,374.45
EFT118946	10/08/2017 ARDESS NURSERY	Nursery Supplies	\$ 75.00
EFT118947	10/08/2017 ATC WORK SMART	Casual Staff/Apprentice Fees	\$ 34,271.66
EFT118948	10/08/2017 AUSTRALIA POST	Postage/Agency Fees	\$ 2,813.06
EFT118949	10/08/2017 AUSTRALIA'S SOUTH WEST	Brochure Representation	\$ 500.00
EFT118950	10/08/2017 AUSTRALIAN INSTITUTE OF PROJECT MANAGEMENT	Membership Renewal	\$ 1,620.00
EFT118951	10/08/2017 BT EQUIPMENT PTY LTD (TUTT BRYANT EQUIPMENT)	Vehicle Repairs/Maintenance	\$ 1,294.92
EFT118952	10/08/2017 G BASTYAN	Professional Fees	\$ 3,969.42
EFT118953	10/08/2017 F BASSETT	Reimbursement	\$ 1,683.00
EFT118954	10/08/2017 BENNETTS BATTERIES	Vehicle Parts/Maintenance	\$ 1,786.40
EFT118955	10/08/2017 ADVANCED TRAFFIC MANAGEMENT WA PTY LTD	Traffic Management Services	\$ 440.55
EFT118956	10/08/2017 BERG CONTRACTING SERVICES	Removal of Asbestos	\$ 200.00
EFT118957	10/08/2017 COUNTRY COMFORT INTER CITY MOTEL	Accommodation & Meals - Staff Training	\$ 1,120.00
EFT118958	10/08/2017 ALBANY BOBCAT SERVICES	Equipment Hire	\$ 280.50
EFT118959	10/08/2017 BOC GASES AUSTRALIA LIMITED	Container Service Rental	\$ 130.49
EFT118960	10/08/2017 BRILLIANT SILK	NAC Inventory	\$ 1,039.50
EFT118961	10/08/2017 BROCKS	Material Supply - Bedding - First Aid Room	\$ 177.25
EFT118962	10/08/2017 CONSTRUCTION TRAINING FUND	BCITF Levy	\$ 22,734.83
EFT118963	10/08/2017 BULLSEYE PLUMBING & GAS	Culvert Cleaning	\$ 2,062.50
EFT118964	10/08/2017 BUNNINGS GROUP LIMITED	Material Supply - Hardware	\$ 1,362.14



REPORT ITEM CCCS 054 REFERS

EFT118965	10/08/2017 K BUSHELL	Refund	\$ 787.50
EFT118966	10/08/2017 C&C MACHINERY CENTRE	Vehicle Maintenance/Parts	\$ 43.90
EFT118967	10/08/2017 CALTEX AUSTRALIA PETROLEUM PTY LTD	Litres Diesel Fuel For Depot	\$ 9,114.38
EFT118968	10/08/2017 J & S CASTLEHOW ELECTRICAL SERVICES	Supply & Install Internal CCTV City of Albany	\$ 45,340.03
EFT118969	10/08/2017 CENTIGRADE SERVICES	Repairs & Maintenance - ALAC	\$ 11,666.93
EFT118970	10/08/2017 CENTENNIAL STADIUM INC	Window Cleaning	\$ 110.00
EFT118971	10/08/2017 CHADSON ENGINEERING PTY LTD	Water Test Tablets	\$ 425.15
EFT118972	10/08/2017 MAGIQ SOFTWARE PTY LTD	End Of Financial Year Rollover 2017	\$ 869.00
EFT118973	10/08/2017 CINESTAR PTY LTD	NAC Inventory	\$ 200.00
EFT118974	10/08/2017 CLEANAWAY PTY LIMITED	Rubbish Removal	\$ 215,319.90
EFT118975	10/08/2017 COLES SUPERMARKETS AUSTRALIA PTY LTD	Groceries	\$ 17.14
EFT118976	10/08/2017 TANJA COLBY DESIGNS	NAC Inventory	\$ 45.00
EFT118977	10/08/2017 COURIER AUSTRALIA	Freight Charges	\$ 428.07
EFT118978	10/08/2017 ALBANY SIGNS	Car Decals	\$ 1,221.00
EFT118979	10/08/2017 L COYNE	Noongar Welcome To Country Address - Malcolm Turnbull Visit	\$ 250.00
EFT118980	10/08/2017 CRUMPS CANVAS	Vehicle Maintenance/Repairs	\$ 19.00
EFT118981	10/08/2017 DOWNER EDI WORKS PTY LTD	Material Supply - Hotmix	\$ 804.90
EFT118982	10/08/2017 HOLCIM (AUSTRALIA) PTY LTD	Material Supply - Roadbase	\$ 3,832.18
EFT118983	10/08/2017 AL CURNOW HYDRAULICS	Vehicle Parts/Maintenance	\$ 219.22
EFT118984	10/08/2017 D & K ENGINEERING	Material Supply - Grate	\$ 1,230.90
EFT118985	10/08/2017 DE JONGE MECHANICAL REPAIRS	Vehicle Maintenance/Repairs	\$ 55.00
EFT118986	10/08/2017 CGS QUALITY CLEANING	Gas Supplies - Public Facilities	\$ 203.28
EFT118987	10/08/2017 DEPRESSION SUPPORT NETWORK ALBANY	Community Funding	\$ 1,595.00
EFT118988	10/08/2017 DESIGNER DIRT P/L	NAC Inventory	\$ 186.00
EFT118989	10/08/2017 G & M DETERGENTS & HYGIENE SERVICES ALBANY	Cleaning Supplies	\$ 2,639.40
EFT118990	10/08/2017 DISCOVERY BAY TOURISM PRECINCT LTD	Sponsorship For The Welcoming Of The Whales Festival	\$ 10,000.00
EFT118991	10/08/2017 DI'S LUNCH BAR	Catering	\$ 186.45
EFT118992	10/08/2017 ELDERS LIMITED	Material Supply - Supagreen	\$ 1,577.00
EFT118993	10/08/2017 C EVANS	Refund	\$ 118.75
EFT118994	10/08/2017 EVERTRANS	Equipment Supply - Plant Trailers	\$ 72,820.00
EFT118995	10/08/2017 EYERITE SIGNS - WP & KA WATSON FAMILY TRUST	Assorted Signage	\$ 1,356.29
EFT118996	10/08/2017 DEPARTMENT OF FIRE AND EMERGENCY SERVICES	DFES Annual Monitoring	\$ 7,176.56
EFT118997	10/08/2017 THE FIXUPPERY	Window Cleaning	\$ 1,327.52
EFT118998	10/08/2017 ALL TRUCK REPAIRS	Vehicle Servicing	\$ 2,185.40
EFT118999	10/08/2017 FLIPS ELECTRICS	Electrical Supplies	\$ 738.10
EFT119000	10/08/2017 FORPARK AUSTRALIA	Material Supply - Vehicle Parts	\$ 77.00
EFT119001	10/08/2017 GALLERY 500	Framing Services	\$ 595.00
EFT119002	10/08/2017 GLOBAL MARINE ENCLOSURES PTY LTD	Ellen Cove Aquarius Barrier Maintenance	\$ 3,261.50
EFT119003	10/08/2017 GLOBAL INTEGRATED SOLUTIONS LIMITED	Ezicom System - Monthly Fee	\$ 198.00
EFT119004	10/08/2017 GREEN SKILLS INCORPORATED	Community Grant Funding	\$ 1,100.00
EFT119005	10/08/2017 SOUTHERN SHARPENING SERVICES	Repairs & Maintenance - ALAC	\$ 443.00
EFT119006	10/08/2017 GREAT SOUTHERN SUPPLIES	Staff Uniforms	\$ 1,049.40
EFT119007	10/08/2017 GREAT SOUTHERN TURF	Material Supply - Turf	\$ 132.00
EFT119008	10/08/2017 HARVEY NORMAN ALBANY	Material Supply - Heaters	\$ 122.00
EFT119009	10/08/2017 HAVOC BUILDERS PTY LTD	Building Services	\$ 6,297.50
EFT119010	10/08/2017 YOGASUN STUDIO - HELEN LEEDER-CARLSON	Weekly Art Classes	\$ 240.00
EFT119011	10/08/2017 HOBBS PAINTING AND DECORATING	Paint/Painting Supplies	\$ 700.00
EFT119012	10/08/2017 H AND H ARCHITECTS	Architectural Services	\$ 1,003.75
EFT119013	10/08/2017 HHG LEGAL GROUP	Professional Services	\$ 5,826.70
EFT119014	10/08/2017 STANLEY JOHN INMAN	Art Sales	\$ 370.37
EFT119015	10/08/2017 ALBANY MAPPING AND SURVEYING SERVICES	Surveying Services	\$ 4,818.00
EFT119016	10/08/2017 JOHN KINNEAR AND ASSOCIATES	Professional Services	\$ 3,170.47

## REPORT ITEM CCCS 054 REFERS

EFT119017	10/08/2017	KLB SYSTEMS	Material Supply - IT Equipment	\$	627.00
EFT119018	10/08/2017	LIBBY SHEPPARD DESIGN	Visitors Centre Inventory	\$	352.44
EFT119019	10/08/2017	LOCAL GOVERNMENT PROFESSIONALS AUSTRALIA WA	Membership - A Sharpe	\$	883.00
EFT119020	10/08/2017	H LONCAR	Staff Reimbursement	\$	126.73
EFT119021	10/08/2017	COMMUNITY LIVING ASSOCIATION INC	Community Grant Funding	\$	3,850.00
EFT119022	10/08/2017	M AND B SALES PTY LTD	Material Supply - Pine Sleeper	\$	17.56
EFT119023	10/08/2017	MARKETFORCE LIMITED	Advertising	\$	614.55
EFT119024	10/08/2017	MCGUFFIE TILT TRAY HIRE	Equipment Hire	\$	379.50
EFT119025	10/08/2017	METROCOUNT PTY LTD	Equipment Hire	\$	1,188.00
EFT119026	10/08/2017	MODERN TEACHING AIDS PTY LTD	Paper And Craft Supplies	\$	160.55
EFT119027	10/08/2017	MOSS CONVEYANCING	Rates Refund	\$	470.24
EFT119028	10/08/2017	NURRUNGA COMMUNICATIONS	Repairs & Maintenance - UVF Radios	\$	1,288.82
EFT119029	10/08/2017	MULE CREATIVE	Design Services	\$	885.00
EFT119030	10/08/2017	P NIELSEN	Staff Reimbursement	\$	81.40
EFT119031	10/08/2017	NLC PTY LTD	Novated Lease And Associated Costs	\$	1,351.30
EFT119032	10/08/2017	ALBANY COMMUNITY PHARMACY	Vehicle Parts/Maintenance	\$	102.00
EFT119033	10/08/2017	KOMATSU AUSTRALIA PTY LTD	Vehicle Parts/Maintenance	\$	99.61
EFT119034	10/08/2017	OCS SERVICES PTY LTD	Cleaning Services	\$	1,208.63
EFT119035	10/08/2017	OFFICEWORKS SUPERSTORES PTY LTD	Freight Charges	\$	5.95
EFT119036	10/08/2017	OKEEFE'S PAINTS	Paint/Painting Supplies	\$	216.73
EFT119037	10/08/2017	ORIGIN ENERGY	Bulk Gas Supplies	\$	28,261.65
EFT119038	10/08/2017	A PARKER	Rates Refund	\$	1,000.00
EFT119039	10/08/2017	PERTH SAFETY PRODUCTS PTY LTD	Safety Products	\$	2,557.50
EFT119040	10/08/2017	ALBANY PLAZA PHARMACY	Material Supply - First Aid	\$	28.78
EFT119041	10/08/2017	PLAYGROUND CENTRE AUSTRALIA PTY LIMITED	Material Supply - Ladder	\$	325.60
EFT119042	10/08/2017	REAL WORLD LEARNING	Resources - Day Care	\$	170.00
EFT119043	10/08/2017	REXEL AUSTRALIA	Electrical Conduit	\$	222.90
EFT119044	10/08/2017	RYDE BUILDING COMPANY PTY LTD	Refund	\$	712.94
EFT119045	10/08/2017	SCHOLASTIC AUSTRALIA PTY LTD	NAC Inventory	\$	9.00
EFT119046	10/08/2017	SECUREPAY PTY LTD	Transaction Fee - Web payments	\$	31.68
EFT119047	10/08/2017	SEEK LIMITED	Advertising - Jobs	\$	605.00
EFT119048	10/08/2017	SKILL HIRE WA PTY LTD	Casual Staff/Apprentice Fees	\$	231.34
EFT119049	10/08/2017	SMITHS ALUMINIUM AND 4WD CENTRE	Manufacture - Aluminium Control Box	\$	1,429.00
EFT119050	10/08/2017	C KIDD	Refund	\$	56.00
EFT119051	10/08/2017	SOIL SOLUTIONS PTY LTD	Material Supply - Soil	\$	26.00
EFT119052	10/08/2017	SOUTHERN TOOL AND FASTENER CO	Material Supply - Hardware	\$	433.99
EFT119053	10/08/2017	SOUTHCOAST SECURITY SERVICE	Security Services	\$	29,820.57
EFT119054	10/08/2017	SOUTHERN EDGE ARTS INC	Sea School Holiday Programme	\$	5,500.00
EFT119055	10/08/2017	SOUTH COAST NATURAL RESOURCE MANAGEMENT INC	Community Grant Funding	\$	3,300.00
EFT119056	10/08/2017	SPOTLIGHT	Material Supply - First Aid	\$	419.96
EFT119057	10/08/2017	STAR SALES AND SERVICE	Equipment Repairs & Maintenance	\$	465.00
EFT119058	10/08/2017	ALBANY VOLUNTEER STATE EMERGENCY SERVICE UNIT INC	Standard LGGS Allocation	\$	15,895.83
EFT119059	10/08/2017	STATEWIDE BEARINGS	Vehicle Parts/Maintenance	\$	23.56
EFT119060	10/08/2017	STEWART AND HEATON CLOTHING PTY LTD	Uniform Embroidery	\$	74.98
EFT119061	10/08/2017	STIRLING PRINT	Printing	\$	170.00
EFT119062	10/08/2017	ST JOSEPH'S COLLEGE	Catering	\$	60.00
EFT119063	10/08/2017	ST JOHN AMBULANCE WESTERN AUSTRALIA LTD	Training - First Aid	\$	597.00
EFT119064	10/08/2017	ALBANY LOCK SERVICE	Material Supplies - Locks	\$	209.60
EFT119065	10/08/2017	SYNERGY	Electricity Supplies	\$	2,064.65
EFT119066	10/08/2017	T & C SUPPLIES	Material Supply - Hardware & Tools	\$	388.08
EFT119067	10/08/2017	THE GROCERY STORE	Catering	\$	108.00
EFT119068	10/08/2017	ALBANY TYREPOWER	Vehicle Servicing/Repairs	\$	629.50

## REPORT ITEM CCCS 054 REFERS

EFT119069	10/08/2017 UNITED BOOK DISTRIBUTORS	NAC Inventory	\$ 2,777.55
EFT119070	10/08/2017 WATERCRAFT MARINE	Material Supply - Safety Equipment	\$ 158.00
EFT119071	10/08/2017 ALBANY & GREAT SOUTHERN WEEKENDER	Advertising	\$ 60.39
EFT119072	10/08/2017 WELLSTEAD COMMUNITY RESOURCE CENTRE INC	Community Grant Funding	\$ 2,365.00
EFT119073	10/08/2017 WESTRAC EQUIPMENT PTY LTD	Vehicle Parts	\$ 66.92
EFT119074	10/08/2017 WESTERN AUSTRALIAN LOCAL GOVERNMENT ASSOCIATION	Staff Training	\$ 5,057.80
EFT119075	10/08/2017 WEST AUSTRALIAN NEWSPAPERS LIMITED	Advertising	\$ 1,958.40
EFT119076	10/08/2017 TEENA-LOUISE WILLIAMS	Cleaning Services	\$ 1,040.00
EFT119077	10/08/2017 WOOLWORTHS LIMITED	Groceries	\$ 2,274.55
EFT119078	10/08/2017 WOODORIGINAL - CHRIS REID	NAC Inventory	\$ 234.30
EFT119079	10/08/2017 YOUNGS SIDING COMMUNITY ASSOCIATION	Community Grant Funding	\$ 2,437.00
EFT119080	10/08/2017 ZENITH LAUNDRY	Laundry Services/Hire	\$ 19.14
DD25183.1	01/08/2017 WA SUPER	Payroll Deductions	\$ 77,055.37
DD25183.2	01/08/2017 COLONIAL FIRST STATE FIRSTCHOICE PERSONAL SUPER	Superannuation Contributions	\$ 637.50
DD25183.3	01/08/2017 AUSTRALIAN SUPER	Payroll Deductions	\$ 8,203.45
DD25183.4	01/08/2017 ASGARD	Superannuation Contributions	\$ 1,266.39
DD25183.5	01/08/2017 DESMO SUPERANNUATION FUND	Superannuation Contributions	\$ 495.86
DD25183.6	01/08/2017 CBUS	Superannuation Contributions	\$ 501.47
DD25183.7	01/08/2017 AMP SUPERANNUATION SAVINGS	Payroll Deductions	\$ 1,912.84
DD25183.8	01/08/2017 HOSTPLUS PTY LTD	Superannuation Contributions	\$ 651.34
DD25183.9	01/08/2017 BT SUPER FOR LIFE	Superannuation Contributions	\$ 359.76
DD25195.1	01/08/2017 HESTA SUPER FUND	Superannuation Contributions	\$ 117.07
DD25183.10	01/08/2017 BT SUPER FOR LIFE	Superannuation Contributions	\$ 152.47
DD25183.11	01/08/2017 REST SUPERANNUATION	Payroll Deductions	\$ 1,974.29
DD25183.12	01/08/2017 TAL SUPERANNUATION LIMITED	Superannuation Contributions	\$ 208.60
DD25183.13	01/08/2017 WEALTH PERSONAL SUPER AND PERSONAL PENSION	Superannuation Contributions	\$ 53.40
DD25183.14	01/08/2017 WEALTH PERSONAL SUPER AND PERSONAL PENSION	Superannuation Contributions	\$ 33.73
DD25183.15	01/08/2017 BT SUPER FOR LIFE	Superannuation Contributions	\$ 316.37
DD25183.16	01/08/2017 NATIONAL MUTUAL RETIREMENT FUND	Superannuation Contributions	\$ 126.47
DD25183.17	01/08/2017 PRIME SUPER	Superannuation Contributions	\$ 793.35
DD25183.18	01/08/2017 MLC MASTERKEY BUSINESS SUPER	Superannuation Contributions	\$ 935.86
DD25183.19	01/08/2017 SUPERWRAP PERSONAL SUPER PLAN	Superannuation Contributions	\$ 418.18
DD25183.20	01/08/2017 COLONIAL FIRST STATE FIRSTCHOICE PERSONAL SUPER	Payroll Deductions	\$ 977.13
DD25183.21	01/08/2017 OAK TREE SUPERANNUATION FUND	Superannuation Contributions	\$ 220.50
DD25183.22	01/08/2017 BT SUPER FOR LIFE	Superannuation Contributions	\$ 105.83
DD25183.23	01/08/2017 FIRST SUPER	Superannuation Contributions	\$ 209.86
DD25183.24	01/08/2017 HESTA SUPER FUND	Superannuation Contributions	\$ 484.69
DD25183.25	01/08/2017 CARE SUPER PTY LTD	Superannuation Contributions	\$ 388.85
DD25183.26	01/08/2017 FIRST STATE SUPER	Superannuation Contributions	\$ 764.43
DD25183.27	01/08/2017 SPECTRUM SUPER 2	Superannuation Contributions	\$ 339.61
DD25183.28	01/08/2017 WEALTH PERSONAL SUPERANNUATION AND PENSION FUND	Payroll Deductions	\$ 1,100.93
DD25183.29	01/08/2017 SUPERWRAP PERSONAL SUPER PLAN	Superannuation Contributions	\$ 249.03
DD25183.30	01/08/2017 NORTH PERSONAL SUPERANNUATION & PENSION FUND	Superannuation Contributions	\$ 208.58
DD25183.31	01/08/2017 AJW SUPERANNUATION FUND	Superannuation Contributions	\$ 262.56
DD25183.32	01/08/2017 AUSTRALIAN CATHOLIC SUPERANNUATION	Superannuation Contributions	\$ 71.93
DD25183.33	01/08/2017 SUNSUPER SUPERANNUATION	Superannuation Contributions	\$ 496.90
DD25183.34	01/08/2017 MTA SUPERANNUATION FUND	Superannuation Contributions	\$ 242.49
DD25183.35	01/08/2017 IOOF EMPLOYEE SUPER	Superannuation Contributions	\$ 217.80
DD25183.36	01/08/2017 RUSSELL SUPERSOLUTION MASTER TRUST	Superannuation Contributions	\$ 199.84
DD25183.37	01/08/2017 ASGARD	Superannuation Contributions	\$ 101.18
DD25183.38	01/08/2017 ONEPATH MASTERFUND	Superannuation Contributions	\$ 195.03
DD25183.39	01/08/2017 MLC MASTERKEY SUPERANNUATION	Superannuation Contributions	\$ 198.47

REPORT ITEM CCCS 054 REFERS

DD25183.40	01/08/2017 COLONIAL FIRST STATE WHOLESALE PERSONAL SUPER	Superannuation Contributions	\$	160.06
DD25183.41	01/08/2017 THE UNIVERSAL SUPER SCHEME	Superannuation Contributions	\$	200.48
DD25183.42	01/08/2017 AMP SUPERANNUATION SAVINGS	Superannuation Contributions	\$	66.41
DD25183.43	01/08/2017 TTCSL ATF CRUELTY FREE SUPER	Superannuation Contributions	\$	58.91
DD25183.44	01/08/2017 MACAULAY SUPER FUND	Superannuation Contributions	\$	222.93
DD25183.45	01/08/2017 ANZ SMART CHOICE SUPER (ONEPATH MASTERFUND)	Superannuation Contributions	\$	220.50
DD25183.46	01/08/2017 FUTURE SUPER	Superannuation Contributions	\$	163.55
DD25183.47	01/08/2017 AUSTRALIAN ETHICAL SUPERANNUATION FUND	Superannuation Contributions	\$	227.05
DD25183.48	01/08/2017 COLONIAL SUPER RETIREMENT FUND	Superannuation Contributions	\$	193.32
DD25183.49	01/08/2017 BT SUPER	Superannuation Contributions	\$	203.79
DD25183.50	01/08/2017 BT SUPER FOR LIFE	Superannuation Contributions	\$	226.51
DD25183.51	01/08/2017 MACQUARIE SUPER CONSOLIDATOR	Superannuation Contributions	\$	226.51
DD25183.52	01/08/2017 BT SUPER FOR LIFE	Superannuation Contributions	\$	287.10
DD25183.53	01/08/2017 MASON SUPERANNUATION FUND	Superannuation Contributions	\$	171.07
DD25183.54	01/08/2017 IOOF INVESTMENT MANAGEMENT LTD	Superannuation Contributions	\$	191.44
DD25183.55	01/08/2017 NORTH	Superannuation Contributions	\$	57.68
DD25183.56	01/08/2017 AMP SUPERANNUATION SAVINGS TRUST (SUPERLEADER)	Superannuation Contributions	\$	43.82
DD25183.57	01/08/2017 IOOF GLOBAL ONE (EX SKANDIA GLOBAL)	Superannuation Contributions	\$	89.94
DD25183.58	01/08/2017 AMP SUPERANNUATION SAVINGS (SIGNATURE SUPER)	Superannuation Contributions	\$	765.03
DD25183.59	01/08/2017 KEZ AND JOHN MITCHELL SUPERANNUATION FUND	Superannuation Contributions	\$	279.30
DD25183.60	01/08/2017 WEALTH PERSONAL SUPER AND PERSONAL PENSION	Payroll Deductions	\$	224.85
<b>Total</b>				<b>\$ 4,109,669.75</b>

REPORT ITEM CCCS 055 REFERS

Document Number	Description	Date Sent/Received
EDR1768240	COPY OF EXECUTED DOCUMENT ITEM: N/A RE: SIGNING OF FORM FOR WA ELECTORAL COMMISSION TO CONDUCT THE LOCAL GOVERNMENT ELECTION IN OCTOBER 2017- REQUEST FOR COMMISSION TO PREPARE A ROLL FOR THE ELECTION PARTIES: N/A SIGNED BY CEO A SHARPE 1 COPY	18/07/2017
EDR1768636	COPY OF EXECUTED DOCUMENT ITEM: N/A RE: PARTICIPATION AGREEMENT FOR GREAT SOUTHERN REGIONAL SHARED LIBRARY MANAGEMENT SYSTEM PROJECT PARTIES: SHIRES OF BROOMEHILL-TAMBELLUP, CRANBROOK, DENMARK, GNOWANGERUP, JERRAMUNGUP, KATANNING, KOJONUP AND PLANTAGENET SIGNED BY THE CEO A SHARPE 8 COPIES	27/07/2017
EDR1768670	COPY OF EXECUTED DOCUMENT ITEM: N/A RE: APPLICATION TO LOTTERYWEST FOR \$300K FOR THE FIELD OF LIGHT COMMEMORATION IN CONJUNCTION WITH FORM - MATCHING FUNDING OF \$400K FROM TWA WITH CITY OF ALBANY CONTRIBUTION OF \$160K OVER TWO FINANCIAL YEARS PARTIES: LOTTERYWEST PROJECT FUNDING OF \$300K SIGNED BY THE CEO A SHARPE 1 COPY	28/07/2017
EDR1768828	COPY OF EXECUTED DOCUMENT ITEM: N/A RE: ANNUAL REPORT TO SLWA ON 2016-2017 REGIONAL LIBRARY ACTIVITY PLAN PARTIES: STATE LIBRARY WA SIGNED BY THE CEO A SHARPE 1 COPY	01/08/2017
EDR1768932	COPY OF EXECUTED DOCUMENT ITEM: N/A RE: APPLICATION FOR GRANT FROM THE SOUTHERN PORT AUTHORITY TO SUPPORT AUSTRALIA DAY AND THE MIDDLETON BEACH FESTIVAL 2017-2018 - \$5,000 PARTIES: SOUTHERN PORT AUTHORITY SIGNED BY THE CEO A SHARPE 1 COPY	02/08/2017

REPORT ITEM CCCS 055 REFERS

EDR1769121	<p>COPY OF EXECUTED DOCUMENT          ITEM: N/A          RE: DEVELOPMENT APPROVAL FORM AND HERITAGE IMPACT STATEMENT FOR MOUCHMORE COTTAGE PRESERVATION WORKS          PARTIES: N/A          SIGNED BY CEO A SHARPE 1 COPY</p>	08/08/2017
EDR1769151	<p>COPY OF EXECUTED DOCUMENT          ITEM: N/A          RE: APPLICATION FOR RETROSPECTIVE APPROVAL FOR WATER TANK CONSTRUCTED ON LEASED SITE PRO316 - WELLSTEAD HALL          PARTIES: N/A          SIGNED BY CEO A SHARPE 1 COPY</p>	08/08/2017
EDR1769239	<p>COPY OF EXECUTED DOCUMENT          ITEM: N/A          RE: FUNDING REQUEST FOR CBD - SCHOOLS LINKS \$175,000 TO BE MATCHED BY CITY - TOTAL \$350,000          PARTIES: DEPARTMENT OF TRANSPORT          SIGNED BY CEO A SHARPE 1 COPY</p>	09/08/2017
EDR1769242	<p>COPY OF EXECUTED DOCUMENT          ITEM: N/A          RE: FUNDING REQUEST - REGIONAL BIKE NETWORK FOR \$210,000 TO BE MATCHED BY THE CITY - TOTAL \$420,000          PARTIES: DEPARTMENT OF TRANSPORT          SIGNED BY CEO A SHARPE 1 COPY</p>	09/08/2017
EDR1769324	<p>COPY OF EXECUTED DOCUMENT          ITEM: N/A          RE: FUNDING APPLICATION FOR SENIORS WEEK GRANT FOR \$805 - SCREENING OF CLASSIC MOVIES IN THE LIBRARY OVER TWO NIGHTS          PARTIES: DEPARTMENT OF LOCAL GOVERNMENT AND COMMUNITIES          SIGNED BY CEO A SHARPE 1 COPY</p>	10/08/2017
EDR1769325	<p>COPY OF EXECUTED DOCUMENT          ITEM: OCM 23.05.2017 ITEM CCCS028          RE: AWARD OF TENDER C17021 - OLD POST OFFICE (UWA) ROOF TILE REPLACEMENT          PARTIES: PROGRAMMED FACILITY MANAGEMENT PTY LTD          SIGNED BY CEO A SHARPE 1 COPY</p>	10/08/2017

REPORT ITEM CCCS 055 REFERS

EDR1769538	<p>COPY OF EXECUTED DOCUMENT  ITEM: N/A  RE: 20 MILLION TREES PROJECT -  RINGTAIL POSSUM CORRIDORS -  APPLICATION FOR \$100,000 - CITY'S  CONTRIBUTION - \$45,000  PARTIES: OFFICE OF ROAD SAFETY -  EVENTS GRANT APPLICATION  SIGNED BY CEO A SHARPE 1 COPY</p>	15/08/2017
EDR1769540	<p>COPY OF EXECUTED DOCUMENT  ITEM: N/A  RE: RENEWAL OF SENIOR CITIZENS OF  ALBANY (MEALS ON WHEELS)  APPLICATION FOR A PREMISES  CERTIFICATE - TO ALLOW BINGO TO  CONTINUE AT THE CENTRE PORTION OF  LOT S112 LOT 2 GREY STREET WEST  PARTIES: SENIOR CITIZENS OF ALBANY  (MEALS ON WHEELS)  SIGNED BY CEO A SHARPE 1 COPY</p>	15/08/2017
EDR1769541	<p>COPY OF EXECUTED DOCUMENT  ITEM: N/A  RE: CLEARING PERMIT APPLICATION  FOR WORKS ASSOCIATED WITH THE  MUTTON BIRD IMPROVEMENT PLAN  PARTIES: N/A  SIGNED BY CEO A SHARPE 1 COPY</p>	15/08/2017
NCSR1768146	<p>COPY OF COMMON SEAL  ITEM: OCM 24.10.2016 ITEM PD142  OCM 27.06.2017 ITEM DIS029  RE: CREATING A NEW ENVIRONMENTAL  CONSERVATION RESERVE ADDING A  NOTATION TO THE SCHEME MAP  LEGEND REZONING LOT 1 JASON ROAD  AND LOT 476 SIBBALD ROAD TO FUTURE  URBAN. TRANSFERRING LOT 1001  LOWER MING ROAD BAYONET HEAD TO  ENVIRONMENTAL CONSERVATION AND  AMEND THE SCHEME MAPS  PARTIES: LOWE PTY LTD, DEPARTMENT  OF HOUSING AND EM &amp; MB CAMERON  SIGNED BY THE CEO A SHARPE &amp;  MAYOR D WELLINGTON 3 COPIES</p>	17/07/2017
NCSR1768467	<p>COPY OF COMMON SEAL  ITEM: N/A  RE: VARIATION OF LEASE UNDER  DELEGATED AUTHORITY 2017:019  HANGAR SITE 12 ALBANY REGIONAL  AIRPORT, VARIATION TO INCLUDE  OFFICE SPACE  PARTIES: JULIE ANN BISER  SIGNED BY THE CEO A SHARPE &amp;  DEPUTY MAYOR G STOCKS 2 COPIES</p>	21/07/2017

REPORT ITEM CCCS 055 REFERS

NCSR1768626	<p>COPY OF COMMON SEAL  ITEM: N/A  RE: DEED OF LEASE OVER PORTION OF RESERVE 878 CHEYNE ROAD, CHEYNE BEACH UNDER DELEGATED AUTHORITY 2017:019  PARTIES: TREVOR WHEATCROFT SIGNED BY THE CEO A SHARPE &amp; DEPUTY MAYOR G STOCKS 2 COPIES</p>	27/07/2017
NCSR1768628	<p>COPY OF COMMON SEAL  ITEM: N/A  RE: SECTION 70A FOR LOTS 202 AND 203 ON DEPOSITED PLAN 410303  PARTIES: JOHN R KINNEAR AS EXECUTOR FOR MARGARET KINNEAR SIGNED BY THE CEO A SHARPE &amp; DEPUTY MAYOR G STOCKS 1 COPY</p>	27/07/2017
NCSR1769123	<p>COPY OF COMMON SEAL  ITEM:N/A  RE: SURRENDER OF LEASE UNDER DELEGATED AUTHORITY NO. 2017:019 RIGHT OF FIRST REFUSAL FOR NEW HANGAR SITE. REMOVAL OF ASBESTOS HANGAR  PARTIES: HANGAR SITE 2 - ALBANY AIRPORT  SIGNED BY CEO A SHARPE AND MAYOR D WELLINGTON 2 COPIES</p>	08/08/2017
NCSR1769243	<p>COPY OF COMMON SEAL  ITEM: N/A  RE: APPLICATION FOR CLEARING PERMIT FOR NORWOOD ROAD UPGRADE (SLK 2.4 - 3.5)  PARTIES: DEPARTMENT OF WATER AND ENVIRONMENT REGULATION - DEPARTMENT OF MINES, INDUSTRY REGULATION AND SAFETY  SIGNED BY CEO A SHARPE 1 COPY</p>	09/08/2017
NCSR1769476	<p>COPY OF COMMON SEAL  ITEM: N/A  RE: SECTION 70A REVOCATION FOR LOT 267 ON DEPOSITED PLAN 60511. FIRE REQUIREMENTS STATED HAVE CHANGED AND TITLE BURDENS WILL CHANGE  PARTIES: BRADLEY AND RHIANNA HOOK  SIGNED BY CEO A SHARPE AND MAYOR D WELLINGTON 1 COPY</p>	14/08/2017



REPORT ITEM CCCS 055 REFERS

<p>NCSR1769534</p>	<p>COPY OF COMMON SEAL          ITEM: OCM 23.05.2017 ITEM CCCS028          RE: NEW LEASE FOR NORTH ALBANY          FOOTBALL AND SPORTING CLUB INC ON          PORTION OF RESERVE 32341          (COLLINGWOOD PARK) FOR 21 YEARS          PARTIES: NORTH ALBANY FOOTBALL          AND SPORTING CLUB INC          SIGNED BY CEO A SHARPE AND MAYOR          D WELLINGTON 3 COPIES</p>	<p>15/08/2017</p>
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# CITY OF ALBANY

## BUDGET REVIEW FOR THE PERIOD ENDING 31 JULY 2017

	Page No.
<b>Statement of Budget Review by Nature and Type</b>	1
<b>Statement of Budget Review by Program</b>	2
<b>Details</b>	
<b>- Budget Review General Works/Variations</b> Variations of Income and expenditures which are materially different to the adopted Budget require councils endorsement. These variations are detailed in this section of the review.	3 - 8
<b>- 2016/17 Carry Forward Adjustments</b> Included in the 2017/2018 Budget are uncompleted 2016/2017 projects carried forward. Balances shown as forecast at the time of budget preparation and are subject to final adjustments. Adjustments have now been finalised and seeking Council's endorsement.	9 - 13
<b>- Opening Funds Reconciliation</b> This note demonstrates the calculation in the opening position 1 July 2017.	14

For The Period Ending 31 July 2017

2017/2018					
	ORIGINAL ANNUAL BUDGET	REVISED ANNUAL BUDGET	YTD ACTUAL	VARIANCE (b) - (a)	VARIANCE
	(a) \$	(b) \$	\$	\$	%
<b>Operating Revenues</b>					
Rates	35 461 300	35 461 300	34 518 454	-	
Grants & Subsidies	3 184 285	3 247 439	16 582	63 154	2.0
Interest Earnings	1 134 492	1 134 492	63 818	-	
Contributions, Donations & Reimbursements	648 959	648 959	35 393	-	
Fees & Charges	17 105 686	17 105 686	6 835 813	-	
Profit On Sale Of Assets	15 872	15 872	-	-	
Other Revenue	364 522	364 522	9 795	-	
	57 915 116	57 978 270	41 479 853	63 154	
<b>Operating Expenditure</b>					
Employee Costs	(26 369 593)	(26 419 044)	(1 320 009)	(49 451)	0.2
Materials & Contracts	(17 285 414)	(17 440 084)	(805 854)	(154 670)	0.9
Utilities (gas, electricity, water, etc.)	(1 850 099)	(1 850 099)	(40 933)	-	
Insurance	(708 302)	(708 302)	-	-	
Interest Expenses	(871 085)	(871 085)	(5 091)	-	
Other Expenses	(2 911 281)	(2 936 494)	(160 691)	(25 213)	0.9
Depreciation	(16 910 453)	(16 910 453)	(1 409 206)	-	
Loss On Sale Of Assets	(608 999)	(608 999)	-	-	
Less Allocated to Infrastructure Assets	858 143	858 143	17 706	-	
	(66 657 083)	(66 886 417)	(3 724 078)	(229 334)	
<b>Contributions for the Development of Assets</b>					
Grants and Contributions	8 714 879	8 633 915	557 269	(80 964)	-0.9
	(27 088)	(274 232)	38 313 044	(247 144)	
<b>Net Operating Result Excluding Rates</b>					
<b>Adjustment Non Cash Items</b>					
Write Back Non Cash Items	17 503 580	17 503 580	1 409 206	-	
	17 476 492	17 229 348	39 722 250	(247 144)	
<b>Funds Demanded From Operations</b>					
<b>Acquisition of Fixed Assets</b>					
Land & Buildings	(7 969 596)	(8 388 601)	(109 323)	(419 005)	5.3
Plant & Equipment	(3 468 782)	(3 468 782)	(116 550)	-	
Furniture & Equipment	(636 900)	(711 900)	(34 135)	(75 000)	11.8
Infrastructure Assets	(12 815 948)	(14 471 801)	(170 164)	(1 655 853)	12.9
	(24 891 226)	(27 041 084)	(430 173)	(2 149 858)	
<b>Capital Revenue</b>					
Proceeds from Sale of Assets	694 888	694 888	1 818	-	
<b>Financing/Borrowing</b>					
Debt Redemption	(2 216 361)	(2 216 361)	(22 698)	-	
Self Supporting Loans (Principal Repayments)	12 120	12 120	-	-	
Loan Drawn Down	2 120 000	2 120 000	-	-	
	(6 804 087)	(9 201 089)	39 271 198	(2 397 002)	
<b>Demand for Resources</b>					
<b>Restricted Funding Movements</b>					
Opening Funds	2 230 734	2 664 722	2 664 722	433 988	19.5
Transfer From Restricted Cash Unspent Loans	547 125	939 259	-	392 134	71.7
Transfer to Reserve Transactions	(11 901 803)	(11 901 803)	-	-	
Transfer from Reserves Transactions	15 928 031	17 607 973	-	1 679 942	10.5
	-	109 062	41 935 920	109 062	
<b>Closing Funds Surplus/(Deficit)</b>					

REPORT ITEM CCCS 056 REFERS

For The Period Ending 31 July 2017

	2017/2018				
	ORIGINAL ANNUAL BUDGET	REVISED ANNUAL BUDGET	YTD ACTUAL	VARIANCE (b) - (a)	VARIANCE
	(a) \$	(b) \$	\$	\$	%
<b>Operating Revenues</b>					
General Purpose Funding	38 617 844	38 617 844	34 585 122	-	
Governance	6 700	6 700	1 028	-	
Law Order and Public Safety	504 220	454 874	23 501	(49 346)	-9.8
Health	109 000	109 000	1 998	-	
Education and Welfare	1 231 575	1 231 575	72 736	-	
Community Amenities	8 595 830	8 595 830	6 073 192	-	
Recreation and Culture	3 009 833	3 122 333	202 998	112 500	3.7
Transport	2 064 401	2 064 401	177 104	-	
Economic Services	2 786 026	2 786 026	146 394	-	
Other Property and Services	989 687	989 687	195 783	-	
	57 915 116	57 978 270	41 479 854	63 154	
<b>Operating Expenditure</b>					
General Purpose Funding	(655 084)	(655 084)	(33 860)	-	
Governance	(4 902 571)	(4 922 571)	(358 346)	(20 000)	0.4
Law Order and Public Safety	(2 313 234)	(2 370 398)	(122 294)	(57 164)	2.5
Health	(724 265)	(724 265)	(54 200)	-	
Education and Welfare	(1 690 744)	(1 690 744)	(86 452)	-	
Community Amenities	(10 605 985)	(10 602 899)	(338 844)	3 086	0.0
Recreation and Culture	(14 633 021)	(14 731 421)	(783 732)	(98 400)	0.7
Transport	(23 176 658)	(23 233 514)	(1 669 969)	(56 856)	0.2
Economic Services	(5 640 255)	(5 640 255)	(325 209)	-	
Other Property and Services	(2 315 266)	(2 315 266)	48 828	-	
	(66 657 083)	(66 886 417)	(3 724 078)	(229 334)	
<b>Non-Operating Grants, Subsidies And Contributions</b>					
Law Order and Public Safety	50 000	50 000	-	-	
Community Amenities	36 364	36 364	-	-	
Recreation and Culture	3 191 940	3 283 573	136 364	91 633	2.9
Transport	4 415 200	4 242 603	420 905	(172 597)	-3.9
Economic Services	1 021 375	1 021 375	-	-	
	8 714 879	8 633 915	557 269	(80 964)	
<b>Adjustment Non Cash Items</b>					
Write Back Non Cash Items	17 503 580	17 503 580	1 409 206	-	
<b>Funds Demanded From Operations</b>	17 476 492	17 229 348	39 722 251	(247 144)	
<b>Acquisition of Fixed Assets</b>					
Land & Buildings	(7 969 596)	(8 388 601)	(109 323)	(419 005)	5.3
Plant & Equipment	(3 468 782)	(3 468 782)	(116 550)	-	
Furniture & Equipment	(636 900)	(711 900)	(34 135)	(75 000)	11.8
Infrastructure Assets	(12 815 948)	(14 471 801)	(170 164)	(1 655 853)	12.9
	(24 891 226)	(27 041 084)	(430 173)	(2 149 858)	
<b>Capital Revenue</b>					
Proceeds from Sale of Assets	694 888	694 888	1 818	-	
<b>Financing/Borrowing</b>					
Debt Redemption	(2 216 361)	(2 216 361)	(22 698)	-	
Loan Drawn Down	2 120 000	2 120 000	-	-	
<b>Demand for Resources</b>	(6 804 087)	(9 201 089)	39 271 198	(2 397 002)	
<b>Restricted Funding Movements</b>					
Opening Funds	2 230 734	2 664 722	2 664 722	433 988	19.5
Transfer to Reserve Transactions	(11 901 803)	(11 901 803)	-	-	
Transfer from Reserves Transactions	15 928 031	17 607 973	-	1 679 942	10.5
<b>Closing Funds Surplus/(Deficit)</b>	-	109 062	41 935 920	109 062	

## BUDGET REVIEW FOR THE PERIOD ENDING 31 JULY 2017

This Review Maintains Council's Budget in a Surplus Position

<b>GENERAL WORKS/VARIATIONS. (Additional Funds Required)</b>		<b>\$</b>
		(529 664)
<b>FUNDED BY</b>		
- Reduction in Expenditure	-	
- Adjustment in Grant/Contributions Funding	(130 310)	
- Adjustment in Revenue	112 500	
- Restricted Cash Adjustments	<u>281 218</u>	<u>263 408</u>
<b>Balance</b>		<u><u>(266 256)</u></u>
<b>Budgeted Opening Position</b>	2 230 734	
<b>NB - Adjustments From 2016/17 Financial Year (Pg's 8 - 12)</b>	58 670	
	<u>2 289 404</u>	
<b>Actual Opening Position</b>	2 664 722	375 318
<b>2017/18 Budgeted Closing Position</b>		<u><u>109 062</u></u>

**CITY OF ALBANY**

**BUDGET REVIEW FOR THE PERIOD ENDING 31 JULY 2017**

<b>SECTION</b>		<b>REQUESTED BY - STEPHEN GRIMMER</b>
FACILITATOR STRATEGY & IMPROVEMENT		DIRECTORATE - CORPORATE SERVICES

JOB or GENERAL LEDGER	ACCOUNT DESCRIPTION	BUDGET 2017/18		FORECAST 2017/18		BUDGET REVIEW CONSIDERATION		EXPLANATION
		EXPEND	INCOME	EXPEND	INCOME	EXPEND	INCOME	
76712	Peer Support Pilot Program	-		20 000		20 000		Grant received in 16/17 for the Great Southern Integrated Planning and Reporting Peer Support Pilot Program to be delivered in 2017/18.
13259	Unspent Grant Reserve T/F to Muni.		-		20 000		20 000	
<b>TOTAL :</b>		-	-	20 000	20 000	20 000	20 000	

CITY OF ALBANY

BUDGET REVIEW FOR THE PERIOD ENDING 31 JULY 2017

SECTION		LIBRARY SERVICES				REQUESTED BY - PAUL NIELSEN		DIRECTORATE - COMMUNITY SERVICES	
JOB or GENERAL LEDGER	ACCOUNT DESCRIPTION	BUDGET 2017/18		FORECAST 2017/18		BUDGET REVIEW CONSIDERATION		EXPLANATION	
		EXPEND	INCOME	EXPEND	INCOME	EXPEND	INCOME		
77362	Regional Scheme Expenditure	6 060		108 560		102 500		A regional shared Library Management System (LMS) based on Spydus offers significantly enhanced service to both participating Shires and library staff, as well as library users across the region. Cost recovery initiative.	
16423	Library Regional Revenue		24 480		136 980		112 500		
15994	RFID Acquisition	-		75 000		75 000		Radio Frequency Identification (RFID) provides for "sightless" identification of items. It includes the ability to facilitate circulation, re-shelving and theft detection. RFID will be implemented in conjunction with the completion of the Tourism and Information Hub Project.	
<b>TOTAL :</b>		<b>6 060</b>	<b>24 480</b>	<b>183 560</b>	<b>136 980</b>	<b>177 500</b>	<b>112 500</b>		







**BUDGET REVIEW FOR THE PERIOD ENDING 31 JULY 2017  
CARRY FORWARD ADJUSTMENTS**

<b>CARRY FORWARD WORKS ADJUSTMENTS MUNICIPAL FUNDS. SURPLUS/(DEFICIT)</b>	\$	
	(1 849 528)	
<b>FUNDED BY</b>		
- Increase in Expenditure	-	
- Restricted Loan Funds Movement	392 134	
- Grant Amendments	-	
- Increase/(Decrease) in opening funds	58 670	
- Adjustment in Reserve Funding	<u>1 398 724</u>	<u>1 849 528</u>
	<u>                    </u>	<u>                    </u>
	<u>                    </u>	<u>                    </u>
	-	-

**CITY OF ALBANY**

**BUDGET REVIEW FOR THE PERIOD ENDING 31 JULY 2017**

SECTION: CARRY FORWARD ADJUSTMENTS	REQUESTED BY - MICHAEL COLE DIRECTORATE - CORPORATE SERVICES
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JOB or GENERAL LEDGER	ACCOUNT DESCRIPTION	BUDGET 2017/18		2017/18 AMENDED BUDGET		BUDGET REVIEW CONSIDERATION		EXPLANATION
		EXPEND	INCOME	EXPEND	INCOME	EXPEND	INCOME	
	<b>Major Projects</b>							
2657	Emu Point to Middleton Monitoring 16/17	44 544		44 544		-		No amendment required
3774	Emu Point to Middleton Monitoring 15/16	6 271		6 215		(56)		Carry Forward Amendment based on 2016/17 Actuals
77272	Surf Reef Feasibility	49 696		49 696		-		No amendment required
71532	CBD Strategy	19 229		19 229		-		No amendment required
71632	City Naming Marker Strategy	17 942		17 942		-		No amendment required
77322	Middleton Beach - Public Realm Planning	13 305		10 275		(3 030)		Carry Forward Amendment based on 2016/17 Actuals
16694	Botanical Gardens	99 995		99 995		-		No amendment required
3974	Visitor Centre - Professional Fees	34 267		68 849		34 582		Carry Forward Amendment based on 2016/17 Actuals
	<b>Community Services</b>							
71007	Community Funding	12 000		12 000		-		No amendment required
	<b>Land &amp; Heritage</b>							
37227	Manage Land Asset's	63 687		63 687		-		No amendment required
	<b>Leased Assets</b>							
16047	Contrib. to Albany Ag. Society Building	150 000		150 000		-		No amendment required

**CITY OF ALBANY**

**BUDGET REVIEW FOR THE PERIOD ENDING 31 JULY 2017**

SECTION CARRY FORWARD ADJUSTMENTS						REQUESTED BY - MICHAEL COLE DIRECTORATE - CORPORATE SERVICES		
JOB or GENERAL LEDGER	ACCOUNT DESCRIPTION	BUDGET 2017/18		2017/18 AMENDED BUDGET		BUDGET REVIEW CONSIDERATION		EXPLANATION
		EXPEND	INCOME	EXPEND	INCOME	EXPEND	INCOME	
	<b>Recreation</b>							
18694	Centennial Park Upgrade	1 077 092		2 474 843		1 397 751		Carry Forward Amendment based on 2016/17 Actuals
3916	Collingwood Park Lights	315 711		315 711		-		No amendment required
7835	Synthetic Hockey Pitch Replacement	275 000		275 000		-		No amendment required
2648	Middleton Beach - End of Trip Facilities	5 000		5 000		-		No amendment required
78356	Share the Road Education Program	4 145		45		(4 100)		Carry Forward Amendment based on 2016/17 Actuals
	<b>Airport</b>							
3331	RPT Lighting GA Aprons	50 000		50 000		-		No amendment required
7546	Contract Works - Hire Car and City Buildings	299 199		296 080		(3 119)		Carry Forward Amendment based on 2016/17 Actuals
7548	Relocation of St Johns Shed	105 731		105 731		-		No amendment required
	<b>Planning Services</b>							
78302	Albany Land Use Strategy and Precinct Plann	51 993		51 993		-		No amendment required
71432	Anson Road	30 000		30 000		-		No amendment required
71442	Innovation Park Business Case	23 166		23 166		-		No amendment required
14297	Land Tenure Requirements	91 015		91 015		-		No amendment required

**CITY OF ALBANY**

**BUDGET REVIEW FOR THE PERIOD ENDING 31 JULY 2017**

SECTION CARRY FORWARD ADJUSTMENTS						REQUESTED BY - MICHAEL COLE DIRECTORATE - CORPORATE SERVICES		
JOB or GENERAL LEDGER	ACCOUNT DESCRIPTION	BUDGET 2017/18		2017/18 AMENDED BUDGET		BUDGET REVIEW CONSIDERATION		EXPLANATION
		EXPEND	INCOME	EXPEND	INCOME	EXPEND	INCOME	
	<b>Ranger Services</b>							
10074	Impoundment Equipment	13 246		4 636		(8 610)		Carry Forward Amendment based on 2016/17 Actuals
2714	Napier Fire Station	77 734		77 734		-		No amendment required
2659	Building Local Community Awareness	9 114		9 114		-		No amendment required
	<b>Buildings</b>							
2660	ALAC Sewer Upgrade- design	10 640		9 280		(1 360)		Carry Forward Amendment based on 2016/17 Actuals
3773	Albany Visitor Centre Building Construction	1 645 000		2 037 134		392 134		Carry Forward Amendment based on 2016/17 Actuals
3621	Old Post Office Veranda Works	403 737		400 505		(3 232)		Carry Forward Amendment based on 2016/17 Actuals
3996	VAC Refurbishment of roof shingles - staged	177 265		177 265		-		No amendment required
2662	Changing Places Public Facilities Waterfront	198 757		198 757		-		No amendment required
3435	Depot CCTV	18 000		18 000		-		No amendment required
3993	Centennial Park Gardener Shed	150 000		150 000		-		No amendment required
	<b>Roadwork's</b>							
3233	Millbrook Road	544 642		563 692		19 050		Carry Forward Amendment based on 2016/17 Actuals

**CITY OF ALBANY**

**BUDGET REVIEW FOR THE PERIOD ENDING 31 JULY 2017**

SECTION CARRY FORWARD ADJUSTMENTS						REQUESTED BY - MICHAEL COLE DIRECTORATE - CORPORATE SERVICES		
JOB or GENERAL LEDGER	ACCOUNT DESCRIPTION	BUDGET 2017/18		2017/18 AMENDED BUDGET		BUDGET REVIEW CONSIDERATION		EXPLANATION
		EXPEND	INCOME	EXPEND	INCOME	EXPEND	INCOME	
	<b>Drainage</b>							
71572	Drainage Strategy	15 195		-		(15 195)		Carry Forward Amendment based on 2016/17 Actuals
	<b>Parking Facilities</b>							
3622	104-110 Stirling Terrace Parking	70 000		70 000		-		No amendment required
	<b>Bridges</b>							
3770	Chegiup Bridge	689 734		689 734		-		No amendment required
73062	Hunton Rd Bridge	-		72 051		72 051		Carry Forward Amendment based on 2016/17 Actuals
3854	Lower King - King River Bridge 4751	135 000		135 000		-		No amendment required
	<b>Waste</b>							
3723	Refurbish Tip Shop Area	135 875		131 896		(3 979)		Carry Forward Amendment based on 2016/17 Actuals
3839	Traffic Modifications	57 411		45 981		(11 430)		Carry Forward Amendment based on 2016/17 Actuals
	<b>Reserves Projects</b>							
3909	Black Swan Point Reserve Car Park	19 803		19 803		-		No amendment required
3829	Albany Agricultural Society Earthworks	70 800		58 871		(11 929)		Carry Forward Amendment based on 2016/17 Actuals
71192	Street Tree Audits CBD and major arterials	17 355		17 355		-		No amendment required
	<b>Plant Replacement Program</b>							
13564	Heavy Fleet Purchase	321 060		321 060		-		No amendment required
14175	Heavy Fleet Sales		45 000		45 000		-	
	<b>TOTAL :</b>	<b>7 619 356</b>	<b>45 000</b>	<b>9 468 884</b>	<b>45 000</b>	<b>1 849 528</b>	<b>-</b>	

RECONCILIATION OF OPENING FUNDS AS AT 1 JULY 2017

	ORIGINAL BUDGET	BUDGET REVIEW CONSIDERATION	VARIANCE (b) - (a)	VARIANCE	NOTE
	\$	\$	\$	%	
<b>Net Current Asset Position</b>	<b>24 141 528</b>	<b>27 895 189</b>	<b>3 753 661</b>	15.5	
<b>Adjustments</b>					
<b>Add back</b>					
Loan Borrowings	2 214 884	2 136 616 -	78 268	-3.5	(a)
<b>Less</b>					
Cash Backed Reserves	23 296 584	25 992 610	2 696 026	11.6	
Restricted Other - Unspent Loans	547 125	939 259	392 134	71.7	
Self Supporting Loans (Principal)	-	-	-		
Investments - LG Unit Trust Shares	205 605	205 605	-		
Land held for Resale	76 364	229 609	153 245	200.7	
<b>Opening Funds Surplus/(Deficit)</b>	<b>2 230 734</b>	<b>2 664 722</b>	<b>433 988</b>	19.5	

(a) (Add back loan repayments as they represent a current liability for payments to be made over the next twelve months already reflected as expenditure)



ALBANY 2030

# COMMUNITY

STRATEGIC PLAN



**CONTENTS**

<b>INTRODUCTION</b>	<b>3</b>
ACKNOWLEDGEMENT OF PEOPLE & COUNTRY	3
EXECUTIVE MESSAGE	3
OUR COMMUNITY STRATEGIC PLAN	4
OUR INTEGRATED PLANNING AND REPORTING FRAMEWORK	5
SCHEDULED REVIEWS	5
<b>OUR COMMUNITY</b>	<b>6</b>
OUR POPULATION AND ECONOMIC PROFILE	7
CENSUS TRENDS	7
HOW WE DEVELOPED OUR COMMUNITY STRATEGIC PLAN	8
COMMUNITY ENGAGEMENT PARTICIPATION	8
EMERGING THEMES	9
<b>ALBANY 2030</b>	<b>10</b>
THEME 1 LEADERSHIP	10
THEME 2 SMART PROSPEROUS & GROWING	12
THEME 3 CLEAN, GREEN & SUSTAINABLE	14
THEME 4 COMMUNITY HEALTH & PARTICIPATION	16
THEME 5 A CONNECTED AND SAFE BUILT ENVIRONMENT	18
<b>IMPLEMENTATION AND REPORTING</b>	<b>20</b>
HOW YOU CAN CONTRIBUTE	20
HOW WE WILL REPORT PROGRESS	20
<b>ASSOCIATED DOCUMENTS</b>	<b>20</b>

## INTRODUCTION

### ACKNOWLEDGEMENT OF PEOPLE & COUNTRY

*On behalf of our Community the City of Albany respectfully acknowledges the past and present traditional owners of this land, the Menang people. It is a privilege to be living on Noongar country.*



### EXECUTIVE MESSAGE

**A LOT HAS HAPPENED SINCE THE CITY OF ALBANY'S FIRST COMMUNITY STRATEGIC PLAN WAS DEVELOPED WITH THE COMMUNITY FOUR YEARS AGO.**

Standing out on the long list of achievements is the 2014 Anzac centenary commemoration which has created renewed awareness of the Anzac Story and given us all a greater sense of pride in our community's place in this significant chapter of Australia's history.

The National Anzac Centre has become a major tourism asset for our city, receiving widespread acclaim as a memorial to our Anzac heroes and a must-do cultural experience.

York Street, Stirling Terrace, the Town Square and the Centennial Park Sporting Precinct have all had major upgrades, and there is long-awaited progress happening on the vacant Middleton Beach hotel site.

Albany has had a Royal visit and has also successfully hosted major events like the Clipper Round the World Race and Campervan and Motorhome Club of Australia National Rally.

Tourism visitation has increased as Albany's reputation as a must-see destination continues to grow.

To support this the City has established a regional alliance with Denmark and Plantagenet to better promote the "Amazing South Coast" as a great place to visit.

All this success for Albany would not have been achieved without the input and support of the community.

Through extensive engagement and consultation we have stayed connected to our community and the input and feedback received from the people of Albany has helped inform and guide our projects, events and decisions.

Albany 2030 is an extension of our ongoing conversation with the community. More than 1,890 people directly participated in the review of this Community Strategic Plan by attending workshops, pop-up cafes, completing surveys and making submissions during the public comment period.

It has given the City an extensive insight into community opinion and expectations that has allowed us to develop a clear plan for the future – a plan that sets out the community's vision and how we can achieve the community's aspirations.

Thank you to everyone who has contributed to this important plan for Albany's future.

**DENNIS WELLINGTON,**  
MAYOR

**ANDREW SHARPE,**  
CHIEF EXECUTIVE OFFICER



**OUR COMMUNITY STRATEGIC PLAN**

**THE KEY PRINCIPLES THAT GUIDE THIS PLAN ARE:**

Together, we have updated our Community Strategic Plan to provide an ambitious long-term vision for the City of Albany. The clear direction set by Council ensures we focus on the priorities of our community, now and into the future.

- It looks to balance the wide range of views held within the community
- It is simple and understandable
- It is positive, forward thinking and inclusive
- It meets our regulatory responsibilities as a local government

It is important to note that Council is not wholly responsible for implementation and we will continue to partner with various stakeholders to meet our vision and aspirations. This is a plan which sets the direction for the whole of the City.

**THE KEY PARTNERS TO THIS PLAN ARE:**

- Australian government
- Chamber of commerce and industry
- Community groups
- Developers
- Local businesses and industry
- Non-government organisations
- Residents and visitors
- WA government



**OUR INTEGRATED PLANNING AND REPORTING FRAMEWORK**

**COMMUNITY ENGAGEMENT**

**MEASUREMENT AND REPORTING**



**COMMUNITY PLAN**

Our Community Strategic Plan-Albany 2030 sets out our vision, aspirations, objectives and community priorities into the future and is our principal strategy and planning document.

**CORPORATE BUSINESS PLAN**

Our Corporate Business Plan summarises the current and future resources required to deliver services, projects and programs over the next four years to implement the Community Strategic Plan and is supported by informing strategies and plans that are fully aligned including business plans for each business unit, our long term financial plan, our strategic asset management plans and our people strategy.

**ANNUAL BUDGET**

Our Annual Budget allocates the funds and resources required to deliver the aspirations outlined in the Community Strategic Plan and the commitments outlined in the Corporate Business Plan and informing strategies.

**SCHEDULED REVIEWS**

**THE CITY'S INTEGRATED PLANNING FRAMEWORK IS REVIEWED AND UPDATED IN ACCORDANCE WITH SECTION 5.56 OF THE LOCAL GOVERNMENT ACT 1995 AND SECTION 19DA OF THE LOCAL GOVERNMENT (ADMINISTRATION) REGULATIONS. THE TABLE BELOW DEFINES THE FREQUENCY OF REVIEWS:**

Element	Review Frequency
<p><b>Community Strategic Plan-Albany 2030</b></p>	<p>Minor review every 2 years consisting of a community perception survey and peer review.</p> <p>Major review every 4 years consisting of comprehensive community engagement using a variety of methods and platforms</p>
<p><b>Corporate Business Plan</b></p>	<p>Reviewed annually as part of the budget build process and submitted to Council for adoption.</p>
<p><b>Supporting Plans and Strategies</b></p>	<p>Reviewed as specified (normally every 4-5 years) with the latest version available on the City's web-site</p>



## OUR COMMUNITY

**ALBANY IS SITUATED ON THE SOUTH COAST OF WA IN NOONGAR COUNTRY, TRADITIONALLY OWNED AND OCCUPIED BY THE MENANG PEOPLE FOR OVER 50,000 YEARS.**

Overlooking one of the world's most majestic and unique natural harbours, Albany is also WA's first European settlement and is steeped in history, retaining strong connections to its culture and heritage.

It has a unique chapter in the Anzac story as the place where more than 40,000 Anzacs gathered to sail for the battlefronts of World War I.

Buildings of historical significance can also be found on almost every corner – the Town Hall (1888), Old Gaol (1852), Vancouver Arts Centre which was formerly a hospital (1887), Earl of Spencer Inn (1850), and St John's Church (1848).

With a population of over 37,000, Albany is the administrative and service hub of the Great Southern region. It has experienced growth in its population and economy over the past decade and this is expected to continue.

The City of Albany covers a land area of about 4,312 square kilometres and offers both an urban and rural lifestyle. The City manages over 1,600kms of road, 250kms of pathways, 380kms of roadside kerbing, and 35 hectares of irrigation in 360 gardens, playgrounds and sporting fields.

Diverse facilities such as a library, leisure and aquatic centre, airport, arts centre, day care and visitor centre provide a broad range of services to community.

Agriculture and retail are among the region's main industries and tourism is a key growth area thanks to the region's abundance of natural and other attractions.

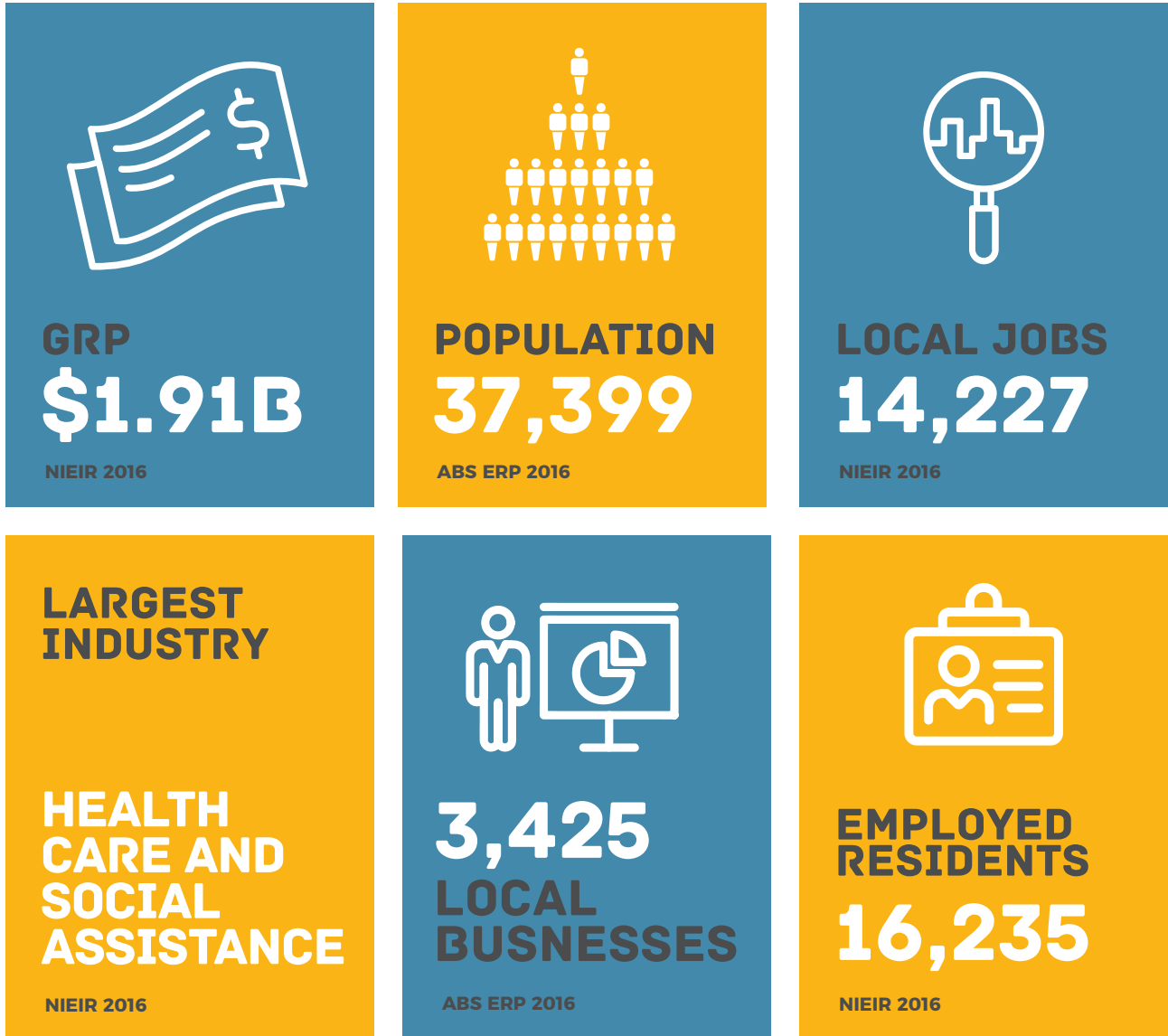
The award-winning National Anzac Centre, one of Australia's most important cultural pilgrimages,

Boutique food and wine, whale watching, fishing, surfing and community events combined with the region's world-recognised biodiversity provides an enviable lifestyle for locals and unique experiences for visitors.



**OUR POPULATION AND ECONOMIC PROFILE**

“City of Albany’s Gross Regional Product is estimated at \$1.91 billion, which represents 0.7% of the state’s GSP (Gross State Product).”



**CENSUS TRENDS**

Criteria	2011	2016	Growth
Population	34,873	37,399	2,526
Economic Gross regional Product	\$1.81 billion	\$1.91 billion	\$0.1billion
Local Businesses	3,477	3,425	-52
Local Jobs	14,747	14,227	-520
Residential Approvals previous 5 years	1408	1196	-212
Tourist Visitor Nights	1,019,336	1,535,061	515,725

(FROM .ID COMMUNITY DEMOGRAPHIC RESOURCES AVAILABLE ON THE CITY'S WEB-SITE)

**HOW WE DEVELOPED OUR  
COMMUNITY STRATEGIC PLAN**

**PRELIMINARY RESEARCH**

**COMMUNITY CONSULTATION**

**COUNCIL DIRECTION**

**PREPARE DRAFT**

**PEER REVIEW**

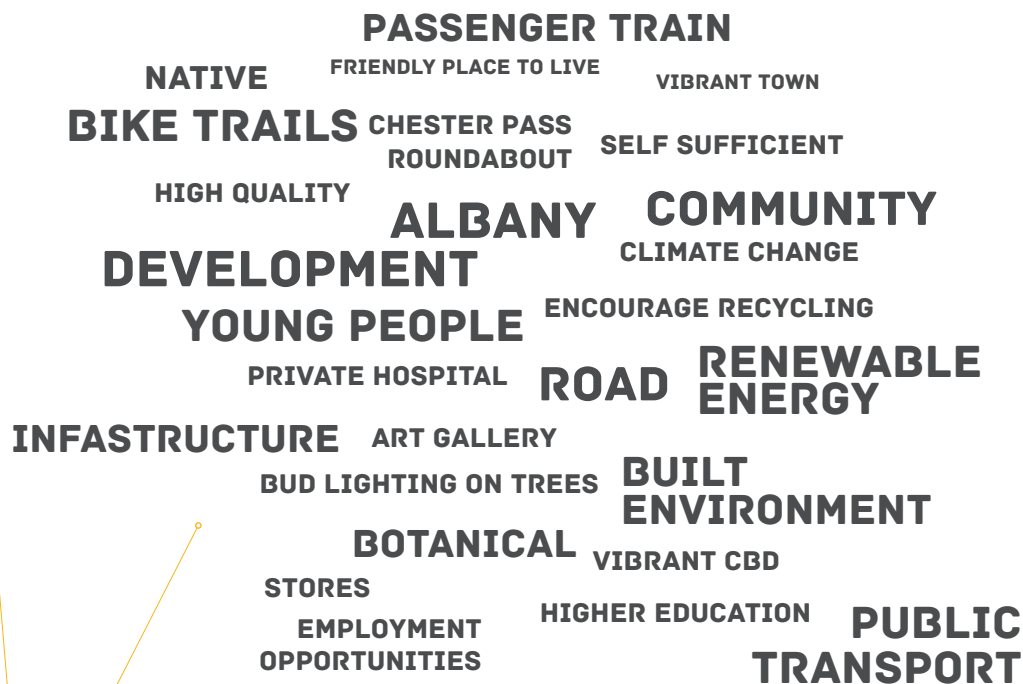
**PUBLIC COMMENT AND  
COUNCIL ADOPTION**





**COMMUNITY ENGAGEMENT PARTICIPATION**

Platform	Location	Participation
	Bornholm	17
	City Centre	2
<b>Community In Conversation Workshops</b>	Redmond	17
	Little Grove	7
	Wellstead	12
<b>Town Talk Pop up Cafe</b>	Town Square	102
<b>ACCI Business After Hours Forum</b>	Little Grove	100
<b>Let's Chat Focus Group</b>	Albany	7
<b>Social Media</b>	Online	620
<b>Great Southern Grammar</b>	Kalgan	7
<b>Great Southern Health Forum</b>	City of Albany	14
<b>Survey</b>	Online	205
<b>Council Strategic Briefing</b>	City of Albany	10
<b>Staff Workshop</b>	City of Albany	26
<b>Written Submissions &amp; Postcards</b>	Hard copy	70
<b>Launch and Live Video</b>	Various locations	16
<b>Boatshed Markets</b>	Hard copy	50
<b>Independent Community Perception Survey</b>	Online & Postal	613
<b>Total Participation Numbers</b>		<b>1,893</b>



**EMERGING THEMES**

The following are the most common themes from the community engagement forums and surveys undertaken in March and April 2017.

- adding value to agriculture,
- eco housing,
- encouraging private investment,
- environmental education,
- festivals and events,
- improved amenities for public open space
- improved communication
- improved health and wellbeing,
- improved internet services and use of technology,
- improved roads and footpaths,
- improving public transport,
- natural asset development,
- outdoor recreation,

- providing incentives for development
- reduce red tape for business
- renewable energy,
- the need to ensure rural communities are valued
- tourism growth,

It is important to note that many in our community are attracted to Albany for the lifestyle it provides and indicated that developing the economy should not be detrimental to the natural and pristine environment we live in. The use of renewable energy was commonly suggested as an industry worthy of noting that would develop the economy and also retain and protect the natural environment.

Other emerging themes identified since the last plan developed in 2013 included jobs, youth, health, education and the need for the City and Council to explain decisions that have been made.



## ALBANY 2030

### THEME 1: LEADERSHIP

#### WHAT OUR COMMUNITY SAID

**OUR COMMUNITY IS LOOKING FOR A COUNCIL THAT DEVELOPS AND COMMUNICATES A CLEAR VISION AND DIRECTION THAT BALANCES THE DIVERSE RANGE OF VIEWS AND INTERESTS WITHIN OUR COMMUNITY. THE EXPECTATION IS THAT EFFECTIVE LEADERSHIP UNDERPINS EVERYTHING WE DO BY ENSURING THAT ALL DECISIONS ARE MADE IN THE BEST INTERESTS OF THE ENTIRE COMMUNITY.**

Our community believes that City staff should be trained, highly skilled professionals, who are helpful, transparent and consistent in decision-making. This requires an ongoing focus on customer service, innovation and effective communication.

Our community would also like to see improved engagement so that community members feel their input is valued and used to inform decisions. In particular our community would like to understand why decisions are made and how their feedback has influenced the decision. We envisage regular updates on what is being delivered against what has been promised in a variety of communication platforms.



**Our Aspiration:**

We will listen to our community and deliver outcomes that reflect their needs and expectations.”

**Objective 1.1: To establish and maintain sound business and governance structures**

<b>Community Priorities</b>	<b>We know we are succeeding when</b>
1.1.1 Implement systems and controls that ensure the prudent use of rates and ensure value for money in all aspects of Council operations.	Our community believe we are providing value for money.
1.1.2 Provide informed and transparent decision making that is consistent with our strategic direction, meets our legal obligations, reflect the level of associated risk and are adequately explained to community.	Our Council is recognised for its effectiveness in leadership and decision making.

**Objective 1.2 To provide strong, accountable leadership supported by a skilled & professional workforce**

<b>Community Priorities</b>	<b>We know we are succeeding when</b>
1.2.1 Provide positive leadership that delivers community outcomes and gains a reputation for doing what is good for Albany and the surrounding region.	We are seen as a Local Government that does what we say we will do.
1.2.2 Develop contemporary service delivery and staff development programs to ensure a professional and resilient workforce which is continually improving.	Community surveys indicate high satisfaction with the services provided by the City.

**Objective 1.3 To engage effectively with our community**

<b>Community Priorities</b>	<b>We know we are succeeding when</b>
1.3.1 Develop structures and processes that engage the community and engender community confidence, and trust that their input is valued and used to inform decisions and priorities.	Feedback from our community indicates that we are listening and acting on what we hear.
1.3.2 Improve community engagement processes and platforms to provide our community with a variety of opportunities to be involved and to contribute to decisions.	There is a steady increase in the use of engagement opportunities and platforms available to our community.

**We will measure community satisfaction with** **We will also monitor**

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• CoA as a governing organisation</li> <li>• Value for money from rates</li> <li>• Council’s leaderships</li> <li>• How open and transparent Council processes are</li> <li>• How the community is consulted about local issues</li> <li>• The City web-site</li> <li>• Customer service</li> </ul> | <ul style="list-style-type: none"> <li>• Customer service requests and complaints</li> <li>• Voter turnout</li> <li>• Community feedback</li> <li>• Social media</li> </ul> |
|--|---|



## THEME 2:

### SMART PROSPEROUS & GROWING

#### WHAT OUR COMMUNITY SAID

**OUR COMMUNITY HAS INDICATED THEY WANT THE CITY TO PLAY A KEY ROLE IN GROWING THE LOCAL ECONOMY INCLUDING A REGIONAL APPROACH TO TOURISM AND ECONOMIC DEVELOPMENT. THEY WOULD LIKE THE CITY TO ENCOURAGE INVESTMENT AND IDENTIFY NICHE BUSINESS OPPORTUNITIES INCLUDING VALUE ADDING TO AGRICULTURE WHICH REMAINS AN IMPORTANT ECONOMIC DRIVER IN OUR REGION. MANY IN OUR COMMUNITY ARE CONCERNED THAT A LACK OF EMPLOYMENT OPPORTUNITIES IS RESULTING IN YOUNG PEOPLE LEAVING OUR REGION.**

We would like to be recognised as a regional centre which provides high quality education and training programs, to prepare our workforce for the future. This includes ongoing growth in the tertiary education sector to retain more young people in our region and the use of our unique environmental and heritage assets to enhance the learning experience.

Our community recognises the potential for our region to become a unique visitor destination, and wants to see the City continue to improve our tourism offering and market our region as a great place to visit. This includes encouraging more visitors to come to Albany and the surrounding region through effective destination marketing and the ongoing development of the tourism offering to encourage visitors to stay longer.



**Our Aspiration:**

“We will partner and advocate with relevant stakeholders to diversify our economy and establish a culture of life-long learning to support and grow local employment.”

**Objective 2.1: To strengthen and grow our region’s economic base**

**Community Priorities**

**We know we are succeeding when**

2.1.1 Work with business and other stakeholders to attract investment; diversify the economy; create jobs and support small business growth.

There is wide ranging community support for our economic development strategies.

2.1.2 Advocate for innovation and technology platforms that provide opportunities for Albany businesses and individuals to access jobs and markets throughout Australia and around the world.

Businesses throughout our region can access modern business and communication technology.

**Objective 2.2: To develop a smart city that supports economic growth**

**Community Priorities**

**We know we are succeeding when**

2.2.1 Partner with learning networks, schools and training providers to deliver education and training programs that support families and encourage a culture of lifelong learning.

There is growth in the education sector which is linked to economic growth and employment

2.2.2 Promote Albany and the surrounding region as an ideal location to hold conferences and training events

There is a steady increase in the numbers of people visiting our region for conferences and training.

**Objective 2.3: To develop and promote Albany as a unique and sought-after visitor location**

**Community Priorities**

**We know we are succeeding when**

2.3.1 Encourage, support and deliver significant events that promote our region and have a positive economic and social benefit.

Our City regularly hosts significant events and activities which attract positive feedback.

2.3.2 Promote the “Amazing South Coast” region as a sought after and iconic tourism destination to increase the number of people visiting and the duration they stay.

There is a steady growth in visitors participating in activities in our emerging tourism markets and business events.

**We will measure community satisfaction with**

**We will also monitor**

- Albany as a place to live and work
- Economic development and job creation
- Tourism attractions and marketing
- Education and training opportunities
- Benefits from significant events

- Economic demographics and trends
- Employment numbers and trends
- Visitor numbers and trends



## THEME 3:

### CLEAN, GREEN & SUSTAINABLE

#### WHAT OUR COMMUNITY SAID

**OUR COMMUNITY CONTINUES TO LOVE THE CITY'S NATURAL ASSETS, COASTLINE AND GREEN SPACES WITHIN OUR MUNICIPALITY. OUR CLIMATE, COASTLINE, PARKS AND NATURAL RESERVES ARE STRONGLY VALUED BY OUR COMMUNITY. OUR COMMUNITY BELIEVES THESE SHOULD BE PROTECTED, MAINTAINED AND, WHERE PRACTICAL, ENHANCED. THERE IS A STRONG DESIRE FOR OUR NATURAL ASSETS TO FEATURE PROMINENTLY IN NATURE-BASED TOURISM OPPORTUNITIES, AND TO PROMOTE ALBANY AS A SUSTAINABLE CITY. THIS INCLUDES THE ONGOING DEVELOPMENT OF PATHWAYS, CYCLE WAYS AND NATURE BASED WALKS AND TRAILS THAT WILL SUPPORT AN ACTIVE AND HEALTHY COMMUNITY AND ATTRACT VISITORS.**

Our community would like to see increased use of renewable energy by households, businesses and the City of Albany, taking advantage of our unique location which provides abundant wind and wave sources to power our City. They would also like the City to lead by example in environmental sustainability.

A number of community members expressed concerns about the condition of our roads and expect that we develop and maintain relevant and functional infrastructure in line with contemporary asset management practices.



**Our Aspiration:**

“We will value and maintain the natural beauty of our region and the infrastructure that supports this.”

**Objective 3.1: To protect and enhance our natural and built environment in a changing climate**

<b>Community Priorities</b>	<b>We know we are succeeding when</b>
3.1.1 Deliver effective practices that reduce risk to property, infrastructure and the natural environment and improve community awareness and resilience	Our coastlines maintain their diversity, amenity and accessibility and are protected from hazards and development.
1.1.2 Sustainably protect and enhance our iconic coastline, reserves flora and fauna by delivering projects and programs that reflect the importance of our coastline and natural reserves	Our catchments and waterways are healthy and provide habitat for local flora and fauna.

**Objective 3.2: To build, maintain and renew city assets sustainably**

<b>Community Priorities</b>	<b>We know we are succeeding when</b>
3.2.1 Deliver environmentally & financial sustainable long term planning for infrastructure via a forward capital works program that meets the needs of our community	The maintenance, servicing and renewal of City’s assets are environmentally and financially sustainable.
3.2.2 Design, construct and maintain infrastructure cost effectively in a manner that maximises it’s life, capacity and function	City assets continue to function effectively as they age.

**Objective 3.3: To identify and deliver improvements in sustainability within the City and wider community**

<b>Community Priorities</b>	<b>We know we are succeeding when</b>
3.3.1 Integrate and promote effective sustainability through resource conservation, management and education to continuously improve environmental outcomes	There is an increasing number of sustainable industries operating within our region.
3.3.2 Deliver a sustainable and progressive approach to waste management including collaboration with neighbouring local governments	There is a steady increase in sustainable waste practices which reduce our carbon footprint.

**We will measure community satisfaction with**

<b>We will measure community satisfaction with</b>	<b>We will also monitor</b>
<ul style="list-style-type: none"> <li>• The promotion and adoption of sustainable practices</li> <li>• Management of coastal and foreshore areas</li> <li>• Streetscapes</li> <li>• Playgrounds, parks and reserves</li> <li>• Condition of assets</li> </ul>	<ul style="list-style-type: none"> <li>• Asset Condition</li> <li>• Water quality</li> <li>• Rates of recycling</li> <li>• Reduced greenhouse gas emissions</li> <li>• Flora and fauna surveys</li> </ul>





## THEME 4

### COMMUNITY HEALTH & PARTICIPATION

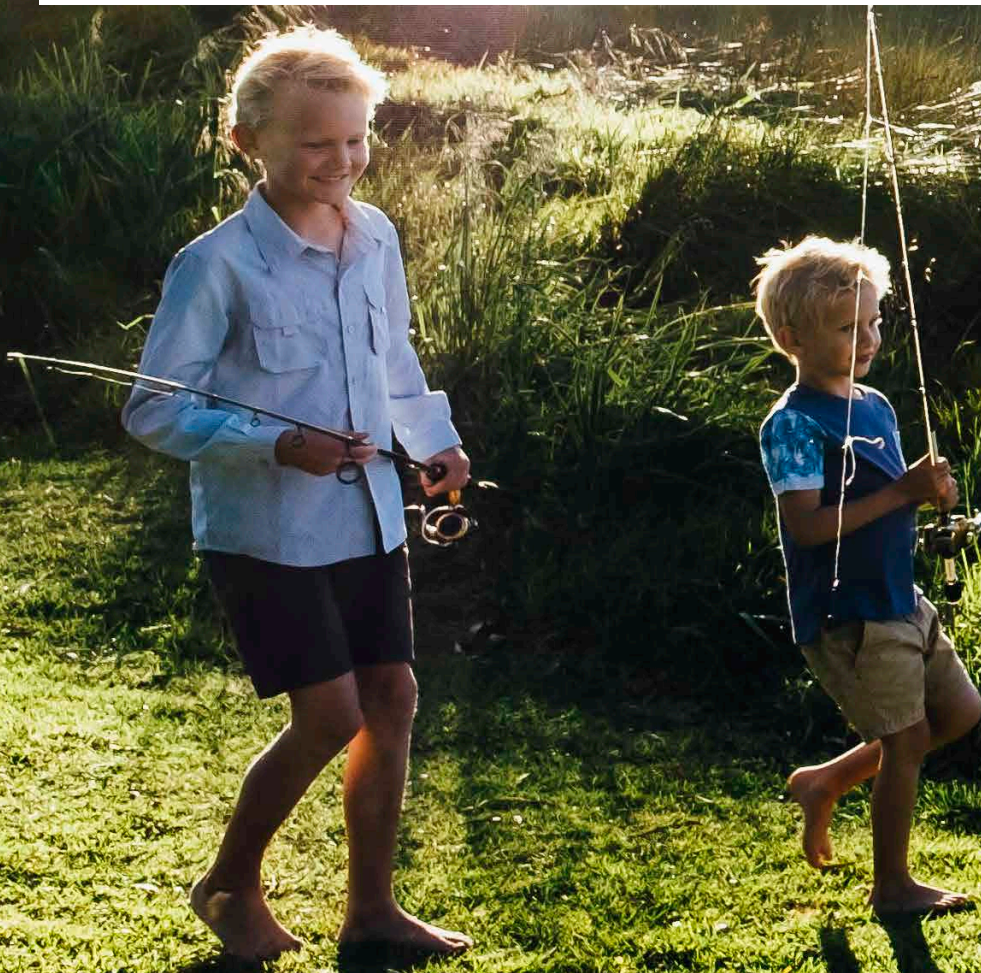
#### WHAT OUR COMMUNITY SAID

**THERE IS A STRONG DESIRE TO ENSURE A SENSE OF BELONGING AND A POSITIVE CONNECTION BETWEEN OUR RURAL AND URBAN COMMUNITIES. IT IS IMPORTANT THAT WE KNOW AND RESPECT OUR NEIGHBOURS, LIVE IN COMMUNITIES WHICH SUPPORT US, AND HAVE SAFE, ACCESSIBLE PLACES TO GATHER AND MEET. PEOPLE WANT TO FEEL WELCOME, VALUED AND CONNECTED.**

Our community supports creative industries and would like to see an ongoing commitment to spaces and events that celebrate our culture, history and heritage. We envisage the effective use of our facilities for arts, cultural and community events. We want more opportunities to participate in a diverse range of festivals, entertainment and social activities that celebrate who we are and where we've come from.

There is a strong attachment to our heritage and our history, and we feel proud when this is recognised nationally and internationally. Our community take great pride in our ANZAC connection and are proud of the role the National ANZAC centre plays in attracting visitors.

An emerging theme is the need for public health programs that educate and encourage people on the benefits of healthy lifestyles and social wellbeing. Our community would like us to continue to focus on giving our young people interesting things to do so that they also feel a valued part of our community.



**Our Aspiration:**

“We will live in communities where people feel they belong and are supported in a manner that reflects our rich and diverse heritage.”

**Objective 4.1: To build resilient and cohesive communities with a strong sense of community spirit**

<b>Community Priorities</b>	<b>We know we are succeeding when</b>
4.1.1 Facilitate and promote arts and cultural activities for all ages by providing a variety of arts and cultural activities that attract local and visiting patrons	We have a diverse range of well-attended festivals, events and cultural activities that reflect who we are.
4.1.2 Promote and develop an authentic sense of community by developing programs and providing services that make people feel welcome, involved and connected to each other	Increasing numbers actively participating in community and civic life.

**Objective 4.2: To create interesting places, spaces and events that reflect our community’s identity, diversity and heritage**

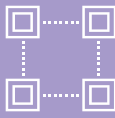
<b>Community Priorities</b>	<b>We know we are succeeding when</b>
4.2.1 Deliver activities and programs that engage with the wider community and engender community spirit	People from all walks of life and cultural backgrounds feel inspired and motivated to contribute.
4.2.2 Maintain infrastructure and deliver programs that promote Albany’s unique heritage, engender civic pride and leave a lasting memory	People are proud to be part of the Albany community and to promote the place we call home

**Objective 4.3: To develop and support a healthy inclusive and accessible community**

<b>Community Priorities</b>	<b>We know we are succeeding when</b>
4.3.1 Develop a range of activities and facilities that connect people, promote a healthy community and are appropriate for all ages	Our community increasingly uses community spaces to meet and participate in healthy activities.
4.3.2 Encourage and support volunteers and community groups to grow an active volunteer base that is supported and valued	Volunteering and participation in community organisations increases.

**We will measure community satisfaction with** **We will also monitor**

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Library &amp; information services</li> <li>• Sport and recreation facilities</li> <li>• Art facilities</li> <li>• Festivals events and cultural activities</li> <li>• Preservation and promotion of local history and heritage</li> <li>• Services and facilities for seniors, youth and people with disabilities</li> <li>• Support provided to Noongar People</li> <li>• Support provided to families with pre-school children</li> </ul> | <ul style="list-style-type: none"> <li>• Population trends</li> <li>• Number of people attending community events</li> <li>• Participation rates in volunteering</li> <li>• Homelessness and social disadvantage</li> <li>• Public health statistics</li> </ul> |
|---|---|



## THEME 5

### A CONNECTED AND SAFE BUILT ENVIRONMENT

#### WHAT OUR COMMUNITY SAID

**OUR COMMUNITY IS LOOKING TO BE CONNECTED BY A BUILT ENVIRONMENT THAT MEETS THEIR NEEDS NOW AND INTO THE FUTURE. WE WANT TO LIVE IN PRECINCTS WHICH ARE ALIVE, THRIVING, BUILT AROUND THE AMENITIES WE USE AT ALL STAGES OF OUR LIFE, AND WHICH ENCOURAGE AND SUPPORT HEALTHY LIFESTYLES.**

Our community is keen to see a reduction in red tape when it comes to planning and building applications and a can do attitude while meeting our regulatory obligations.

Our community would also like to see better transport planning with a focus on an alternative route for heavy transport into the port, more public transport and a focus on cycling and pedestrians.

Our community would like to see the continuing development of a vibrant town centre with more local shops and markets, family-friendly spaces and more entertainment.

Our community loves to participate in sporting, recreation and leisure activities and envisage the ongoing development and promotion of a diverse range of recreational facilities with events and activities to support this.

**Our Aspiration:**

“We will develop integrated precincts and neighbourhoods that allow for population growth and enhance the lifestyle of our residents.”

**Objective 5.1: To develop vibrant neighbourhoods which retain local character and heritage**

<b>Community Priorities</b>	<b>We know we are succeeding when</b>
5.1.1 Develop and implement a contemporary Local Planning Strategy that reflects our identity and supports economic growth	The social, cultural and wellbeing needs of our community are an integral part of precinct planning.
5.1.2 Provide proactive planning and building services that support sustainable growth while reflecting our local character and heritage	Our municipality remains unique in its own right, with our built heritage and history protected

**Objective 5.2: To advocate, plan for and build friendly and connected communities**

<b>Community Priorities</b>	<b>We know we are succeeding when</b>
5.2.1 Improve connectedness and traffic flows via a well-designed and safe transport and pathway network that connects people and services and encourages pedestrians and cyclists	Our developments and road networks are fully serviced and meet the needs and expectations of our community.
5.2.2 Create infrastructure and connected streetscapes that are consistent and reflect our unique heritage	Our community are proud of the look and feel of our City

**Objective 5.3: To develop and support a healthy inclusive and accessible community**

<b>Community Priorities</b>	<b>We know we are succeeding when</b>
5.3.1 Plan for and monitor community safety via effective ranger and emergency services	Our community feel safe in their homes and in public spaces and places.
5.3.2 Deliver programs and advocate for specialist services that improve public health and wellbeing in line with the Public Health Act 2016 and growing community expectations	There is evidence of improved health and wellbeing within our region.

**We will measure community satisfaction with**

- Planning and building approvals
- City centre development
- Areas character and identity
- Safety & security
- Natural disaster education, prevention and relief
- Public health and education programs
- Traffic management on local roads
- Parking
- Lighting of streets and public places

**We will also monitor**

- Planning and building approval trends
- Housing affordability
- Crime statistics
- Ranger service requests
- Infringement trends

## IMPLEMENTATION AND REPORTING

### HOW YOU CAN CONTRIBUTE

- Advocate to improve your community
- Attend and support local cultural venues, events and activities
- As a community, celebrate our successes
- Become an organ donor
- Become a volunteer
- Develop leadership skills in young people
- Do regular exercise
- Drive safely and keep to 50km/hr in local neighbourhood streets
- Get involved in sporting and recreational activities
- Get to know your neighbours
- Give blood
- Have fun in our public spaces
- Join a community group
- Keep your neighbourhood clean and tidy
- Learn about local history
- Learn a new skill
- Look out for others
- Plant a tree
- Promote multiculturalism
- Put your elderly neighbour's bin out
- Recycle
- Support local events and festivals
- Walk or ride around your neighbourhood.

### HOW WE WILL REPORT PROGRESS

- Face to Face Community Events and Forums
- Regular Community Updates via Newspaper, Website and Social Media
- Community Perception Survey results every 2 years
- Annual Report each year

### ASSOCIATED DOCUMENTS

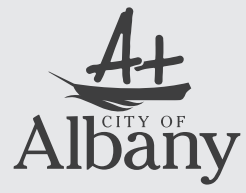
The following strategies, references, or other documents have a bearing on the Community Strategic Plan:

- Annual Report
- Corporate Business Plan
- Community Perception Survey 2017
- People Strategy
- Strategic Asset Management Plans

### DOCUMENT CONTROL

**Document Reference Number:** NS1769867

**Council Adoption Date:** 26/09/2017





2017 TO 2021

# CORPORATE

BUSINESS PLAN



**CONTENTS**

<b>INTRODUCTION</b>	<b>3</b>
<b>CORPORATE PLANNING</b>	<b>4</b>
<b>FUTURE CHALLENGES</b>	<b>5</b>
<b>STRATEGIC PRIORITIES</b>	<b>6</b>
<b>BUSINESS PLANNING</b>	<b>7</b>
<b>FINANCIAL PLANNING AND REPORTING</b>	<b>8</b>
<b>ASSET MANAGEMENT PLANNING &amp; REPORTING</b>	<b>9</b>
<b>WORKFORCE PLANNING &amp; REPORTING</b>	<b>10</b>
<b>COMMUNITY ENGAGEMENT PLANNING &amp; REPORTING</b>	<b>11</b>
<b>RISK &amp; OPPORTUNITY MANAGEMENT PLANNING &amp; REPORTING</b>	<b>12</b>
<b>ASSOCIATED DOCUMENTS</b>	<b>13</b>

## INTRODUCTION

### ACKNOWLEDGEMENT OF PEOPLE & COUNTRY

*On behalf of our Community the City of Albany respectfully acknowledges the past and present traditional owners of this land, the Menang people. It is a privilege to be living on Noongar country.*



### EXECUTIVE MESSAGE

The City of Albany's Corporate Business Plan for financial years 2017-2021 outlines the City's four year service and delivery program. It has been developed as part of the City's Integrated Planning and Reporting Framework, and aligns with the City's aspirations, objectives and community priorities as identified in the City's Community Plan - Albany 2030.

This plan is informed and supported by a 10 Year Financial Plan, an Asset Management Framework, a People Strategy and a Business Plan for each service delivery unit which are available on the City's web-site.

While resourcing requirements are expressed in these informing plans and strategies they are indicative and commitments only arise through adoption of the City's annual budget. The City's performance is reported each year through the publication of our Annual Report.

Flexibility is built into the plan to ensure the City is able to adjust to external influences as they arise such as funding opportunities. It will guide operational planning and reporting to ensure the community priorities detailed in the Community Plan – Albany 2030 are delivered.

All integrated planning documents have been developed in accordance with the Local Government Act 1995 and any laws and regulations that govern the projects and services we deliver.

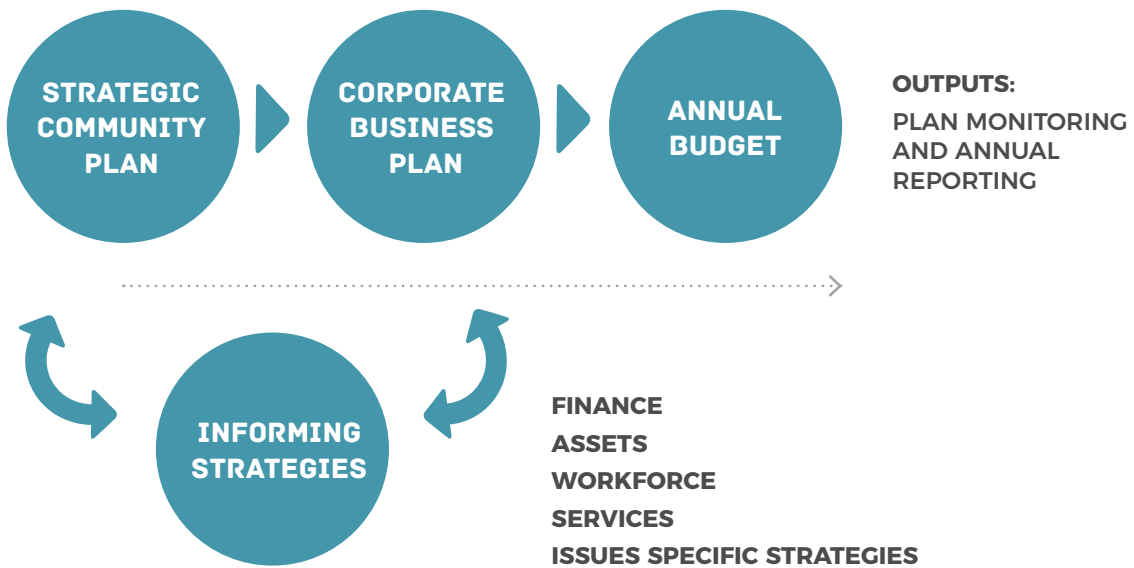
The City's integrated planning framework aims to demonstrate both leadership and best-practice in planning within local government..



## OUR INTEGRATED PLANNING AND REPORTING FRAMEWORK

### COMMUNITY ENGAGEMENT

### MEASUREMENT AND REPORTING



### COMMUNITY PLAN

Our Community Strategic Plan-Albany 2030 sets out our vision, aspirations, objectives and community priorities into the future and is our principal strategy and planning document.

### CORPORATE BUSINESS PLAN

Our Corporate Business Plan summarises the current and future resources required to deliver services, projects and programs over the next four years to implement the Community Strategic Plan and is supported by informing strategies and plans that are fully aligned including business plans for each business unit, our long term financial plan, our strategic asset management plans and our people strategy.

### ANNUAL BUDGET

Our Annual Budget allocates the funds and resources required to deliver the aspirations outlined in the Community Strategic Plan and the commitments outlined in the Corporate Business Plan and informing strategies.

**CORPORATE PLANNING**

Strategic Objectives	Supporting City Strategies & Plans	Relevant Business Plans
<b>1 - Leadership</b>		
1.1: To establish and maintain sound business and governance structures	<ul style="list-style-type: none"> <li>• Communications Strategy</li> <li>• ICT Strategic Plan</li> </ul>	<ul style="list-style-type: none"> <li>• Office of CEO</li> <li>• Finance</li> </ul>
1.2 To provide strong, accountable leadership supported by a skilled & professional workforce	<ul style="list-style-type: none"> <li>• Long Term Financial Plan</li> <li>• People Strategy</li> </ul>	<ul style="list-style-type: none"> <li>• Governance and Risk</li> <li>• Human Resources</li> </ul>
1.3 To engage effectively with our community		<ul style="list-style-type: none"> <li>• Information &amp; Communication Technology</li> <li>• Records Management</li> </ul>
<b>2 - Smart Prosperous &amp; Growing</b>		
2.1: To strengthen and grow our region's economic base	<ul style="list-style-type: none"> <li>• Economic Development Strategy</li> </ul>	<ul style="list-style-type: none"> <li>• Albany Airport</li> <li>• Albany Visitors Centre</li> <li>• National ANZAC centre</li> </ul>
2.2: To develop a smart city that supports economic growth		
2.3: To develop and promote Albany as a unique and sought-after visitor location		
<b>3 - Clean, Green &amp; Sustainable</b>		
3.1: To protect and enhance our natural and built environment in a changing climate	<ul style="list-style-type: none"> <li>• Bush Fire Strategic Plan</li> <li>• Carbon Footprint Reduction Strategy</li> </ul>	<ul style="list-style-type: none"> <li>• City Engineering</li> <li>• City Operations</li> <li>• City Reserves</li> </ul>
3.2: To build, maintain and renew city assets sustainably	<ul style="list-style-type: none"> <li>• Natural Reserves Strategy</li> <li>• Strategic Asset Management Plans</li> </ul>	
3.3: To identify and deliver improvements in sustainability within the City and wider community	<ul style="list-style-type: none"> <li>• Strategic Waste Management Plan</li> <li>• Urban Tree Strategy</li> </ul>	
<b>4 - Community Health &amp; Participation</b>		
4.1: To build resilient and cohesive communities with a strong sense of community spirit	<ul style="list-style-type: none"> <li>• Access &amp; Inclusion Plan</li> <li>• Age Friendly Albany</li> </ul>	<ul style="list-style-type: none"> <li>• Albany Public Library</li> <li>• Albany Day Care</li> </ul>
4.2 To create interesting places, spaces and events that reflect our community's identity, diversity and heritage	<ul style="list-style-type: none"> <li>• Connected Communities Strategy</li> <li>• Cycle City Albany Strategy</li> </ul>	<ul style="list-style-type: none"> <li>• Albany Leisure &amp; Aquatic Centre</li> <li>• Art &amp; Cultural Services</li> </ul>
4.3: To develop and support a healthy inclusive and accessible community	<ul style="list-style-type: none"> <li>• Public Health Plan</li> <li>• Recreation Planning Strategy</li> </ul>	<ul style="list-style-type: none"> <li>• Communications and Events</li> <li>• Community Development &amp; Engagement</li> <li>• Recreation Services</li> </ul>
<b>5 - A Connected &amp; Safe Built Environment</b>		
5.1: To develop vibrant neighbourhoods which retain local character and heritage	<ul style="list-style-type: none"> <li>• Albany Central Area Masterplan</li> <li>• Albany Local Planning Strategy (ALPS)</li> </ul>	<ul style="list-style-type: none"> <li>• Building, Health &amp; Compliance</li> <li>• Development, Planning &amp; Land Information Services</li> </ul>
5.2: To advocate, plan for and build friendly and connected communities	<ul style="list-style-type: none"> <li>• Centre Parking Strategy</li> </ul>	
5.3 To develop and support a healthy, safe and accessible community		<ul style="list-style-type: none"> <li>• Ranger &amp; Emergency Services</li> </ul>

## FUTURE CHALLENGES

The following table summarises the future challenges identified during the major review of our Community Strategic Plan and provides context for the ongoing review and update of our integrated planning and reporting framework.



### 1 - Leadership

- How do we balance the differing views and priorities within our community?
- How do we ensure best value for money in everything we do?
- How do we continually improve customer service?
- How do we ensure that leaders and decision makers have the information they need?
- How do we connect with people to explain decisions and the reasons for them?



### 2 - Smart, Prosperous & Growing

- How do we grow our economy sustainably in the jobs of the future?
- How do we improve our technology and communication platforms to become a smart City?
- How do we reduce the number of people leaving the region for work or study opportunities?
- How do we capitalise on our location, assets and people to encourage business investment?
- How do we attract more people to our region and get them to stay longer?



### 3 - Clean, Green & Sustainable

- How do we increase investment in infrastructure from all levels of government?
- How do we improve and "green" our transport network?
- How do we sustainably manage the maintenance and renewal of City assets?
- How do we reduce energy consumption and increase the use of renewable sources?
- How do we protect our local flora and fauna?
- How do we balance providing access to our pristine natural environment while protecting it?
- How do we reduce waste going to landfill and increase reuse and recycling?



### 4 - Community Health & Participation

- How do we adapt to changes in population and the way people live?
- How do we ensure fair and equal access across a diverse community?
- How do we ensure that people feel valued and are proud to be part of our community?
- How do we deal with anti-social behaviour and the illicit drug epidemic?
- How do we protect, manage and preserve our diverse and rich heritage?



### 5 - A Connected and Safe Built Environment

- How do we plan our infrastructure and road networks for a growing population?
- How do we plan for the impacts of climate change?
- How do we connect services with where people live?
- How do we maintain the rural feel of our City while looking to grow?
- How do we encourage and support small business and start-ups?

**STRATEGIC PRIORITIES**

The following summarise the strategic priorities set by Council for the organisation. These are reviewed and updated annually.

Criteria		Required Outcomes	Timing			
Regional Focus			17-18	18-19	19-20	20-21
Regional Alliance	Promote the Alliance, growth planning and tourism development		●	●	●	●
	Explore and promote resource sharing arrangements		●	●	●	●
Economic Growth Plan	Lead the City's contribution to develop a regional economic development strategy in consultation with the Alliance		●			
Tourism	Implement the Destination Marketing Strategy and Tourism Development Strategy as part of the Alliance		●	●	●	●
	Provide Council and the Alliance with guidance and recommendations on the proposal to form a Local Tourism Organisation (LTO)		●			
	Ensure a smooth transition to the new Visitor Servicing Centre and explore a new operating model going forward		●			
Major Projects			17-18	18-19	19-20	20-21
External Project Funding	Continue to lobby and advocate with State Government to ensure that the \$120m of election commitments are delivered to the community		●	●	●	●
	Keep Council and the community informed and seek external funding to advance the Trails Concept Plan		●	●	●	●
Albany Heritage Precinct	Work with the National ANZAC Centre Advisory Group to develop and present a Albany Heritage Park Masterplan for consideration and adoption		●	●	●	●
	Identify new opportunities for new project funding sources and report to Council		●			
Centennial Park	Progress the Centennial Park development project and advocate for the release of Stage 2 funding (\$6.9M) plus the Environmental Wetlands/Water Catchment project		●	●	●	●
Town Hall and Alison Hartman Gardens	Oversee community and Council engagement on the concept design and during project delivery		●	●	●	●
Governance			17-18	18-19	19-20	20-21
Community Strategic Plan	Ensure adoption by September 2017 and provide ongoing reporting to Council on the agreed outcomes		●	●	●	●
	Align the CEO Key Results Areas to the key themes and deliverables within the Community Strategic Plan		●			
Albany Local Planning Strategy	Oversee the completion of the strategy and presentation to Council		●			
Committees	Work with Council to review the effectiveness of the Committee structure and processes		●	●	●	●
Elected Member Development	Continue to develop and implement a program involving ongoing training and development sessions including <ul style="list-style-type: none"> <li>October 2017 election induction program</li> <li>Working with the Alliance to deliver joint training</li> <li>Establishment of a Council focus group for feedback on elected member development</li> </ul>		●	●	●	●

Criteria	Required Outcomes	Timing			
		17-18	18-19	19-20	20-21
<b>Organisational</b>					
<b>Containment of Recurrent Funding</b>	Continue to explore alternative funding mechanisms that benefit the City's current operating budget	●	●	●	●
	Present to Council on the Organisational Structure and recruitment for vacant ED role	●			
	Use the business planning framework to continually review the overall cost of service delivery	●	●	●	●
<b>Communications Strategy</b>	Develop a Council strategy to improve communication with residents and businesses	●			
<b>Corporate Scoreboard</b>	Review and update Business Plans annually for all service delivery teams	●	●	●	●
	Align Business Plans with the Integrated Planning framework and Annual Budget	●	●	●	●
	Incorporate the Corporate Scorecard into Council reporting framework	●			
<b>Organisational Development Program</b>	Continue to implement organisation development and the ongoing development of leaders at the City of Albany	●	●	●	●
	Conduct an annual staff engagement survey undertaken to measure employee satisfaction levels	●	●	●	●
<b>Customer Service</b>	Implement and monitor a Customer Service Charter and program that is informed by internal and external stakeholder feedback	●	●	●	●

## REPORT ITEM CCCS 057 REFERS

### BUSINESS PLANNING AND REPORTING

The following table provides a summary of the services delivered by the City of Albany and the budgeted net cost for each business unit over the next four years. A business plan for each service delivered is appended to this document.

Services	2017/18	2018/19	2019/20	2020/21
Albany Airport	(1,003,145)	(1,015,101)	(1,026,013)	(1,033,719)
Albany Day Care	(66,476)	(78,271)	(92,508)	(103,850)
Albany Leisure and Aquatic Centre	1,082,747	1,089,538	1,121,657	1,162,635
Albany Public Library	1,240,227	1,255,852	1,293,715	1,335,847
Albany Visitors Centre	346,502	359,333	373,697	390,294
Building, Health & Compliance	1,230,449	1,274,416	1,323,831	1,379,123
City Engineering	2,524,797	2,475,335	2,516,007	2,626,359
City Operations (including Waste)	3,556,889	3,462,381	3,499,024	3,629,853
City Reserves	4,525,726	4,685,459	4,732,084	4,893,293
Communications & Events	1,084,793	1,108,865	1,135,019	1,163,662
Community Development	823,046	788,428	809,131	809,670
Customer Service, Leasing, Procurement, Revenue Development & Strategic Planning	713,667	799,984	944,484	889,896
Development, Planning & Land Information Services	556,866	542,592	570,827	626,730
Emergency & Ranger Services	1,064,579	1,132,461	1,154,801	1,206,008
Finance	1,451,173	1,473,201	1,847,005	1,584,684
Governance & Risk	374,706	389,893	402,531	416,436
Human Resources	725,850	743,059	762,165	783,314
Information & Communication Technology	2,224,587	2,255,061	2,208,143	2,244,031
National ANZAC Centre	349,939	440,746	587,788	608,990
Office of CEO (Inc. Elected Member Support, Destination Marketing & Major Projects)	3,025,559	2,887,335	3,017,281	2,973,994
Records Management	293,048	301,558	311,044	321,581
Recreation Services	369,004	359,366	219,168	278,880
Vancouver Arts Centre	561,639	602,506	590,838	591,327



**FINANCIAL PLANNING AND REPORTING**

**Annual Budget (which is built based on the 10 year Financial Plan)**

**Purpose**

To allocate resources to maintain services, deliver and maintain infrastructure and determine the level of rates required to fund services and projects.

**Guiding Principles**

**Seek Long Term Financial Sustainability.**

The City seeks long term financial sustainability over the 10 Year Financial Plan. This is measured, and reported yearly, by various financial ratios.

**Maintain a Balanced Budget.**

Both the 10 Year Financial Plan and the Annual budget are prepared to be balanced. That is, the City plans to deliver all services and infrastructure from available resources, and not operate at a deficit.

**Prudent Use of Borrowings.**

Under the Long Term Borrowing Policy, the City will be prudent in its use of long term borrowings to fund asset and infrastructure projects.

**Prudent Use of Reserves.**

The City maintains a number of financial reserves to assist with maintaining a balanced budget and longer term financial planning.

**Key Inputs**

- Community Strategic Plan
- Corporate Business Plan
- Business Units Plans
- Planned Capital Projects
- 10 Year Financial Plan

**How Reviewed**

- Twice annually via the budget review process

**How Reported**

- Monthly via Officer Report to Committee & Council
- Quarterly via the Corporate Scorecard
- Annually via the Annual Report

**ASSET MANAGEMENT PLANNING & REPORTING**

**Strategic Asset Management Plans**

**Seek to:**

**Purpose**

- Protect and enhance our natural and built environment in a changing climate
- Build and maintain and renew city assets in a financially sustainable manner

**Guiding Principles**

- More sustainable financial performance
- Better informed investment decisions
- Improved management of risk
- More efficient service delivery
- Improved social responsibility
- Demonstrated compliance
- Enhanced community consultation

**Key Inputs**

- Asset condition data
- Community Service level expectations
- Technical Service levels

**How Reviewed**

- Minor review annually to update financial modelling from new data
- Major review every 4 years

**How Reported**

- Asset ratios in the 10 year financial plan

**WORKFORCE PLANNING & REPORTING**

**People (Workforce) Strategy**

**Purpose**

The People Strategy outlines the vision, key directions and activities for workforce development in the City of Albany over the next three years. The purpose is to enhance the capacity of the workforce to meet community needs by strengthening workforce opportunities and reflects the ongoing commitment to build the capacity of the organisation to ensure it has the requisite staff, capabilities and resources. The strategy integrates the elements of workforce planning, human resource management and workforce capability development to provide a framework for building a workforce that meets current and future service demands.

**Guiding Principles**

Key strategic themes shaped the People Strategy and they relate to the goals, objectives and strategies in the City’s Community Strategic Plan. The People Strategy is divided into four high-level people themes, which represent the key people management priorities in the Strategic Plan:

- Attract, reward and retain the best talent;
- Promote, champion and support transformational leadership and management;
- Develop people and build capability;
- Foster a culture of inclusivity, safety, good health and wellbeing.

Each of these four people themes is underpinned by strategies to fulfil their successful implementation and delivery.

**Key Inputs**

- Employee and community demographics
- Strategic direction and long term plans
- Service delivery commitments
- Current challenges and opportunities
- Budget and resources available

**How Reviewed**

- Monitored regularly by HR Team
- Full review and update every three years.

**How Reported**

- Quarterly via the HR Dashboard

**COMMUNITY ENGAGEMENT PLANNING & REPORTING**

**Community Engagement Policy, Guideline and Toolkit**

**Purpose**

To share information, gather views and opinions, develop options, build consensus and make effective decisions that take into account stakeholder input.

**Guiding Principles**

Guiding Principles (iap2 seven drivers of contemporary engagement practice):

- Public participation is based on the belief that those who are affected by a decision have the right to be involved in the decision-making process.
- Public participation includes the promise that the public's contribution will influence the decision.
- Public promotion promotes sustainable decisions by recognising and communicating the needs and interests of all participants including decision makers.
- Public participation seeks out and facilitates the involvement of those potentially affected by or interested in a decision
- Public participation seeks input from participants in designing how they participate.
- Public participation provides participants with the information they need to participate in a meaningful way.
- Public participation communicates to participants how their input affected the decision.

**Key Inputs**

- Various engagement techniques that are identified as for each engagement activity such as Community and Stakeholder workshops, Surveys, Social Media, Face to Face Interviews, Submissions, Pop up engagement hubs.

**How Reviewed**

- The policy, guideline and toolkit is reviewed annually with each major engagement activity subjected to a lessons learnt review to consider better ways to engage into the future.

**How Reported**

- Engagement Reports that are appended to Officer reports to Council.
- Summary of key engagement activities in the Annual Report.

**RISK & OPPORTUNITY MANAGEMENT PLANNING & REPORTING**

**Risk & Opportunity Framework (Council Strategy & Policy Position)**

To share information, gather views and opinions, develop options, build consensus and make effective decisions that take into account stakeholder input.

Seek to:

**Purpose**

- ensure that as far as reasonably practicable, City of Albany operations do not place people, property, or the environment at unacceptable levels of risk or harm;
- add value to all the activities of the City of Albany;
- assist in achieving the Council’s goals and deliver programs and services within a tolerable level of risk;
- embed risk and opportunity management into all management activities, critical business systems and processes; and
- ensure all risks are consistently assessed and managed within the City of Albany’s Enterprise Risk & Opportunity Management Framework.

**Guiding Principles**

- Creates value
- Integral part of organisational processes
- Informs decision making
- Explicitly addresses uncertainty
- Systematic, structured and timely
- Based on the best available information
- Tailored to suit environment
- Takes human and cultural factors into account
- Transparent and inclusive
- Dynamic, iterative and responsive to change
- Facilitates continual improvement and enhancement of the organisation

**Key Inputs**

- Officer Reports, Risk Reporting, Project / Action Evaluation

**How Reviewed**

- Risk Management falls on all levels of the organisation including Council, the Executive Management Team (EMT), staff and persons who perform functions or deliver services on behalf of the City.
- Council is responsible for ensuring that Council strategy and operations are managed within an effective risk management framework.
- The Audit & Risk Committee, working with the Executive Management is responsible for reviewing the:
- Risk & Opportunity Management Framework.
- Risk exposure of the Council and recommending to Council the level of risk tolerance.

**How Reported**

- Council’s Audit Committee is responsible for ‘reviewing the adequacy of accounting, internal control, reporting and other financial management systems and practices of the Council on a regular basis. Specifically, under Regulation 17 of the Local Government (Audit) Regulations 1996 it is a responsibility of the Audit & Risk Committee to receive the CEO reviews conducted on the appropriateness of systems and procedures in relation to risk management, internal control and legislative compliance.

### ASSOCIATED DOCUMENTS

The following strategies, references, or other documents have a bearing on the corporate business plan:

- Annual Report
- Community Strategic Plan
- Compliance Annual Return (CAR)
- Governance Charter
- Long Term Financial Plan (LTFP)
- People Strategy
- Strategic Asset Management Plans

### REVIEW

The Corporate Business Plan is to be reviewed at least annually by Council.

### DOCUMENT CONTROL

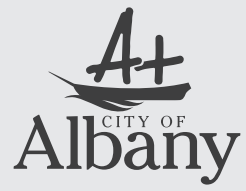
**Document Reference Number:** NS1769867

**Council Adoption Date:** 26/09/2017











APPENDIX 1

# FINANCIAL SUMMARY

2017 - 2021

FINANCIAL SUMMARY | BUSINESS UNIT PLANS

**City of Albany Corporate Business Plan 2017 - 2021  
Variable Assumptions Underpinning the Plan**

	2017/2018	2018/2019	2019/2020	2020/2021
<b>OPERATING REVENUES</b>				
Rates - Annual Increases (Note 1% Rate Increase = \$326k)	2.50%	3.50%	3.50%	3.75%
Rates - Growth in Rate Base	0.55%	0.55%	0.55%	0.55%
Refuse Collection Charges	2.00%	2.50%	3.00%	3.50%
Council Fees and Charges	2.50%	2.50%	2.50%	4.00%
Statutory Fees and Charges	2.00%	2.00%	2.00%	2.00%
Aquatic Centre Fees and Charges	2.00%	2.50%	2.50%	3.00%
Interest Earnings (Depending on cash on hand)	0.00%	0.00%	0.00%	0.00%
Recurrent Grants	0.00%	2.00%	3.00%	3.00%
Day Care Fees	4.00%	3.50%	4.00%	4.00%
Other revenue	1.00%	1.00%	1.00%	1.00%
<b>OPERATING EXPENSES</b>				
Employee Costs (1% Step Incr. 2% Max EA)	3.00%	3.00%	3.25%	3.50%
- Superannuation	3.00%	3.00%	3.25%	3.50%
Materials and Contracts	2.20%	2.20%	2.00%	3.00%
Utility Charges	2.20%	2.20%	2.20%	4.00%
Roads	2.00%	2.50%	2.75%	3.00%
Horticulture	2.75%	2.75%	3.00%	3.60%
Sanitation	3.25%	3.25%	3.25%	3.25%
Light Fleet	4.00%	4.00%	4.00%	4.00%
Building Maintenance	4.00%	4.00%	4.00%	4.00%
Insurance Expense	2.00%	2.50%	3.00%	3.50%
Operating Expenses slight inflation	1.00%	1.00%	1.00%	1.00%
Operating Expenses No Inflation	0.00%	0.00%	0.00%	0.00%
Operating Expenses High Inflation	4.00%	4.00%	4.00%	4.00%
Other Expenditure	3.50%	3.50%	3.50%	3.50%
<b>NET CAPITAL EXPENSES</b>				
Works Program Escalation Costs	0.0%	1.50%	1.75%	2.00%

**City of Albany**  
**Corporate Business Plan**

**Key Performance Indicators**

	2017/2018 FINANCIAL ESTIMATE	2018/2019 FINANCIAL ESTIMATE	2019/2020 FINANCIAL ESTIMATE	2020/2021 FINANCIAL ESTIMATE
	\$	\$	\$	\$
<b>OPERATING SURPLUS RATIO</b>				
Operating Revenue	59,893,348	61,544,773	63,361,073	65,474,739
Less Operating Exp incl interest & depreciation	- 65,157,700	- 65,849,955	- 67,188,058	- 68,224,696
= Net Operating Surplus	- 5,264,352	- 4,305,181	- 3,826,985	- 2,749,958
Divided by Own Source Revenue (Excl Grants)	54,718,912	56,446,674	58,285,762	60,306,048
<b>Ratio Target - (+ve) Between 0% and 15%</b>	<b>-9.6%</b>	<b>-7.6%</b>	<b>-6.6%</b>	<b>-4.6%</b>
<b>CURRENT RATIO</b>				
Current Assets	28,640,393	29,453,392	30,097,592	32,523,703
Less Restricted Assets	- 19,227,418	- 20,405,322	- 21,146,192	- 23,659,262
= Net Current Assets	9,412,975	9,048,070	8,951,400	8,864,440
Divided by Current Liabilities less Current Liabilities ass'd with Restricted Assets	11,676,090	11,121,575	11,122,951	11,034,249
= Net Current Liabilities	11,676,090	11,121,575	11,122,951	11,034,249
<b>Ratio Target &gt; or = to 1:1</b>	<b>81%</b>	<b>81%</b>	<b>80%</b>	<b>80%</b>
<b>OWN SOURCE REVENUE COVERAGE RATIO</b>				
Own source operating revenue	54,718,912	56,446,674	58,285,762	60,306,048
Divided by total expenses	65,157,700	65,849,955	67,188,058	68,224,696
<b>Ratio Target &gt; or = to 40%</b>	<b>84.0%</b>	<b>85.7%</b>	<b>86.8%</b>	<b>88.4%</b>
<b>DEBT SERVICE COVERAGE RATIO</b>				
Operating Surplus before Interest & Depreciation = Operating Revenue	59,893,348	61,544,773	63,361,073	65,474,739
Less Operating Expenses	- 65,157,700	- 65,849,955	- 67,188,058	- 68,224,696
Except Interest Expense and Depreciation = OSBID	17,796,370	17,880,453	17,880,648	17,881,164
Divided by Principal and Interest	12,532,018	13,575,272	14,053,664	15,131,207
	3,090,321	3,312,274	3,123,268	3,062,003
<b>Ratio Target &gt; or = 2</b>	<b>4.06</b>	<b>4.10</b>	<b>4.50</b>	<b>4.94</b>
<b>ASSET SUSTAINABILITY RATIO</b>				
Capital Renewal Expenditure	14,364,888	11,668,200	11,258,179	11,057,405
Divided by Depreciation Expense	16,920,453	17,049,019	17,178,604	17,309,216
<b>Ratio Target 90% to 100%</b>	<b>84.9%</b>	<b>68.4%</b>	<b>65.5%</b>	<b>63.9%</b>
<b>ASSET RENEWAL FUNDING RATIO</b>				
Net Present Value of Planned Renewal Expenditu	14,364,888	11,668,200	11,258,179	11,057,405
Divided by NPV of Asset Mgmt Plan Projections	12,237,994	12,439,334	12,158,214	12,353,504
<b>Ratio Target 95% to 105%</b>	<b>117%</b>	<b>94%</b>	<b>93%</b>	<b>90%</b>

# **Financial Statements**

**City of Albany**  
**Corporate Business Plan**

**Statement Of Comprehensive Income By Nature & Type**  
**For The Period 2017 To 2021**

	2016/2017 ORIGINAL BUDGET	2017/2018 FINANCIAL ESTIMATE	2018/2019 FINANCIAL ESTIMATE	2019/2020 FINANCIAL ESTIMATE	2020/2021 FINANCIAL ESTIMATE
	\$	\$	\$	\$	\$
<b>REVENUES</b>					
Rates	34,118,692	35,461,300	36,902,095	38,394,418	40,036,040
Grants & Subsidies - Operating	4,559,247	5,174,435	5,098,099	5,075,311	5,168,691
Interest Earnings	1,042,690	1,134,492	1,159,285	1,159,068	1,158,840
Contributions, Donations & Reimbursements	504,935	624,428	580,369	605,222	561,113
Fees & Charges	16,401,086	17,134,171	17,440,065	17,762,455	18,185,101
Other Revenue	370,960	364,522	364,860	364,599	364,953
	<b>56,997,610</b>	<b>59,893,348</b>	<b>61,544,773</b>	<b>63,361,073</b>	<b>65,474,739</b>
<b>EXPENSES</b>					
Employee Costs	(25,036,655)	(26,252,339)	(26,959,020)	(27,792,203)	(28,703,891)
Materials & Contracts	(18,193,632)	(16,804,961)	(16,606,023)	(17,011,479)	(17,060,679)
Utilities (gas, electricity, water, etc.)	(1,791,020)	(1,859,099)	(1,883,896)	(1,925,727)	(2,002,270)
Insurance	(820,550)	(716,495)	(732,738)	(754,738)	(781,095)
Interest Expenses	(938,708)	(875,917)	(831,434)	(702,045)	(571,948)
Other Expenses	(2,494,649)	(2,549,535)	(2,541,569)	(2,606,153)	(2,612,146)
Depreciation	(15,912,428)	(16,920,453)	(17,049,019)	(17,178,604)	(17,309,216)
Less Allocated to Infrastructure Assets	809,491	845,804	847,738	890,442	929,751
	<b>(64,378,151)</b>	<b>(65,132,996)</b>	<b>(65,755,961)</b>	<b>(67,080,506)</b>	<b>(68,111,496)</b>
<b>OPERATING PROFIT/(LOSS)</b>	<b>(7,380,541)</b>	<b>(5,239,648)</b>	<b>(4,211,188)</b>	<b>(3,719,433)</b>	<b>(2,636,757)</b>
Non-Operating Grants, Subsidies - and Contributions	21,660,875	5,582,800	4,061,000	6,538,237	3,815,929
Profit on Asset Disposals	108,584	-	-	-	-
Loss on Asset Disposals	(48,373)	(24,704)	(93,994)	(107,552)	(113,200)
Fair Value Investments Adjustment	-	-	-	-	-
	<b>21,721,086</b>	<b>5,558,096</b>	<b>3,967,006</b>	<b>6,430,685</b>	<b>3,702,729</b>
<b>NET RESULT</b>	<b>14,340,545</b>	<b>318,448</b>	<b>(244,181)</b>	<b>2,711,252</b>	<b>1,065,971</b>
Other Comprehensive Income	-	-	-	-	-
<b>TOTAL COMPREHENSIVE INCOME</b>	<b>14,340,545</b>	<b>318,448</b>	<b>(244,181)</b>	<b>2,711,252</b>	<b>1,065,971</b>

**City of Albany**  
**Corporate Business Plan**

**Statement Of Comprehensive Income By Program**  
**For The Period 2017 To 2021**

	2016/2017 ORIGINAL BUDGET	2017/2018 FINANCIAL ESTIMATE	2018/2019 FINANCIAL ESTIMATE	2019/2020 FINANCIAL ESTIMATE	2020/2021 FINANCIAL ESTIMATE
<b>REVENUES</b>	\$	\$	\$	\$	\$
General Purpose Funding	39,065,432	40,644,854	42,145,977	43,692,259	45,389,455
Governance	6,700	6,700	6,700	6,700	6,700
Law Order and Public Safety	484,268	488,348	471,608	474,900	473,225
Health	97,667	109,000	110,090	111,191	112,303
Education and Welfare	1,163,303	1,231,575	1,260,638	1,310,387	1,347,126
Community Amenities	8,018,102	8,589,360	8,788,485	9,022,936	9,295,426
Recreation and Culture	2,783,894	3,022,090	2,997,804	3,037,017	3,066,316
Transport	2,061,780	2,074,901	2,114,323	2,154,548	2,197,661
Economic Services	2,419,351	2,736,834	2,713,348	2,581,630	2,646,991
Other Property and Services	897,113	989,687	935,801	969,505	939,534
	<b>56,997,610</b>	<b>59,893,348</b>	<b>61,544,773</b>	<b>63,361,073</b>	<b>65,474,739</b>
<b>EXPENSES (Excluding Finance Cost)</b>					
General Purpose Funding	(997,993)	(655,147)	(658,444)	(1,010,344)	(693,468)
Governance	(4,644,411)	(4,905,742)	(5,037,248)	(5,249,705)	(5,446,309)
Law Order and Public Safety	(2,261,724)	(2,287,740)	(2,398,794)	(2,400,203)	(2,467,394)
Health	(709,287)	(732,485)	(754,262)	(777,912)	(803,639)
Education and Welfare	(1,661,635)	(1,683,384)	(1,729,638)	(1,778,991)	(1,796,490)
Community Amenities	(10,409,680)	(9,598,452)	(9,760,735)	(9,964,486)	(10,297,547)
Recreation and Culture	(13,347,224)	(13,788,926)	(13,832,637)	(13,967,511)	(14,409,844)
Transport	(22,169,402)	(22,395,245)	(22,663,247)	(23,063,351)	(23,510,816)
Economic Services	(4,963,280)	(6,059,056)	(6,077,032)	(6,157,411)	(6,269,353)
Other Property and Services	(2,274,807)	(2,150,901)	(2,012,488)	(2,008,547)	(1,844,688)
	<b>(63,439,443)</b>	<b>(64,257,079)</b>	<b>(64,924,527)</b>	<b>(66,378,461)</b>	<b>(67,539,548)</b>
<b>FINANCE COSTS</b>					
Community Amenities	(4,403)	(1,114)	-	-	-
Recreation and Culture	(437,103)	(413,189)	(441,614)	(386,259)	(327,997)
Transport	(364,125)	(318,901)	(270,630)	(219,355)	(164,389)
Economic Services	(41,243)	(64,537)	(55,340)	(45,630)	(36,446)
Other Property and Services	(91,834)	(78,177)	(63,851)	(50,801)	(43,116)
	<b>(938,708)</b>	<b>(875,917)</b>	<b>(831,434)</b>	<b>(702,045)</b>	<b>(571,948)</b>
<b>NON-OPERATING GRANTS, SUBSIDIES AND CONTRIBUTIONS</b>					
Law Order and Public Safety	50,000	-	-	-	-
Recreation and Culture	13,640,792	1,096,000	-	2,500,000	-
Transport	6,642,583	3,486,800	4,061,000	4,038,237	3,815,929
Economic Services	1,327,500	1,000,000	-	-	-
	<b>21,660,875</b>	<b>5,582,800</b>	<b>4,061,000</b>	<b>6,538,237</b>	<b>3,815,929</b>
<b>PROFIT/(LOSS) ON DISPOSAL OF ASSETS</b>					
Governance	(11,551)	-	-	-	-
Law Order and Public Safety	(5,828)	-	-	-	-
Health	8,873	-	-	-	-
Community Amenities	58,231	-	-	-	-
Recreation and Culture	4,162	(8,253)	(3,442)	(12,977)	(5,809)
Transport	19,744	-	(61,594)	(48,457)	(63,282)
Other Property and Services	(13,420)	(16,451)	(28,958)	(46,118)	(44,110)
<b>Profit/(Loss) on Disposal</b>	<b>60,211</b>	<b>(24,704)</b>	<b>(93,994)</b>	<b>(107,552)</b>	<b>(113,200)</b>
<b>NET RESULT</b>	<b>14,340,545</b>	<b>318,448</b>	<b>(244,181)</b>	<b>2,711,252</b>	<b>1,065,971</b>
Other Comprehensive Income					
<b>TOTAL COMPREHENSIVE INCOME</b>	<b>14,340,545</b>	<b>318,448</b>	<b>(244,181)</b>	<b>2,711,252</b>	<b>1,065,971</b>

**City of Albany**  
**Corporate Business Plan**

**Rate Setting Statement For The Period 2017 To 2021**

	2016/2017 ORIGINAL BUDGET	2017/2018 FINANCIAL ESTIMATE	2018/2019 FINANCIAL ESTIMATE	2019/2020 FINANCIAL ESTIMATE	2020/2021 FINANCIAL ESTIMATE
	\$	\$	\$	\$	\$
<b>Operating Revenue</b>					
Rate Levies (Under adopted assumptions)	34,118,692	35,461,300	36,902,095	38,394,418	40,036,040
Grants & Subsidies - Operating	4,559,247	5,174,435	5,098,099	5,075,311	5,168,691
Interest Earnings	1,042,690	1,134,492	1,159,285	1,159,068	1,158,840
Contributions, Donations & Reimbursements	504,935	624,428	580,369	605,222	561,113
Fees & Charges	16,401,086	17,134,171	17,440,065	17,762,455	18,185,101
Profit on Asset Disposals	108,584	-	-	-	-
Other Revenue	370,960	364,522	364,860	364,599	364,953
	57,106,194	59,893,348	61,544,773	63,361,073	65,474,739
<b>Operating Expenditure</b>					
Employee Costs	(25,036,655)	(26,252,339)	(26,959,020)	(27,792,203)	(28,703,891)
Materials & Contracts	(18,193,632)	(16,804,961)	(16,606,023)	(17,011,479)	(17,060,679)
Utilities (gas, electricity, water, etc.)	(1,791,020)	(1,859,099)	(1,883,896)	(1,925,727)	(2,002,270)
Insurance	(820,550)	(716,495)	(732,738)	(754,738)	(781,095)
Interest Expenses	(938,708)	(875,917)	(831,434)	(702,045)	(571,948)
Other Expenses	(2,494,649)	(2,549,535)	(2,541,569)	(2,606,153)	(2,612,146)
Depreciation	(15,912,428)	(16,920,453)	(17,049,019)	(17,178,604)	(17,309,216)
Loss on Asset Disposals	(48,373)	(24,704)	(93,994)	(107,552)	(113,200)
Less Allocated to Infrastructure Assets	809,491	845,804	847,738	890,442	929,751
	(64,426,524)	(65,157,700)	(65,849,955)	(67,188,058)	(68,224,696)
<b>Contributions for the Development of Assets</b>					
Grants and Contributions	21,660,875	5,582,800	4,061,000	6,538,237	3,815,929
<b>Net Operating Result</b>	<b>14,340,545</b>	<b>318,448</b>	<b>(244,181)</b>	<b>2,711,252</b>	<b>1,065,971</b>
<b>Funding Balance Adjustment</b>					
Add Back Depreciation	15,912,428	16,920,453	17,049,019	17,178,604	17,309,216
Adjust (Profit)/Loss on Asset Disposal	(60,211)	24,704	93,994	107,552	113,200
	15,852,217	16,945,157	17,143,013	17,286,155	17,422,416
<b>Funds Demanded From Operations</b>	<b>30,192,762</b>	<b>17,263,605</b>	<b>16,898,831</b>	<b>19,997,407</b>	<b>18,488,388</b>
<b>Capital Revenues</b>					
Proceeds from Sale of Assets	544,219	649,888	599,609	714,200	314,050
<b>Acquisition of Fixed Assets</b>					
Land & Buildings	(14,311,125)	(4,967,000)	(2,651,190)	(1,472,403)	(1,610,883)
Plant & Equipment	(2,858,500)	(3,067,988)	(1,881,300)	(2,625,025)	(1,573,138)
Furniture & Equipment	(647,028)	(636,900)	(472,500)	(635,625)	(494,016)
Infrastructure Assets	(19,577,970)	(9,201,600)	(8,847,210)	(12,829,360)	(10,134,584)
	(37,394,623)	(17,873,488)	(13,852,200)	(17,562,412)	(13,812,619)
<b>Financing/Borrowing</b>					
Debt Redemption	(2,018,571)	(2,214,404)	(2,480,840)	(2,421,224)	(2,490,055)
Loan Drawn Down	1,500,000	2,120,000	-	-	-
Sporting Club Advance Repayment	-	12,120	12,504	12,899	13,307
	(518,571)	(82,284)	(2,468,336)	(2,408,325)	(2,476,748)
<b>Restricted Funding Movements</b>					
Opening Funds Surplus/(Deficit)	1,725,566	130,000	-	-	-
Transfer to Reserves	(11,501,252)	(11,636,246)	(12,722,674)	(12,563,461)	(13,543,219)
Transfer from Reserves	16,951,901	11,548,525	11,544,769	11,822,591	11,030,149
	7,176,215	42,279	(1,177,904)	(740,870)	(2,513,070)
<b>Closing Funds Surplus/(Deficit)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>



**City of Albany**  
**Corporate Business Plan**

**Statement of Cash Flows for the Period 2017 To 2021**

	2016/2017 ORIGINAL BUDGET	2017/2018 FINANCIAL ESTIMATE	2018/2019 FINANCIAL ESTIMATE	2019/2020 FINANCIAL ESTIMATE	2020/2021 FINANCIAL ESTIMATE
	\$	\$	\$	\$	\$
<b><u>CASH FLOWS FROM OPERATING ACTIVITIES</u></b>					
<b>Receipts</b>					
Rates	34,153,692	35,461,300	36,902,095	38,394,418	40,036,040
Grants, Subsidies & Contributions( Operating)	4,559,247	5,174,435	5,098,099	5,075,311	5,168,691
Interest Earnings	1,062,735	1,134,492	1,159,285	1,159,068	1,158,840
Contributions, Donations and Reimbursements	515,534	624,428	580,369	605,222	561,113
Fees & Charges	16,401,086	17,134,171	17,440,065	17,762,455	18,185,101
Goods and Services Tax	400,000	406,000	412,090	418,271	424,545
Other Revenue	370,960	364,522	364,860	364,599	364,953
	57,463,254	60,299,348	61,956,863	63,779,344	65,899,284
<b>Payments</b>					
Employee Costs	(25,190,655)	(26,252,339)	(26,959,020)	(27,792,203)	(28,703,891)
Materials, Contracts & Suppliers	(18,848,509)	(16,804,961)	(16,606,023)	(17,011,479)	(17,060,679)
Utilities (gas, electricity, water, etc.)	(1,791,020)	(1,859,099)	(1,883,896)	(1,925,727)	(2,002,270)
Insurance	(820,550)	(716,495)	(732,738)	(754,738)	(781,095)
Interest	(935,856)	(875,917)	(831,434)	(702,045)	(571,948)
Goods and Services Tax	(400,000)	(406,000)	(412,090)	(418,271)	(424,545)
Other	(2,494,649)	(2,549,535)	(2,541,569)	(2,606,153)	(2,612,146)
Less Allocated to Infrastructure Assets	809,491	845,804	847,738	890,442	929,751
	(49,671,748)	(48,618,543)	(49,119,032)	(50,320,173)	(51,226,825)
<b>Net Cash Provided by Operating Activities</b>	<b>7,791,506</b>	<b>11,680,805</b>	<b>12,837,831</b>	<b>13,459,171</b>	<b>14,672,459</b>
<b><u>CASH FLOWS FROM INVESTING ACTIVITIES</u></b>					
<b>Payments</b>					
Purchase Land & Buildings	(14,273,125)	(4,967,000)	(2,651,190)	(1,472,403)	(1,610,883)
Purchase Plant & Equipment	(647,028)	(3,067,988)	(1,881,300)	(2,625,025)	(1,573,138)
Purchase Furniture & Equipment	(2,858,500)	(636,900)	(472,500)	(635,625)	(494,016)
Purchase Infrastructure Assets	(19,615,970)	(8,701,600)	(8,347,210)	(12,329,360)	(9,634,584)
Movement from Capital to Inventory					
	(37,394,623)	(17,373,488)	(13,352,200)	(17,062,412)	(13,312,619)
<b>Receipts</b>					
Proceeds from Sale of Assets	544,219	662,008	612,113	727,099	327,357
Contributions for the Development of Assets	21,660,875	5,058,096	3,467,006	5,930,685	3,202,729
	22,205,094	5,720,104	4,079,119	6,657,784	3,530,086
<b>Net Cash Used in Investing Activities</b>	<b>(15,189,529)</b>	<b>(11,653,384)</b>	<b>(9,273,080)</b>	<b>(10,404,628)</b>	<b>(9,782,534)</b>
<b><u>CASH FLOWS FROM FINANCING ACTIVITIES</u></b>					
<b>Council</b>					
Repayment of borrowing	(2,018,571)	(2,214,404)	(2,480,840)	(2,421,224)	(2,490,055)
Proceeds from Borrowing	1,500,000	2,120,000	-	-	-
Sporting Club Advance Repayment	-	12,120	12,504	12,899	13,307
<b>Net Cash (Used in)/Provided by Financing Activities</b>	<b>(518,571)</b>	<b>(82,284)</b>	<b>(2,468,336)</b>	<b>(2,408,325)</b>	<b>(2,476,748)</b>
<b>Net Increase/(Decrease) in Cash Held</b>	<b>(7,916,594)</b>	<b>(54,863)</b>	<b>1,096,415</b>	<b>646,218</b>	<b>2,413,177</b>
<b>Cash at Beginning of Year</b>	<b>24,296,745</b>	<b>23,945,955</b>	<b>23,891,092</b>	<b>24,987,507</b>	<b>25,633,725</b>
<b>Cash and Cash Equivalents at End of the Year</b>	<b>16,380,151</b>	<b>23,891,092</b>	<b>24,987,507</b>	<b>25,633,725</b>	<b>28,046,902</b>

**City of Albany**  
**Corporate Business Plan**  
**Statement of Financial Position for the Period 2017 To 2021**

	2016/2017 ORIGINAL BUDGET	2017/2018 FINANCIAL ESTIMATE	2018/2019 FINANCIAL ESTIMATE	2019/2020 FINANCIAL ESTIMATE	2020/2021 FINANCIAL ESTIMATE
	\$	\$	\$	\$	\$
<b><u>CURRENT ASSETS</u></b>					
Cash and Cash Equivalents	16,380,151	23,891,092	24,987,507	25,633,725	28,046,902
Trade & Other Receivables	3,751,889	3,648,728	3,494,921	3,592,903	3,605,837
Inventories	770,000	870,964	870,964	870,964	870,964
Other Financial Assets	303,950	229,609	100,000	0	0
<b>TOTAL CURRENT ASSETS</b>	<b>21,205,990</b>	<b>28,640,393</b>	<b>29,453,392</b>	<b>30,097,592</b>	<b>32,523,703</b>
<b><u>NON CURRENT ASSETS</u></b>					
Other Receivables	489,150	571,939	559,819	547,699	535,579
Infrastructure	155,632,982	156,019,127	155,554,758	154,665,621	153,083,034
Intangible Assets	454,822,944	451,374,118	447,828,770	448,318,472	446,085,252
<b>TOTAL NON CURRENT ASSETS</b>	<b>610,945,076</b>	<b>607,965,184</b>	<b>603,943,347</b>	<b>603,531,792</b>	<b>599,703,866</b>
<b>TOTAL ASSETS</b>	<b>632,151,066</b>	<b>636,605,577</b>	<b>633,396,739</b>	<b>633,629,384</b>	<b>632,227,569</b>
<b><u>CURRENT LIABILITIES</u></b>					
Trade & Other Payables	3,785,178	5,384,262	4,832,199	4,706,721	4,660,461
Provisions	4,134,498	3,810,988	3,868,153	3,926,175	3,985,068
Current Portion of Long Term Borrowings	2,128,447	2,480,840	2,421,224	2,490,055	2,388,721
<b>TOTAL CURRENT LIABILITIES</b>	<b>10,048,123</b>	<b>11,676,090</b>	<b>11,121,575</b>	<b>11,122,951</b>	<b>11,034,249</b>
<b><u>NON CURRENT LIABILITIES</u></b>					
Provisions	499,071	623,489	632,841	642,334	651,969
Long Term Borrowings	13,932,271	13,452,518	11,033,024	8,543,549	6,154,828
<b>TOTAL NON CURRENT LIABILITIES</b>	<b>14,431,342</b>	<b>14,076,007</b>	<b>11,665,866</b>	<b>9,185,883</b>	<b>6,806,797</b>
<b>TOTAL LIABILITIES</b>	<b>24,479,465</b>	<b>25,752,097</b>	<b>22,787,441</b>	<b>20,308,834</b>	<b>17,841,046</b>
<b>NET ASSETS</b>	<b>607,671,601</b>	<b>610,853,480</b>	<b>610,609,298</b>	<b>613,320,550</b>	<b>614,386,522</b>
<b><u>EQUITY</u></b>					
Retained Surplus	313,572,664	310,303,884	308,881,798	310,852,180	309,405,081
Reserves - Cash Backed	12,776,759	19,227,418	20,405,322	21,146,192	23,659,262
Revaluation Surplus	281,322,178	281,322,178	281,322,178	281,322,178	281,322,178
	<b>607,671,601</b>	<b>610,853,480</b>	<b>610,609,299</b>	<b>613,320,551</b>	<b>614,386,522</b>

**City of Albany**  
**Corporate Business Plan**

**Statement of Changes in Equity for the Period 2017 To 2021**

	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021
	ORIGINAL BUDGET	FINANCIAL ESTIMATE	FINANCIAL ESTIMATE	FINANCIAL ESTIMATE	FINANCIAL ESTIMATE
	\$	\$	\$	\$	\$
<b>RETAINED SURPLUS</b>					
Balance as at 1 July	293,781,470	310,073,157	310,303,884	308,881,798	310,852,180
Net Result	14,340,545	318,448	(244,181)	2,711,252	1,065,971
Transfer from Reserves	16,951,901	11,548,525	11,544,769	11,822,591	11,030,149
Transfer to Reserves	(11,501,252)	(11,636,246)	(12,722,674)	(12,563,461)	(13,543,219)
<b>Balance as at 30 June</b>	<b>313,572,664</b>	<b>310,303,884</b>	<b>308,881,798</b>	<b>310,852,180</b>	<b>309,405,081</b>
<b>RESERVES - CASH BACKED</b>					
Balance as at 1 July	18,227,408	19,139,697	19,227,418	20,405,322	21,146,192
Transfer from Accumulated Surplus	11,501,252	11,636,246	12,722,674	12,563,461	13,543,219
Transfer to Accumulated Surplus	(16,951,901)	(11,548,525)	(11,544,769)	(11,822,591)	(11,030,149)
<b>Balance as at 30 June</b>	<b>12,776,759</b>	<b>19,227,418</b>	<b>20,405,322</b>	<b>21,146,192</b>	<b>23,659,262</b>
<b>RESERVES - ASSET REVALUATION</b>					
Balance as at 1 July	281,322,178	281,322,178	281,322,178	281,322,178	281,322,178
Changes on Revaluation of N/C Asset	-	-	-	-	-
<b>Balance as at 30 June</b>	<b>281,322,178</b>	<b>281,322,178</b>	<b>281,322,178</b>	<b>281,322,178</b>	<b>281,322,178</b>
<b>TOTAL EQUITY</b>	<b>607,671,601</b>	<b>610,853,480</b>	<b>610,609,299</b>	<b>613,320,551</b>	<b>614,386,522</b>

**City of Albany**  
**Corporate Business Plan**

**Reconciliation of the Closing Position for the Period 2017 to 2021**

	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021
	ORIGINAL	FINANCIAL	FINANCIAL	FINANCIAL	FINANCIAL
	BUDGET	ESTIMATE	ESTIMATE	ESTIMATE	ESTIMATE
	\$	\$	\$	\$	\$
<b>Current Assets</b>					
Cash and Cash Equivalents	16,380,151	23,891,092	24,987,507	25,633,725	28,046,902
Trade and Other Receivables	3,751,889	3,648,728	3,494,921	3,592,903	3,605,837
Inventories	770,000	870,964	870,964	870,964	870,964
Other Financial Assets	303,950	229,609	100,000	0	0
<b>Total Current Assets</b>	<b>21,205,990</b>	<b>28,640,393</b>	<b>29,453,392</b>	<b>30,097,592</b>	<b>32,523,703</b>
<b>Current Liabilities</b>					
Trade and Other Payables	3,785,178	5,384,262	4,832,199	4,706,721	4,660,461
Provisions	4,134,498	3,810,988	3,868,153	3,926,175	3,985,068
Current Portion of Long - - Term Borrowings	2,128,447	2,480,840	2,421,224	2,490,055	2,388,721
<b>Total Current Liabilities</b>	<b>10,048,123</b>	<b>11,676,090</b>	<b>11,121,575</b>	<b>11,122,951</b>	<b>11,034,249</b>
<b>Net Current Asset Position</b>	<b>11,157,867</b>	<b>16,964,303</b>	<b>18,331,817</b>	<b>18,974,641</b>	<b>21,489,454</b>
<b>Adjustments</b>					
<b>Add back</b>					
Loan Borrowings	2,128,447	2,480,840	2,421,224	2,490,055	2,388,721
<b>Less</b>					
Cash Backed Reserves	12,776,759	19,227,418	20,405,322	21,146,192	23,659,262
Sporting Club Cash Advance Repayment	0	12,120	12,504	12,899	13,307
LG Unit Trust Shares	205,605	205,605	205,605	205,605	205,605
Land held for Resale	303,950	-	129,609	100,000	-
<b>Estimated Closing Funds Surplus/(Deficit)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

# **Supplementary and Supporting Information**

**City of Albany**  
**Corporate Business Plan**  
**Reserve Funds For The Period 2017 To 2021**

RESERVE FUND DETAILS	2017/2018 FINANCIAL ESTIMATE	2018/2019 FINANCIAL ESTIMATE	2019/2020 FINANCIAL ESTIMATE	2020/2021 FINANCIAL ESTIMATE
	\$	\$	\$	\$
<b>Airport Reserve</b>				
<i>Purpose: To facilitate the future development and improvements at the Albany Airport.</i>				
Opening Balance	1,531,891	1,965,727	2,173,870	2,385,740
Transfer from Accumulated Surplus	1,970,205	2,008,235	2,297,036	2,087,903
Transfer to Accumulated Surplus	(1,536,369)	(1,800,092)	(2,085,166)	(1,623,970)
<b>Closing Balance</b>	<b>1,965,727</b>	<b>2,173,870</b>	<b>2,385,740</b>	<b>2,849,673</b>
<b>Albany Entertainment Centre</b>				
<i>Purpose: To provide for future funding requirements of the Albany Entertainment Centre</i>				
Opening Balance	434,228	384,228	359,228	359,228
Transfer from Accumulated Surplus	Nil	Nil	Nil	25,000
Transfer to Accumulated Surplus	(50,000)	(25,000)	Nil	Nil
<b>Closing Balance</b>	<b>384,228</b>	<b>359,228</b>	<b>359,228</b>	<b>384,228</b>
<b>Albany Leisure And Aquatic Centre – Synthetic Surface “Carpet” Reserve</b>				
<i>Purpose: To provide a replacement of the synthetic surface “carpet”</i>				
Opening Balance	31,124	41,124	66,124	91,124
Transfer from Accumulated Surplus	10,000	25,000	25,000	20,074
Transfer to Accumulated Surplus	Nil	Nil	Nil	Nil
<b>Closing Balance</b>	<b>41,124</b>	<b>66,124</b>	<b>91,124</b>	<b>111,198</b>
<b>Albany Classic Barriers</b>				
<i>Purpose: To provide funding for the roadside barriers for the Albany Classic Event.</i>				
Opening Balance	33,281	33,281	33,281	33,281
Transfer from Accumulated Surplus	Nil	Nil	Nil	Nil
Transfer to Accumulated Surplus	Nil	Nil	Nil	Nil
<b>Closing Balance</b>	<b>33,281</b>	<b>33,281</b>	<b>33,281</b>	<b>33,281</b>
<b>Bayonet Head Infrastructure Reserve</b>				
<i>Purpose: To hold owner funding for infrastructure items and works within the Bayonet Head Outline Development Plan Area.</i>				
Opening Balance	63,522	63,522	63,522	63,522
Transfer from Accumulated Surplus	Nil	Nil	Nil	Nil
Transfer to Accumulated Surplus	Nil	Nil	Nil	Nil
<b>Closing Balance</b>	<b>63,522</b>	<b>63,522</b>	<b>63,522</b>	<b>63,522</b>
<b>City of Albany General Parking Reserve</b>				
<i>Purpose: To provide for the acquisition of land, the development of land for car parking within the Central Busine.</i>				
Opening Balance	242,285	242,285	242,285	242,285
Transfer from Accumulated Surplus	Nil	Nil	Nil	Nil
Transfer to Accumulated Surplus	Nil	Nil	Nil	Nil
<b>Closing Balance</b>	<b>242,285</b>	<b>242,285</b>	<b>242,285</b>	<b>242,285</b>
<b>Emu Point Boat Pens Development Reserve</b>				
<i>Purpose: To provide for the development/redevelopment of the Emu Point Boat Pens.</i>				
Opening Balance	405,196	466,414	528,017	589,980
Transfer from Accumulated Surplus	78,000	78,780	79,568	80,363
Transfer to Accumulated Surplus	(16,782)	(17,177)	(17,605)	(18,155)
<b>Closing Balance</b>	<b>466,414</b>	<b>528,017</b>	<b>589,980</b>	<b>652,188</b>

**City of Albany**  
**Corporate Business Plan**  
**Reserve Funds For The Period 2017 To 2021**

RESERVE FUND DETAILS	2017/2018 FINANCIAL ESTIMATE	2018/2019 FINANCIAL ESTIMATE	2019/2020 FINANCIAL ESTIMATE	2020/2021 FINANCIAL ESTIMATE
	\$	\$	\$	\$
<b>Master Plan Funding Reserve</b>				
<i>Purpose: To provide for funding of asset masterplans.</i>				
Opening Balance	180,660	140,660	120,660	120,660
Transfer from Accumulated Surplus	Nil	Nil	Nil	Nil
Transfer to Accumulated Surplus	(40,000)	(20,000)	Nil	Nil
<b>Closing Balance</b>	<b>140,660</b>	<b>120,660</b>	<b>120,660</b>	<b>120,660</b>
<b>Plant &amp; Equipment Reserve</b>				
<i>Purpose: To provide for the future replacement of plant, and reduce dependency on loans for this purpose.</i>				
Opening Balance	1,368,241	875,141	1,052,180	696,678
Transfer from Accumulated Surplus	21,900	217,039	94,498	594,614
Transfer to Accumulated Surplus	(515,000)	(40,000)	(450,000)	(200,000)
<b>Closing Balance</b>	<b>875,141</b>	<b>1,052,180</b>	<b>696,678</b>	<b>1,091,292</b>
<b>Refuse Collection &amp; Waste Minimisation Reserve</b>				
<i>Purpose: To receipt any annual surplus from Council's Waste Collection/Minimisation Program to provide future funding for Council's Sanitation program</i>				
Opening Balance	2,608,783	2,807,875	3,269,564	3,840,055
Transfer from Accumulated Surplus	7,120,918	7,485,624	7,779,589	8,105,065
Transfer to Accumulated Surplus	(6,921,826)	(7,023,935)	(7,209,098)	(7,436,894)
<b>Closing Balance</b>	<b>2,807,875</b>	<b>3,269,564</b>	<b>3,840,055</b>	<b>4,508,226</b>
<b>Waste Management Reserve</b>				
<i>Purpose: To facilitate the funding of future waste management the rehabilitation, redevelopment and development of refuse sites.</i>				
Opening Balance	2,404,299	3,088,559	3,566,936	4,193,423
Transfer from Accumulated Surplus	1,024,260	849,867	781,362	719,210
Transfer to Accumulated Surplus	(340,000)	(371,490)	(154,875)	(178,925)
<b>Closing Balance</b>	<b>3,088,559</b>	<b>3,566,936</b>	<b>4,193,423</b>	<b>4,733,708</b>
<b>Roadwork's Reserve</b>				
<i>Purpose: To facilitate Road and Drainage Works Associated with Roads</i>				
Opening Balance	1,045,471	1,093,675	1,365,387	1,441,516
Transfer from Accumulated Surplus	48,204	271,712	76,129	177,944
Transfer to Accumulated Surplus	Nil	Nil	Nil	Nil
<b>Closing Balance</b>	<b>1,093,675</b>	<b>1,365,387</b>	<b>1,441,516</b>	<b>1,619,460</b>
<b>Building Restoration Reserve</b>				
<i>Purpose: To receipt funds for the ongoing Building Renewal and Expansion Projects.</i>				
Opening Balance	908,227	931,252	691,787	698,536
Transfer from Accumulated Surplus	73,025	60,535	6,749	60,777
Transfer to Accumulated Surplus	(50,000)	(300,000)	Nil	Nil
<b>CLOSING BALANCE</b>	<b>931,252</b>	<b>691,787</b>	<b>698,536</b>	<b>759,313</b>
<b>Debt Management Reserve</b>				
<i>Purpose: To receipt funds for the Long Term Debt Strategy.</i>				
Opening Balance	3,594,050	3,197,682	2,642,457	1,848,223
Transfer from Accumulated Surplus	363,069	662,036	364,831	604,349
Transfer to Accumulated Surplus	(759,437)	(1,217,261)	(1,159,064)	(889,752)
<b>CLOSING BALANCE</b>	<b>3,197,682</b>	<b>2,642,457</b>	<b>1,848,223</b>	<b>1,562,819</b>

**City of Albany**  
**Corporate Business Plan**  
**Reserve Funds For The Period 2017 To 2021**

RESERVE FUND DETAILS	2017/2018 FINANCIAL ESTIMATE	2018/2019 FINANCIAL ESTIMATE	2019/2020 FINANCIAL ESTIMATE	2020/2021 FINANCIAL ESTIMATE
	\$	\$	\$	\$
<b>Coastal Management Reserve</b>				
<i>Purpose: To receipt funds to facilitate future costal works.</i>				
Opening Balance	499,340	489,465	489,465	489,465
Transfer from Accumulated Surplus	20,000	Nil	Nil	30,000
Transfer to Accumulated Surplus	(29,875)	Nil	Nil	Nil
<b>CLOSING BALANCE</b>	<b>489,465</b>	<b>489,465</b>	<b>489,465</b>	<b>519,465</b>
<b>Information Technology</b>				
<i>Purpose: To receipt funds for the Long Term Information technology changes and licensing.</i>				
Opening Balance	617,219	420,623	420,623	420,623
Transfer from Accumulated Surplus	Nil	Nil	Nil	40,000
Transfer to Accumulated Surplus	(196,596)	Nil	Nil	Nil
<b>CLOSING BALANCE</b>	<b>420,623</b>	<b>420,623</b>	<b>420,623</b>	<b>460,623</b>
<b>Anzac Interpretive Centre Reserve</b>				
<i>Purpose: To receipt funds for the ongoing Management and Building Renewal for (AIC).</i>				
Opening Balance	1,113,416	1,108,416	1,108,416	1,118,416
Transfer from Accumulated Surplus	5,000	10,000	10,000	10,000
Transfer to Accumulated Surplus	(10,000)	(10,000)	Nil	Nil
<b>CLOSING BALANCE</b>	<b>1,108,416</b>	<b>1,108,416</b>	<b>1,118,416</b>	<b>1,128,416</b>
<b>Parks and Recreation Grounds</b>				
<i>Purpose: To receipt funds for the future development of parks and recreation grounds.</i>				
Opening Balance	203,982	183,982	193,982	203,982
Transfer from Accumulated Surplus	Nil	10,000	10,000	10,000
Transfer to Accumulated Surplus	(20,000)	Nil	Nil	Nil
<b>CLOSING BALANCE</b>	<b>183,982</b>	<b>193,982</b>	<b>203,982</b>	<b>213,982</b>
<b>Land Acquisition Reserve</b>				
<i>Purpose: To receipt proceeds from the sale of land to acquire strategic parcels of land in a future financial year.</i>				
Opening Balance	483,676	483,676	613,285	713,285
Transfer from Accumulated Surplus	Nil	129,609	100,000	Nil
Transfer to Accumulated Surplus	Nil	Nil	Nil	Nil
<b>CLOSING BALANCE</b>	<b>483,676</b>	<b>613,285</b>	<b>713,285</b>	<b>713,285</b>
<b>Unspent Grants and Contributions Reserve</b>				
<i>Purpose: To receipt grant funds which are unspent at year end to be expended in a future financial year.</i>				
Opening Balance	Nil	Nil	Nil	Nil
Transfer from Accumulated Surplus	Nil	Nil	Nil	Nil
Transfer to Accumulated Surplus	Nil	Nil	Nil	Nil
<b>CLOSING BALANCE</b>	<b>Nil</b>	<b>Nil</b>	<b>Nil</b>	<b>Nil</b>



**City of Albany**  
**Corporate Business Plan**  
**Reserve Funds For The Period 2017 To 2021**

RESERVE FUND DETAILS	2017/2018 FINANCIAL ESTIMATE	2018/2019 FINANCIAL ESTIMATE	2019/2020 FINANCIAL ESTIMATE	2020/2021 FINANCIAL ESTIMATE
	\$	\$	\$	\$
<b>Destination Marketing and Major Event Attraction Reserve</b>				
<i>Purpose: To receipt funds for the purpose of destination marketing and major event attraction within the City of Albany</i>				
Opening Balance	94,079	73,122	66,702	49,927
Transfer from Accumulated Surplus	155,767	141,629	157,374	192,787
Transfer to Accumulated Surplus	(176,724)	(148,049)	(174,149)	(108,596)
<b>CLOSING BALANCE</b>	<b>73,122</b>	<b>66,702</b>	<b>49,927</b>	<b>134,117</b>
<b>Albany Heritage Park Infrastructure Reserve</b>				
<i>Purpose: To receipt funds for the purpose of maintenance and capital improvements to the Albany Heritage Park.</i>				
Opening Balance	596,606	291,606	296,606	306,606
Transfer from Accumulated Surplus	10,000	5,000	10,000	10,000
Transfer to Accumulated Surplus	(315,000)	Nil	Nil	Nil
<b>CLOSING BALANCE</b>	<b>291,606</b>	<b>296,606</b>	<b>306,606</b>	<b>316,606</b>
<b>Prepaid Rates Reserve</b>				
<i>Purpose: To receipt pre paid rate revenue when these funds relate and are applied to the following financial year.</i>				
Opening Balance	600,371	600,371	600,371	600,371
Transfer from Accumulated Surplus	533,726	533,726	533,726	533,726
Transfer to Accumulated Surplus	(533,726)	(533,726)	(533,726)	(533,726)
<b>CLOSING BALANCE</b>	<b>600,371</b>	<b>600,371</b>	<b>600,371</b>	<b>600,371</b>
<b>Cheyne Beach Reserve</b>				
<i>Purpose: To receipt funds for the purpose of facilitating community maintenance and enhancement projects within the Cheyne Beach locality.</i>				
Opening Balance	78,750	223,750	372,375	524,716
Transfer from Accumulated Surplus	145,000	148,625	152,341	156,149
Transfer to Accumulated Surplus	Nil	Nil	Nil	Nil
<b>CLOSING BALANCE</b>	<b>223,750</b>	<b>372,375</b>	<b>524,716</b>	<b>680,865</b>
<b>Centennial Park Stadium and Pavilion Maintenance/Renewal Reserve</b>				
<i>Purpose: To receipt funds for the maintenance and renewal of the Stadium &amp; Pavilion at Centennial Park.</i>				
Opening Balance	Nil	18,982	65,201	110,551
Transfer from Accumulated Surplus	56,172	84,258	84,258	84,258
Transfer to Accumulated Surplus	(37,190)	(38,040)	(38,908)	(40,130)
<b>CLOSING BALANCE</b>	<b>18,982</b>	<b>65,201</b>	<b>110,551</b>	<b>154,678</b>
<b>Great Southern Contiguous Local Authorities Group (CLAG)</b>				
<i>Purpose: To receipt funds for the Great Southern Contiguous Local Authorities Group (CLAG) for the purpose of</i>				
Opening Balance	1,000	2,000	3,000	4,000
Transfer from Accumulated Surplus	1,000	1,000	1,000	1,000
Transfer to Accumulated Surplus	Nil	Nil	Nil	Nil
<b>CLOSING BALANCE</b>	<b>2,000</b>	<b>3,000</b>	<b>4,000</b>	<b>5,000</b>
<b>Summary</b>				
Opening Balance as at 30th June	19,139,697	19,227,418	20,405,322	21,146,192
Total transfers from Accumulated Surplus	11,636,246	12,722,674	12,563,461	13,543,219
Total transfers to Accumulated Surplus	(11,548,525)	(11,544,769)	(11,822,591)	(11,030,149)
<b>Total Reserves as at 30th June</b>	<b>19,227,418</b>	<b>20,405,322</b>	<b>21,146,192</b>	<b>23,659,262</b>

**City of Albany**  
**Corporate Business Plan**  
**Loan Facilities**

LOAN NO	PARTICULARS	Principal Outstanding as at 30 June 2017	2017/2018 FINANCIAL ESTIMATE	2018/2019 FINANCIAL ESTIMATE	2019/2020 FINANCIAL ESTIMATE	2020/2021 FINANCIAL ESTIMATE
		\$	\$	\$	\$	\$
	<b>Interest Repayments Due</b>					
	<b><u>Community Amenities</u></b>					
19	Waste Management Infrastructure	19,095	1,114	-	-	-
	<b><u>Recreation and Culture</u></b>					
17	Library Development	57,853	2,919	-	-	-
18	Recreation Reserves Works	19,378	1,127	-	-	-
30	ALAC Redevelopment	1,652,122	115,333	106,769	97,588	87,746
32	ALAC Redevelopment	1,607,222	124,141	116,412	108,067	99,057
33	Town Square Community Space	373,032	18,477	16,118	13,638	11,030
35	Forts Cafe/Retail Store Relocation	447,676	22,172	19,342	16,366	13,236
36	Anzac Centre Memorial Gardens	373,032	18,477	16,118	13,638	11,030
37	Centennial Park Stage 1	1,575,141	69,087	60,114	50,733	40,923
38	Centennial Park Stage 2	482,338	16,785	12,584	8,229	3,714
39	ALAC - Heat Exchange Unit	359,339	17,358	13,093	8,612	3,903
40	Centennial Park Stage 3	621,556	25,476	22,652	19,709	16,642
41	Centennial Park Stage 4	507,459	15,077	12,125	9,083	5,946
45	ALAC Gym Equipment	-	-	4,180	3,121	2,022
	<b><u>Transport</u></b>					
21A	Roadwork's - Asset Upgrade	888,470	67,537	57,824	47,335	36,007
22C	Roadwork's - Interest Only (2003)	972,898	44,303	37,423	30,214	22,663
23	Roadwork's - 03/04	401,049	25,792	22,600	19,401	15,711
28	Roadwork's - 04/05	1,081,877	53,473	47,685	41,598	35,197
29	Roadwork's - 06/07	1,666,289	113,014	92,203	69,896	45,987
34	Stirling Terrace Upgrade	298,451	14,782	12,895	10,911	8,824
	<b><u>Economic Services</u></b>					
3	Saleyards	148,745	10,433	6,880	3,053	-
43	Visitor Information Centre	1,000,000	31,932	29,118	26,211	23,210
	<b><u>Other Property &amp; Services</u></b>					
25	Admin Building 2004/05	616,850	39,481	35,421	31,092	26,474
26d	Admin Building 2A	357,281	13,220	5,778	-	-
42	Lot 20 Lake Warburton Road	500,000	14,408	12,109	9,742	7,305
<b>TOTAL INTEREST PAYABLE</b>			<b>875,917</b>	<b>759,442</b>	<b>638,235</b>	<b>516,627</b>

**City of Albany**  
**Corporate Business Plan**  
**Loan Facilities**

LOAN NO	PARTICULARS	Principal Outstanding as at 30 June 2017	2017/2018 FINANCIAL ESTIMATE	2018/2019 FINANCIAL ESTIMATE	2019/2020 FINANCIAL ESTIMATE	2020/2021 FINANCIAL ESTIMATE
		\$	\$	\$	\$	\$
<b>Principal Repayments Due</b>						
<b><u>Community Amenities</u></b>						
19	Waste Management Infrastructure	19,095	19,216	-	-	-
<b><u>Recreation and Culture</u></b>						
17	Library Development	57,853	58,218	-	-	-
18	Recreation Reserves Works	19,378	19,501	-	-	-
30	ALAC Redevelopment	1,652,122	118,858	127,422	136,603	146,445
32	ALAC Redevelopment	1,607,222	96,938	104,667	113,012	122,022
33	Town Square Community Space	373,032	45,756	48,114	50,594	53,202
35	Forts Cafe/Retail Store Relocation	447,676	54,907	57,737	60,713	63,843
36	Anzac Centre Memorial Gardens	373,032	45,756	48,114	50,594	53,202
37	Centennial Park Stage 1	1,575,141	196,725	205,698	215,079	224,889
38	Centennial Park Stage 2	482,338	113,980	118,565	122,920	126,873
39	ALAC - Heat Exchange Unit	359,339	84,253	88,518	92,999	93,568
40	Centennial Park Stage 3	621,556	67,193	70,018	72,961	76,027
41	Centennial Park Stage 4	507,459	95,404	98,355	101,398	104,534
44	Town Hall/Alison Hartman Gardens	-	-	219,120	227,302	235,790
45	ALAC Gym Equipment	-	-	28,371	29,430	30,529
<b><u>Transport</u></b>						
21A	Roadwork's - Asset Upgrade	888,470	121,509	131,222	141,711	153,039
22C	Roadwork's - Interest Only (2003)	972,898	144,382	151,263	158,471	166,023
23	Roadwork's - 03/04	401,049	46,737	49,929	53,128	56,817
28	Roadwork's - 04/05	1,081,877	112,296	118,084	124,171	130,572
29	Roadwork's - 06/07	1,666,289	289,663	310,474	332,781	356,690
34	Stirling Terrace Upgrade	298,451	36,604	38,491	40,475	42,562
<b><u>Economic Services</u></b>						
3	Saleyards	148,745	46,130	49,684	53,511	-
43	Visitor Information Centre	1,000,000	86,166	88,981	91,887	94,888
<b><u>Other Property &amp; Services</u></b>						
25	Admin Building 2004/05	616,850	61,075	65,135	69,464	74,081
26d	Admin Building 2A	357,281	175,784	183,227	-	-
42	Lot 20 Lake Warburton Road	500,000	77,354	79,652	82,019	84,457
<b>TOTAL PRINCIPAL PAYABLE</b>			<b>2,214,404</b>	<b>2,480,840</b>	<b>2,421,224</b>	<b>2,490,055</b>
<b><u>New Loans</u></b>						
44	Town Hall/Alison Hartman Gardens		2,000,000			
45	ALAC Gym Equipment		120,000			
<b>TOTAL PRINCIPAL OUTSTANDING</b>			<b>15,932,749</b>	<b>13,451,909</b>	<b>11,030,685</b>	<b>8,540,630</b>

**City of Albany  
Corporate Business Plan  
Depreciation Schedule**

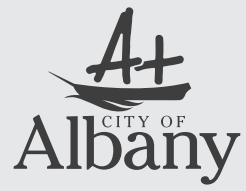
<u>DESCRIPTION OF ASSET CLASSES</u>	<u>2017/2018 FINANCIAL ESTIMATE</u>	<u>2018/2019 FINANCIAL ESTIMATE</u>	<u>2019/2020 FINANCIAL ESTIMATE</u>	<u>2020/2021 FINANCIAL ESTIMATE</u>
	\$	\$	\$	\$
<b>LAND AND BUILDINGS</b>				
Land Held for Resale	-			
Book Value of Land	62,063,075			
Land Acquisition	-	-	-	-
Land Disposed	-	-	-	-
<b>Total Land</b>	<b>62,063,075</b>	<b>62,063,075</b>	<b>62,063,075</b>	<b>62,063,075</b>
Book Value of Buildings	72,914,324			
Buildings Acquired	4,967,000	2,651,190	1,472,403	1,610,883
Buildings Disposed (Historical Costs)	-	-	-	-
Total Buildings	77,881,324	80,532,514	82,004,917	83,615,799
Depreciation	(2,004,804)	(2,021,137)	(2,037,634)	(2,054,299)
<b>Book Value of Buildings</b>	<b>75,876,520</b>	<b>78,511,377</b>	<b>79,967,282</b>	<b>81,561,500</b>
<b>PLANT AND EQUIPMENT</b>				
Existing Plant & Equipment	10,226,582			
Plant & Equipment Acquisition	3,067,988	1,881,300	2,625,025	1,573,138
Plant & Equipment Disposal (Historical Costs)	(1,276,823)	(940,650)	(1,312,513)	(786,569)
Total Plant & Equipment	12,017,747	11,085,986	10,512,044	9,398,011
Depreciation	(1,872,411)	(1,886,454)	(1,900,602)	(1,914,857)
<b>Book Value of Vehicles Plant &amp; Equipment</b>	<b>10,145,336</b>	<b>9,199,532</b>	<b>8,611,442</b>	<b>7,483,154</b>
<b>FURNITURE AND EQUIPMENT</b>				
Existing Furniture & Equipment	3,817,877			
Furniture and Equipment Acquired	636,900	472,500	635,625	494,016
Furniture and Equipment Disposed (Historical Costs)	-	-	-	-
Total Furniture & Equipment	4,454,777	3,972,644	3,646,110	3,170,373
Depreciation	(954,633)	(962,159)	(969,753)	(977,416)
<b>Book Value of Furniture &amp; Equipment</b>	<b>3,500,144</b>	<b>3,010,485</b>	<b>2,676,357</b>	<b>2,192,957</b>
<b>TOTAL PROPERTY PLANT AND EQUIPMENT</b>				
New Property Plant and Equipment		4,064,340	3,420,540	2,891,467
Total	156,416,923	155,649,415	154,200,205	152,183,682
Depreciation	(4,831,848)	(4,869,750)	(4,907,990)	(4,946,572)
Fair Value Adjustment	-	-	-	-
<b>Book Value</b>	<b>151,585,075</b>	<b>150,779,665</b>	<b>149,292,215</b>	<b>147,237,110</b>

**City of Albany**  
**Corporate Business Plan**  
**Depreciation Schedule**

<u>DESCRIPTION OF ASSET CLASSES</u>	2017/2018 FINANCIAL ESTIMATE	2018/2019 FINANCIAL ESTIMATE	2019/2020 FINANCIAL ESTIMATE	2020/2021 FINANCIAL ESTIMATE
	\$	\$	\$	\$
<b>INFRASTRUCTURE (ALL)</b>				
Existing Infrastructure	454,822,944			
New Infrastructure Developed	9,201,600	8,847,210	12,829,360	10,134,584
Total Infrastructure	464,024,544	460,783,149	461,433,238	459,297,208
Depreciation	(12,088,605)	(12,179,270)	(12,270,614)	(12,362,644)
Fair Value Adjustment	-	-	-	-
<b>Book Value Infrastructure</b>	<b>451,935,939</b>	<b>448,603,879</b>	<b>449,162,624</b>	<b>446,934,564</b>
<b>Total Assets</b>	<b>603,521,014</b>	<b>599,383,544</b>	<b>598,454,840</b>	<b>594,171,674</b>
Total Depreciation	(16,920,453)	(17,049,019)	(17,178,604)	(17,309,216)

**City of Albany**  
**Corporate Business Plan**

Four Year Capital Works Program	2017/2018	2018/2019	2019/2020	2020/2021
	FINANCIAL ESTIMATE	FINANCIAL ESTIMATE	FINANCIAL ESTIMATE	FINANCIAL ESTIMATE
	\$	\$	\$	\$
<b>Plant</b>				
Renewal	2,933,988	1,861,300	2,500,025	1,513,138
Upgrade	-	-	-	-
Expansion	-	-	-	-
<b>Information Technology/Office Equipment</b>				
Renewal	520,650	432,500	445,625	454,016
Upgrade	-	-	-	-
Expansion	-	-	-	-
<b>ALAC Improvements</b>				
Renewal	270,000	420,000	302,000	168,000
Upgrade	-	-	-	-
Expansion	-	-	-	-
<b>Centennial Park and Other Recreational Improve.</b>				
Renewal	75,000	75,000	75,000	75,000
Upgrade	-	-	-	-
Expansion	-	-	-	-
<b>Aerodromes</b>				
Renewal	20,000	250,000	500,000	-
Upgrade	-	-	-	-
Expansion	-	-	-	-
<b>Roads</b>				
Renewal	3,989,350	5,591,429	3,533,014	5,028,425
Upgrade	582,850	196,563	584,469	466,375
Expansion	45,000	-	302,275	1,750
<b>Drainage</b>				
Renewal	492,400	504,455	1,061,125	805,000
Upgrade	169,800	-	1,158,750	634,500
Expansion	118,800	-	-	22,500
<b>Paths</b>				
Renewal	141,750	63,496	251,576	494,760
Upgrade	68,650	22,982	73,249	-
Expansion	705,000	642,495	485,275	514,500
<b>Reserves</b>				
Renewal	591,500	317,145	831,237	447,259
Upgrade	901,500	262,155	2,898,516	485,590
Expansion	225,000	50,000	170,000	230,000
<b>Buildings</b>				
Renewal	4,365,000	1,597,875	783,703	1,067,883
Upgrade	151,000	58,815	170,850	125,000
Expansion	66,000	304,500	185,850	-
<b>Waste</b>				
Renewal	30,000	-	154,875	178,925
Upgrade	-	-	-	-
Expansion	50,000	371,490	-	-
<b>Other</b>				
Renewal	935,250	555,000	820,000	825,000
Upgrade	75,000	75,000	75,000	75,000
Expansion	350,000	200,000	200,000	200,000
<b>TOTALS</b>				
Renewal	14,364,888	11,668,200	11,258,179	11,057,405
Upgrade	1,948,800	615,515	4,960,833	1,786,465
Expansion	1,559,800	1,568,485	1,343,400	968,750






APPENDIX 2

# BUSINESS UNIT PLANS

2017 - 2021


FINANCIAL SUMMARY | BUSINESS UNIT PLANS



CITY VISION	CITY VALUES	GUIDING PRINCIPLES
<p><i>"To be Western Australia's most sought after and unique regional City to live, work and visit"</i></p>		<ul style="list-style-type: none"> <li>_ Value for Money</li> <li>_ Continuous Improvement</li> <li>_ Sustainability</li> <li>_ Commitment to Quality</li> </ul>
INFORMING STRATEGIES		ALIGNMENT WITH COMMUNITY STRATEGIC PLAN
<ul style="list-style-type: none"> <li>_ Economic Development Strategy</li> </ul>	<p>To strengthen our region's economic base</p> <ul style="list-style-type: none"> <li>• Strengthen our economy by supporting business innovation and diversity.</li> </ul> <p>To develop and promote Albany as a unique and sought-after visitor location</p> <ul style="list-style-type: none"> <li>• Encourage, support and deliver significant events that promote our region.</li> <li>• Promote the Albany region as a sought after and iconic tourism destination.</li> </ul>	
PURPOSE STATEMENT		
<p><i>"To provide a safe, secure, legally compliant, and financially sustainable airport operation for the benefit of the business and residential communities of Albany and the Great Southern region of WA."</i></p>		


DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<p><b>Service Delivery:</b> Provide a safe and legally compliant airport facility that ensures the growth and successful operation of RPT services to and from Albany Airport.</p>		
<ul style="list-style-type: none"> <li>• KPI: Maintain compliant Airport under CASA MOS 139 regulations.</li> </ul>	<ul style="list-style-type: none"> <li>• Zero Noncompliance notices.</li> </ul>	
<ul style="list-style-type: none"> <li>• Grow passenger number year on year.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase by 5% annually.</li> </ul>	
<ul style="list-style-type: none"> <li>• Ensure airport remains compliant to CASA MOS 139 requirements. CASA conducts annual audit to ensure compliance.</li> </ul>	<ul style="list-style-type: none"> <li>• CASA Audit Report.</li> </ul>	
<p><b>People and Process:</b></p>		
<ul style="list-style-type: none"> <li>• KPI: Labour Cost to Income.</li> </ul>	<ul style="list-style-type: none"> <li>• No more than 20%.</li> </ul>	
<ul style="list-style-type: none"> <li>• Plan and implement staffing plan to ensure normal airport duties are met and adequate resources available for major capital works programs.</li> </ul>	<ul style="list-style-type: none"> <li>• Staffing Plan adopted.</li> </ul>	
<ul style="list-style-type: none"> <li>• Professional development program implemented for Senior Airport Reporting Officer.</li> </ul>	<ul style="list-style-type: none"> <li>• Program developed.</li> </ul>	
<ul style="list-style-type: none"> <li>• Develop a flexible workforce that is able to multi task across the various functions of the airport (ARO, refuelling, general maintenance, parking compliance, safety training).</li> </ul>	<ul style="list-style-type: none"> <li>• Work flows assessed.</li> </ul>	

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Finance:</b>		
<ul style="list-style-type: none"> <li>• <i>KPI: Generate operational surplus.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Minimum of \$1,000,000.</i></li> </ul>	
<ul style="list-style-type: none"> <li>• Work with Rex to grow RPT pax numbers. Implement fixed annual fee structure for 17/18 that achieves pax growth and delivers required financial return to airport.</li> </ul>	<ul style="list-style-type: none"> <li>• Financial performance meets budget.</li> </ul>	
<ul style="list-style-type: none"> <li>• Grow holiday and leisure travel market via promotion and sale of packages.</li> </ul>	<ul style="list-style-type: none"> <li>• 300 one way fare packages introduced in 2017/18.</li> </ul>	
<b>Promotion:</b>		
<ul style="list-style-type: none"> <li>• <i>KPI: Appropriate inclusion in all regional strategic planning considerations.</i></li> </ul>		
<ul style="list-style-type: none"> <li>• Implement regular communications program for airport users.</li> </ul>	<ul style="list-style-type: none"> <li>• Communication program introduced.</li> </ul>	
<ul style="list-style-type: none"> <li>• Ensure Albany Airport is identified as essential infrastructure and acknowledged in all regional planning strategies.</li> </ul>	<ul style="list-style-type: none"> <li>• Acknowledged in the following strategies by June 2018.</li> </ul>	
<b>Facilities:</b>		
<ul style="list-style-type: none"> <li>• <i>KPI: Capital works and maintenance schedules.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Programs met annually.</li> </ul>	
<ul style="list-style-type: none"> <li>• Investigate Code 4C airport upgrade feasibility and funding. Will be subject to political outcomes.</li> </ul>	<ul style="list-style-type: none"> <li>• Research complete and business case for facilities upgrade presented for consideration in 2018/19 budget.</li> </ul>	
<ul style="list-style-type: none"> <li>• Investigate entry signage on Airport land fronting Albany highway, as part of City's new wayfinding strategy.</li> </ul>		
<ul style="list-style-type: none"> <li>• Investigate and implement new RNAV instruments to replace ILS functionality.</li> </ul>		
<ul style="list-style-type: none"> <li>• Investigate commercial land/industrial precinct scoping on Airport land, create new GA hangar leases.</li> </ul>		
<ul style="list-style-type: none"> <li>• Investigate creation of FIFO dedicated parking area on fee for service basis.</li> </ul>		

CITY VISION	CITY VALUES	GUIDING PRINCIPLES
<p><i>"To be Western Australia's most sought after and unique regional City to live, work and visit."</i></p>		<ul style="list-style-type: none"> <li>_ Value for Money</li> <li>_ Continuous Improvement</li> <li>_ Sustainability</li> <li>_ Commitment to Quality</li> </ul>
INFORMING STRATEGIES/PLANS		ALIGNMENT WITH COMMUNITY STRATEGIC PLAN
<ul style="list-style-type: none"> <li>_ Access &amp; Inclusion Plan</li> <li>_ Connected Communities Plan</li> <li>_ Public Health Plan</li> </ul>	<p><b>Smart Prosperous &amp; Growing</b></p> <ul style="list-style-type: none"> <li>• Advocate for and support initiatives that lead to education sector and employment growth.</li> </ul> <p><b>A Sense of Community</b></p> <ul style="list-style-type: none"> <li>• Promote and develop an authentic sense of community.</li> <li>• Deliver activities and programs that promote Albany's unique heritage.</li> <li>• Develop a range of activities and facilities and that are appropriate for all ages.</li> </ul> <p><b>Civic Leadership</b></p> <ul style="list-style-type: none"> <li>• Implement systems and controls that ensure the prudent use of rates.</li> <li>• Develop contemporary service delivery and staff development programs.</li> </ul>	
PURPOSE STATEMENT		
<p><i>"To deliver and promote excellence and equity in 'Early Learning' so that families have a sense of belonging within their community by providing an environment that is safe, stimulating and a curriculum that challenges through creativity, self-choice and learning through play, which is not subsidised by rate payers."</i></p>		


DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<p><b>Service Delivery:</b> <i>To provide an educational early learning environment and support network to families within the great southern region.</i></p>		
<ul style="list-style-type: none"> <li>• Promote benefits of school holiday program in child care setting= consistent curriculum and full day hours with additional events.</li> </ul>	<ul style="list-style-type: none"> <li>• Placements to remain full over holiday periods.</li> </ul>	
<ul style="list-style-type: none"> <li>• Deliver Curriculum-embracing &amp; implementing National Quality Standards &amp; Early years Learning Framework 51 weeks year</li> </ul>	<ul style="list-style-type: none"> <li>• Positive audit &amp; spot check results.</li> </ul>	
<ul style="list-style-type: none"> <li>• Family / customer quarterly survey results – service satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>• 90% satisfied.</li> </ul>	
<ul style="list-style-type: none"> <li>• Community Perception survey results –service satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>• 85% satisfied.</li> </ul>	

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>People &amp; Process:</b> <i>To comply with the National Quality and Early Years Learning frameworks and continue "Exceeding" in all 7 quality areas.</i>		
<ul style="list-style-type: none"> <li>Quality Improvement Plan % of actions delivered on time in regard to core business and 7 QA areas.</li> </ul>	<ul style="list-style-type: none"> <li>75%.</li> </ul>	
<b>Finance:</b> <i>To provide value for money to families by seeking funding opportunities and fundraising initiatives to put back into centre resources.</i>		
<ul style="list-style-type: none"> <li>Financial performance against budget.</li> </ul>	<ul style="list-style-type: none"> <li>Net cost within budget.</li> </ul>	
<ul style="list-style-type: none"> <li>Utilisation % -as per budget established – small portion remains for casuals, allows flexibility to accommodate respite care to families.</li> </ul>	<ul style="list-style-type: none"> <li>51 of 60 places booked as permanents.</li> </ul>	
<ul style="list-style-type: none"> <li>Fees benchmarked to regional areas and service provided.</li> </ul>	<ul style="list-style-type: none"> <li>Remain competitive annually.</li> </ul>	
<b>Communication:</b> <i>To positively promote the role and work of the centre while supporting industry and community initiatives.</i>		
<ul style="list-style-type: none"> <li>Be involved in themed community events, COA promotions and events to provide knowledge and exposure consistently.</li> </ul>	<ul style="list-style-type: none"> <li>Minimum involvement in 4 events per annum.</li> </ul>	
<ul style="list-style-type: none"> <li>Open day to public (families &amp; students) Provides knowledge and educates on our service, industry, importance of school transitions and Kindy program offered / the role of childcare.</li> </ul>	<ul style="list-style-type: none"> <li>Minimum 2 stories published per annum.</li> </ul>	
<b>Facilities:</b> <i>To continually upgrade identified areas within the building and maintain the recently completed outdoor spaces in line with the Asset Management Plan.</i>		
<ul style="list-style-type: none"> <li>Building condition status, meet National Quality Standards and Regulatory requirements on unannounced spot checks. Indoor painting, swing sets replaced.</li> </ul>	<ul style="list-style-type: none"> <li>Remain compliant on all inspection visits.</li> </ul>	
<ul style="list-style-type: none"> <li>Installation of effective security system.</li> </ul>	<ul style="list-style-type: none"> <li>Install, surveillance and duress system in 2017/18.</li> </ul>	

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<p><i>"To be Western Australia's most sought after and unique regional City to live, work and visit"</i></p>		<ul style="list-style-type: none"> <li>_ Value for Money</li> <li>_ Continuous Improvement</li> <li>_ Sustainability</li> <li>_ Commitment to Quality</li> </ul>
INFORMING STRATEGIES		ALIGNMENT WITH COMMUNITY STRATEGIC PLAN
<ul style="list-style-type: none"> <li>_ Public Health Plan</li> <li>_ Sport Futures Plan</li> </ul>	<p><b>A Sense of Community</b></p> <ul style="list-style-type: none"> <li>• Strong Resilient Communities</li> <li>• Vibrant Places &amp; Spaces</li> <li>• Sought after lifestyle destination</li> </ul>	
PURPOSE STATEMENT		
<p><i>"To provide a diverse and affordable range of quality sport and recreational opportunities to all members of our community in a safe, friendly, and fun environment which is financially sustainable for the rate payers of the City of Albany."</i></p>		

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Service Delivery:</b>		
<ul style="list-style-type: none"> <li>• Proceed with the stage two organisational restructure for the Aquatics department that improves operational outcomes and service delivery.</li> </ul>	<ul style="list-style-type: none"> <li>• Improved operational performance and recreation program outcomes.</li> </ul>	
<ul style="list-style-type: none"> <li>• Develop an improved and efficient online Enrolment Process for the ALAC Swim School Customers.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase in swim school enrolments – 3900 enrolments over the 12 month period</li> </ul>	
<ul style="list-style-type: none"> <li>• Upgrade the H&amp;F Cardio Equipment &amp; refurbish access to support extended unsupervised operational hours.</li> </ul>	<ul style="list-style-type: none"> <li>• Improved customer satisfaction Community Perception &amp; members survey results – 85% Satisfaction Rate</li> <li>• Increase in H&amp; F memberships - 1200 members for the 2017/2018</li> </ul>	
<ul style="list-style-type: none"> <li>• Increase ALAC direct recreation programming with a focus on off peak periods.</li> </ul>	<ul style="list-style-type: none"> <li>• Programs and services provided to high priority, at-risk groups.</li> </ul>	
<ul style="list-style-type: none"> <li>• Increase and extended after-hour club and community usage of the ALAC.</li> </ul>	<ul style="list-style-type: none"> <li>• After hours usage is extended.</li> <li>• Increase in stadium revenue.</li> </ul>	
<ul style="list-style-type: none"> <li>• Develop a lane allocation and fee policy to assist in addressing conflicts between casual users and organised groups for lap swimming.</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation completed with stakeholders and policy developed.</li> </ul>	

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>People and Process:</b>		
<ul style="list-style-type: none"> <li>IT - Website enabled to support online enrolments.</li> </ul>	<ul style="list-style-type: none"> <li>Implemented.</li> </ul>	
<ul style="list-style-type: none"> <li>IT - Improved software (Centaman) Database and modules require review and upgrade.</li> </ul>	<ul style="list-style-type: none"> <li>Upgraded.</li> </ul>	
<ul style="list-style-type: none"> <li>HR - Implement modifications to Aquatics and Swim School Staff structures to improve efficiencies.</li> </ul>	<ul style="list-style-type: none"> <li>New structure implemented and overall salary budget for Aquatics and Swim School administration staff (no teaching) staff reduced.</li> </ul>	
<ul style="list-style-type: none"> <li>HR - Implement Customer Services Training.</li> </ul>	<ul style="list-style-type: none"> <li>At least one customer service training session run for key staff.</li> </ul>	
<b>Finance:</b>		
<ul style="list-style-type: none"> <li>Improved links between Centaman and Synergy established to improve invoicing for memberships and stadium bookings including reducing administration tasks required to be undertaken.</li> </ul>	<ul style="list-style-type: none"> <li>Processes established and staff trained.</li> </ul>	
<ul style="list-style-type: none"> <li>Budget for the H&amp;F Cardio Equipment.</li> </ul>	<ul style="list-style-type: none"> <li>Costed into the 2017/18 budget.</li> </ul>	
<b>Communication:</b>		
<ul style="list-style-type: none"> <li>Internal communications plan for staff with regard the Aquatic restructure</li> </ul>	<ul style="list-style-type: none"> <li>Implemented plan post endorsement by HR and EMT.</li> </ul>	
<ul style="list-style-type: none"> <li>Improved Communication and Marketing to current and potential ALAC Members (H&amp;F and Swim School).</li> </ul>	<ul style="list-style-type: none"> <li>Increase in swim school enrolments and H&amp;F Memberships (Increase of 10-15% over the period).</li> </ul>	
<b>Facilities:</b>		
<ul style="list-style-type: none"> <li>Design, implement solutions to address heat loss on the external filtration system.</li> </ul>	<ul style="list-style-type: none"> <li>CPRP Funding Application Submitted.</li> <li>Project delivered.</li> </ul>	
<ul style="list-style-type: none"> <li>Redesign of the front reception and external access to allow for extended after-hour club and community usage, without incurring on-going staff wages.</li> </ul>	<ul style="list-style-type: none"> <li>Facility refurbishment completed to enable extended after-hour club and community usage of the ALAC.</li> </ul>	

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INFORMING STRATEGIES	ALIGNMENT WITH COMMUNITY STRATEGIC PLAN	
<ul style="list-style-type: none"> <li>_ Access &amp; Inclusion Plan</li> <li>_ Age Friendly Albany</li> <li>_ Connected Communities Strategy</li> <li>_ Public Health Plan</li> <li>_ State Gov't Agreements &amp; Legislation</li> <li>_ ALIA Standards &amp; Guidelines</li> </ul>	<p><b>A Sense of Community</b></p> <ul style="list-style-type: none"> <li>• To build resilient and cohesive communities with a strong sense of community spirit.</li> <li>• To create interesting places, spaces and events that reflect our community's identity, diversity and heritage.</li> <li>• To develop and support a healthy inclusive and accessible community.</li> </ul>	
PURPOSE STATEMENT		
<p><i>"Our key purpose is to foster a love of literature; lifelong learning and the free flow of information</i></p> <p><i>We will focus on continuing to provide outstanding customer service</i></p> <p><i>We will achieve this by being a conduit of knowledge and cultivating a space that promotes social inclusion within the community."</i></p>		


**2017/18 Focus Area - Tourism and Information Hub Construction**

*Between April and December 2017 the Library will be operating under a 'transition phase' as the Tourism and Information Hub is constructed. A comprehensive Transition plan has been developed to manage operations during transition.*

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<p><b>Service Delivery:</b> <i>To create an engaging, accessible and inspiring "home away from home" – a physical and virtual 'community hub'.</i></p>		
<ul style="list-style-type: none"> <li>• Deliver programs that complement town square programming.</li> </ul>	<ul style="list-style-type: none"> <li>• 5 per year.</li> </ul>	
<ul style="list-style-type: none"> <li>• Provide an experience that attracts library visitors and library members.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase in visitors and members each year.</li> </ul>	
<p><b>Service Delivery:</b> <i>To be a place that celebrates knowledge and learning; and provides life-long learning opportunities.</i></p>		
<ul style="list-style-type: none"> <li>• Deliver services and programs that link to established community events &amp; activities E.g. Children's &amp; Seniors Weeks, Harmony Week, NAIDOC</li> </ul>	<ul style="list-style-type: none"> <li>• 6 per year.</li> </ul>	
<ul style="list-style-type: none"> <li>• Embed eSmart Libraries services and programs: physical and online services; e-literacy programs; e-lending usage growth.</li> </ul>	<ul style="list-style-type: none"> <li>• E.g. Spydus user sessions, BYOD.</li> </ul>	


DELIVERABLES		MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Service Delivery:</b> <i>To provide a safe, inclusive and stress free space for all the community.</i>			
<ul style="list-style-type: none"> <li>Encourage user and wider community feedback by achieving satisfaction ratings in library user and community perception surveys.</li> </ul>	<ul style="list-style-type: none"> <li>Library Users above 85%.</li> <li>Community Perception above local government average.</li> </ul>		
<ul style="list-style-type: none"> <li>Meet community need for outreach and engagement services provided for those who cannot visit Libraries.</li> </ul>	<ul style="list-style-type: none"> <li>E.g. Home Library Service.</li> </ul>		
<b>Service Delivery:</b> <i>To collect and preserve our social and documentary heritage for current and future generations.</i>			
<ul style="list-style-type: none"> <li>Deliver heritage-based programs, with complementary online service delivery.</li> </ul>	<ul style="list-style-type: none"> <li>2 per year.</li> </ul>		
<ul style="list-style-type: none"> <li>Create plan for continued digitisation program for significant Albany History Collection material.</li> </ul>	<ul style="list-style-type: none"> <li>Endorsed and funded plan.</li> </ul>		
<b>People &amp; Process:</b> <i>Continuous improvement approach to service &amp; programme delivery.</i>			
<ul style="list-style-type: none"> <li>Review Wellstead branch service delivery and model alternative options.</li> </ul>	<ul style="list-style-type: none"> <li>Review findings presented Dec 2017</li> </ul>		
<b>Finance:</b> <i>Value for money in all aspects of council operations.</i>			
<ul style="list-style-type: none"> <li>Meet or exceed operating budget forecasts whilst maintaining service delivery standards.</li> </ul>	<ul style="list-style-type: none"> <li>Budget forecasts met or exceeded</li> </ul>		
<b>Communications:</b> <i>To collaborate and build strong partnerships within the wider community.</i>			
<ul style="list-style-type: none"> <li>Library presence at Community events &amp; expos.</li> </ul>	<ul style="list-style-type: none"> <li>6 per year.</li> </ul>		
<ul style="list-style-type: none"> <li>Deliver partnership programs across Community Services Business Units.</li> </ul>	<ul style="list-style-type: none"> <li>4 per year.</li> </ul>		
<b>Asset Management:</b> <i>To manage facilities and use technology in a cost effective manner.</i>			
<ul style="list-style-type: none"> <li>Asset Management Plan developed.</li> </ul>	<ul style="list-style-type: none"> <li>Renewal &amp; maintenance schedule.</li> </ul>		
<ul style="list-style-type: none"> <li>RGS Grant expended and RFID Implemented during visitor centre relocation.</li> </ul>	<ul style="list-style-type: none"> <li>Implementation complete by Dec 2017.</li> </ul>		



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INFORMING STRATEGIES		ALIGNMENT WITH COMMUNITY STRATEGIC PLAN
<ul style="list-style-type: none"> <li>_ Access &amp; Inclusion Plan</li> <li>_ Age Friendly Albany</li> <li>_ Asset Management Strategy</li> <li>_ Communications Strategy</li> <li>_ Connected Communities Plan</li> <li>_ Economic Development Strategy</li> <li>_ Local Planning Strategy</li> </ul>	<p><b>Smart, Prosperous &amp; Growing</b></p> <ul style="list-style-type: none"> <li>• Encourage, support and deliver significant events that promote our region.</li> <li>• Promote the Albany region as a sought after and iconic tourism destination.</li> </ul> <p><b>A Sense of Community</b></p> <ul style="list-style-type: none"> <li>• Promote and develop an authentic sense of community.</li> <li>• Deliver activities and programs that promote Albany's unique heritage.</li> <li>• Encourage and support volunteers and community groups.</li> </ul>	
PURPOSE STATEMENT		
<p><i>"To make a valuable contribution to the local Albany economy by delivering high standards of customer service, maximising the dollar spend of visitors to local businesses, to adopt a strong business model focus and to operate in a financially sustainable manner across aspects of operations in the Centre."</i></p>		


DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<p><b>Service Delivery:</b> <i>To achieve a sustainable balance between high customer service delivery and financial return on investment.</i></p>		
<ul style="list-style-type: none"> <li>• KPI: Increase enquiry level by 5% from current estimate of enquiry level (85,000 walk-ins, 92,694 online users, unknown telephone in 15/16).</li> </ul>	<ul style="list-style-type: none"> <li>• 5% increase on previous year.</li> </ul>	
<ul style="list-style-type: none"> <li>• Maintain high levels of customer service delivery to visitors and locals in a manner that works to reduce the overall CoA operational subsidy to achieve &lt; \$320k pa.</li> </ul>	<ul style="list-style-type: none"> <li>• Community Satisfaction Survey &gt;85% satisfaction.</li> </ul>	
<ul style="list-style-type: none"> <li>• Develop and implement new business model to secure accommodation and tour bookings in most cost effective operational model.</li> </ul>	<ul style="list-style-type: none"> <li>• New model endorsed by August 2017.</li> </ul>	
<ul style="list-style-type: none"> <li>• Implement local industry engagement plan to ensure smooth implementation of new business model.</li> </ul>	<ul style="list-style-type: none"> <li>• Engagement Plan approved.</li> </ul>	
<p><b>People and Process:</b> <i>To develop a dedicated team of AVC staff with commitment to delivery of high standards of customer service whilst always focusing upon generating revenue from every visitor enquiry.</i></p>		
<ul style="list-style-type: none"> <li>• KPI: Implement new business model to achieve wage cost reduction.</li> </ul>	<ul style="list-style-type: none"> <li>• Wage cost &lt;\$400k in 2017/18.</li> </ul>	
<ul style="list-style-type: none"> <li>• Focus on establishing a workforce plan that uses both paid staff and volunteer resources.</li> </ul>	<ul style="list-style-type: none"> <li>• Updated workforce plan adopted.</li> </ul>	
<ul style="list-style-type: none"> <li>• Improve AVC staff knowledge of and level of engagement with local accommodation, services and attractions.</li> </ul>	<ul style="list-style-type: none"> <li>• Product Familiarisation Program developed and implemented.</li> </ul>	

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Finance:</b> <i>Work to increase the overall value of the AVC business operation by striving to achieve financial sustainability.</i>		
<ul style="list-style-type: none"> <li>KPI: Achieve annual subsidy of \$320k.</li> </ul>	<ul style="list-style-type: none"> <li>Subsidy &lt;\$320k in 2017/18.</li> </ul>	
<ul style="list-style-type: none"> <li>Implement new operational business model.</li> </ul>	<ul style="list-style-type: none"> <li>New model introduced.</li> </ul>	
<b>Communication:</b> <i>Implement effective marketing and promotions that maximise the financial returns to the AVC business model and that assist in the development of Albany as a successful visitor destination.</i>		
<ul style="list-style-type: none"> <li>KPI: Improve satisfaction levels re AVC local industry engagement.</li> </ul>	<ul style="list-style-type: none"> <li>Satisfaction level &gt;80% in 2017/18</li> </ul>	
<ul style="list-style-type: none"> <li>Implement local industry engagement and communication plan for new VC relocation and operations.</li> </ul>	<ul style="list-style-type: none"> <li>Plan developed and adopted.</li> </ul>	
<b>Facilities:</b> <i>To present a visitor centre setting that is highly welcoming and provides an excellent showcase/window to the visitor experiences on offer in the region.</i>		
<ul style="list-style-type: none"> <li>KPI: Coordinate digital strategy for visitor servicing.</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	
<ul style="list-style-type: none"> <li>Support the relocation and develop plans to assist and be ready for shift of AVC to main York Street site estimated in December 2017.</li> </ul>	<ul style="list-style-type: none"> <li>Move to new premises.</li> </ul>	
<ul style="list-style-type: none"> <li>Identify and implement facility modifications to meet new business model needs in new location.</li> </ul>	<ul style="list-style-type: none"> <li>Design approved by Council.</li> </ul>	

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<p><i>"To be Western Australia's most sought after and unique regional City to live, work and visit"</i></p>		<ul style="list-style-type: none"> <li>_ Value for Money</li> <li>_ Continuous Improvement</li> <li>_ Sustainability</li> <li>_ Commitment to Quality</li> </ul>	
INFORMING STRATEGIES		ALIGNMENT WITH COMMUNITY STRATEGIC PLAN	
<ul style="list-style-type: none"> <li>_ Asset Management Plan</li> <li>_ Public Health Plan</li> <li>_ Recreation Futures Plan</li> <li>_ Access and Inclusion Plan</li> </ul>		<p><b>Clean Green and Sustainable</b></p> <ul style="list-style-type: none"> <li>• Protect and enhance our natural environment</li> </ul> <p><b>Connected Built Environment</b></p> <ul style="list-style-type: none"> <li>• To develop vibrant neighbourhoods which retain local character &amp; heritage.</li> <li>• Provide proactive planning &amp; building services.</li> <li>• Deliver programs that improve public health and wellbeing</li> <li>• Develop an integrated approach to planning and development compliance.</li> <li>• Ensuring community safety is built into all planning and development initiatives.</li> </ul>	
PURPOSE STATEMENT			
<p><i>"To efficiently provide solutions and advice in accordance with the Building, Health and relevant Compliance Legislation and Codes while also proactively maintaining and improving the quality of life, sustainability and protecting the health and safety of our Community."</i></p>			
DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)		STATUS
<p><b>Service Delivery: Building: To provide a high level technical service to internal and external customers.</b></p>			
<ul style="list-style-type: none"> <li>• Accurately process permits, review plans, provide building advice, site visits &amp; inspections; while providing a consistent approach from within the team.</li> </ul>	<ul style="list-style-type: none"> <li>• Improving trends in customer surveys.</li> </ul>		
<ul style="list-style-type: none"> <li>• Assist, educate and promote to our customers how to meet the codes and the permit process.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide regular training &amp; updates to the Development Information Services Team.</li> </ul>		
<ul style="list-style-type: none"> <li>• Continue to provide Regional Support and Focus with consideration of available resources.</li> </ul>	<ul style="list-style-type: none"> <li>• Positive feedback from surrounding LGA's (i.e. Shire of Jerramungup).</li> </ul>		
<p><b>Service Delivery: Health: To provide a high level technical service to internal and external customers.</b></p>			
<ul style="list-style-type: none"> <li>• Deliver and report on the action plan items outlined in the Public Health Plan, within required timeframes.</li> </ul>	<ul style="list-style-type: none"> <li>• Public Health Plan Actions delivered with timeframes and reported on.</li> </ul>		
<ul style="list-style-type: none"> <li>• Deliver a proactive and educational service, while reducing health inspection frequencies based on risk.</li> </ul>	<ul style="list-style-type: none"> <li>• Evidence of 3 education programs per year and increased premises compliance.</li> </ul>		


REPORT ITEM CCCS 057 REFERS

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Service Delivery: Compliance: To resolve issues of non-compliance in an effective and timely manner.</b>		
<ul style="list-style-type: none"> <li>Increase effectiveness of investigations and resolution of issues of non-compliance in a more coordinated and efficient manner.</li> </ul>	<ul style="list-style-type: none"> <li>Establish a dedicated Compliance Team by 1/07/2017.</li> </ul>	
<ul style="list-style-type: none"> <li>Develop procedures and policy documents to ensure a consistent service is provided</li> </ul>	<ul style="list-style-type: none"> <li>Documents developed, endorsed and implemented.</li> </ul>	
<b>People and Process: Maintain an appropriate level of suitably qualified and trained personnel.</b>		
<ul style="list-style-type: none"> <li>Support, train and develop staff to maintain the highest possible standard of planning, organization and customer service; while focusing on core functions.</li> </ul>	<ul style="list-style-type: none"> <li>Development planned via the performance review process with at least 1 professional development opportunity per staff member per year.</li> </ul>	
<ul style="list-style-type: none"> <li>Develop staff (including Development Information Services Team and other Customer Service staff) to build capacity so they are able to step up and provide cover in the event of absence or leave and to increase skills in dealing with customer enquiries</li> </ul>	<ul style="list-style-type: none"> <li>Create opportunities, staff gain qualifications and skills, improve customer perception survey and staff undertake site visits/ mentoring with senior staff.</li> </ul>	
<ul style="list-style-type: none"> <li>Ongoing development of procedures and policy documents for each work area to ensure a consistent service is provided</li> </ul>	<ul style="list-style-type: none"> <li>Documents are contemporary and reflect current practice.</li> </ul>	
<b>Finance: Provide value for money.</b>		
<ul style="list-style-type: none"> <li>Increase the number of Certificates of Construction, Building and Design Compliance for Class 2-9 buildings.</li> </ul>	<ul style="list-style-type: none"> <li>Increase in number of certificates issued from previous years.</li> </ul>	
<b>Communication: Provide exceptional customer service in a timely, friendly, and professional manner.</b>		
<ul style="list-style-type: none"> <li>Proactively promote the work undertaken by the Building, Health &amp; Compliance Services team in an effort to gain recognition for the technical and wide-ranging work that is undertaken and to manage expectations.</li> </ul>	<ul style="list-style-type: none"> <li>Minimum of 3 articles or education programs undertaken per year.</li> </ul>	
<ul style="list-style-type: none"> <li>Improve communication and coordination between teams, particularly in regards to investigations to ensure we are an approachable and accessible team to all.</li> </ul>	<ul style="list-style-type: none"> <li>Trend showing reduction in resolution of investigation timeframes and feedback survey results to show ongoing improvements.</li> </ul>	
<b>Assets:</b>		
<ul style="list-style-type: none"> <li>Maintain access to the current Australian Standards &amp; Building Codes which are regularly updated.</li> </ul>	<ul style="list-style-type: none"> <li>Latest version of key codes and standards available.</li> </ul>	
<ul style="list-style-type: none"> <li>Ensure officers have the highest possible quality of relevant plant and equipment to deliver services within resource constraints.</li> </ul>	<ul style="list-style-type: none"> <li>Equipment purchased or upgraded as required as per the budget.</li> </ul>	
<ul style="list-style-type: none"> <li>Develop opportunities for remote access to IT software for inspections and compliance work.</li> </ul>	<ul style="list-style-type: none"> <li>Software developed and equipment purchased as required.</li> </ul>	

CITY VISION	CITY VALUES	GUIDING PRINCIPLES
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INFORMING STRATEGIES		ALIGNMENT WITH COMMUNITY STRATEGIC PLAN
<ul style="list-style-type: none"> <li>_ Asset Management Policy, Strategy &amp; Plan</li> <li>_ Carbon Reduction Strategy</li> <li>_ Albany Cycle City Strategy</li> </ul>	<p>Clean, Green and Sustainable</p> <p>A Connected Built Environment</p> <ul style="list-style-type: none"> <li>• A Sense of Community.</li> <li>• Smart, Prosperous and Growing.</li> </ul>	
PURPOSE STATEMENT		
<p><i>To Develop, Maintain and Enhance City Infrastructure and its Natural Environment to maximise its benefit to the community.</i></p>		

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Asset Management:</b> <i>To improve asset network condition trending.</i>		
<ul style="list-style-type: none"> <li>• Develop an accurate and reliable asset inventory through ongoing data collection.</li> </ul>	<ul style="list-style-type: none"> <li>• Moderate or High level of confidence across all Asset Classes.</li> </ul>	
<ul style="list-style-type: none"> <li>• Undertake asset and financial modelling and provide meaningful information to elected members. Field proofed inputs and analysis out the modelling outputs to gain confidence in data outputs.</li> </ul>	<ul style="list-style-type: none"> <li>• Up to date financial modelling including field proofing of outputs with annual presentation to elected members.</li> </ul>	
<ul style="list-style-type: none"> <li>• Develop integrated long term financial plans for capital works and ensure asset management principles are understood and considered in planning.</li> </ul>	<ul style="list-style-type: none"> <li>• No decline in overall condition rating over 10 year horizon.</li> </ul>	
<b>Forward Capital Works Program:</b> <i>To inform LTFP with well develop forward capital works programming</i>		
<ul style="list-style-type: none"> <li>• Develop forward capital works which are informed by robust prioritisation models.</li> </ul>	<ul style="list-style-type: none"> <li>• Evidence that projects are prioritised as per condition intervention points in the AMP's.</li> </ul>	
<ul style="list-style-type: none"> <li>• Prepare concepts of forward works to enable accurate cost analysis.</li> </ul>	<ul style="list-style-type: none"> <li>• Minimum class 3 estimates for all budget control.</li> </ul>	
<b>Design:</b> <i>To deliver high quality and cost effective infrastructure design.</i>		
<ul style="list-style-type: none"> <li>• Undertake internal design work to contemporary standards.</li> </ul>	<ul style="list-style-type: none"> <li>• External Design fees to be &lt;1.5% of Construction Budget.</li> </ul>	
<ul style="list-style-type: none"> <li>• Ensure functionality and quality consideration are appropriate in each instance.</li> </ul>		
<ul style="list-style-type: none"> <li>• Design with consideration to best whole of life cost outcomes.</li> </ul>		

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Project Management:</b> <i>To deliver the capital works program on time on budget.</i>		
<ul style="list-style-type: none"> <li>Schedule projects for efficient delivery through external contractors.</li> </ul>	<ul style="list-style-type: none"> <li>90% of projects delivered in nominated financial year +/- 10% Budget.</li> </ul>	
<ul style="list-style-type: none"> <li>Provide quality assurance and ensure standards are met including a high level of safety compliance.</li> </ul>	<ul style="list-style-type: none"> <li>Zero Worksafe Notices.</li> <li>Complete QA on all external delivered projects.</li> </ul>	
<ul style="list-style-type: none"> <li>Effectively manage construction contracts in house with minimal external superintendence.</li> </ul>	<ul style="list-style-type: none"> <li>External Superintendence fee to be &lt;1.5% of Construction Budget.</li> </ul>	
<b>Environmental Sustainability:</b> <i>To implement the City's Carbon Footprint Strategy and reduce energy use in public buildings and spaces.</i>		
<ul style="list-style-type: none"> <li>Deliver actions in the Carbon Footprint Reduction strategy.</li> </ul>	<ul style="list-style-type: none"> <li>Action plan delivered within stated timeframes.</li> </ul>	
<ul style="list-style-type: none"> <li>Reduction in energy use in public buildings and space and be water wise</li> </ul>	<ul style="list-style-type: none"> <li>Trends showing a reduction in energy use.</li> </ul>	
<ul style="list-style-type: none"> <li>Improve public and corporate awareness of sustainability issues.</li> </ul>		
<b>People and Process:</b>		
<ul style="list-style-type: none"> <li>Develop a programme for staff to visit innovative and progressive metropolitan LGAs.</li> </ul>	<ul style="list-style-type: none"> <li>Program scheduled and delivered.</li> </ul>	
<ul style="list-style-type: none"> <li>Develop structured review process for internal design projects to expose inside and outside staff to different projects.</li> </ul>	<ul style="list-style-type: none"> <li>Process developed and implemented by June 2018.</li> </ul>	
<b>Finance:</b>		
<ul style="list-style-type: none"> <li>Financial Performance.</li> </ul>	<ul style="list-style-type: none"> <li>Net Costs within Budget.</li> </ul>	
<b>Communication:</b>		
<ul style="list-style-type: none"> <li>Active support of organisational objectives by providing high quality internal customer service.</li> </ul>	<ul style="list-style-type: none"> <li>Customer Service rating above 80%.</li> </ul>	
<ul style="list-style-type: none"> <li>Respond to External Customer service requests within designated timeframe.</li> </ul>	<ul style="list-style-type: none"> <li>95% of Requests responded to within designated timeframe.</li> </ul>	
<ul style="list-style-type: none"> <li>Participate in quality community consultation.</li> </ul>	<ul style="list-style-type: none"> <li>Compliance with city's engagement framework.</li> </ul>	
<b>Assets:</b>		
<ul style="list-style-type: none"> <li>Identify and plan move to improved office space.</li> </ul>	<ul style="list-style-type: none"> <li>Move into new accommodation by June 2018</li> </ul>	
<ul style="list-style-type: none"> <li>Improve connectivity with other City offices.</li> </ul>	<ul style="list-style-type: none"> <li>Deliver up to date conferencing facilities between stations by June 2018.</li> </ul>	


CITY VISION	CITY VALUES	GUIDING PRINCIPLES
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INFORMING STRATEGIES		ALIGNMENT WITH COMMUNITY STRATEGIC PLAN
<ul style="list-style-type: none"> <li>_ Asset Management Policy, Strategy &amp; Plan</li> <li>_ Carbon Reduction Strategy</li> <li>_ Strategic Waste Management Plan</li> </ul>	<p><b>Clean, Green and Sustainable</b></p> <ul style="list-style-type: none"> <li>• To maintain and renew city assets in a sustainable manner.</li> <li>• Deliver effective asset maintenance programs.</li> <li>• To advocate for and support "green initiative" within the region.</li> <li>• Deliver effective waste management services.</li> </ul>	
PURPOSE STATEMENT		
<p><i>"To deliver quality construction, maintenance and City services through innovation and best practice."</i></p>		

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<p><b>Maintenance:</b> <i>Effective preventive maintenance programs and completion of customer service requests within agreed timeframe.</i></p>		
<ul style="list-style-type: none"> <li>• Preventive maintenance scheduled and undertaken to a high quality.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Maintenance schedules met.</i></li> </ul>	
<ul style="list-style-type: none"> <li>• Reactive maintenance based on Customer Service Request undertaken in accordance with customer service charter.</li> </ul>	<ul style="list-style-type: none"> <li>• 80% or more CSR's closed out or acted upon within agreed timeframe.</li> </ul>	
<p><b>Construction:</b> <i>Delivery of capital works projects (internally delivered) on time and within budget.</i></p>		
<ul style="list-style-type: none"> <li>• Deliver capital projects in house. Continue to build in house capacity by delivering challenging projects.</li> </ul>	<ul style="list-style-type: none"> <li>• Projects delivered plus or minus 10% budget.</li> </ul>	
<ul style="list-style-type: none"> <li>• Provide effective supervision ensuring works are carried out safely and delivered on time.</li> </ul>	<ul style="list-style-type: none"> <li>• Projects completion within 10% of time allocation.</li> </ul>	
<ul style="list-style-type: none"> <li>• Maintain a professional image by having worksites which are managed appropriately catering for the community needs.</li> </ul>	<ul style="list-style-type: none"> <li>• Regular inspections with zero work safe improvement notices.</li> </ul>	
<p><b>Waste:</b> <i>Effective waste management practices and implementation of Strategic Waste Strategy priorities.</i></p>		
<ul style="list-style-type: none"> <li>• Effective management of the City's Waste Contract.</li> </ul>	<ul style="list-style-type: none"> <li>• Community Perception rating above LG average</li> </ul>	
<ul style="list-style-type: none"> <li>• Provide best practice management of landfill sites to meet all regulatory requirements.</li> </ul>	<ul style="list-style-type: none"> <li>• Compliance with annual DER reporting and inspection.</li> </ul>	
<ul style="list-style-type: none"> <li>• Deliver actions in the City's Strategic Waste Management Plan.</li> </ul>	<ul style="list-style-type: none"> <li>• Strategic plan actions delivered within stated timeframe.</li> </ul>	

REPORT ITEM CCCS 057 REFERS


DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Depot Services:</b> <i>Continual improvement in cost effectiveness of service delivery.</i>		
<ul style="list-style-type: none"> <li>Effective administration and procurement practices that ensure value for money.</li> </ul>	<ul style="list-style-type: none"> <li>Annual internal customer service survey.</li> </ul>	
<b>People and Process:</b> <i>Be innovative in how we develop our staff and the way we conduct our business.</i>		
<ul style="list-style-type: none"> <li>Develop a programme for staff to visit innovative and progressive metropolitan LGAs .</li> </ul>	<ul style="list-style-type: none"> <li>Program scheduled and delivered.</li> </ul>	
<ul style="list-style-type: none"> <li>Create opportunities for succession planning via higher duties, training, mentoring and coaching.</li> </ul>	<ul style="list-style-type: none"> <li>80% of temporary vacancies filled by staff within the directorate.</li> </ul>	
<ul style="list-style-type: none"> <li>Provide technical support and advice.</li> </ul>	<ul style="list-style-type: none"> <li>Employee Perception rating above 80%.</li> </ul>	
<ul style="list-style-type: none"> <li>Organise training and development that supports a professional and developing work force.</li> </ul>	<ul style="list-style-type: none"> <li>Annual training schedule developed and delivered.</li> </ul>	
<ul style="list-style-type: none"> <li>Implement safety practices that promote a culture of safety while meeting legislative requirements.</li> </ul>	<ul style="list-style-type: none"> <li>Reduction in injuries and operational incident reports.</li> </ul>	
<b>Finance:</b> <i>Strive to deliver a value for money service sensitive to the community's needs.</i>		
<ul style="list-style-type: none"> <li>Financial Performance.</li> </ul>	<ul style="list-style-type: none"> <li>Net Costs within Budget.</li> </ul>	
<ul style="list-style-type: none"> <li>Continual improvement in the cost effectiveness of service delivery.</li> </ul>	<ul style="list-style-type: none"> <li>Annual internal customer service survey.</li> </ul>	
<b>Communication:</b> <i>Commit to transparent, timely and constructive conversations with all our customers.</i>		
<ul style="list-style-type: none"> <li>Active support of organisational objectives by providing high quality internal customer service.</li> </ul>	<ul style="list-style-type: none"> <li>Employee Perception rating above 80%.</li> </ul>	
<ul style="list-style-type: none"> <li>Participate in quality community engagement.</li> </ul>	<ul style="list-style-type: none"> <li>Compliance with city's engagement framework.</li> </ul>	
<b>Assets:</b> <i>To deliver financially responsible plant replacement and maintenance programmes.</i>		
<ul style="list-style-type: none"> <li>Renew and maintain heavy plant and equipment cost effectively.</li> </ul>	<ul style="list-style-type: none"> <li>Plant renewal and maintenance delivered within plus or minus 10% budget.</li> </ul>	



CITY VISION	CITY VALUES	GUIDING PRINCIPLES
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INFORMING STRATEGIES		ALIGNMENT WITH COMMUNITY STRATEGIC PLAN
<ul style="list-style-type: none"> <li>_ Access &amp; Inclusion Plan</li> <li>_ Bush Fire Strategic Plan</li> <li>_ Natural Reserves Strategy and Action Plan</li> <li>_ Communications Strategy</li> </ul>	<p><b>Clean, Green and Sustainable</b></p> <ul style="list-style-type: none"> <li>• To maintain and renew city assets in a sustainable manner.</li> <li>• Deliver effective asset maintenance programs.</li> <li>• To advocate for and support "green initiative" within the region.</li> </ul>	
PURPOSE STATEMENT		
<p><i>"To manage Public Spaces and the Natural Environment to provide maximum benefit to the community and visitors and to ensure the City protects its natural assets in line with legislative requirements and best practise."</i></p>		


DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Service Delivery:</b>		
<ul style="list-style-type: none"> <li>• Undertake Environmental impact assessment and issue permits.</li> </ul>	<ul style="list-style-type: none"> <li>• Planning requirements met for capital works program.</li> </ul>	
<ul style="list-style-type: none"> <li>• Undertake fuel reduction planning for City controlled land including the assessment and facilitation of controlled burns and by undertaking mechanical mitigation control measures.</li> </ul>	<ul style="list-style-type: none"> <li>• Minimum of 10 controlled burns completed per annum.</li> </ul>	
<ul style="list-style-type: none"> <li>• Develop and deliver management and improvement plans for reserves.</li> </ul>	<ul style="list-style-type: none"> <li>• Delivery of adopted Natural Reserves Strategy and Action Plan.</li> </ul>	
<ul style="list-style-type: none"> <li>• Reactive maintenance based on Customer Service Request undertaken in accordance with customer service charter.</li> </ul>	<ul style="list-style-type: none"> <li>• 80% or more CSR's closed out or acted upon within agreed timeframe.</li> </ul>	
<ul style="list-style-type: none"> <li>• Preventive maintenance scheduled and undertaken to a high quality.</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance schedules met.</li> </ul>	
<ul style="list-style-type: none"> <li>• Continual improvement in cost effectiveness of service delivery.</li> </ul>	<ul style="list-style-type: none"> <li>• 5 new initiatives implemented.</li> </ul>	

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>People &amp; Process:</b>		
<ul style="list-style-type: none"> <li>Organise training and development that supports a professional and developing work force.</li> </ul>	<ul style="list-style-type: none"> <li>Annual review of staff training requirements.</li> </ul>	
<ul style="list-style-type: none"> <li>Create opportunities for succession planning via higher duties, training, mentoring and coaching.</li> </ul>	<ul style="list-style-type: none"> <li>80% of temporary vacancies filled by staff within the directorate.</li> </ul>	
<ul style="list-style-type: none"> <li>Work closely with other directorates to ensure we meet City Values and deliver improved community outcomes.</li> </ul>	<ul style="list-style-type: none"> <li>Customer Service rating above 80%.</li> </ul>	
<b>Finance:</b>		
<ul style="list-style-type: none"> <li>Deliver services in a cost effective manner.</li> </ul>	<ul style="list-style-type: none"> <li>Net costs within budget.</li> </ul>	
<b>Communication:</b>		
<ul style="list-style-type: none"> <li>Active input and involvement with organisational objectives providing the highest level of internal customer service.</li> </ul>	<ul style="list-style-type: none"> <li>Customer Service rating above 80%.</li> </ul>	
<ul style="list-style-type: none"> <li>Provide technical support and advice.</li> </ul>		
<ul style="list-style-type: none"> <li>Build an environmentally sensitive culture with the City of Albany.</li> </ul>	<ul style="list-style-type: none"> <li>Develop and deliver an Environmental Awareness program.</li> </ul>	
<b>Assets:</b>		
<ul style="list-style-type: none"> <li>Renew and upgrade infrastructure in accordance with the Long Term Financial Plan.</li> </ul>	<ul style="list-style-type: none"> <li>90% of projects delivered in nominated financial year.</li> </ul>	
<ul style="list-style-type: none"> <li>Undertake landscaping works and street tree replacement.</li> </ul>	<ul style="list-style-type: none"> <li>Develop an annual planting program.</li> </ul>	
<ul style="list-style-type: none"> <li>Protect the amenity of the City's reserves through implementation of considered environmental and heritage works.</li> </ul>	<ul style="list-style-type: none"> <li>Capital works program and other opportunities.</li> </ul>	


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INFORMING STRATEGIES	ALIGNMENT WITH COMMUNITY STRATEGIC PLAN	
<ul style="list-style-type: none"> <li>_ Communications Strategy</li> <li>_ Connected Communities Strategy</li> <li>_ Age-Friendly Cities Plan</li> <li>_ Public Access &amp; Inclusion Plan</li> <li>_ Public Health Plan</li> </ul>	<p><b>Smart Prosperous &amp; Growing</b></p> <ul style="list-style-type: none"> <li>• Encourage support and deliver significant events that promote our region</li> <li>• Promote the Albany region as a sought after and iconic tourism destination</li> </ul> <p><b>A Sense of Community</b></p> <ul style="list-style-type: none"> <li>• Deliver activities and programs that promote Albany's unique heritage</li> <li>• Encourage and support volunteers and community groups</li> </ul> <p><b>Civic Leadership</b></p> <ul style="list-style-type: none"> <li>• Develop structures and processes that engage the community</li> <li>• Improve community engagement processes and platforms</li> </ul>	
PURPOSE STATEMENT		
<p><i>"Foster civic pride in the City of Albany through excellence in communications and delivering engaging events that celebrate our community."</i></p>		

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<p><b>Service Delivery:</b> <i>Facilitate event approvals and deliver a program of community events.</i></p>		
<ul style="list-style-type: none"> <li>• Anzac Centenary 2018</li> </ul>	<ul style="list-style-type: none"> <li>• Collaborate with RSL &amp; Albany Heritage Park team to deliver events &amp; marketing to close Anzac Centenary period – April 2018 to November 2018</li> </ul>	
<ul style="list-style-type: none"> <li>• Events Approval Process</li> </ul>	<ul style="list-style-type: none"> <li>• Inform community about new EAP application toolkit, July 2018.</li> </ul>	
<ul style="list-style-type: none"> <li>• Audit of community events.</li> </ul>	<ul style="list-style-type: none"> <li>• Review existing City-delivered community events and identify new event opportunities, July 2018.</li> </ul>	

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Service Delivery:</b> <i>Provide communications and media management support to the organisation.</i>		
<ul style="list-style-type: none"> <li>Review of City of Albany newsletters and explore opportunities for consolidation and development.</li> </ul>	<ul style="list-style-type: none"> <li>Complete audit and recommendations, June 2018.</li> </ul>	
<ul style="list-style-type: none"> <li>Media campaign promoting the City of Albany services and people</li> </ul>	<ul style="list-style-type: none"> <li>Campaign delivered by end of 2018.</li> </ul>	
<ul style="list-style-type: none"> <li>Host Commonwealth Games Queen's Baton Relay leg in Albany, February 2018</li> </ul>	<ul style="list-style-type: none"> <li>Coordinate and deliver event, February 2018.</li> </ul>	
<b>People &amp; Process:</b> <i>To enhance and streamline processes to improve business outcomes and stakeholder relationships.</i>		
<ul style="list-style-type: none"> <li>Staff Development</li> </ul>	<ul style="list-style-type: none"> <li>Provide 2x development opportunities to each staff member, December 2017.</li> </ul>	
<ul style="list-style-type: none"> <li>Customer satisfaction survey at City of Albany events</li> </ul>	<ul style="list-style-type: none"> <li>Survey &amp; feedback process adopted, August 2017.</li> </ul>	
<ul style="list-style-type: none"> <li>Albany Regional Volunteer service support for staffing City of Albany events</li> </ul>	<ul style="list-style-type: none"> <li>Increased volunteer support at events, June 2018.</li> </ul>	
<b>Finance:</b> <i>To ensure that residents and ratepayers obtain optimum value and return for its investment in communications and events.</i>		
<ul style="list-style-type: none"> <li>Coordinated funding and sponsorship applications</li> </ul>	<ul style="list-style-type: none"> <li>Collaborate with other teams to achieve increased funding and sponsorship for events and cross-directorate activities – December 2017.</li> </ul>	
<b>Communication:</b> <i>To oversee effective communication across the City and to all stakeholders.</i>		
<ul style="list-style-type: none"> <li>Update City of Albany 2014 Communications Strategy</li> </ul>	<ul style="list-style-type: none"> <li>Draft a social media strategy that is added to Communications Strategy, December 2017.</li> <li>Review Communications Strategy, December 2017.</li> </ul>	
<ul style="list-style-type: none"> <li>Explore digital communications opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Recommendations considered by March 2018.</li> </ul>	
<ul style="list-style-type: none"> <li>Publications and document templates</li> </ul>	<ul style="list-style-type: none"> <li>Transition key templates to new contemporary or corporate designs, June 2018.</li> </ul>	
<b>Assets:</b>		
<ul style="list-style-type: none"> <li>Audit of event equipment, materials and resources</li> </ul>	<ul style="list-style-type: none"> <li>Spreadsheet report by November 2018.</li> </ul>	

CITY VISION	CITY VALUES	GUIDING PRINCIPLES
<p><i>“To be Western Australia’s most sought after and unique regional City to live, work and visit”</i></p>		<ul style="list-style-type: none"> <li><i>_ Value for Money</i></li> <li><i>_ Continuous Improvement</i></li> <li><i>_ Sustainability</i></li> <li><i>_ Commitment to Quality</i></li> </ul>
INFORMING STRATEGIES	ALIGNMENT WITH COMMUNITY STRATEGIC PLAN	
<ul style="list-style-type: none"> <li><i>_Aboriginal Accord</i></li> <li><i>_Access &amp; Inclusion Plan</i></li> <li><i>_Age Friendly Albany</i></li> <li><i>_Connected Communities Strategy</i></li> <li><i>_Public Health Plan</i></li> <li><i>_Youth Friendly Albany Strategy</i></li> </ul>	<p><b>4 A Sense of Community</b></p> <p>4.1 To build resilient and cohesive communities with a strong sense of community spirit</p> <p>4.2 To create interesting places, spaces and events that reflect our community's identity, diversity and heritage</p> <p>4.3 To develop and support a healthy inclusive and accessible community</p> <p><b>5 Civic Leadership</b></p> <p>5.2 To provide strong, accountable leadership supported by a skilled &amp; professional workforce</p> <p>5.3 To engage effectively with our community</p>	
PURPOSE STATEMENT		
<p style="text-align: center;"><b>“We honour and recognise the diversity and strength of our communities and will foster relationships that sustain a community in which everyone can feel they belong”</b></p>		


DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Service Delivery:</b> "To foster connected, inclusive, sustainable & engaged communities using best practice community development and engagement principles"		
Monitor and review progress of Native Title Settlement, Accord and identify opportunities for the City to collaborate to deliver outcomes for the Noongar community.	June 2018	
Review and update Disability Access and Inclusion Plan.	December 2017	
Expand on and delivery of Neighbourhood Hubs Project.	June 2018	
Consolidating the Healthy Albany Partnership and assistance with delivery of the City's Public Health Plan.	August 2017	
Draft and implementation of Community Safety Action Plan.	June 2018	
<b>People and Process:</b> "To create, build and sustain effective networks and partnerships that enable us to deliver on our key activities"		
Investigate opportunities to expand the Healthy Albany concept to other local governments in the region.	June 2018.	
Investigate opportunities through Regional Community Development and Engagement Officers Network to deliver activities related to the DAIP, Healthy Albany in the region.	June 2018	
<b>Finance:</b> "To harness the best use of new and existing resources to provide value for money for council and community"		
Seek innovative ways to leverage additional funding to support service delivery.	June 2018	
Streamline resources, including shared resources, to seek better value for money for Albany and the Great Southern.	June 2018	
<b>Communications:</b> "To reinforce the value of Community Development by using a variety of tools and techniques to celebrate, promote and focus on our activities and achievements."		
Increase organisational and community awareness of team initiatives and achievements through staff news, community news, updates to EMT, participation in stakeholder networks.	At least four articles annually	
<b>Assets:</b> "To plan, activate and maintain our physical and nonphysical assets including facilities, networks, relationships and our team."		
Promotion of City and community assets to optimise activation, utilisation and sustainability.	June 2018	
Support community engagement 'champions' across the organisation.	June 2018	

CITY VISION	CITY VALUES	GUIDING PRINCIPLES
<p><i>"To be Western Australia's most sought after and unique regional City to live, work and visit"</i></p>		<ul style="list-style-type: none"> <li>_ Value for Money</li> <li>_ Continuous Improvement</li> <li>_ Sustainability</li> <li>_ Commitment to Quality</li> </ul>
INFORMING STRATEGIES	ALIGNMENT WITH COMMUNITY STRATEGIC PLAN	
<ul style="list-style-type: none"> <li>_ Long Term Financial Plan</li> <li>_ People Strategy</li> <li>_ Risk and Opportunity Framework</li> <li>_ Community Engagement Framework</li> </ul>	<p><b>Civic Leadership</b></p> <ul style="list-style-type: none"> <li>• To establish and maintain sound business and governance structures.</li> <li>• To provide strong, accountable leadership supported by a skilled &amp; professional workforce.</li> <li>• To engage effectively with our community.</li> </ul>	
PURPOSE STATEMENT		
<p><i>"Purpose Statements are highlighted at the top of each business area"</i></p>		

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<p><b>Customer Service:</b> <i>To provide quality customer services that is responsive to the needs of the community, business units and key internal staff.</i></p>		
<ul style="list-style-type: none"> <li>• Enhance our customer service to ensure it is professional and helpful and meets our customer service charter.</li> </ul>	<ul style="list-style-type: none"> <li>• Community perception survey rating for customer service above 70%.</li> </ul>	
<ul style="list-style-type: none"> <li>• Oversee the need to meet access and inclusion requirements for customers with special needs.</li> </ul>		
<ul style="list-style-type: none"> <li>• Support the progression of on-line customer service platforms to provide more on-line systems.</li> </ul>	<ul style="list-style-type: none"> <li>• Creation of additional on-line services.</li> </ul>	
<p><b>Land and Heritage:</b> <i>To support the Council, the Executive and other key stakeholders with strategic advice on land and heritage matters.</i></p>		
<p><b>Land:</b></p>		
<ul style="list-style-type: none"> <li>• Acquire and dispose of land and modify land tenure to ensure the City is able to meet community and service delivery needs.</li> </ul>	<ul style="list-style-type: none"> <li>• Land portfolio aligned with required uses and service delivery.</li> </ul>	
<ul style="list-style-type: none"> <li>• Review the City's Land Asset Strategy to identify future economic development opportunities and ensure long term planning is in place to cater for future City requirements.</li> </ul>	<ul style="list-style-type: none"> <li>• Completed Land Asset Strategy.</li> </ul>	
<ul style="list-style-type: none"> <li>• Set a framework and process for the creation of the Range Road reserve and enact first stages for land resumption.</li> </ul>	<ul style="list-style-type: none"> <li>• Creation of Range Road reserve (or part thereof).</li> </ul>	
<ul style="list-style-type: none"> <li>• Ensure that the North Road Administration Building is managed and improved to reflect the civic function of this space.</li> </ul>	<ul style="list-style-type: none"> <li>• Building coordination system &amp; operational.</li> <li>• Completion of airlock.</li> <li>• Completion of civic kitchens upgrade.</li> <li>• Completion of front area design.</li> </ul>	
<p><b>Heritage:</b></p>		
<ul style="list-style-type: none"> <li>• Continue to maintain high standards of consultation and engagement on heritage matters.</li> </ul>	<ul style="list-style-type: none"> <li>• Heritage approval for all City works and projects is obtained, where required.</li> </ul>	
<ul style="list-style-type: none"> <li>• Develop a response to the Native Title South West Settlement as it impacts on City consultation processes and promote to all staff.</li> </ul>	<ul style="list-style-type: none"> <li>• Adopted consultation process supported by the Noongar community.</li> </ul>	


DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Procurement:</b> <i>To support the City of Albany's Procurement activities by ensuring consistency, providing best value to the City and ensuring equity and transparency to Tenderers, while complying with relevant regulations.</i>		
<ul style="list-style-type: none"> <li>Quotation and Tenders issued in accordance with Local Government regulations.</li> </ul>	<ul style="list-style-type: none"> <li>Audit Compliance.</li> </ul>	
<ul style="list-style-type: none"> <li>Review the Purchasing and Buy Local Policies to ensure compliance and best value in tendering practices.</li> </ul>	<ul style="list-style-type: none"> <li>Council adoption of updated Policies.</li> </ul>	
<ul style="list-style-type: none"> <li>Attract and maintain mutually beneficial relationships with best value suppliers.</li> </ul>	<ul style="list-style-type: none"> <li>Increase in overall and local participation in tender submissions.</li> </ul>	
<b>Properties and Leasing:</b> <i>To manage and maintain the City's Leasing Portfolio to maximise the overall return to the community.</i>		
<ul style="list-style-type: none"> <li>Review the Council's Property Management (Leases and Licences) Policy to optimise commercial and community outcomes.</li> </ul>	<ul style="list-style-type: none"> <li>Council adoption of updated Policy.</li> </ul>	
<ul style="list-style-type: none"> <li>Satisfy statutory and legal obligations.</li> </ul>	<ul style="list-style-type: none"> <li>Audit Compliance.</li> </ul>	
<ul style="list-style-type: none"> <li>Maximise the return for the City's commercial leasing portfolio.</li> </ul>	<ul style="list-style-type: none"> <li>Evidence that new and updated leases are based on current market valuations.</li> </ul>	
<ul style="list-style-type: none"> <li>Standard lease agreements that are fair &amp; equitable.</li> </ul>	<ul style="list-style-type: none"> <li>Lessees sign off.</li> </ul>	
<ul style="list-style-type: none"> <li>Scheduled site visits to leased properties.</li> </ul>	<ul style="list-style-type: none"> <li>Inspection Schedule met.</li> </ul>	
<b>Revenue Development:</b> <i>To advise and support the Executive and key internal stakeholders on all external funding opportunities, including liaison with funding bodies, state and federal officers and members of Parliament.</i>		
<ul style="list-style-type: none"> <li>Funding Applications:</li> </ul>	<ul style="list-style-type: none"> <li>Success Rate.</li> </ul>	
<ul style="list-style-type: none"> <li>Effective research and early notification of opportunities to officers.</li> </ul>		
<ul style="list-style-type: none"> <li>Selection of funding and projects based on CoA strategic requirement and community needs (PCG for \$50k+).</li> </ul>		
<ul style="list-style-type: none"> <li>Close working relationship and support to project officers when developing the application, submission, execution of grants.</li> </ul>		
<ul style="list-style-type: none"> <li>Acquittals and Reports:</li> </ul>	<ul style="list-style-type: none"> <li>Funding agreements acquitted by agreed dates.</li> </ul>	
<ul style="list-style-type: none"> <li>Officer involved have understanding of responsibilities, grant conditions and reporting requirements.</li> </ul>		
<ul style="list-style-type: none"> <li>Coordination of collation of supporting materials from project start.</li> </ul>		
<ul style="list-style-type: none"> <li>Timely reminders for due dates and effective management of submission, reporting and acquittals including auditing.</li> </ul>		
<b>Strategy and Improvement:</b> <i>To improve community perception and corporate performance through meaningful strategic planning and continuous improvement.</i>		
<ul style="list-style-type: none"> <li>IPR Framework upgrade.</li> </ul>	<ul style="list-style-type: none"> <li>Required plans confirmed as compliant and adopted in August 2017.</li> </ul>	
<ul style="list-style-type: none"> <li>Business Plans &amp; Corporate Scorecard.</li> </ul>	<ul style="list-style-type: none"> <li>Endorsed by EMT with quarterly reporting requirements met.</li> </ul>	
<ul style="list-style-type: none"> <li>Regional Peer Support Pilot.</li> </ul>	<ul style="list-style-type: none"> <li>Regional participation and outcomes delivered against the MOU.</li> </ul>	
<ul style="list-style-type: none"> <li>Process improvement initiatives as requested by Executives &amp; Managers.</li> </ul>	<ul style="list-style-type: none"> <li>Outcomes agreed and delivered via Improvement Plans.</li> </ul>	
<ul style="list-style-type: none"> <li>IAP2 Training.</li> </ul>	<ul style="list-style-type: none"> <li>Certificate obtained with skills used to improve community engagement.</li> </ul>	



CITY VISION	CITY VALUES	GUIDING PRINCIPLES	
<p><i>"To be Western Australia's most sought after &amp; unique regional City to live, work &amp; visit."</i></p>		<ul style="list-style-type: none"> <li>_ Value for Money</li> <li>_ Continuous Improvement</li> <li>_ Sustainability</li> <li>_ Commitment to Quality</li> </ul>	
INFORMING STRATEGIES	ALIGNMENT WITH COMMUNITY STRATEGIC PLAN		
<ul style="list-style-type: none"> <li>_ Lower Great Southern Strategy</li> <li>_ Albany Local Planning Strategy</li> <li>_ Public Health Plan</li> <li>_ GIS Strategy</li> </ul>	<ul style="list-style-type: none"> <li>• Smart, Prosperous &amp; Growing</li> <li>• Clean, Green &amp; Sustainable</li> <li>• A Connected Built Environment</li> <li>• A Sense of Community</li> <li>• Civic Leadership</li> </ul>		
PURPOSE STATEMENT			
<p><i>"Purpose Statements are highlighted at the top of each business area"</i></p>			
DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)		STATUS
<p><b>Service Delivery: Planning:</b> <i>To provide high quality decisions, advice and information on statutory and strategic planning matters, while involving all stakeholders throughout the process.</i></p>			
<ul style="list-style-type: none"> <li>• Process a range of statutory planning applications.</li> </ul>	<ul style="list-style-type: none"> <li>• Informed decisions within statutory time frames.</li> </ul>		
<ul style="list-style-type: none"> <li>• Provide planning advice to Stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>• Respond to 90% within 2 days.</li> </ul>		
<ul style="list-style-type: none"> <li>• Develop &amp; review Town Planning Scheme policies.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop new policies as required &amp; review existing policies every 3 years.</li> </ul>		
<ul style="list-style-type: none"> <li>• Complete the Albany Local Planning Strategy review.</li> </ul>	<ul style="list-style-type: none"> <li>• Complete by mid-2018.</li> </ul>		
<ul style="list-style-type: none"> <li>• Commence with the review of Town planning Scheme No 1.</li> </ul>	<ul style="list-style-type: none"> <li>• Complete draft document by mid-2018.</li> </ul>		
<ul style="list-style-type: none"> <li>• Prepare Precinct / Structure Plan for Centennial Park.</li> </ul>	<ul style="list-style-type: none"> <li>• Complete Draft Precinct/Structure Plan by end 2018.</li> </ul>		
<ul style="list-style-type: none"> <li>• Prepare 2 heritage / character area plans e.g. Duke &amp; Cuthbert Street.</li> </ul>	<ul style="list-style-type: none"> <li>• Complete Draft Precinct/Structure Plan by end 2018.</li> </ul>		
<ul style="list-style-type: none"> <li>• Assist the Department of Housing with the Spencer Park Urban Renewal project.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide assistance as required within budget.</li> </ul>		
<p><b>Service Delivery: Information Services:</b> <i>Provide friendly &amp; professional advice &amp; support service in a timely manner to all internal &amp; external customers to meet all statutory requirements.</i></p>			
<ul style="list-style-type: none"> <li>• Respond to development &amp; I&amp; use enquiries.</li> </ul>	<ul style="list-style-type: none"> <li>• Same day response or, if not possible, advise when answer can be expected. Within a day.</li> </ul>		
<ul style="list-style-type: none"> <li>• Prepare monthly Development Services reports, including Bulletin to Council &amp; Statistics to Building</li> </ul>	<ul style="list-style-type: none"> <li>• Reports prepared &amp; distributed within 2 – 3 days after end of each month.</li> </ul>		
<ul style="list-style-type: none"> <li>• Provide administration support to Planning, Building &amp; Health Teams.</li> </ul>	<ul style="list-style-type: none"> <li>• Support to be provided in accordance with agreed service levels with team managers.</li> </ul>		
<ul style="list-style-type: none"> <li>• Accept &amp; process Building Permit Applications, Notices &amp; forms &amp; all Statutory Planning</li> </ul>	<ul style="list-style-type: none"> <li>• Process &amp; allocate applications to officers for processing within 2 days.</li> </ul>		
<p><b>Service Delivery: Corporate GIS:</b> <i>To provide high quality Geographical Information Service to all stakeholders.</i></p>			
<ul style="list-style-type: none"> <li>• Proactively educate &amp; promote the use of GIS tools within the City of Albany.</li> </ul>	<ul style="list-style-type: none"> <li>• Four training sessions developed &amp; conducted by June 2018, including Intramaps 'how to' videos.</li> </ul>		
<ul style="list-style-type: none"> <li>• Maintain GIS &amp; Data updating.</li> </ul>	<ul style="list-style-type: none"> <li>• Upgrade Intramaps to new version in the interim &amp; transit to new Landgate SLIP by June 2018.</li> </ul>		


REPORT ITEM CCCS 057 REFERS

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<ul style="list-style-type: none"> <li>Review Bush Fire Prone Mapping for Albany.</li> </ul>	<ul style="list-style-type: none"> <li>Acquire Spatial Data &amp; review map by April 2018.</li> </ul>	
<ul style="list-style-type: none"> <li>Investigate potential expansion of GIS services within the organisation &amp; Great Southern region including most appropriate GIS platform.</li> </ul>	<ul style="list-style-type: none"> <li>Investigate &amp; prepare a direction paper for the Corporate GIS by end of 2017.</li> </ul>	
<p><b>Service Delivery: Engineering &amp; Land Services: To provide high quality decisions, advice &amp; information on development engineering &amp; I&amp; administration matters.</b></p>		
<ul style="list-style-type: none"> <li>Provide engineering advice on I&amp; development to internal teams &amp; external stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>Respond to 90% within 4 days, if not possible, advice when answer can be expected. Within 2 days.</li> </ul>	
<ul style="list-style-type: none"> <li>Right of Way Policy.</li> </ul>	<ul style="list-style-type: none"> <li>Adopted by June 2018.</li> </ul>	
<ul style="list-style-type: none"> <li>Investigate &amp; resolve Development Engineering matters effectively &amp; in a timely manner.</li> </ul>	<ul style="list-style-type: none"> <li>Permits to be released within 2 working days.</li> </ul>	
<ul style="list-style-type: none"> <li>Review Subdivision &amp; Development guidelines.</li> </ul>	<ul style="list-style-type: none"> <li>Completed by June 2018.</li> </ul>	
<ul style="list-style-type: none"> <li>Investigate &amp; resolve L&amp; Administration matters effectively &amp; in a timely manner.</li> </ul>	<ul style="list-style-type: none"> <li>Process matters within budget on prioritised L&amp; Administration matters.</li> </ul>	
<p><b>People &amp; Process:</b></p>		
<ul style="list-style-type: none"> <li>Develop a programme for selected staff to visit innovative &amp; progressive metropolitan LGAs.</li> </ul>	<ul style="list-style-type: none"> <li>Annual visit scheduled &amp; conducted</li> </ul>	
<ul style="list-style-type: none"> <li>Support, train &amp; develop staff to maintain the highest possible standard of planning, organization &amp; customer service.</li> </ul>	<ul style="list-style-type: none"> <li>Development planned via the performance review process with at least 1 training opportunity per staff member per year.</li> </ul>	
<ul style="list-style-type: none"> <li>Review &amp; improve current procedures &amp; work practices.</li> </ul>	<ul style="list-style-type: none"> <li>Report on improvements implemented &amp; their impact</li> </ul>	
<ul style="list-style-type: none"> <li>Rotate team members through duties to ensure all areas are developed.</li> </ul>	<ul style="list-style-type: none"> <li>Roster is considered fair &amp; supports the development of team members.</li> </ul>	
<p><b>Finance:</b></p>		
<ul style="list-style-type: none"> <li>Find innovative ways to work more effectively within available budget.</li> </ul>	<ul style="list-style-type: none"> <li>Operate within budget.</li> </ul>	
<ul style="list-style-type: none"> <li>Advise &amp; collect appropriate fees.</li> </ul>	<ul style="list-style-type: none"> <li>Fee calculators maintained in accordance with budget approval &amp; imbedded into processes &amp; procedures.</li> </ul>	
<p><b>Communication:</b></p>		
<ul style="list-style-type: none"> <li>Active support of organisational objectives by providing high quality internal customer service.</li> </ul>	<ul style="list-style-type: none"> <li>Employee Perception rating above 80%.</li> </ul>	
<ul style="list-style-type: none"> <li>Respond to external customer service requests within designated timeframe.</li> </ul>	<ul style="list-style-type: none"> <li>95% of Requests responded to within 10 working days.</li> </ul>	
<ul style="list-style-type: none"> <li>Proactively educate residents within the City of Albany &amp; assist with development application</li> </ul>	<ul style="list-style-type: none"> <li>Prepare/improve information sheets &amp; FAQ on topical Land uses.</li> </ul>	
<ul style="list-style-type: none"> <li>Provide up to date information sheets, policies, check lists etc. &amp; make readily available &amp; accessible internally &amp; externally.</li> </ul>	<ul style="list-style-type: none"> <li>Information sheets, policies, FAQ's &amp; check lists match what is on-line, up to date &amp; easily understood.</li> </ul>	
<ul style="list-style-type: none"> <li>Promote communication within team &amp; directorate.</li> </ul>	<ul style="list-style-type: none"> <li>Regular meetings scheduled &amp; minuted.</li> </ul>	
<ul style="list-style-type: none"> <li>Community perception surveys.</li> </ul>	<ul style="list-style-type: none"> <li>Increasing % of surveys per application.</li> </ul>	
<p><b>Facilities &amp; Equipment:</b></p>		
<ul style="list-style-type: none"> <li>Provide adequate equipment &amp; back-up for site visits.</li> </ul>	<ul style="list-style-type: none"> <li>Efficient operation within budget constraints.</li> </ul>	
<ul style="list-style-type: none"> <li>Enquiry counter operational within Foyer at North Road Customer Service Area.</li> </ul>	<ul style="list-style-type: none"> <li>Coverage between 9 &amp; 4:30 Monday to Friday.</li> </ul>	

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<p><i>"To be Western Australia's most sought after and unique regional City to live, work and visit"</i></p>		<ul style="list-style-type: none"> <li>_ Value for Money</li> <li>_ Continuous Improvement</li> <li>_ Sustainability</li> <li>_ Commitment to Quality</li> </ul>
INFORMING STRATEGIES	ALIGNMENT WITH COMMUNITY STRATEGIC PLAN	
<p>_ Strategic Bush Fire Plan 2014-2019</p>	<p><b>Connected Built Environment</b></p> <ul style="list-style-type: none"> <li>• Plan for and monitor Community safety and security.</li> </ul> <p><b>Clean Green and Sustainable</b></p> <ul style="list-style-type: none"> <li>• Deliver effective fire practices that reduce risk.</li> </ul>	
PURPOSE STATEMENT		
<p><i>"Our mission is to contribute to the growth of a safe and secure environment in the municipality of Albany through delivery of excellence and professionalism in emergency management and community law enforcement" "</i></p>		

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<p><b>Service Delivery:</b> <i>Deliver high quality emergency management to build resilience and awareness in all sectors of our community. Provide a professional municipal law compliance service aligned with the ethos of 'education before enforcement'.</i></p>		
<ul style="list-style-type: none"> <li>• Focus on the core functions of compliance, enforcement and prosecution in the areas of municipal law enforcement and community safety.</li> </ul>	<ul style="list-style-type: none"> <li>• Enforcement &amp; Prosecution Trends.</li> </ul>	
<ul style="list-style-type: none"> <li>• Develop and implement team procedures for case management, using solvability factors to prioritise Customer Service requests.</li> </ul>	<ul style="list-style-type: none"> <li>• Investigation timeframes against a standard.</li> </ul>	
<ul style="list-style-type: none"> <li>• Work with Reserves team and Volunteer Bush Fire Brigades to introduce an enhanced burning program for City-managed land.</li> </ul>	<ul style="list-style-type: none"> <li>• Prior to high fire season 17/18.</li> </ul>	
<p><b>People and Process:</b> <i>Develop a flexible team of Ranger and Emergency Services personnel capable of delivering the highest levels of community assistance with breaches of municipal law and education in the prevention of and preparedness for emergencies.</i></p>		
<ul style="list-style-type: none"> <li>• Deliver awareness sessions on the Australasian Inter-Agency Incident Management System of emergency response to the City Executive and Management teams.</li> </ul>	<ul style="list-style-type: none"> <li>• Training delivered by October 17.</li> </ul>	
<ul style="list-style-type: none"> <li>• Deliver and implement a training program for Volunteer Bush Fire Fighters in the areas of truck driving and pre-season bushfire preparedness and response.</li> </ul>	<ul style="list-style-type: none"> <li>• Training commenced by August 17.</li> </ul>	
<ul style="list-style-type: none"> <li>• Deliver Fire Control Officer pre-season induction and Brigade Operating Procedures awareness sessions.</li> </ul>	<ul style="list-style-type: none"> <li>• All FCO inducted by September 17.</li> </ul>	
<ul style="list-style-type: none"> <li>• Provide regular training sessions on the presentation of evidence and compliance matters to authorised City officers.</li> </ul>	<ul style="list-style-type: none"> <li>• Training program delivered quarterly.</li> </ul>	


DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Finance:</b> <i>Increase the efficiency and effectiveness of operations to deliver a return on investment for our community</i>		
<ul style="list-style-type: none"> <li>Implement an audit of Emergency Management and Volunteer Bushfire Brigade assets to ensure appropriateness and adequacy.</li> </ul>	<ul style="list-style-type: none"> <li>Prior to high fire season 17/18.</li> </ul>	
<ul style="list-style-type: none"> <li>Develop and implement procedures and use enhanced rostering to guide after-hours and weekend response to incidents in line with community expectations.</li> </ul>	<ul style="list-style-type: none"> <li>Implemented by October 17.</li> </ul>	
<ul style="list-style-type: none"> <li>Arrange and deliver basic training in keyboard typing for Rangers.</li> </ul>	<ul style="list-style-type: none"> <li>Achievement of minimum 25 wpm.</li> </ul>	
<b>Communications:</b> <i>Promote the Ranger and Emergency Services team's status as a regional leader in the delivery of municipal law and community safety programs through innovation and targeted marketing.</i>		
<ul style="list-style-type: none"> <li>Distribute and enforce the Annual Fire Management Notice through targeted compliance in high risk areas of the municipality.</li> </ul>	<ul style="list-style-type: none"> <li>Inspection trends.</li> </ul>	
<ul style="list-style-type: none"> <li>Work with identified high risk communities to encourage and develop Bush Fire Ready Action Groups.</li> </ul>	<ul style="list-style-type: none"> <li>Implemented prior to 17/18 Restricted Burning Period.</li> </ul>	
<b>Facilities:</b> <i>Provide and maintain the highest standard in buildings and containment yards for animal impoundment and management. Seek continuous improvement in the quality and suitability of Bushfire Brigade infrastructure.</i>		
<ul style="list-style-type: none"> <li>Commission an extension to the existing Ranger and Emergency Services storage building to provide adequate security for team assets and impounded goods or evidence.</li> </ul>	<ul style="list-style-type: none"> <li>Commissioned by February 18.</li> </ul>	

CITY VISION	CITY VALUES	GUIDING PRINCIPLES
<p><i>"To be Western Australia's most sought after and unique regional City to live, work and visit"</i></p>		<ul style="list-style-type: none"> <li>_ Value for Money</li> <li>_ Continuous Improvement</li> <li>_ Sustainability</li> <li>_ Commitment to Quality</li> </ul>
INFORMING STRATEGIES	ALIGNMENT WITH COMMUNITY STRATEGIC PLAN	
<ul style="list-style-type: none"> <li>_ Annual Budget,</li> <li>_ Corp Business Plan,</li> <li>_ LTFP,</li> <li>_ Asset Management Plans</li> </ul>	<p><b>Civic leadership</b></p> <ul style="list-style-type: none"> <li>• To establish and maintain sound business and governance structures.</li> <li>• Implement systems and controls that ensure the prudent use of rates.</li> </ul>	
PURPOSE STATEMENT		
<p><i>"To maintain all financial data in a timely, accurate and transparent manner, seek continual improvement in financial data collection, and produce accurate reports for internal and external stakeholders."</i></p>		

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Service Delivery:</b>		
<ul style="list-style-type: none"> <li>• Payroll – process pays on time every pay.</li> </ul>	<ul style="list-style-type: none"> <li>• 100% delivery with queries resolved promptly.</li> </ul>	
<ul style="list-style-type: none"> <li>• Rates – Collection rate same or improved over last year.</li> </ul>	<ul style="list-style-type: none"> <li>• 97% by 30 June 2017.</li> </ul>	
<ul style="list-style-type: none"> <li>• Transactional – paid within due date.</li> </ul>	<ul style="list-style-type: none"> <li>• 95%.</li> </ul>	
<ul style="list-style-type: none"> <li>• Management – Unqualified audit report.</li> <li>• Budget &amp; reviews by due dates.</li> </ul>	<ul style="list-style-type: none"> <li>• Yes.</li> </ul>	
<b>People &amp; Process:</b>		
<ul style="list-style-type: none"> <li>• All – Training needs.</li> </ul>	<ul style="list-style-type: none"> <li>• Each team member offered one targeted training opportunity.</li> </ul>	
<ul style="list-style-type: none"> <li>• Once EBA passed, review payroll process, adjust if/as needed.</li> </ul>	<ul style="list-style-type: none"> <li>• 40 days after Fair Work signoff.</li> </ul>	
<ul style="list-style-type: none"> <li>• Council reports submitted as required.</li> </ul>	<ul style="list-style-type: none"> <li>• 100%.</li> </ul>	
<ul style="list-style-type: none"> <li>• Work with ALAC to assist with improvement of Centaman/procedures and finance related tasks and interaction.</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing.</li> </ul>	
<ul style="list-style-type: none"> <li>• Payroll/timesheet data collection – look to investigate online.</li> </ul>	<ul style="list-style-type: none"> <li>• Research conducted and recommendation provided.</li> </ul>	

REPORT ITEM CCCS 057 REFERS


DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Finance:</b>		
<ul style="list-style-type: none"> <li>• Team costs within budget.</li> </ul>	<ul style="list-style-type: none"> <li>• Net cost within budget.</li> </ul>	
<ul style="list-style-type: none"> <li>• Debt collection (rates &amp; general debtors).</li> </ul>	<ul style="list-style-type: none"> <li>• Collection trends.</li> </ul>	
<b>Communications:</b>		
<ul style="list-style-type: none"> <li>• Statutory notices (budget, annual report) posted as required.</li> </ul>	<ul style="list-style-type: none"> <li>• All notices posted within required timeline.</li> </ul>	
<b>Internal:</b>		
<ul style="list-style-type: none"> <li>• Review, develop, and improve internal finance &amp; payroll data collection and reporting.</li> </ul>	<ul style="list-style-type: none"> <li>• Employee Perception Survey.</li> </ul>	
<b>Facilities:</b>		
<ul style="list-style-type: none"> <li>• NA – no facilities managed directly by finance.</li> </ul>		

CITY VISION	CITY VALUES	GUIDING PRINCIPLES
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INFORMING STRATEGIES		ALIGNMENT WITH COMMUNITY STRATEGIC PLAN
<p>_Risk &amp; Opportunity Management Framework</p>	<p><b>Civic Leadership</b></p> <ul style="list-style-type: none"> <li>• To establish and maintain sound business and governance structures.</li> <li>• To provide strong, accountable leadership supported by a skilled &amp; professional workforce.</li> <li>• To engage effectively with our community.</li> </ul>	
PURPOSE STATEMENTS		
<p><i>"Enable the identification of opportunities, whilst minimising exposure to negative risks. Provide proactive stakeholder support to promote best practice legislative, policy and instrument of delegation compliance. "</i></p>		

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<p><b>Service Delivery: Governance: Oversee the administration of delegations and policies ensuring that statutory requirements and timelines are met.</b></p>		
<ul style="list-style-type: none"> <li>• Improved Corporate Document Management.</li> </ul>	<ul style="list-style-type: none"> <li>• Content fully audited corporate documents: Aim:                             <ul style="list-style-type: none"> <li>○ None repudiation.</li> <li>○ Compliant Content.</li> <li>○ Improved readability (simplified language).</li> </ul> </li> <li>• Current versions only available and easily retrievable.</li> <li>• Assigned responsible officers for all public accessible content.</li> </ul>	
<ul style="list-style-type: none"> <li>• A Delegations Register that is legislatively compliant, easy to read and interpret.</li> </ul>	<ul style="list-style-type: none"> <li>• Delegations register legislatively compliant understood and complied with.</li> <li>• 100 % Team Leader, Coordinator, Manager &amp; Team Leader induction/re-induction target.</li> </ul>	
<ul style="list-style-type: none"> <li>• Improved governance support.</li> </ul>	<ul style="list-style-type: none"> <li>• Responsive, accurate and legislatively compliant.</li> <li>• Compliance Annual Return (CAR), submitted within statutory timeframe.</li> <li>• Local Law Review completed within prescribed timeframe.</li> <li>• Local Government (Audit) Regulations 1996, compliance confirmed.</li> </ul>	


DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Service Delivery: Risk Management: Support the identification, mitigation and reporting of risks and opportunities as per the Risk and Opportunity Management Framework.</b>		
<ul style="list-style-type: none"> <li>Current Risk Profile.</li> </ul>	<ul style="list-style-type: none"> <li>Review and development of overall risk profiling for major project risks</li> <li>Opportunities (Upside) &amp; (Downside) Risks are identified, assigned, &amp; reported on Synergy.</li> <li>Risk Management Plans &amp; Strategies received and accepted by EMT &amp; Audit &amp; Risk Committee.</li> <li>Development and monitoring of risk management plans supported by cross organisation working groups attended by risk custodians.</li> <li>City of Albany as an organisation is compared to a standardised set of local government sector risk profiles.</li> </ul>	
<ul style="list-style-type: none"> <li>Current Business Continuity Plans.</li> </ul>	<ul style="list-style-type: none"> <li>Simplified.</li> <li>Integrated with ICT Data &amp; System Recovery Plans.</li> <li>Desktop Review completed by Business Units only if not tested in the financial year.</li> </ul>	
<b>Service Delivery: Insurance: Ensure the city is adequately covered for potential downside risks whilst looking for potential savings in premiums and a reduction in claims.</b>		
<ul style="list-style-type: none"> <li>Fully reviewed insurance schedule complimented by strategies that will reduce insurance charges and that the City is adequately insured against potential risks.</li> </ul>	<ul style="list-style-type: none"> <li>Completed audit of actual assets and activities insured.</li> <li>Asset Audit to ensure the City's insurance adequately covers major loss.</li> <li>Reduction in insurance cost to City.</li> <li>Quarterly insurance trend reporting to EMT &amp; Audit &amp; Risk Committee.</li> <li>Reduction in avoidable reoccurring claims.</li> </ul>	
<b>People &amp; Process:</b>		
<ul style="list-style-type: none"> <li>Council Committees supported by trained secretariats</li> </ul>	<ul style="list-style-type: none"> <li>Training developed at least twice per year (2 days).</li> <li>Committee Secretariat induction training to be reviewed and delivered.</li> <li>Simplified committee and council agenda guidelines and templates.</li> <li>Full EMT review of proposed agenda and minutes prior to distribution and publication.</li> <li>Clear delineation of who does what in regards to the preparation of reports and agendas.</li> </ul>	
<b>Finance:</b>		
<ul style="list-style-type: none"> <li>Team functions delivered within budget.</li> </ul>	<ul style="list-style-type: none"> <li>Net cost within budget.</li> </ul>	
<b>Communications:</b>		
<ul style="list-style-type: none"> <li>Improved local government knowledge.</li> </ul>	<ul style="list-style-type: none"> <li>Development and implementation of a FAQ (Governance Wiki), training on the local government act and associated regulations.</li> <li>Take-up of module.</li> </ul>	



CITY VISION	CITY VALUES	GUIDING PRINCIPLES
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INFORMING STRATEGIES		ALIGNMENT WITH COMMUNITY STRATEGIC PLAN
<ul style="list-style-type: none"> <li>_ Corporate Business Plan</li> <li>_ People Strategy</li> </ul>	<p>To provide strong, accountable leadership supported by a skilled &amp; professional workforce</p> <ul style="list-style-type: none"> <li>• Provide positive leadership that delivers community outcomes</li> <li>• Develop contemporary service delivery and staff development programs</li> </ul>	
PURPOSE STATEMENT		
<p><i>"To serve our customers:</i></p> <ul style="list-style-type: none"> <li>• <i>Providing HR's best thinking and practises, advice and counsel;</i></li> <li>• <i>Delivering timely service.</i></li> </ul> <p><i>To provide service and support that is:</i></p> <ul style="list-style-type: none"> <li>• <i>Respectful, responsive, timely and accountable;</i></li> <li>• <i>Solution-oriented, flexible, creative and resourceful;</i></li> <li>• <i>Highly knowledgeable, informative and accurate."</i></li> </ul>		


DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<p><b>Service Delivery:</b> <i>Implement a central HR advisory support service to support the City of Albany – HR to have a positive, problem-solving approach, anticipating problems, recommending solutions and being able to offer sound advice about implementation.</i></p>		
<ul style="list-style-type: none"> <li>• Provide high quality support services that enable managers to focus on their core business whilst utilising our administrative expertise and maximising efficiencies.</li> </ul>	<p>Ensure HR team is skilled to deliver the services required – Minimum of 2 professional development activities per staff member (workshop / seminar / training course etc.).</p>	
<ul style="list-style-type: none"> <li>• Review and update outgoing correspondence ensuring legal compliance and reduce the number of errors made in carrying out business processes for employee related transactions.</li> </ul>	<ul style="list-style-type: none"> <li>• All HR letter templates and contracts are reviewed and updated.</li> <li>• Feedback from payroll will act as the benchmark regarding reduction in errors.</li> </ul>	

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>People &amp; Process:</b> <i>Creating a safe and supportive workplace culture that is flexible and adaptable to change.</i>		
<ul style="list-style-type: none"> <li>• Delivery of a revised Organisational Development Strategy / Workforce Development Plan</li> </ul>	<ul style="list-style-type: none"> <li>• Further review of staffing requirements for the next three years undertaken against emerging and future business needs and changes to ensure that services are appropriately resourced but continue to demonstrate cost effectiveness.</li> <li>• Implementation of an online PPDR platform to streamline process.</li> </ul>	
<ul style="list-style-type: none"> <li>• HR will continue to help raise employee and management awareness of responsibilities and accountabilities in relation to health and safety.</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation of OSH Platform.</li> <li>• Reduction in frequency and severity of accidents combined with improved employee wellbeing.</li> <li>• Create and run (in-house) stress management workshops.</li> </ul>	
<ul style="list-style-type: none"> <li>• Managers' report they are more confident and competent in handling their performance management responsibilities and have less reliance on HR services.</li> </ul>	<ul style="list-style-type: none"> <li>• Surveying and interpreting employee attitudes, communications and conflict management – Employee Engagement Survey once a year minimum and sharing results with staff.</li> <li>• Staff survey results identify an improvement in staff engagement.</li> <li>• Develop / build on HR and OSH related training modules available via 'Amity'.</li> </ul>	
<b>Finance:</b> <i>Maintaining an attractive employment offer, whilst acting responsibly in the face of economic constraints and a reducing financial base.</i>		
<ul style="list-style-type: none"> <li>• Introduction of a pay structure and job evaluation scheme (pay structure, pay progression / grades), and to meet our obligations and commitment to equal pay legislation for contracted employees.</li> </ul>	<ul style="list-style-type: none"> <li>• Implemented pay structure for contracted staff.</li> <li>• Reviewed and updated common law contracts for contracted employees.</li> </ul>	
<b>Communications:</b> <i>Assist with the maintenance and promotion of a positive staff engagement culture.</i>		
<ul style="list-style-type: none"> <li>• Develop and implement a Values &amp; Recognition Programme for all employees based on the City of Albany values.</li> </ul>	<ul style="list-style-type: none"> <li>• Staff survey shows demonstrable improvements have been made on the key issues identified by staff.</li> <li>• Implement an 'official' staff newsletter that's printed and emailed monthly.</li> </ul>	
<ul style="list-style-type: none"> <li>• Promote a workplace culture that fosters cultural respect.</li> </ul>	<ul style="list-style-type: none"> <li>• Cultural Awareness Training for all staff and inductions for new staff.</li> </ul>	
<ul style="list-style-type: none"> <li>• Work with external companies to increase the range of benefits available to staff.</li> </ul>	<ul style="list-style-type: none"> <li>• Increased benefits available for City employees and communicate this information to staff via leaflet, intranet building on ALAC discounted membership and Discounted Corporate Health Insurance.</li> </ul>	

CITY VISION	CITY VALUES	GUIDING PRINCIPLES
<p><i>“To be Western Australia’s most sought after and unique regional City to live, work and visit”</i></p>		<ul style="list-style-type: none"> <li>_ Value for Money</li> <li>_ Continuous Improvement</li> <li>_ Sustainability</li> <li>_ Commitment to Quality</li> </ul>
INFORMING STRATEGIES		ALIGNMENT WITH COMMUNITY STRATEGIC PLAN
<p>_ ICT Strategy</p>	<p><b>Civic Leadership</b></p> <ul style="list-style-type: none"> <li>• To establish and maintain sound business and governance structures</li> <li>• To provide strong, accountable leadership supported by a skilled &amp; professional workforce</li> <li>• To engage effectively with our community</li> </ul>	
PURPOSE STATEMENT		
<p><i>“Provide ICT leadership and support and maintain IT solutions that are fit for purpose, scalable and cost effective for the City of Albany and for the benefit for stakeholders that live, work and visit the Great Southern.”</i></p>		

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Service Delivery: Core Business Systems</b>		
<ul style="list-style-type: none"> <li>• Review of Core Business Systems</li> </ul>	<ul style="list-style-type: none"> <li>• Core Business Systems review completed and recommended actions endorsed and implemented.</li> </ul>	
<ul style="list-style-type: none"> <li>• Upgrade and optimisation of Core Business Systems.</li> </ul>	<ul style="list-style-type: none"> <li>• Scheduled upgrades and optimisation completed.</li> </ul>	
<ul style="list-style-type: none"> <li>• Improve integration of Core Business Systems ensuring a single source of truth.</li> </ul>	<ul style="list-style-type: none"> <li>• Data Dictionary of CoA business systems and reduction data duplication and data silos.</li> </ul>	
<b>Service Delivery: Productivity</b>		
<ul style="list-style-type: none"> <li>• Review of technology and associated processes that will improve productivity and communication.</li> </ul>	<ul style="list-style-type: none"> <li>• Productivity &amp; communication technology Roadmap defined.</li> </ul>	
<ul style="list-style-type: none"> <li>• Implementation of productivity and communication improvements</li> </ul>	<ul style="list-style-type: none"> <li>• Measurable improvements in productivity and communication.</li> </ul>	
<b>Service Delivery: Digital Strategy</b>		
<ul style="list-style-type: none"> <li>• Review of digital strategy (including Intranet, Website and online transactions)</li> </ul>	<ul style="list-style-type: none"> <li>• Digital Strategy review completed and Roadmap defined.</li> </ul>	
<ul style="list-style-type: none"> <li>• Implementation of digital strategy and roadmap projects.</li> </ul>	<ul style="list-style-type: none"> <li>• Measurable improvements in digital engagement of staff and public.</li> </ul>	


DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>People &amp; Process:</b>		
<ul style="list-style-type: none"> <li>Recruit to ensure IT Team is at full strength.</li> </ul>	<ul style="list-style-type: none"> <li>Complete recruitments as approved.</li> </ul>	
<ul style="list-style-type: none"> <li>Develop a programme for staff to visit innovative vendors and metropolitan LGAs.</li> </ul>	<ul style="list-style-type: none"> <li>Programme developed and implemented.</li> </ul>	
<ul style="list-style-type: none"> <li>Develop Staff training programme in line with Staff technical understanding and strategic requirements.</li> </ul>	<ul style="list-style-type: none"> <li>Programme developed and implemented.</li> </ul>	
<b>Finance:</b>		
<ul style="list-style-type: none"> <li>Continue to cost effectively manage ICT Budget</li> </ul>	<ul style="list-style-type: none"> <li>ICT spend within agreed budget.</li> </ul>	
<ul style="list-style-type: none"> <li>Continue to review and improve ICT Contracts to ensure value for money.</li> </ul>	<ul style="list-style-type: none"> <li>Review expiring ICT Contracts diligently.</li> </ul>	
<b>Communication:</b>		
<ul style="list-style-type: none"> <li>Effective engagement with stakeholders (internal &amp; external) through Communications Plan.</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of defined Communications Plan.</li> </ul>	
<ul style="list-style-type: none"> <li>Implementation of regular 'IT Survey' to record overall ICT Service Delivery performance.</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of the 'IT Survey', assessment of results and required actions taken.</li> </ul>	
<ul style="list-style-type: none"> <li>Improve process for implementing and recording continuous improvements.</li> </ul>	<ul style="list-style-type: none"> <li>Implement and publicise continuous improvements.</li> </ul>	
<b>Assets:</b>		
<ul style="list-style-type: none"> <li>Replacement of end of life technology (network devices, servers, PCs, laptops and other equipment).</li> </ul>	<ul style="list-style-type: none"> <li>Completed replacement programme.</li> </ul>	

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INFORMING STRATEGIES	ALIGNMENT WITH COMMUNITY STRATEGIC PLAN	
<ul style="list-style-type: none"> <li>_ Access &amp; Inclusion Plan</li> <li>_ Age Friendly Albany</li> <li>_ Asset Management Strategy</li> <li>_ Communications Strategy</li> <li>_ Connected Communities Plan</li> <li>_ Local Planning Strategy</li> <li>_ Economic Development Strategy</li> </ul>	<p><b>Smart, Prosperous &amp; Growing</b></p> <ul style="list-style-type: none"> <li>• Encourage, support and deliver significant events that promote our region.</li> <li>• Promote the Albany region as a sought after and iconic tourism destination.</li> </ul> <p><b>Clean, Green &amp; Sustainable</b></p> <ul style="list-style-type: none"> <li>• Sustainably protect and enhance our iconic coastline and reserves.</li> <li>• Promote and support effective conservation and environmental management.</li> </ul> <p><b>A Connected Built Environment</b></p> <ul style="list-style-type: none"> <li>• Improve connectedness and traffic flows.</li> <li>• Create consistent and connected streetscapes.</li> </ul> <p><b>A Sense of Community</b></p> <ul style="list-style-type: none"> <li>• Facilitate and promote arts and cultural activities for all ages.</li> <li>• Promote and develop an authentic sense of community.</li> <li>• Deliver activities and programs that promote Albany's unique heritage.</li> <li>• Develop a range of activities and facilities and that are appropriate for all ages.</li> <li>• Encourage and support volunteers and community groups.</li> </ul>	
PURPOSE STATEMENT		
<p><i>"To deliver an experience of immense national importance to visitors and locals that is considered among the best in Australia, positioning Albany as the home of our nation's most iconic cultural pilgrimage."</i></p>		

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<p><b>Service Delivery:</b> <i>Develop and deliver an iconic, memorable and highly educational experience of international standard for both visitors and locals.</i></p>		
<ul style="list-style-type: none"> <li>• Deliver Albany Local Ambassador Program</li> </ul>	<ul style="list-style-type: none"> <li>• Increase local visitation by 20% on previous year.</li> </ul>	
<ul style="list-style-type: none"> <li>• Deliver major commemorative event in April 2018</li> </ul>	<ul style="list-style-type: none"> <li>• Increase visitation in April 2018 by 20% on previous year.</li> </ul>	
<ul style="list-style-type: none"> <li>• Deliver curriculum aligned education program and a AHP events program to regularly engage with the local community and visitors.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase school group visitation by 10%.</li> <li>• Increase local visitation to the park by 10%.</li> </ul>	
<ul style="list-style-type: none"> <li>• Implement digital interpretive experience for PRF precinct.</li> </ul>	<ul style="list-style-type: none"> <li>• Revenue generated by a PRF interpretive experience.</li> </ul>	
<ul style="list-style-type: none"> <li>• Implement online ticket and retail purchasing capability.</li> </ul>	<ul style="list-style-type: none"> <li>• Tickets purchased online. Forts Store revenue increased by 20%.</li> </ul>	

REPORT ITEM CCCS 057 REFERS


DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>People and Process:</b> <i>Actively embrace CoA values and increase the capacity of our team to work collaboratively and add value to the visitor experience.</i>		
<ul style="list-style-type: none"> <li>Improve capacity to deliver AHP specific marketing and events based activities.</li> </ul>	<ul style="list-style-type: none"> <li>Access to additional 0.5 FTE.</li> </ul>	
<ul style="list-style-type: none"> <li>Build retail sales functionality for website via Centaman API.</li> </ul>	<ul style="list-style-type: none"> <li>Ability to purchase retail products on the NAC website.</li> </ul>	
<b>Finance:</b> <i>Seek opportunities to diversify revenue streams, increase the effectiveness and efficiency of our operations and deliver a return on investment for our sponsors, ratepayers and the community.</i>		
<ul style="list-style-type: none"> <li>Develop meeting/event hire packaging for AHP facilities.</li> </ul>	<ul style="list-style-type: none"> <li>Revenue generated through event hire.</li> </ul>	
<ul style="list-style-type: none"> <li>Secure funding for AHP management plan project/s.</li> </ul>	<ul style="list-style-type: none"> <li>External funding secured.</li> </ul>	
<ul style="list-style-type: none"> <li>Secure corporate sponsorship.</li> </ul>	<ul style="list-style-type: none"> <li>\$75,000 secured.</li> </ul>	
<b>Communication:</b> <i>Promote the experiences and stories that make our attractions iconic and unique, through leveraging contemporary distribution channels and engaging with industry, stakeholders and our customers.</i>		
<ul style="list-style-type: none"> <li>Increase marketing presence in the Perth market.</li> </ul>	<ul style="list-style-type: none"> <li>Increase intrastate visitation by 20% on previous year.</li> </ul>	
<ul style="list-style-type: none"> <li>Increase communication with local market.</li> </ul>	<ul style="list-style-type: none"> <li>Increase local visitation by 20% on previous year.</li> </ul>	
<ul style="list-style-type: none"> <li>Seek and submit for relevant awards with professional grant writing experience.</li> </ul>	<ul style="list-style-type: none"> <li>Gold Medal in WA Tourism Awards.</li> </ul>	
<ul style="list-style-type: none"> <li>Establish further agreements with travel trade (ATE 2017).</li> </ul>	<ul style="list-style-type: none"> <li>Additional major trade agreement secured.</li> </ul>	
<ul style="list-style-type: none"> <li>Leverage refreshed website and social media presence.</li> </ul>	<ul style="list-style-type: none"> <li>Website traffic increase by 20% on previous year.</li> </ul>	
<b>Facilities:</b> <i>Develop greater consistency and integration between our primary attractions/facilities and facilitate greater public access and usage of the park's open spaces and natural environment.</i>		
<ul style="list-style-type: none"> <li>Refurbish interior of Barracks building.</li> </ul>	<ul style="list-style-type: none"> <li>Interior of barracks painted and lighting upgraded.</li> </ul>	
<ul style="list-style-type: none"> <li>Repurpose Guard House to become exhibit.</li> </ul>	<ul style="list-style-type: none"> <li>Increase in visitation to PRF buildings.</li> </ul>	
<ul style="list-style-type: none"> <li>Secure funding and commence delivery of parking and traffic upgrade.</li> </ul>	<ul style="list-style-type: none"> <li>Detailed design complete and contractor secured.</li> </ul>	

CITY VISION	CITY VALUES	GUIDING PRINCIPLES
<p><i>"To be Western Australia's most sought after and unique regional City to live, work and visit"</i></p>		<ul style="list-style-type: none"> <li>_ Value for Money</li> <li>_ Continuous Improvement</li> <li>_ Sustainability</li> <li>_ Commitment to Quality</li> </ul>
INFORMING STRATEGIES		ALIGNMENT WITH COMMUNITY STRATEGIC PLAN
<ul style="list-style-type: none"> <li>_ Integrated Planning Framework, supporting Plans and Strategies</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Smart, Prosperous &amp; Growing</b> - <i>"We will partner business and education providers to diversify our economy and establish a culture of learning to support and grow local employment."</i></li> <li>• <b>Clean, Green &amp; Sustainable</b> - <i>"We will value and maintain the natural beauty of our region and the infrastructure that supports this."</i></li> <li>• <b>A Connected Built Environment</b> - <i>"We will develop integrated precincts and neighbourhoods that allow for population growth and enhance the lifestyle of our residents."</i></li> <li>• <b>A Sense of Community</b> - <i>"We will live in communities where people feel they belong and are supported in a manner that reflects our rich and diverse heritage."</i></li> <li>• <b>Civic Leadership</b> - <i>"We will listen to our community and deliver outcomes that reflect their needs and expectations."</i></li> </ul>	
PURPOSE STATEMENT		
<p><i>"To provide a high level of professional support to deliver corporate KPIs and create a team environment based on the City's values."</i></p>		

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
Service Delivery: <i>Regional Focus</i>		
<ul style="list-style-type: none"> <li>• Regional Alliance</li> </ul>	<ul style="list-style-type: none"> <li>• Progress resource sharing arrangements, growth planning and tourism development</li> </ul>	
<ul style="list-style-type: none"> <li>• Growth Plan</li> </ul>	<ul style="list-style-type: none"> <li>• Lead the City of Albany's contribution to the Economic Development Growth Plan for the region. If funding is not received for the Growth Plan - advance an Economic Development Strategy for the sub region via the Alliance</li> </ul>	
<ul style="list-style-type: none"> <li>• Tourism</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation of the Destination Marketing Strategy (DMS) and Tourism Development Strategy (TDS) as part of the Alliance</li> </ul>	


DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<i>Service Delivery: Strategic Projects</i>		
<ul style="list-style-type: none"> <li>Centennial Park Sporting Precinct, Stage 1&amp; 2</li> </ul>	<ul style="list-style-type: none"> <li>Advance planning and development for stage 2. Finalise construction and lease arrangements (stage 1) and promote the use of the upgraded facilities.</li> </ul>	
<ul style="list-style-type: none"> <li>Middleton Beach Activity Centre and Foreshore Precinct</li> </ul>	<ul style="list-style-type: none"> <li>Advance precinct planning and development with Council providing strong community consultation and engagement processes.</li> </ul>	
<ul style="list-style-type: none"> <li>Albany Waterfront Precinct</li> </ul>	<ul style="list-style-type: none"> <li>Advance precinct planning and development with Council providing strong community consultation and engagement processes.</li> </ul>	
<ul style="list-style-type: none"> <li>Motorsport Complex Facility</li> </ul>	<ul style="list-style-type: none"> <li>Progress the feasibility study on the viability of a Motorsports Facility in the Albany Municipality and report the finding back to Council.</li> </ul>	
<ul style="list-style-type: none"> <li>Albany Tourism &amp; Information Hub</li> </ul>	<ul style="list-style-type: none"> <li>Project delivery and progress the transition of the service delivery to the City Centre location.</li> </ul>	
<ul style="list-style-type: none"> <li>City Centre Precinct</li> </ul>	<ul style="list-style-type: none"> <li>Advance funding applications (Town Hall / Library / AH Gardens) and if successful report back to Council on the project delivery.</li> </ul>	
<ul style="list-style-type: none"> <li>Albany Heritage Park Precinct</li> </ul>	<ul style="list-style-type: none"> <li>Progress the Master Plan and report the finding back to Council.</li> </ul>	
<ul style="list-style-type: none"> <li>Major Projects Team Support</li> </ul>	<ul style="list-style-type: none"> <li>Provide internal advice and guidance to City Directorates on project feasibility and planning and project delivery.</li> </ul>	
<i>Service Delivery: Governance</i>		
<ul style="list-style-type: none"> <li>Community Strategic Plan</li> </ul>	<ul style="list-style-type: none"> <li>Completion of Community engagement and review of Community Strategic Plan.</li> </ul>	
<ul style="list-style-type: none"> <li>Albany Local Planning Strategy (ALPS)</li> </ul>	<ul style="list-style-type: none"> <li>Strategy adopted</li> </ul>	
<ul style="list-style-type: none"> <li>Committees</li> </ul>	<ul style="list-style-type: none"> <li>Work with Council on the ongoing development and support of its Committee and meetings structure</li> </ul>	
<ul style="list-style-type: none"> <li>Elected Member Development</li> </ul>	<ul style="list-style-type: none"> <li>Organise ongoing training and development sessions as per the program including the development of a plan for post October 2017 election induction program. This includes working with the Regional Alliance to deliver joint training at a local level.</li> </ul>	
<i>Service Delivery: Organisational</i>		
<ul style="list-style-type: none"> <li>Corporate Scoreboard</li> </ul>	<ul style="list-style-type: none"> <li>Scoreboard reporting project completed and implemented – aligned to the business planning project and informing the Integrated Planning framework and Annual Budget.</li> </ul>	
<ul style="list-style-type: none"> <li>Organisational Development Program</li> </ul>	<ul style="list-style-type: none"> <li>Continue to implement organisation development and leadership program to develop high performing teams and values based leadership measured via trends in the annual employee perception survey.</li> </ul>	



CITY VISION	CITY VALUES	GUIDING PRINCIPLES
<p><i>"To be Western Australia's most sought after and unique regional City to live, work and visit"</i></p>		<ul style="list-style-type: none"> <li>_ Value for Money</li> <li>_ Continuous Improvement</li> <li>_ Sustainability</li> <li>_ Commitment to Quality</li> </ul>
INFORMING STRATEGIES	ALIGNMENT WITH COMMUNITY STRATEGIC PLAN	
<p>_ICT Strategic Plan 2012 to 2017: _KFA#2 – Information Management</p>	<p><b>Civic Leadership</b></p> <ul style="list-style-type: none"> <li>• To establish and maintain sound business and governance structures.</li> <li>• To provide strong, accountable leadership supported by a skilled &amp; professional workforce.</li> <li>• To engage effectively with our community.</li> </ul>	
PURPOSE STATEMENT		
<p><i>"Promote and enable best practice record keeping practices. Provide proactive stakeholder records management support to meet legislative and business need."</i></p>		


DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<p><b>Service Delivery: Records Management: Improved records management practices.</b></p>		
<ul style="list-style-type: none"> <li>• Improve records management compliance across all City business units.</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain and improve record keeping practices including registration, retrieval, archive and disposal.</li> <li>• Statutory destruction target 100 percent.</li> <li>• Induction training for new employee target 100 percent through online induction training (using Amity).</li> <li>• Development of a FAQ (Records Management/Handling Wiki) to compliment records induction training.</li> <li>• Conduct at least one records management awareness briefing per directorate per calendar year.</li> </ul>	

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Service Delivery: Records Service Improvement: For internal and external stakeholders.</b>		
<ul style="list-style-type: none"> <li>Investigate digital record keeping practices and implement where appropriate. Implement passive content management* as a minimum.</li> <li>Process improvement (Internal monitoring and reporting as appropriate across all business units to identify process and training improvements).</li> <li>Open and effective communication with staff and elected members.</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of digital signatures.</li> <li>Implementation of digital letter heads for Administration and Council.</li> <li>Twice yearly report to EMT and/or ICT Steering Committee on record keeping practices across the City.</li> <li>Records Management responsibilities defined in job descriptions (similar to OSH).</li> <li>Review and promote record handling awareness training.</li> </ul>	
<b>People &amp; Process:</b>		
<ul style="list-style-type: none"> <li>Team education and development.</li> <li>Review team functions, define support responsibility and protocols to improve record management by staff and elected members.</li> <li>Identify and develop Records Team members who have an aptitude for training and process improvement.</li> </ul>	<ul style="list-style-type: none"> <li>Minimum of 2 professional development activities per staff member.</li> <li>Documented staff one on one performance feedback.</li> <li>Demonstrated knowledge sharing culture.</li> <li>Improved processes.</li> <li>Development of a dedicated records training and support position.</li> </ul>	
<b>Finance:</b>		
<ul style="list-style-type: none"> <li>Financial performance.</li> </ul>	<ul style="list-style-type: none"> <li>Net cost within budget.</li> </ul>	

CITY VISION	CITY VALUES	GUIDING PRINCIPLES
<p><i>"To be Western Australia's most sought after and unique regional City to live, work and visit"</i></p>		<ul style="list-style-type: none"> <li>_ Value for Money</li> <li>_ Continuous Improvement</li> <li>_ Sustainability</li> <li>_ Commitment to Quality</li> </ul>
INFORMING STRATEGIES		ALIGNMENT WITH COMMUNITY STRATEGIC PLAN
<ul style="list-style-type: none"> <li>_ Public Health Plan</li> <li>_ Sport Futures Plan</li> </ul>	<p><b>A Sense of Community</b></p> <ul style="list-style-type: none"> <li>• Strong Resilient Communities.</li> <li>• Vibrant Places &amp; Spaces.</li> <li>• Sought after lifestyle destination.</li> </ul>	
PURPOSE STATEMENT		
<p><i>"To provide a diverse and affordable range of quality sport and recreational opportunities to all members of our community in a safe, friendly, and fun environment which is financially sustainable for the rate payers of the City Of Albany."</i></p>		

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Service Delivery: TRAILS</b>		
<ul style="list-style-type: none"> <li>• Implement the Albany Heritage Park Concept Plan Stage 1 Project.</li> </ul>	<ul style="list-style-type: none"> <li>• Detailed Design completed.</li> <li>• Approvals for Stage One Completed and Construction Underway</li> <li>• Funding Sourced</li> </ul>	
<ul style="list-style-type: none"> <li>• Plan and deliver the next stage of 10 Great Amazing Albany Adventure Maps:</li> <li>• 10 Great Short Walks and 10 Great Surfs</li> </ul>	<ul style="list-style-type: none"> <li>• Funding applications delivered</li> <li>• Project underway.</li> </ul>	
<b>Service Delivery: RECREATION SERVICES &amp; CLUB DEVELOPMENT</b>		
<ul style="list-style-type: none"> <li>• Investigate &amp; secure funding for the Centennial Park Sporting Precinct – Completion of the Eastern Precinct Vision.</li> </ul>	<ul style="list-style-type: none"> <li>• Staged approach identified.</li> <li>• Funding application submitted.</li> <li>• Construction underway.</li> </ul>	
<ul style="list-style-type: none"> <li>• Commence delivery of key priority actions in Rec Futures Plan including investigation &amp; feasibility of improved facilities for Hockey and Tennis.</li> </ul>	<ul style="list-style-type: none"> <li>• Feasibility and business case developed.</li> </ul>	
<ul style="list-style-type: none"> <li>• Improve the management of the sport and recreation precinct grounds.</li> </ul>	<ul style="list-style-type: none"> <li>• Improved data collection.</li> <li>• Improved communication/marketing.</li> <li>• Improved Efficiencies.</li> <li>• Improved customer service: Community Perception survey results – 85% Satisfaction Rate</li> </ul>	
<ul style="list-style-type: none"> <li>• Investigate securing funding for a part time Aboriginal Programs Officer position to improve Indigenous engagement in sport and recreation clubs/programs.</li> </ul>	<ul style="list-style-type: none"> <li>• Funding application submitted.</li> </ul>	

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Service Delivery: TRAVEL SMART</b>		
<ul style="list-style-type: none"> <li>Conduct a mid-term review of the Cycle City Albany Strategy.</li> </ul>	<ul style="list-style-type: none"> <li>Review Completed with Progress Report and agreed further actions.</li> </ul>	
<ul style="list-style-type: none"> <li>Planning &amp; delivery of key actions from the review.</li> </ul>	<ul style="list-style-type: none"> <li>Actions delivered in agreed timeframes.</li> </ul>	
<ul style="list-style-type: none"> <li>Planning &amp; delivery of key actions from COA Workplace Travel Plan.</li> </ul>	<ul style="list-style-type: none"> <li>5% increase in the number of COA staff walking or riding to work on a regular basis.</li> </ul>	
<b>People &amp; Process:</b>		
<ul style="list-style-type: none"> <li>HR – Embed a part time (0.5FTE) Trails Officer position to progress the Environmental/heritage approvals processes and detailed design and construction of Stage 1 of the AHP Trails Concept Plan during 2016/17 &amp; 2017/18.</li> </ul>	<ul style="list-style-type: none"> <li>Detailed Design completed.</li> <li>Approvals for Stage One Completed and Construction Underway.</li> </ul>	
<ul style="list-style-type: none"> <li>Review &amp; improve the interface between the event application and recreation services activity permit processes to assist with improved management and communication.</li> </ul>	<ul style="list-style-type: none"> <li>Clear process identified and staff trained.</li> </ul>	
<ul style="list-style-type: none"> <li>Technology – Review and upgrade the Bookings (Centreman) Software and website to support the improved management of the sport &amp; rec grounds.</li> </ul>	<ul style="list-style-type: none"> <li>Review and Upgrade completed.</li> </ul>	
<b>Finance:</b>		
<ul style="list-style-type: none"> <li>Budget and submit funding applications for the following key projects:                             <ul style="list-style-type: none"> <li>AHP Stage 1 Project</li> <li>Centennial Park Sporting Precinct – Completion of the Eastern Precinct</li> <li>Hockey &amp; Tennis Feasibility Study</li> <li>10 Short Walks and 10 Great Surfs</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Funding application's submitted.</li> </ul>	
<b>Communication:</b>		
<ul style="list-style-type: none"> <li>Actively update and participate in the organisations communication mediums to improve communications.</li> </ul>	<ul style="list-style-type: none"> <li>Community Perception rating above 90%.</li> </ul>	

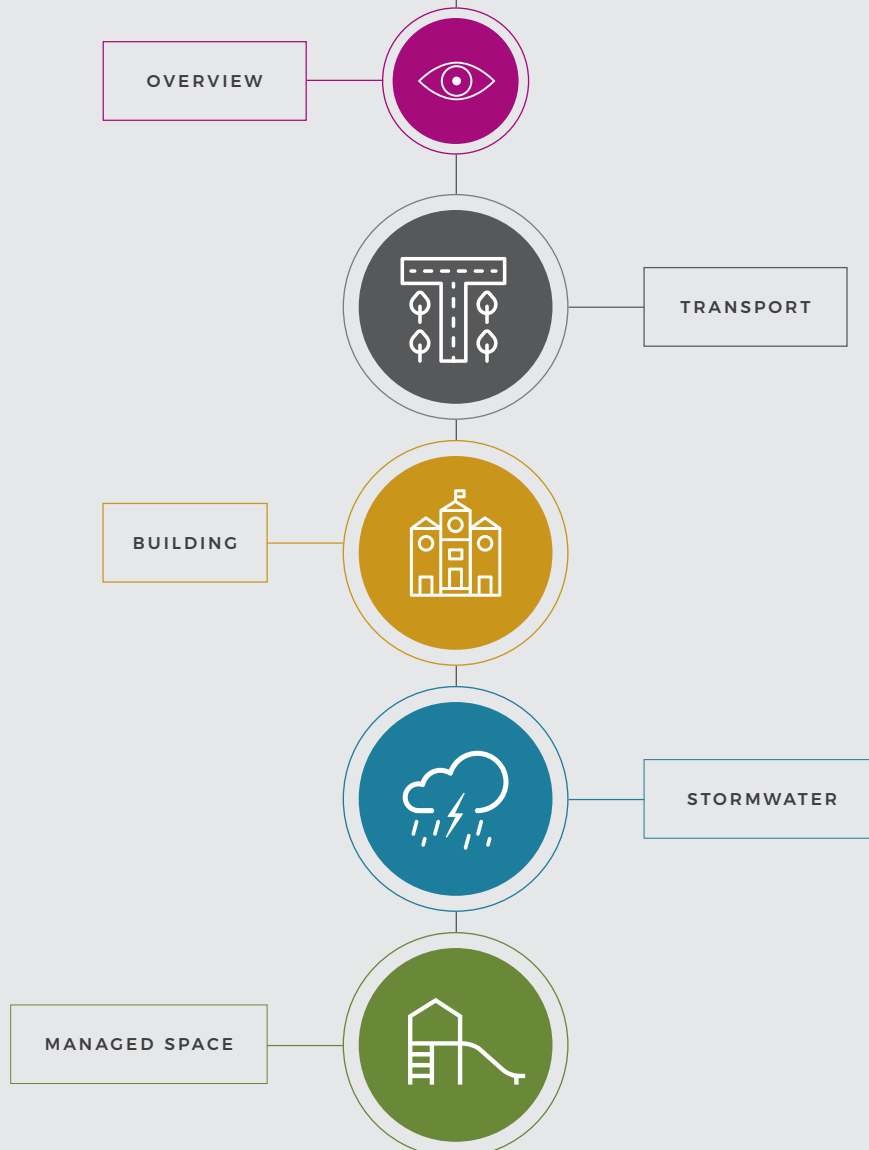
CITY VISION	CITY VALUES	GUIDING PRINCIPLES
<p><i>"To be Western Australia's most sought after and unique regional City to live, work and visit"</i></p>		<ul style="list-style-type: none"> <li>_ Value for Money</li> <li>_ Continuous Improvement</li> <li>_ Sustainability</li> <li>_ Commitment to Quality</li> </ul>
INFORMING STRATEGIES	ALIGNMENT WITH COMMUNITY STRATEGIC PLAN	
<ul style="list-style-type: none"> <li>_ Community Strategic Plan 2023</li> <li>_ Access and Inclusion Plan</li> <li>_ Connected Communities Strategy</li> <li>_ Economic Development Strategy</li> <li>_ Vancouver Arts 2016-2019 Strategic Plan</li> </ul> <p>Additional Guiding Documents are identified within the Vancouver Arts Strategic Plan</p>	<p><b>Smart, Prosperous and Growing</b></p> <ul style="list-style-type: none"> <li>• Revitalise and promote the central City area.</li> <li>• To develop and promote Albany as a unique and sought-after visitor destination.</li> </ul> <p><b>A Connected Built Environment</b></p> <ul style="list-style-type: none"> <li>• To develop vibrant neighbourhoods which retain our local character and heritage.</li> </ul> <p><b>A Sense of Community</b></p> <ul style="list-style-type: none"> <li>• To build resilient and cohesive communities with a strong sense of community spirit.</li> <li>• To create interesting places, spaces and events that reflect our community's identity, diversity and heritage.</li> <li>• To develop and support a healthy inclusive and accessible community.</li> </ul>	
PURPOSE STATEMENT		
<p><i>"Our key purpose is to develop the creative capacity of our region. We will focus on supporting the practice of art-making. We will achieve this by delivering a diverse and engaging artistic program that empowers our community and the cultural sector."</i></p>		

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<p><b>Service Delivery: Delivery of a vibrant and diverse artistic program.</b></p>		
<ul style="list-style-type: none"> <li>• Performing arts development.</li> </ul>	<ul style="list-style-type: none"> <li>• Deliver opportunities to develop innovative performing arts skills and practice.</li> </ul>	
<ul style="list-style-type: none"> <li>• Partner with Peak Metro Arts Organisations.</li> </ul>	<ul style="list-style-type: none"> <li>• Engage with RAPP program and participate in partnership clusters if appropriate (connected to Creative Regions funding).</li> </ul>	
<ul style="list-style-type: none"> <li>• Exhibitions.</li> </ul>	<ul style="list-style-type: none"> <li>• Deliver 10<sup>th</sup> AAP and annual exhibition program at the Town Hall.</li> </ul>	
<ul style="list-style-type: none"> <li>• Music development project.</li> </ul>	<ul style="list-style-type: none"> <li>• Deliver music project activity in line with Scoping Study findings.</li> </ul>	
<ul style="list-style-type: none"> <li>• Residencies.</li> </ul>	<ul style="list-style-type: none"> <li>• Support visiting and local artists with short term access to accommodation and studios.</li> </ul>	

DELIVERABLES	MEASURABLE OUTCOMES (to be achieved in 2017/18)	STATUS
<b>Service Delivery:</b> <i>Deep and wide community engagement in the arts.</i>		
<ul style="list-style-type: none"> <li>Families / Children engagement.</li> </ul>	<ul style="list-style-type: none"> <li>Review school holiday programs for best value.</li> </ul>	
<ul style="list-style-type: none"> <li>Community ownership.</li> </ul>	<ul style="list-style-type: none"> <li>Review membership program.</li> </ul>	
<b>Service Delivery:</b> <i>Make a strong contribution to our region's economic development.</i>		
<ul style="list-style-type: none"> <li>Creative Industries.</li> </ul>	<ul style="list-style-type: none"> <li>Provide commercial opportunities for Makers and Artisans.</li> </ul>	
<ul style="list-style-type: none"> <li>Festivals / PIAF.</li> </ul>	<ul style="list-style-type: none"> <li>Contribute to the development of Festival.</li> </ul>	
<ul style="list-style-type: none"> <li>Town Hall/Square CBD activation.</li> </ul>	<ul style="list-style-type: none"> <li>Contribute to curating and activating Town Hall &amp; Square.</li> </ul>	
<b>Service Delivery:</b> <i>Empowered and supported cultural sector.</i>		
<ul style="list-style-type: none"> <li>External training and mentoring.</li> </ul>	<ul style="list-style-type: none"> <li>Deliver PD for community in curating, installation and exhibition presentation.</li> </ul>	
<ul style="list-style-type: none"> <li>In-kind support.</li> </ul>	<ul style="list-style-type: none"> <li>Review In-Kind support processes.</li> </ul>	
<b>People &amp; Process:</b>		
<ul style="list-style-type: none"> <li>Staff Development.</li> </ul>	<ul style="list-style-type: none"> <li>Key program staff to attend WA Regional Arts Summit Oct 17</li> </ul>	
<ul style="list-style-type: none"> <li>Consultation.</li> </ul>	<ul style="list-style-type: none"> <li>Disband focus group and develop community engagement model (customer feedback, stakeholder engagement, and project based community consultation).</li> </ul>	
<ul style="list-style-type: none"> <li>Evaluation.</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate programs in line with Public Value Measurement Framework using Culture Counts.</li> </ul>	
<b>Finance:</b>		
<ul style="list-style-type: none"> <li>Financial performance.</li> </ul>	<ul style="list-style-type: none"> <li>Delivery of VAC budget with variation + / - 3%</li> </ul>	
<ul style="list-style-type: none"> <li>Funding and Revenue.</li> </ul>	<ul style="list-style-type: none"> <li>Diversify revenue streams and develop funding strategy for 2019-2021.</li> </ul>	
<b>Communication:</b>		
<ul style="list-style-type: none"> <li>Online and Social Media marketing.</li> </ul>	<ul style="list-style-type: none"> <li>Implement facebook and grow followers by 10%</li> </ul>	
<ul style="list-style-type: none"> <li>Annual Report</li> </ul>	<ul style="list-style-type: none"> <li>Well produced annual report for public / sector distribution.</li> </ul>	
<b>Assets:</b>		
<ul style="list-style-type: none"> <li>Strategic Plan 2019-2021.</li> </ul>	<ul style="list-style-type: none"> <li>Develop Strategic Plan for 2019-2021.</li> </ul>	
<ul style="list-style-type: none"> <li>Art Collection.</li> </ul>	<ul style="list-style-type: none"> <li>Develop plan for art collection relocation and management.</li> </ul>	
<ul style="list-style-type: none"> <li>Venue Development.</li> </ul>	<ul style="list-style-type: none"> <li>Increase suitable gallery space through renovating front office. Revamp Annex into suitable venue for music rehearsals</li> </ul>	

# OVERVIEW

## STRATEGIC ASSET MANAGEMENT PLAN



# of Table Contents



## 0. OVERVIEW

- INTRODUCTION
- WHAT WE DO
- WHAT WE OWN
- OUR VISION
- WHAT WE PLAN TO SPEND
- WHAT'S IN THE PLANS
- STATE OF THE ASSETS
- MANAGING THE ASSETS
- PRINCIPLE RISKS
- LEGISLATION
- COMMUNITY CONSULTATION
- MONITORING AND REVIEW PROCEDURES
- IMPROVEMENT PLAN
- FURTHER READING



## TRANSPORT

- WHAT WE DO
- WHY WE DO IT
- COMMUNITY OUTCOMES
- GROWTH & DEMAND
- MANAGING OUR ROADS
- MANAGING OUR PATHS
- MANAGING OUR CARPARKS
- MANAGING OUR BRIDGES
- MANAGING OUR BUS SHELTERS
- MANAGING OUR STREET LIGHTS
- TRANSPORT MAINTENANCE
- LEVELS OF SERVICE
- FINANCIALS
- OUR PROJECTS FOR THE FUTURE
- THREATS
- IMPROVEMENT PLAN
- FURTHER READING



## BUILDING

- WHAT WE DO
- WHY WE DO IT
- COMMUNITY OUTCOMES
- GROWTH & DEMAND
- MANAGING OUR BUILDINGS
- FINANCIALS
- OUR PROJECTS FOR THE FUTURE
- LEVELS OF SERVICE
- MAJOR THREATS
- IMPROVEMENT PLAN
- FURTHER READING



## STORM WATER

- WHAT WE DO
- WHY WE DO IT
- COMMUNITY OUTCOMES
- GROWTH & DEMAND
- MANAGING OUR STORMWATER
- FINANCIALS
- OUR PROJECTS FOR THE FUTURE
- LEVELS OF SERVICE
- MAJOR THREATS
- IMPROVEMENT PLAN
- FURTHER READING



## MANAGED SPACE

- WHAT WE DO
- WHY WE DO IT
- COMMUNITY OUTCOMES
- GROWTH & DEMAND
- MANAGING OUR SPACE
- FINANCIALS
- OUR PROJECTS FOR THE FUTURE
- LEVELS OF SERVICE
- THREATS
- IMPROVEMENT PLAN
- FURTHER READING



## Introduction

# ASSET MANAGEMENT PROVIDES MANY IMPORTANT BENEFITS TO THE ORGANISATION AND THE COMMUNITY.

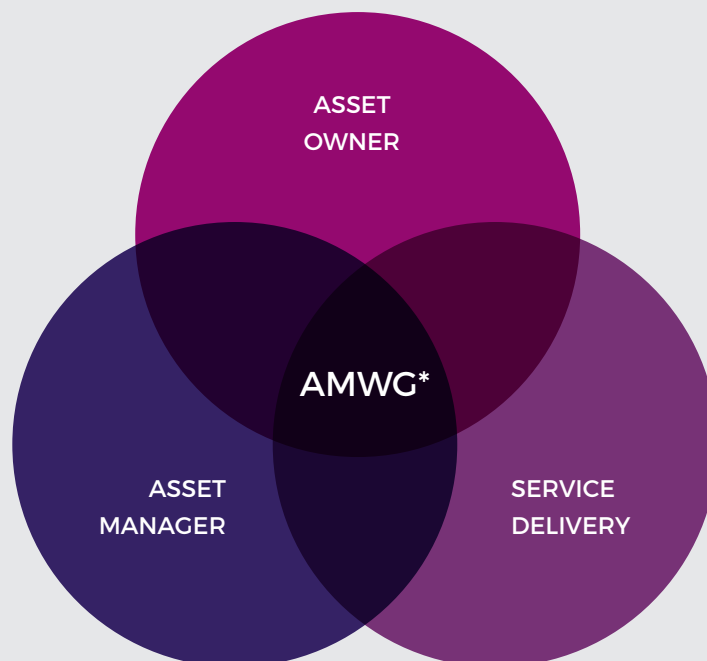
### THESE INCLUDE;

- More sustainable financial performance
- Improved social responsibility
- Better informed investment decisions
- Demonstrated compliance
- Improved management of risk
- Enhanced community communication
- More efficient service delivery

These benefits are achieved through the implementation of good asset management practices.

The Asset Management Policy recognises asset management as an important and fundamental corporate function across the whole of the organisation.

The City has introduced an Asset Management Structure to ensure all assets have a strategic and operational custodian. This structure provides clarity of responsibilities for appropriate and informed decision making.





## What we do

The City owns and maintains a substantial network of infrastructure assets, parks and community facilities that provide a variety of services and benefits to the local community. These assets vary in complexity and are diverse in nature.

These assets support our modern day to day activities and are often not noticed until they are no longer meeting expectations or fail. The City works hard to ensure these assets are as resilient, economical and sustainable as possible.

Total Value Approximately

**\$800  
MILLION**



### 1# FUN FACT

**The City is responsible for  
\$20,000 of assets per resident**

## What we own

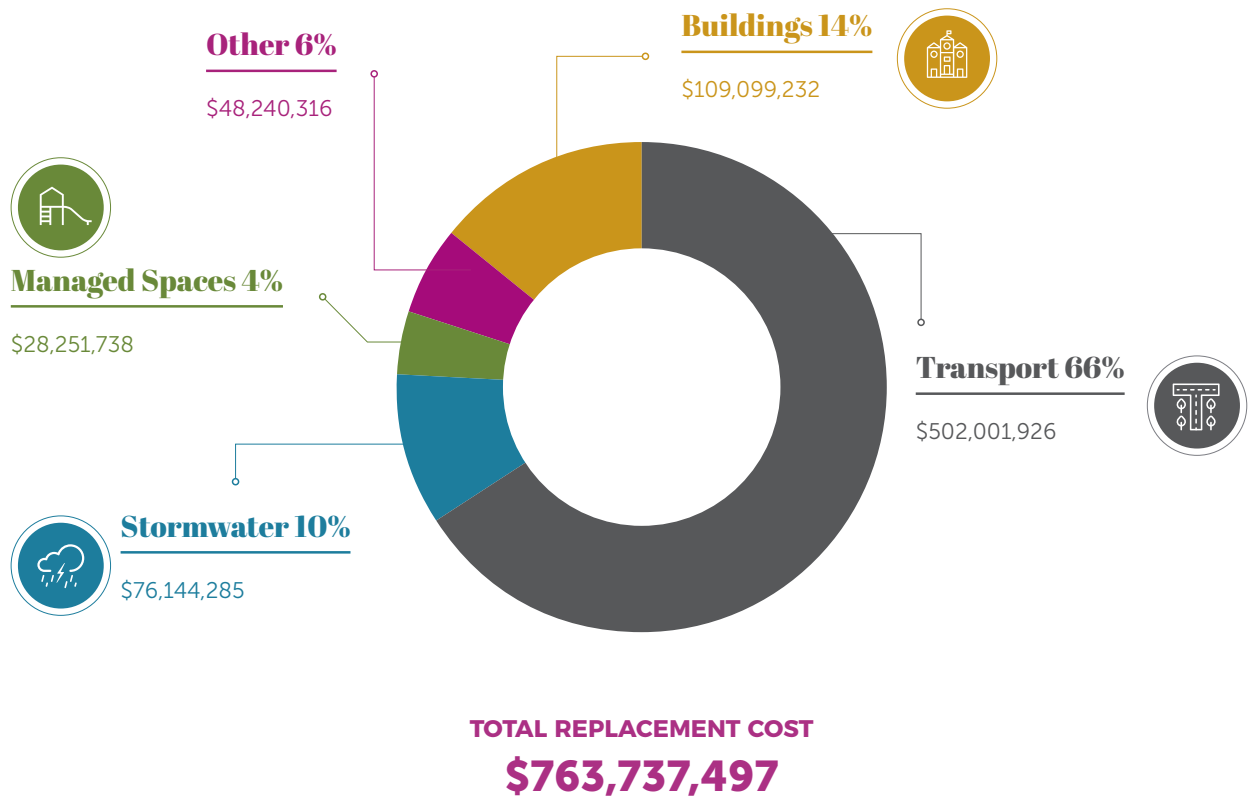
The City of Albany groups assets in the following asset classes for ease of planning and reporting.

This document will contain an overview of the asset management systems in place at the City of Albany and each part is an individual Strategic Asset Management Plan (SAMP).

The asset classes covered by SAMP's are as follows;



The SAMP's document how the City plans to achieve the objectives in the Community Strategic Plan. Through the identification of critical risks, monitoring of service levels and performance, understanding lifecycle management & maintenance strategies. They also quantify anticipated expenditure and highlight focus areas for improvements.



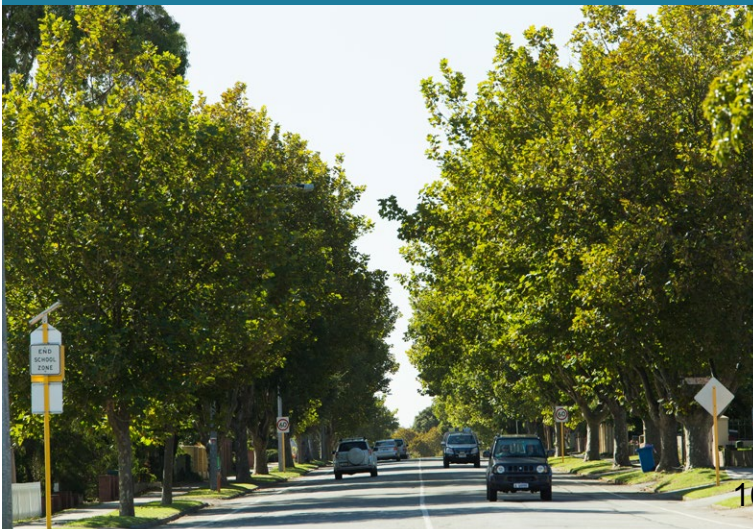


**Our Vision**



**To be Western Australia's  
most sought-after and  
welcoming regional city  
to work, live or visit.**

**To protect and enhance  
our natural & built  
environment in a  
changing climate**



**To build, maintain  
and renew City  
assets sustainably**

## What we plan to spend

Capital expenditure is divided into categories of Renewal, Upgrade and Expansion.

Renewal is the replacement of an existing asset with service levels and a decrease in maintenance expenditure may occur. Whereas upgrade and expansion increase the asset base, may increase service levels, maintenance and renewal liability. The breakdown of capital expenditure allows for the monitoring of asset ratios to ensure adequate funding of the renewal of existing assets.

Below is the current ten year capital works program (operational and maintenance projections to be added) for all asset classes. The average expenditure per annum over the 10 year plan period is \$11.6 million which equates to approximately 1.5% of the total replacement cost of the City's assets. Renewal expenditure equates to 1% of the total replacement cost over the same period.

\* BASED ON 10 YEAR PLAN CREATED IN 16/17 AND CRC OF ASSETS IN 14/15 FAIR VALUE

Ten Year Capital Works Program										
	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027
	Financial Estimate	Financial Estimate	Financial Estimate	Financial Estimate	Financial Estimate	Financial Estimate	Financial Estimate	Financial Estimate	Financial Estimate	Financial Estimate
<b>Renewal</b>	6 943 920	8 870 569	6 668 800	7 669 726	6 978 578	8 329 222	7 086 679	8 115 028	8 548 769	8 349 145
<b>Upgrade</b>	850 280	551 153	4 820 722	1 817 801	2 544 911	2 802 806	1 642 694	3 205 860	3 160 644	1 665 920
<b>Expansion</b>	1 097 300	872 150	809 903	856 250	784 581	1 091 343	3 681 613	784 560	1 088 428	4 739 853
<b>Total</b>	8 891 500	10 293 873	12 299 425	10 343 776	10 308 070	12 223 370	12 410 985	12 105 448	12 797 840	14 754 918

Financial modelling is undertaken annually to predict and project the required spending scenarios to maintain existing service levels. The following graph shows the difference between the proposed expenditure in the long term financial plan and

the renewal projections from the modelling. The average variance over the 10 year period across all asset classes is approximately \$1m. This variation is considered reasonable given the size of the asset base and the data confidence used in the modelling.

### ALL ASSETS | COMPARISON OF RENEWAL MODELLING TO LONG TERM FINANCIAL PLAN EXPENDITURE



EXCLUDING LTFP EXPENDITURE ON ASSETS NOT MODELLED (WASTE, AERODROMES, TRAILS)





## What’s in the plans

The objective of each Strategic Asset Management Plan part is to outline the most likely scenario for managing that asset class including proposed renewal expenditure, condition profiles, data management, critical assets, service levels and planned improvements.

The SAMP’s shall provide an adopted rationale for how we prioritise long term projects and when we intervene for cost effective renewal programs. This information informs the City of Albany Long Term Financial Plan.

It is important to have an understanding of the quality of the data that underpins many of the assumptions and modelling in the plans. The matrix following illustrates the City’s confidence in the data across asset groups.

**Table 1 Confidence Matrix**

Data Confidence Matrix						
	Asset Group	%Asset Base	Quantity	Replacement Cost	Useful Life	Condition
	Transport	54%	High	High	Medium	Medium
	Building	16%	High	High	Medium	Medium
	Stormwater	12%	Medium	High	Low	Low
	Managed Spaces	4%	Medium	Medium	Medium	Medium

## State of the Assets

One of the core tasks of the Asset Management Team is to monitor the state of the assets. This is achieved through rolling condition assessments across all asset classes including CCTV of underground pipes.

The methodology for condition surveys varies depending on asset classes, available technology, cost and quantity of infrastructure. These methodologies, timings and frequency are outlined in each asset group section.

All asset classes use a 1 – 5 scale for recording condition with 1 being new and 5 being poor condition. The exception to this rule is managed space assets that have relatively short lives and therefore a 1 – 3 scale is used.

**FUN FACT 2#**

**Our GIS database holds over 1,400,000 fields of asset data!**

## Managing the Assets

All assets have been categorised into hierarchies to group them by function and importance.

This method of grouping allows for identifying critical assets, allocating appropriate levels of service to different assets and to align responsibility with the organisational structure.

Hierarchies around importance often align with the utilisation, capacity and consequence of failure of assets. Whereas the functional hierarchy is around the service the asset provides to the community.

## Principle Risks

Risk	Description	Mitigation
<b>Strategic – risks that effect our ability to deliver strategic objectives</b>		
<b>Climate Change</b>	The potential for more frequent damaging and intense climate events .	Ensuring appropriate design at renewal to meet changing demands on infrastructure
<b>Urban Sprawl</b>	Uncontrolled expansion of the urban footprint will result in up to a fourfold increase in the cost of delivery of infrastructure.	Local Planning incentives to increase urban infill. The City will not support any further rezoning of land for future urban or residential purposes.
<b>Whole of life decision making</b>	The consideration of all operational, maintenance, capital renewal and disposal costs of all projects at the feasibility stage and the impacts on ongoing sustainability.	Monitoring changes in renewal liability. Provision of whole of life costs for all projects to Council at feasibility.
<b>Public Expectations</b>	Community’s perception of service levels and equity between suburbs.	Documented levels of service and appropriate Development Guidelines.
<b>Financial – risks that impact financial position and long term sustainability</b>		
<b>Delayed renewal</b>	Delayed renewal may result in an increase in consequential maintenance costs. It also has the potential to substantially increase the cost of renewal. eg. Reseal versus reconstruction	Continuous improvement of asset condition, modes of failure and trends.
<b>Increasing asset base</b>	Potential for increased depreciation expenses to impact the operational budget and increasing renewal liability.	Annual renewal modelling. Valuations on a 3 year cycle. Whole of life costs of projects provided to elected members. Facilitation of economic growth through preferably non-asset solutions.
<b>Limited Revenue options</b>	Low population growth limits an increase in rates income. An increasing older demographic on fixed incomes may put further pressure on rates revenue. Reduced funding levels from State and Federal governments.	Explore and consider commercial leasing options where appropriate. Rationalise existing under utilised assets. Actively seek funding opportunities.
<b>Operational - risks relating to day to day operations</b>		
<b>Reactive approach to maintenance</b>	Reacting to failures is a legitimate tactic in some cases with some low priority assets. In other circumstances it is cost effective to be proactive with planned & preventative maintenance programs for better outcomes.	Risk based reactive maintenance system. Priority based preventative maintenance program. Improve our understanding of maintenance expenditure. Appropriate renewal intervention levels.

## REPORT ITEM CCCS 057 REFERS

Legislation	Transport	Building	Stormwater	Managed Space
Local Government Act & Regulations	✓	✓	✓	✓
Land Administration Act 1997	✓	✓	✓	✓
Building Act 2011		✓		
Occupational Health & Safety Act 1984	✓	✓	✓	✓
Aboriginal Heritage Act 1997	✓	✓	✓	✓
WA Disability Services Act 1993	✓	✓	✓	✓
Conservation & Land Management Act 1984	✓	✓	✓	✓
Environmental Protection and Biodiversity Conservation Act 1999	✓	✓	✓	✓
Country Areas Water Supply Act 1947 & Regulations 1981			✓	
Waterways Conservation Act 1976 & Regulations 1981			✓	
Heritage Act of Western Australia	✓	✓	✓	✓
Road Traffic Act 1974 & Various Regulations	✓			
Main Roads Act 1930	✓			
Road Traffic Code 2000	✓			
Building Regulations 2012		✓		
<b>Standards, Guidelines &amp; Policy</b>				
Australian Accounting Standards	✓	✓	✓	✓
Austroroads Guides	✓			
Australian Standards (Various)	✓	✓	✓	✓
Liveable Neighbourhoods	✓	✓	✓	✓
IPWEA LG Guidelines for Subdivisional Development	✓	✓	✓	✓
National Construction Code 2016		✓		
Stormwater Management Manual			✓	
Better Urban Water Management 2008			✓	
<b>City of Albany</b>				
Community Strategic Plan	✓	✓	✓	✓
Corporate Business Plan	✓	✓	✓	✓
Long Term Financial Plan	✓	✓	✓	✓
Albany Local Planning Strategy	✓	✓	✓	✓
Subdivision Development Guidelines	✓	✓	✓	✓
Albany Spatial Data Specifications	✓	✓	✓	✓
Property Management (Leases & Licences) Policy	✓	✓		✓
Heritage Protection Policy	✓	✓	✓	✓
Community Perceptions Surveys 2013, 2015 & 2017	✓	✓	✓	✓
Carbon Footprint Reduction Strategy		✓		
Municipal Heritage Inventory		✓		✓
Conservation Plans		✓		
Environmental Weed Strategy		✓		✓
Access and Inclusion Plan	✓	✓		✓
Natural Reserves Strategy				✓
Urban Tree Strategy				✓
Age Friendly Albany	✓	✓		✓
Stormwater Information Sheets			✓	
Road Maintenance, renewal & Upgrade Community Guidelines	✓			





## Community Consultation

The City of Albany surveys the community to ascertain its perceptions and priorities on a range of measures. These measures include the community's satisfaction with services delivered through assets. The performance index scores from these biennial surveys are being utilised as performance measures in community levels of service in each of the four asset classes.

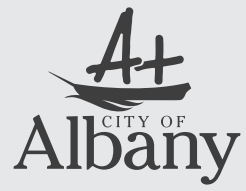
## Monitoring and Review Procedures

To some extent the Strategic Asset Management Plans are a live document with changes to the underlying data happening constantly and routinely. Many of the components of these plans are cyclic in nature and will follow the schedule below:

- All inventories are live and are being updated continuously as assets are built, replaced or removed.
- Asset unit rates are reviewed on a three year rolling schedule in line with Fair Value obligations.
- Financials and renewal modelling projections are updated annually and adopted through the annual budget process.
- Levels of Service and Performance measures are reviewed as results from the Community Perception Survey are available.
- Major review every four years with integrated planning requirements.

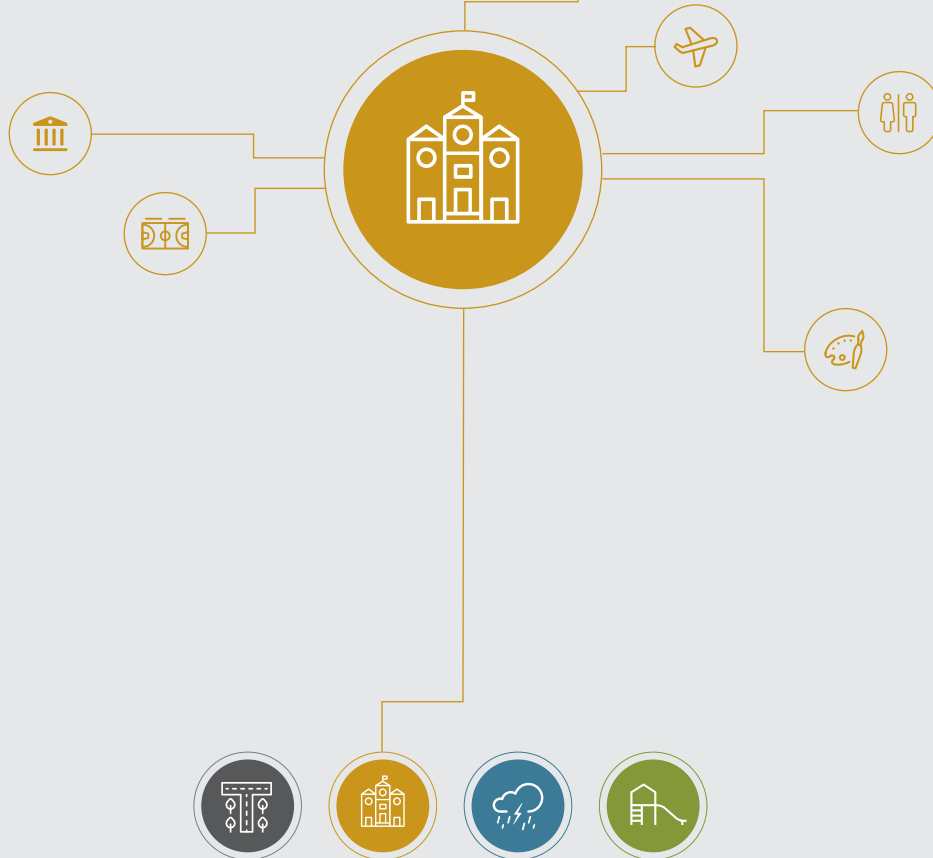
## Improvement Plan

- Each SAMP will include specific improvements for each asset class.
- Continuous improvement of Albany Spatial Data Specification.
- Increased functionality with ArcGIS to evolve as more than an inventory tool - specifically in the areas of valuation, depreciation, remaining useful lives based on condition and capital renewal planning.
- Improve knowledge of useful lives through analysis of data.
- Apply knowledge of critical assets to improve management and maintenance.
- Continue to streamline organisational processes without creating extra work.
- Continue to improve long term asset management outcomes at project inception and feasibility.



# BUILDINGS

PART 2



TRANSPORT | BUILDING | STORM WATER | MANAGED SPACE

## What we do

The City's building portfolio is rich and diverse. Community facilities are very much the shop windows to the services this local government provides. They house a range of services such as arts, culture, recreation, family services, not for profits, clubs, heritage and restaurants. As well as providing the essential assets to service the City's own operations such as the Works Depot, Administration and Waste Management.

We manage each of these 215 building structures to maximise their life and minimise the cost over each of their lives. This requires us to understand our buildings and how they are likely to fail. To think long term in delivering efficient maintenance and

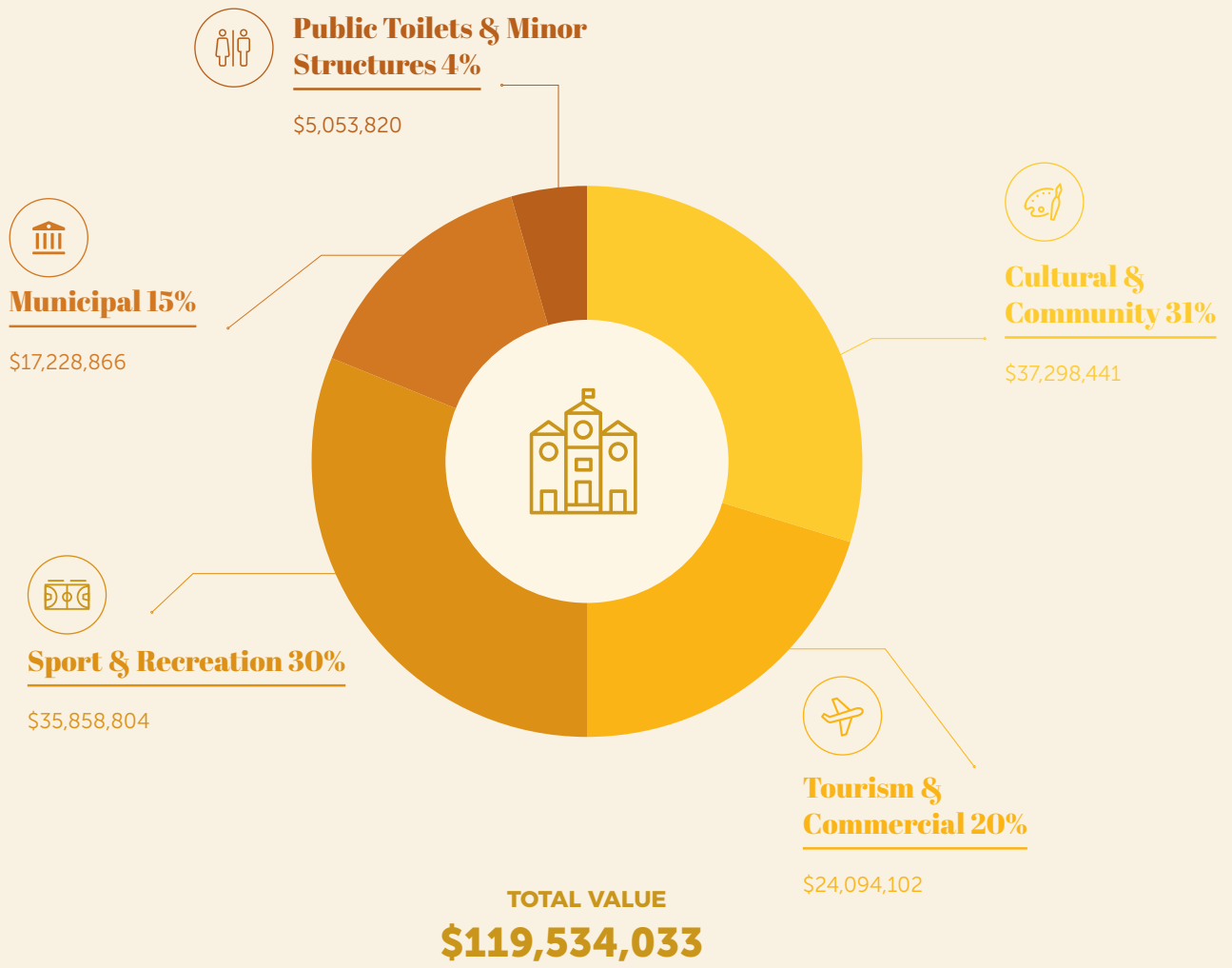
renewal programs. Another asset management focus area involves the constructing of new buildings. The design decisions made at feasibility will have a real impact on both economic and environmental sustainability for decades.



### FUN FACT 1#

**Our most important building is the National Anzac Centre & Forts**

## Building Function



## Why we do it

Simply put, the community expects to be provided with services for the rates they contribute. The community pay rates and in return they consume services such as loaning a book from the library, having their rubbish collected, using community meeting places and recreation services.

Many of these services are not able to be delivered without a built asset. As these services and activities improve the health and well-being of our community, the building that house them are important.

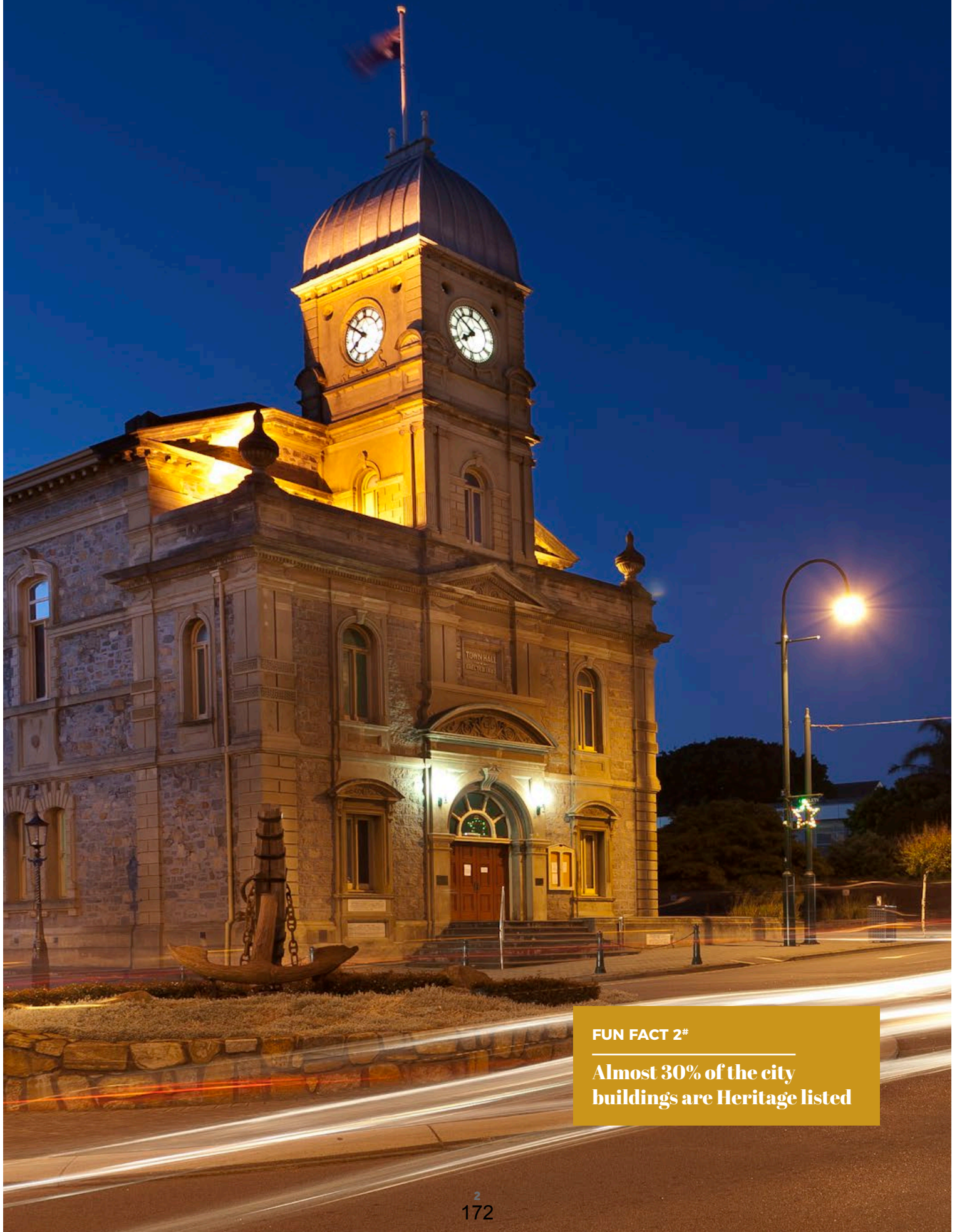
High profile assets such as the National Anzac Centre have the added benefit of boosting the local economy by attracting visitors to the region. Whilst shared use

facilities such as Lotteries House are encouraged, as they provide good value for money in providing many services from one asset.

The challenge is to balance the desires of the community with their willingness to pay. Achieving this balance will result in a satisfied community and a sustainable City.

## Community outcomes

- All new building projects meet the needs of the demographic of the community, including young & older people, various cultural groups and those with disabilities.
- Improved in-house understanding of the condition and value of our buildings.
- Improved planned capital works & maintenance programming.



**FUN FACT 2\***

**Almost 30% of the city buildings are Heritage listed**

## Growth & demand

The City of Albany is expected to continue to grow, although relatively slowly, with an increase in both over 55's and young adults. The population of older residents in Albany is notably higher than for the State as a whole.

An older population may have more leisure time and will increase the use of community facilities such as the library, Vancouver Arts Centre and the Albany Leisure & Aquatic Centre. The City has well visited Historic places such as the Town Hall, The Forts, Penny Post (UWA) and the Vancouver Arts Centre to name a few.

These buildings are very expensive to maintain or upgrade to contemporary standards for access & safety. Changes in demographics can trigger a change in services demanded by the community and this leads to re-purposing of older buildings, to maximise their service to the community. Securing funding to make these buildings more functional whilst retaining their integral heritage value is required.

There has been an increase in sporting facilities with the addition of the Western Oval Pavilion and the Football Stadium. Further work to complete the Centennial Sporting Precinct shall meet the demands of the Albany population well into the future.

To attract and retain young adults the City will continue to encourage strong secondary and tertiary education facilities in the region. It is noted in the Albany Local Planning Strategy that the availability of quality education facilities has a strong influence on communities both socially and economically.

## Managing our Buildings

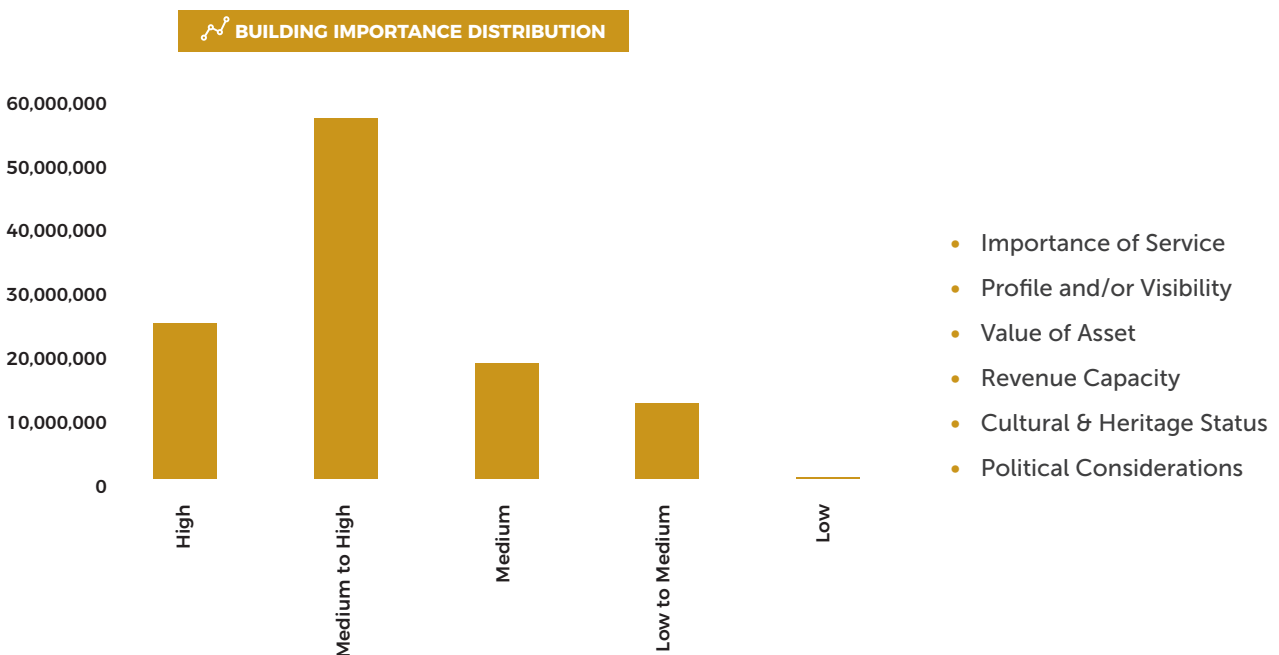
Buildings are complex assets with many components to be maintained and replaced at different intervals. As well as being complex in nature they also have a variety of functions and some are more important to the community than others.

For this reason we have applied both a hierarchy of function and Importance to assist in grouping our buildings for ease of allocating responsibility and levels of service to be provided.

**Functional hierarchy** – Defines the current function of the assets and links in with the Asset Management structure of responsibility to the structure of the organization. This ensures the allocated Asset Owner

and Asset Manager are in line with the City of Albany Directorates in the function of the building and services it provides.

**Importance hierarchy** – Defines the importance of a building to the community based on six parameters. This ensures levels of service of the building can be applied based on the importance of the service it delivers to the community.



## Maintenance

The city has most preventative maintenance activities managed through contracts with reactive maintenance conducted either in-house through Trades or through a panel of contractors. Preventative and planned maintenance is currently being populated in the building asset management system at component level.

Essentially, if a building component requires a preventative maintenance activity, the component is added to the inventory and a standard schedule of maintenance is applied. Preventative and planned maintenance is undertaken to reduce the reactive maintenance expenditure and to maximise the life of components. Capturing data at component level is onerous so components are only added if there is associated maintenance.

minimum standard is based on property & public risk and shall include Residual Currency Device testing, fire services inspection & testing and white ant inspection where timber components are present.

The goal is to use SPM Assets to prepare maintenance budgets, to inform maintenance contracts and to analyse maintenance expenditure trends. A key maintenance improvement is to implement a prioritised risk based reactive maintenance system inclusive of response times.

Leased buildings that are owned by the City will include a minimum level of preventative maintenance. This

## Condition

The condition of our building portfolio is constantly changing through deterioration of components and through improvements such as capital works, replacement of components through maintenance and new buildings being added to the inventory.

As mentioned above condition is not static, however an indicative snapshot of the building condition is included below. It is expected that a certain percentage of assets will be past or at the intervention condition level of 4. If this was not the case it would mean we are carrying out capital works earlier than required or over investing.

to keep this percentage of assets between 2 - 4%. The broad overall condition profile below illustrates that the majority of the building assets are in good to average condition with only 4.4% approaching poor to very poor condition.

In our modelling scenario we calculate the percentage of assets over condition intervention within the 10 year planning period. The current percentage of assets in a condition over intervention is 1.76% and our aim is

The modelling tools and Asset Management System for buildings allows for much more analysis of condition at component level and will form the evidence for capital renewal planning.





Level of Service	How we measure performance	Previous Years		Targets	How we will meet the performance target
		2015	2017	2019	
Buildings will be in a condition appropriate to the hierarchy	% of building value over intervention level	New	2%	2%<4%	Capital renewal expenditure driven by renewal modelling based on condition.  Works program prioritised based on the level of importance of the building
Buildings will be functional, clean and appropriately maintained	Community Buildings & Halls Satisfaction Survey	*59%	*62%	60 - 65%	Planned & preventative maintenance program  Well supervised cleaning & maintenance contracts
	Public Toilets	*49%	*51%	50 - 55%	Risk based reactive maintenance system

\* RESULTS BASED ON THE BI-ANNUAL COMMUNITY PERCEPTION SURVEY

## Financial

Using condition data, quantities, replacement costs, current spending levels and industry degradation curves, we annually model scenarios to optimise the renewal expenditure across individual asset groups. These modelling outcomes are used to inform the optimal level of spending required in the long term financial plan.

The proposed expenditure on building renewal in the long term financial plan is \$1.4m per annum which is in-line with modelling predictions.

This figure is comparatively low for maintenance expenditure.

The current maintenance budget for buildings is approximately \$900,000 per annum which equates to 0.75% percentage against the capital value.

With the formalisation of preventative maintenance programs, more timely reactive maintenance and recently constructed buildings added to the inventory, this is expected to increase in the short term.

\$2,500,000

COMPARISON OF RENEWAL MODELLING TO LONG TERM FINANCIAL PLAN EXPENDITURE

\$2,000,000

\$1,500,000

\$1,000,000

\$500,000

\$0

2016 2017 2018 2019 2020 2021 2022 2023 2024 2025  
1 2 3 4 5 6 7 8 9 10

RENEWAL MODELING  
LONG TERM FINANCIAL PLAN

## Our projects for the future

What is this project	What is the driver	When	Cost
<b>Albany Town Hall repurpose</b>	To increase the utilisation of this iconic building that has failed to thrive since the construction of the Albany Entertainment Centre	17/18	
<b>Albany Public Library refurbishment and increase in function</b>	To blend the fitout of the library to the new Information Hub extension, modernise the layout and provide more functionality	17/18	
<b>Roof Replacements</b>	The last major refurbishments of the heritage buildings were undertaken in the 80's and the Town Hall, Vancouver Arts Centre and Old Post Office are due for replacement. Also the old stadium roof at the Albany Leisure and Aquatic Centre is due for replacement.	17/18-19/20	

## Threats

Threats	Description	Mitigation
<b>Heritage Building</b>	Heritage buildings make up 27% of the building portfolio. They are important in preserving local history and heritage values. The value in these buildings is in their preservation and this comes at a prohibitive cost in comparison to contemporary buildings.	Improved resourcing for capital works planning & delivery. Leveraging funds for preservation and re-purposing. Longer lead time for heritage projects for approvals & consultation.
<b>Strategic Direction</b>	Lack of strategic direction can cause deferrals in capital works creating higher maintenance costs and user dissatisfaction with the level of service.	Implementation of a structure to allocate responsibility for strategic direction through an Asset Owner.
<b>Asbestos</b>	Many of the buildings owned by the City contain asbestos materials.	Systematic removal of these materials with planned renewal projects.

## Improvement Plan

- Roll out of SPM Assets (Asset Management System) to all Asset Owners and Asset Managers
- Completion of Asbestos register into SPM Assets and update the asbestos management plan
- In-house rolling condition assessments of all buildings

**FUN FACT 4#**

**Did you know the tallest City of Albany building is the Old Penny Post. At 25.35m it is only 1.8m taller than the Town Hall!**

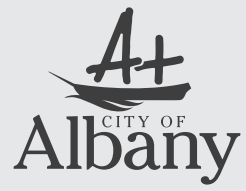


**Further reading**

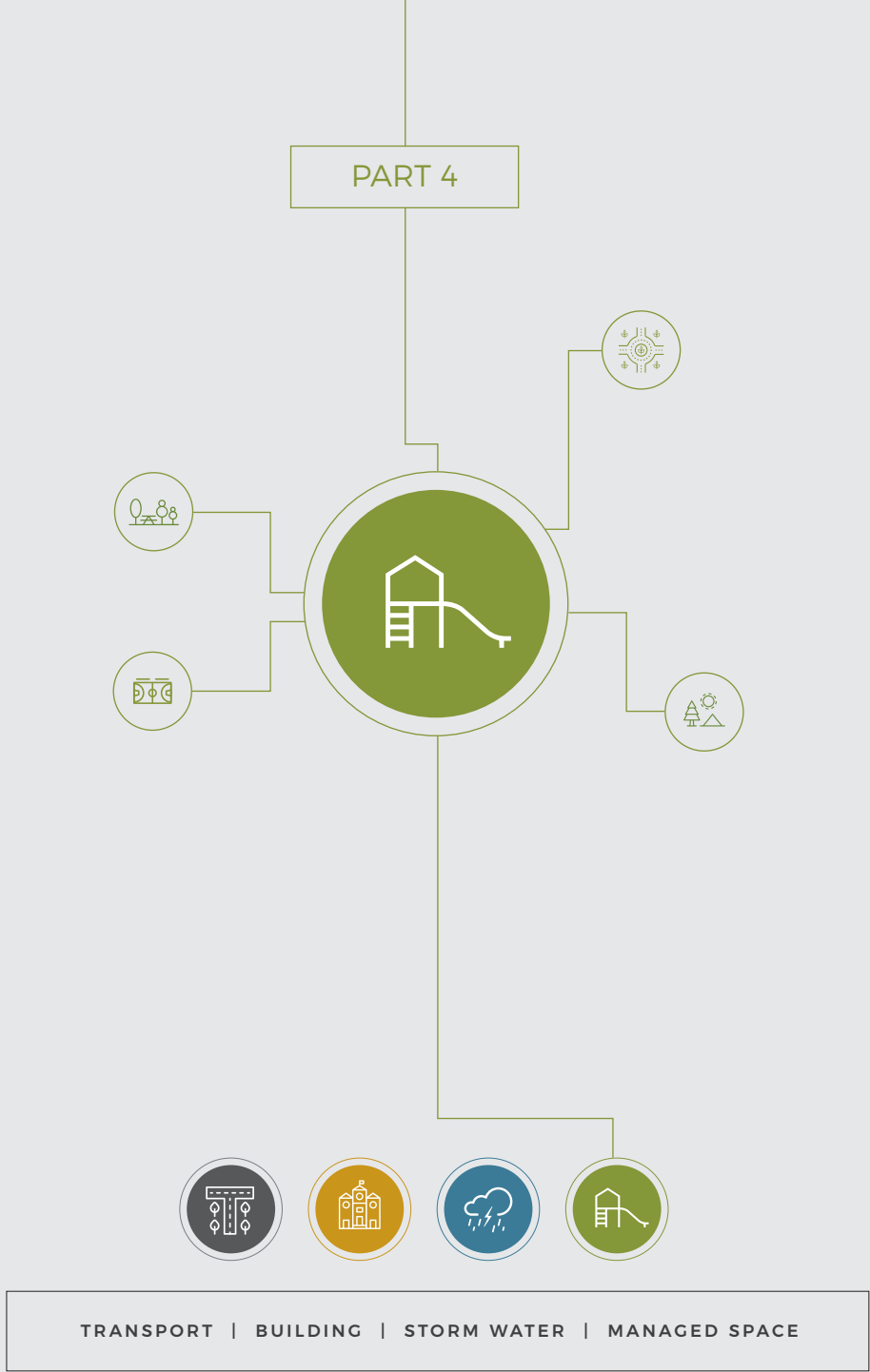
**Building Hierarchy**

**Asbestos Management Plan**

**Building Maintenance Program (to be developed)**



# MANAGED SPACE



## What we do

The City provides and preserves parks, sport & recreation areas and natural reserves as a service to the local community and visitors. Natural Spaces and Developed Space have a different purpose and require the application of different skills and priorities. For this reason, in this plan we group managed space into the categories of Developed and Natural Space with several functional sub groups as well.

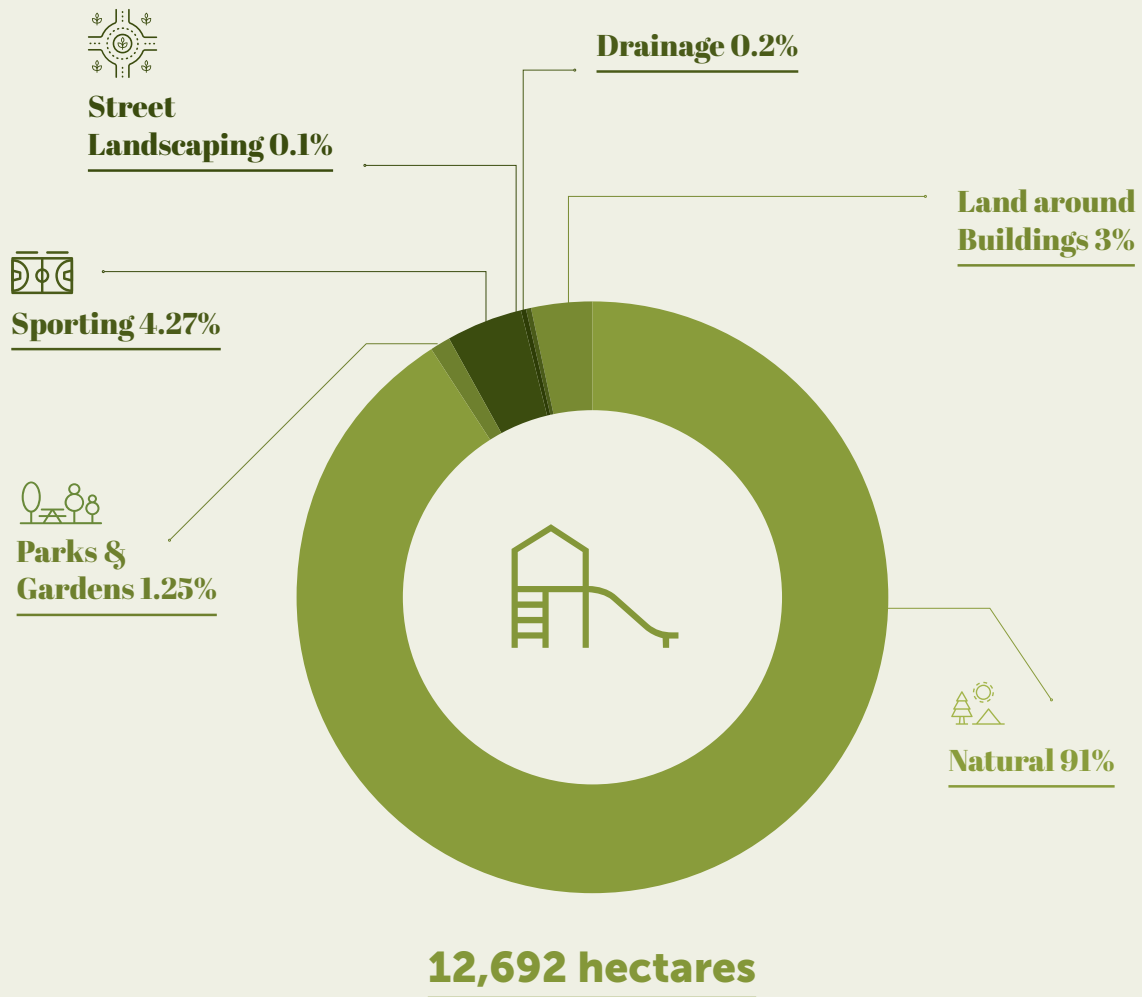
Developed managed space is typically in the urban environment and consists of recreation areas such as park & gardens, sporting precincts, land around buildings and street landscaping. These areas often have significant built assets associated with them including playground equipment, water features, landscaping, shade structures, lighting, paths and other amenities. These assets require inspection, maintenance and replacement at end of life. These developed spaces make up about 9% of the total managed space but are the most highly utilised by the community and the most expensive to maintain. Sporting facilities and parks & gardens are important contributors to the quality of life of residents in urban areas. We provide a very high level of service with recreational space and attracts a high level of satisfaction in the community perceptions survey.

Natural managed space includes our natural reserves over an area of 11,500 hectares and makes up 91% of the total managed space. Our natural reserves are significant assets for biodiversity of both flora & fauna, scenic beauty, local and visitor enjoyment, research, education and health. Management is a balance between preserving the natural environment and providing access to the community.

### FUN FACT 1#

**The City manages 3,100 m<sup>2</sup> of managed space per resident**

## Managed Space



## Why we do it

Developed & Natural managed space make the City more liveable and enhances the city's identity and character. The community has an emerging awareness of the economic, social and environmental benefits of our managed space.

The capital value of our managed space and the capital expenditure is quite low in comparison to buildings and infrastructure. However, the annual operating budget for Parks and Reserves is significant due to the nature of the asset.

Particularly in Developed Space the day to day cost of mowing lawns, weeding & planting gardens and replacing minor assets is significant.

A plan for both financial and environmental sustainability is the key to retaining our current levels of service in this area.

## Community outcomes

- More equitable service levels across the City with developed managed space.
- Improved inspection, monitoring and replacement of built assets.
- Prioritisation of recreational services, facilities and access to natural reserves whilst maintaining bio-diversity, habitat and scenic value.
- Sustainably meeting the current and future needs of the community with sport and recreation space and facilities.



**FUN FACT 2#**

**We have over 100 parks and gardens  
with over 40 playgrounds**



## Growth & Demand

The key to providing adequate and appropriate developed space for parks, recreation, sports and protecting Natural space is through good long term planning.

Integrating environmental and natural resource management with broader land use planning is a key objective in the Albany Local Planning Strategy review. Another objective of this review is to employ tactics to halt further urban sprawl. This will have the dual impact of protecting natural spaces and removing the need for more developed spaces in new subdivisions.

Developed space has been integrated into urban planning effectively through guidelines like Liveable Neighbourhoods possibly to the point of over servicing. This has been useful planning tool for managed space in developments. It does not prohibit the City from

making alterations to reduce the cost of maintaining these assets after they inherited from a developer.

The Great Southern Regional Sport & Recreation Facilities Plan and the Albany Sport & Recreation Futures Plan will also provide guidance to meet the long term needs of the community in respect to sport and recreational needs.

It is important for us to be able to quantify the cost of managing these gifted assets over the long term. To ensure the City can afford to maintain the existing high service levels with the increasing number of parks and sporting facilities being provided.

## Managing our space

To effectively manage our assets it is important to allocate a hierarchy for categorising and determining what level of service is most appropriate.

These categories have been aligned and are consistent with internal and external documents such as the Public Parkland Policy, review of the Albany Local Planning Strategy and Liveable Neighbourhoods (2015 draft).

There are four discrete categories

- Parks & Gardens
- Sporting Spaces
- Street Landscaping
- Natural Spaces

In addition, there are two other categories that allow for land around buildings and drainage reserves. These categories are managed in the Stormwater and Building Parts of the Strategic Asset Management Plan.

Details of the four categories are below;

### Parks and Gardens

These are all considered Recreational spaces under Liveable Neighbourhoods and endeavour to provide informal activity space and encourage a variety of recreational activities to a diverse demographic of residents.

They have been categorised into four (4) levels:

#### **Level 1 – Regional Space**

Large reserves including Foreshore Space that have significant active area, high leisure, social and tourism function. Examples of this type of reserve are Middleton Beach and ANZAC Peace Park.

#### **Level 2 – District Parks**

A reserve designed for neighbourhood interaction encouraging sporting and social events. These reserves are often greater than 5ha in area and are accessible to the community to a distance of approximately 2km.

District Parks are designed to service a cluster of neighbourhoods and need to be accessible by an arterial network and preferably by public transport. Having a District Park servicing multiple neighbourhoods will not lessen the level of service provided within these

reserves, it will however reduce the City's number of reserves and therefore reducing the maintenance effort and cost associated with extra reserves.

#### **Level 3 – Neighbourhood Parks**

Neighbourhood Parks serve a recreational and social purpose for the entire neighbourhood. Ideally located at the edge or between neighbourhoods, providing a variety of options to the local community. These parks are between 1ha and 5ha and service to a distance of 800 metres.

#### **Level 4 – Local Parks**

Local Parks accommodate daily recreation for the local community. Primarily designed for nature space and passive recreation dispersed throughout the neighbourhood. They are up to 1ha in area and within 300m of all dwellings.

### Street Landscaping

Street landscaping is defined as the managed space that falls within the road reserve but does not include transport assets such as footpaths and roadways. This includes verge, median and roundabout landscaping. It has been split into two service levels.

#### **Level 1 – Regional Precincts & High**

Regional Precincts that serve significant social and tourism function. Examples include CBD, Middleton Beach and the Waterfront.

#### **Level 2 – High profile City of Albany maintained verges and median strips**

Typically on roads serving a regional distributor function. Examples include Albany Highway verges and Chesterpass Road.

#### **Level 3 – Adjacent property verges and low profile median strips**

The City will serve a compliance function only with regards to construction and maintenance of these spaces.

## Sporting Spaces

Sports spaces provide a venue for more structured sporting activities and include the required infrastructure for those activities.

Meeting the required standards for training and competition, efficient layout for maximum utilisation of fields and be located with some informal or natural recreation areas.

Sporting spaces have been grouped into 2 categories:

### **Level 1 – Regional Facility**

A sports facility, either with a single purpose or a community sporting hub, of regional significance. Due to its location and characteristics it attracts

users across multiple council areas.

It meets the standards as defined by the state sporting organisation required to host major regional and state level competitions, events and/or training.

### **Level 2 – Local Facility**

A local sports facility is generally located within 5 kilometres of users, consisting of up to two playing fields, and provides for limited training and/or junior or amateur senior competition.

## Natural Spaces

Natural reserve managed space is undeveloped reserves that may have discrete nodes of infrastructure to accommodate visitation.

Categories have been defined to allow for the grouping of reserves that have similar management requirements. The four categories are:

- Coastal reserves;
- Watercourse and foreshore reserves;
- Mounts reserves; and
- Hinterland reserves.

The City will apply criteria, scoring and weighting values for existing and planned elements and activities in reserves for the following:

- Environmental Values;

- Social and Cultural Values; and
- Economic Values.

**The criteria has been designed to** prioritise the expenditure on existing and planned elements in natural reserves across the criteria of environmental, social & cultural and economic values. By using weighted criteria in the above areas sound asset management principles are being applied in strategic and operational plans.

Reserves are complex assets, so planning, community engagement, systematic implementation and maintenance is the key to managing reserves sustainably.

The full details of the priority ranking criteria are documented in the *Natural Reserves Hierarchy*.



### **DID YOU KNOW**

**You can fit over 6,000 full sized ovals into our managed space**

**Built Assets**

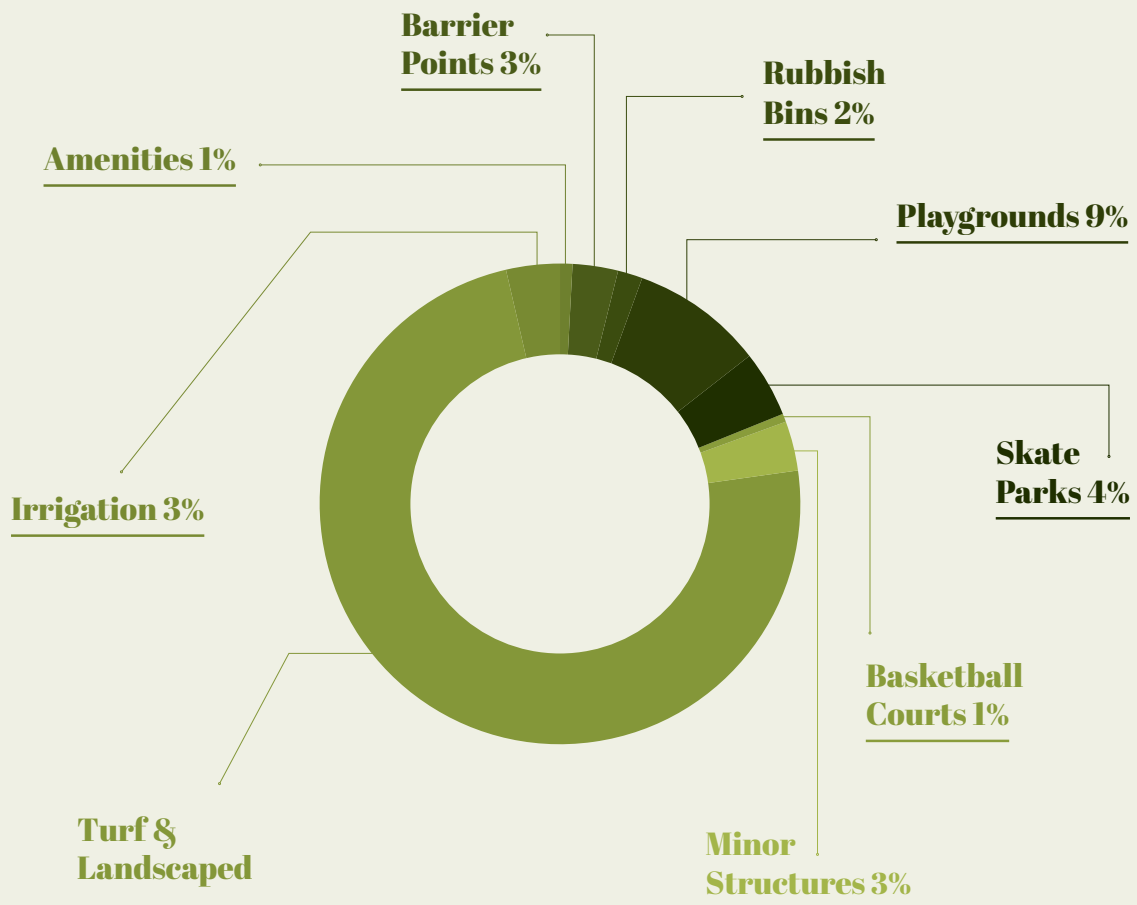
The City manages a vast quantity of developed and natural reserves, each of these has a built component that requires maintenance and renewal.

Built assets are captured in the Albany Spatial Data Specification (ASDS) a few features are listed below;

- Amenities – barbeques, furniture.
- Arts & Memorials
- Bollards, Walls & Fences
- Public Bins
- Information Signage
- Reticulation
- Trails
- Play equipment
- Park & Sports Lighting
- Play areas
- Sports Fields
- Terrain & Trees

The majority of the capital value is in the landscaped and turfed areas being developed (74%). However, there are transport and building assets that are valued and managed in other Parts of this plan, such as footpaths and public toilets.

Most of the assets in the managed space are relatively inexpensive but they also have relatively short lives. Therefore the replacement of these assets are generally undertaken as maintenance rather than capital works, which impacts on the operational budget.



**MANAGED SPACE BUILT ASSETS**

**\$28,251,738**

## Condition

The value of built assets or non-green assets on Managed Space is valued at approximately \$28m.

Below is a bar graph showing the overall condition profile of these assets. Note there are 17% of assets in poor or approaching poor condition. This is a much higher percentage than would be acceptable for other asset classes. However, due to the short lives of these

assets in comparison to roads and buildings a higher percentage is to be expected. Reducing or maintaining this level of condition is considered appropriate given the value in poor condition is approximately \$1.7 million.



## Maintenance

Maintenance of our green and built assets is where the majority of the expenditure occurs in this asset class.

Therefore, any measure to improve the prioritisation and optimisation of maintenance work will provide the most benefit. The first step is to map the hierarchy and existing levels of service for developed and natural reserves. This shall be followed by an audit of where the service levels do not match the hierarchy. This will allow us to measure the cost variations with a shift in level of service up or down.

This information will form the basis for the development of a Maintenance Plan that will document every planned maintenance activity such as mowing, turf maintenance, fertilising, weed management, slashing, planting, mulching, pruning, irrigation, playground inspection and rubbish management. Including the frequency, cost, specification and any seasonal variations of these activities.

### FUN FACT 3#

**City of Albany Lawn mowers cover 30,000km per year. A straight line from Albany to London and back!**



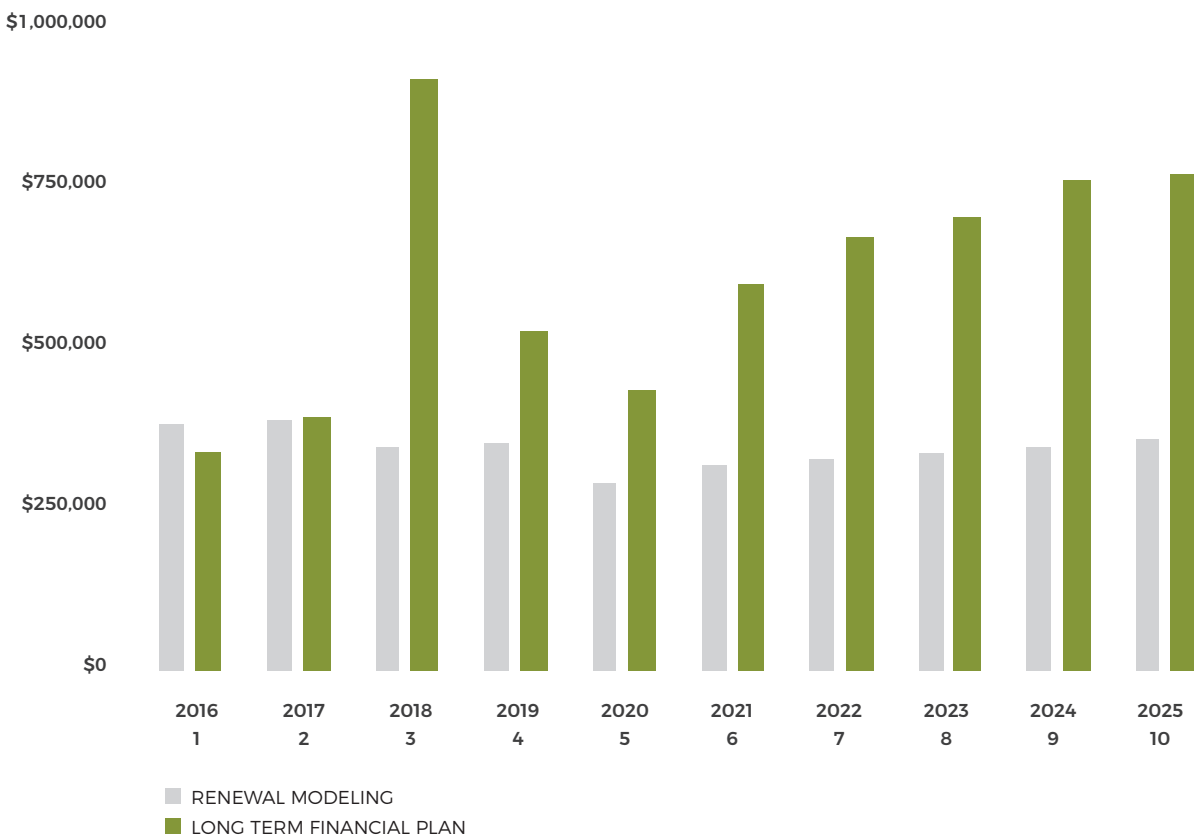
## Financial

The replacement value of our managed space is only 4% of the City’s asset base and we spend approximately 7% in the capital budget each year.

As mentioned, managed space is financially significant in its annual operations budget. The annual operations budget for Parks and Reserves is on average \$4.5m which is approaching 13% of total rates income.

Renewal modelling is only conducted on the built assets which explains some of the variance between the renewal model proposed and the long term financial plan expenditure. The expenditure in the long term financial plan will include redevelopment of some green assets and potentially other infrastructure that sits in managed space that is modelled in other asset classes. Given the increasing level of satisfaction in the community perception surveys for Playgrounds, Parks & Reserves we need to continue to monitor perceptions to ensure we are not overinvesting in this asset class.

**COMPARISON OF RENEWAL MODELLING TO LONG TERM FINANCIAL PLAN EXPENDITURE**



## Our projects for the future

What is the project	What is the driver	When	Cost
Middleton Beach Redevelopment	Hotel development application requiring changes to road layout, parking Seawall and Landscaping	19/20	\$3.5m
Emu Point Upgrades	Staged works to enhance & preserve coastal area	18/19-21/22	\$900k
Mt Melville	Feasibility Study to determine works	19/20-21/22	\$300k

## Levels of service

Operational levels of service for managed space are currently undocumented. Developing this document is part of the improvement plan.

Level of Service	How we measure performance	Previous Years		Target	How we will meet the performance target
		2015	2017	2019	
Built assets will be in good condition in both Developed and Natural Managed Space	% of asset value over intervention level	NEW	**6%	**5%	Renewal budget allowance driven by renewal modelling based on condition  Prioritised based on the hierarchy of the managed space
Sporting grounds will be multi-use, functional and appropriately maintained	Sport & Recreation facilities satisfaction score	*65%	*75%	70 - 75%	Completion of Centennial Park Sporting Precinct East and Central.  Maintenance programs in line with levels of service and hierarchy  NB: The 2017 results may be artificially inflated due to the upgrades at Centennial Park. The target has been kept above the LG Average.
Our developed space will be accessible, safe and appropriately maintained	Playgrounds, Parks & Reserves satisfaction score	*62%	*73%	*70 - 75%	Maintenance programs in line with levels of service and hierarchy  Community engagement at renewal to ensure the facilities are appropriate for the current and emerging demographic of the area
Our natural space is protected and accessible where appropriate to the ranking	Management of Coastal & foreshore areas satisfaction score	*59%	*59%	*60 - 65%	Identify and populate 10 Year plan with outstanding actions from natural reserve plans  Community education  Management programs to be created to be in line with priority levels
Quality streetscapes designed to be maintained efficiently	Streetscapes satisfaction score	*58%	*60%	*60 - 65%	Maintenance programs in line with levels of service and hierarchy

\* RESULTS BASED ON THE BI-ANNUAL COMMUNITY PERCEPTION SURVEY

\*\* BASED ON AN AGREED CONDITION INTERVENTION LEVEL USUALLY 4 (1 - 5 SCALE) DEPENDENT ON HIERARCHY

## Threats to managed space

Threat	Description	Mitigation
Conflicts of user groups	Multiple users of managed space, all with competing priorities and needs can result in both community dissatisfaction and poor management.	Quality consultation during master planning and management plans. Promotion of the benefits of shared use such as improved likelihood of funding grants, shared costs, better facilities.
Development levels of service	What is built on managed space and how it is designed during a development has an ongoing and significant impact on operational budgets.	Introduction of maximum development levels of service based on hierarchy with input from the Asset Management Working Group
Equity of Service Levels	Current levels of service may not be consistent across the City. Any proposed changes to levels of service will need to be carefully managed.	Mapping of hierarchy and current levels of service with Council approval of any changes.

## Improvement Plan

Developed Reserves Strategy

Hierarchy identification for all classifications of Managed Space

Operational Levels of Service Document and Maintenance Plan

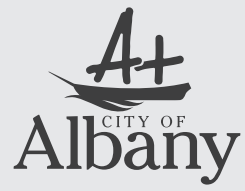


### Further reading

Natural Reserves Hierarchy

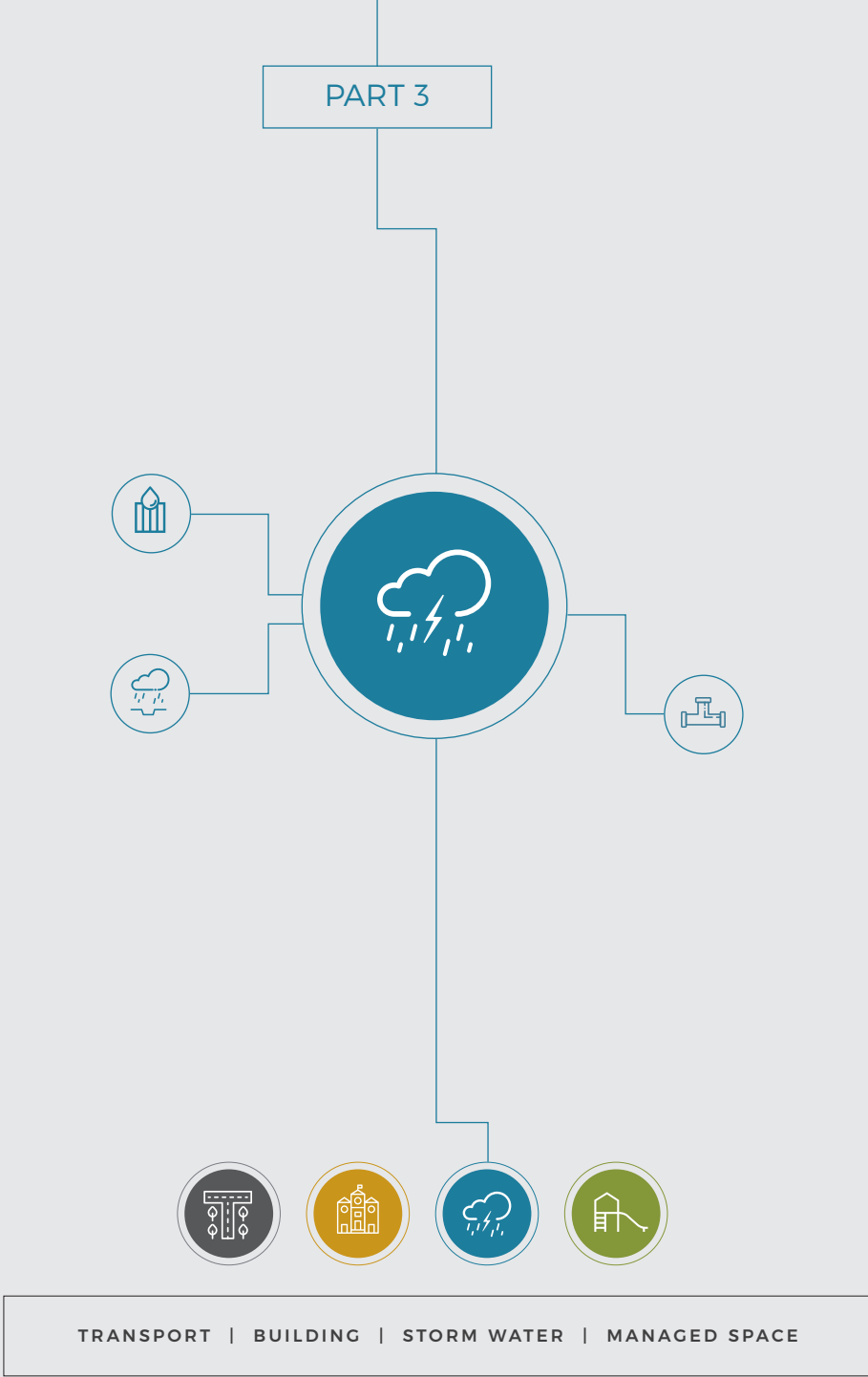
Developed Reserves Hierarchy

Managed Space Maintenance Plans (to be developed)





# STORM WATER



## What we do

Albany has an urban drainage system that collects and conveys stormwater to outfall expediently and safely with minimal disturbance. We manage the network for the safety of our community members whilst aiming to minimise damage to property, infrastructure and the natural environment.

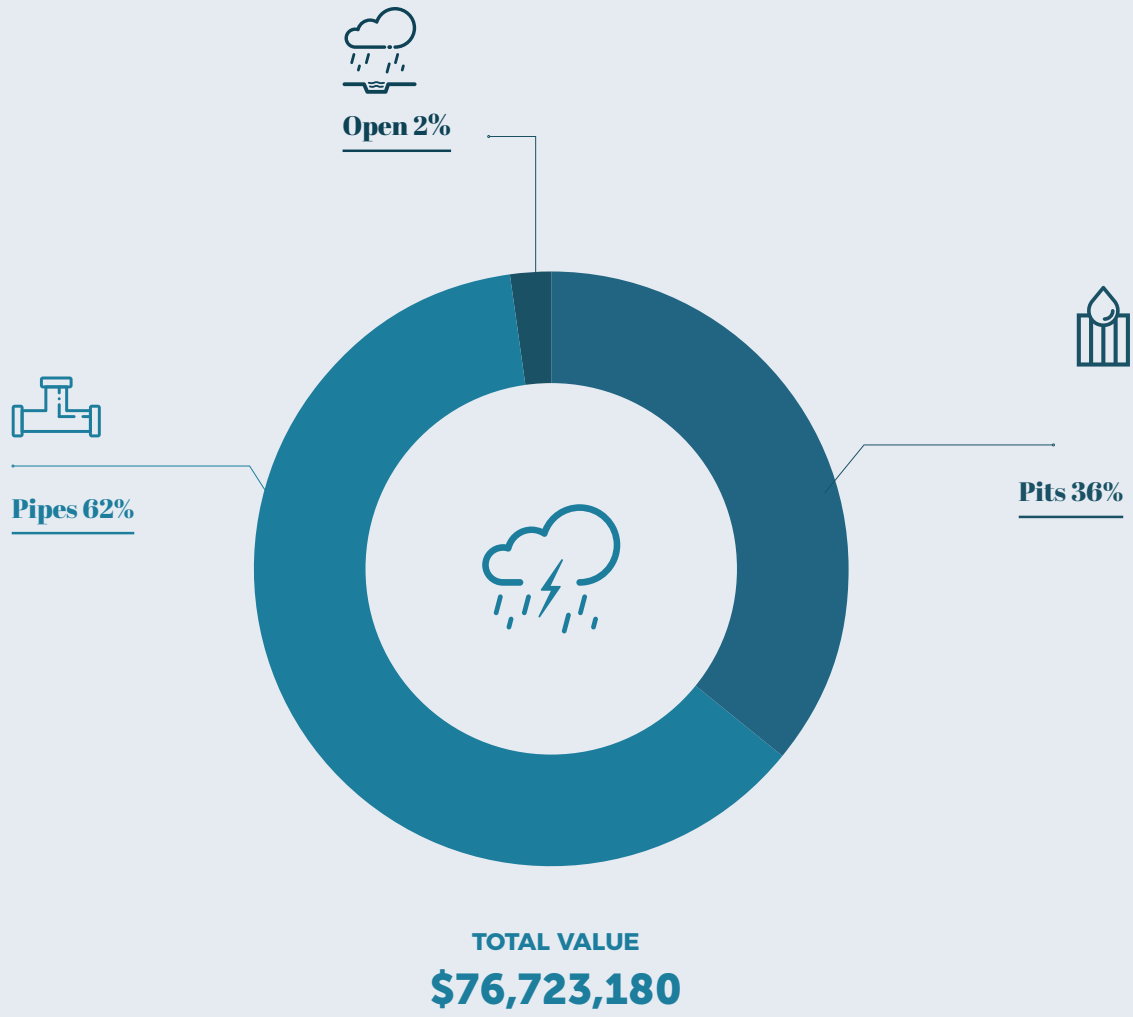
Our City Maintenance staff perform scheduled and unscheduled maintenance and repair work. Routine renewal of aging assets is increasing, proportionate to the growth of our City. This requires long term forecasting and planning.

This forward planning horizon needs to consider the changing climate and the increasing volumes of stormwater from a growing urban footprint. Becoming not only a question of the estimated remaining life based on condition but also based on capacity.

### **FUN FACT 1#**

**Our stormwater network, laid end to end, would stretch from Albany to Perth!**

## Stormwater



## Why we do it

The stormwater management strategy is based on three principles;

- **Protect private and public infrastructure,**
- **Manage public safety and**
- **Protect environmental assets,**

from the effects of uncontrolled flood and storm waters.

Our system is designed to collect and convey stormwater principally from our road network to ensure road safety. As many soils in Albany town site are not conducive to high infiltration, the City also provides an overflow system

for private roof and property drainage. The City aims to provide a reticulated system capable of managing a storm intensity that would occur one in every 5 years.

We manage a stormwater network to provide the maximum safety and protection to people and property at the least cost achievable, to the community. Another priority is to minimise the expulsion of pollutants into our natural waterways.

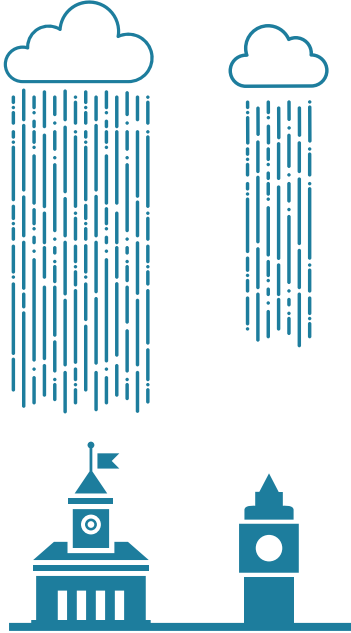
For the stormwater network to be as effective as possible it also requires a vigilant and timely inspection and maintenance regime to maximise the capacity of water flow in an event.

## Community outcomes

- A continuously improving understanding of stormwater overland flooding routes and areas of high risk.
- Seeking to improve the health of our catchments and waterways and the habitats for flora and fauna.
- The maintenance, servicing and renewal of stormwater assets are environmentally & financially sustainable.

**FUN FACT 2#**

**Did you know Albany has approximately 60% more rain than London and rains on average 10 days a year more often.**



## Growth & demand

City drainage assets are most often passed to the City at the completion of private developments. Whilst new areas may be designed and built to contemporary legislative and environmental standards many older areas do not meet these standards.

The City is required to upgrade existing distributor and trunk drainage systems with increased development. This development whether "infill" development or new greenfield developments is connected and impacts on larger trunk drainage systems such as Yakamia Creek and Parker Brook catchments.

The Albany town site was developed over a number of decades where open drainage was accepted as suitable infrastructure. As community expectations change, some areas of Albany have been upgraded with kerb and pipe drainage systems. In many of these areas, the systems were sized for lower density housing and now cannot manage current storm capacity targets.

As pipes reach the end of service life, the City evaluates the need for resizing pipe systems to manage infill development with higher density housing and fully paved road infrastructure of later development.

Current expectations from landholders living with open drains within the town site is that open drains should be retrofitted with pipes and roads kerbed. As infill drainage is expensive and not always necessary, not all areas will be upgraded in this way. An alternate open swales and infill policy will be developed to manage the competing demands for infrastructure upgrades.

## Managing our Stormwater

To manage the stormwater network we need to gather key information. The critical areas for stormwater management are understanding the hierarchy, having parameters around performance, measuring the risk of failure, the condition of the network components and maintenance planning.

### STORMWATER ASSET HIERARCHY

*"Not all stormwater assets are created equal"*

Stormwater assets are prioritised in relation to their function within the stormwater network.

#### Roof and property drainage

Normally the landholder is responsible for their own stormwater plumbing in accordance with the City's developmental guidelines. Subject to certain conditions, the City of Albany allows landholders to dispose of their stormwater into the City's road drainage network.

#### Street Drainage

Pipes and pits that pick up road and residential stormwater and carry this water to collector drains. Street drainage is normally sized to handle a 1:5 year storm event. Overland flow normally within the road carriageway is used to convey larger storm events.

#### Collector Drainage

Large pipes that collect water from suburbs and convey it to trunk drainage. These pipes are often within their own alignments 'off street' and are important to maintain. The consequence of pipe failure, at this level, can be damage to infrastructure. Some of these drains are open channels.

### Trunk Drainage

Trunks are major drains that are normally located in the valley floors. Most often open, trunks drainage convey large volumes of stormwater through the length of the catchment. Trunk drainage normally requires high cost culvert assets across roads and design considerations need to include public safety and incidents of flooding. Examples of trunk drainage are Yakamia Creek and Parker Brook.

### STORMWATER PERFORMANCE RISK ASSESSMENT CATEGORIES

The performance of stormwater pipe assets have been assessed and rated against criteria that aligns with the three principles of protection of infrastructure, public safety and protection of environmental assets.

This performance rating identifies underperforming drainage assets and allows for a system of rating that can inform and prioritise future financial investment. The criteria tabled below describes the performance issue against rating.

FIGURE 2 - RISK PRIORITY MATRIX

Issue	Description	Priority Rating
<b>Minor event issues (5 year ARI)</b>		
A	Flow through private property (minor event)	1
B	Unsafe gutter flow (minor event)	3
C	Risk of flood inundation to properties (minor event)	2
D	Open drainage with erosive velocity (minor event)	3
E	Pipe capacity insufficient causing gutter flow	5
F	Overtopping or inundation of roadway (minor event)	2
<b>Major event issues (100 year ARI)</b>		
G	Flow through private property (major event)	2
H	Risk of flood inundation to properties (major event)	3
I	Unsafe gutter flow (major event)	4
J	Open drainage with erosive velocity (major event)	4
K	Overtopping or inundation of roadway (major event)	3

**STORMWATER ASSET CONDITION**

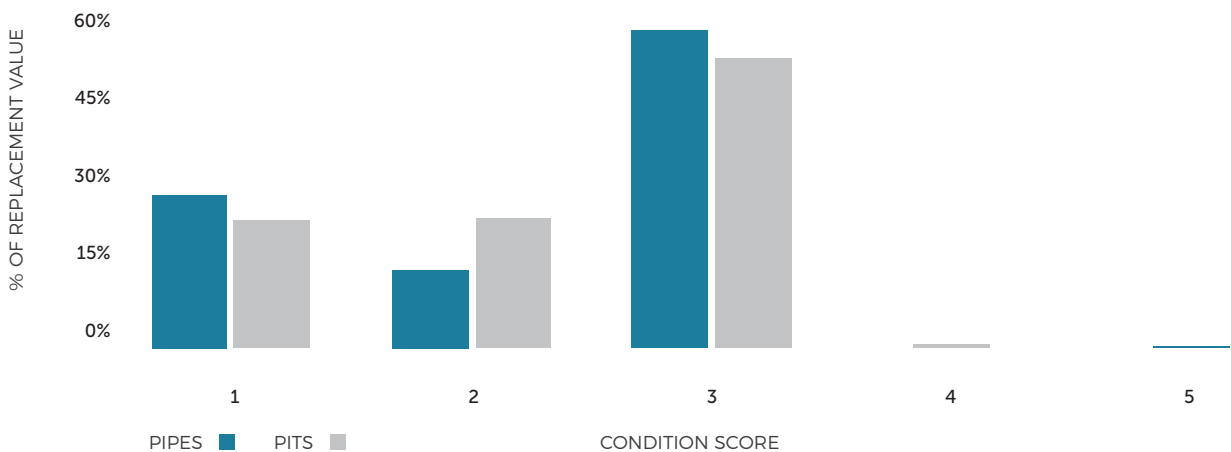
The condition of stormwater assets can impact on public safety and the overall performance of the system. It is important to monitor and identify the condition of stormwater assets in a regular cycle of review, repair and renewal. This is problematic as the greatest volume of stormwater assets are underground.

Our professional observations indicate we have many maturing drainage assets that will require replacement in the next 20 years. Currently the City does not have adequate knowledge of the condition of these assets to make fully informed renewal plans.

Although this data collection is occurring to some degree, it is currently more ad-hoc than strategic. A clear and resourced strategy for data collection for this critical asset group is required to improve confidence in forward capital works predictions.

Below is a graph of the current assumed condition profile of pipe and pit assets in the City. This profile indicates between 50 – 60% of these assets are halfway through their life based on an 80 year life. Given recent evidence of premature pipe failures this suggests we have a potential risk to half the pipe network in the short term. This supports the need to implement a strategy for condition data collection based on the hierarchal level of the asset, as a high priority.

**FIGURE 3 - STORMWATER CONDITION PROFILE**



**STORMWATER MAINTENANCE**

In general, maintenance of our stormwater assets is inconsistent and as a result more likely to be reactive to failures rather than proactive.

The goal is to balance preventative maintenance with reactive maintenance expenditure to reduce the overall cost of maintenance. There are many benefits to implementing preventative maintenance activities which provide positive financial and performance outcomes.

Preventative maintenance activities would include maintaining open drains, unblocking and clearing of pits, and replacing pits and pit lids at the end of life. Most pipe repairs would fall into capital works programs.

The creation and implementation of a stormwater maintenance program is an improvement listed in this plan. The maintenance program will be a registered document and will include all maintenance activities, specifications for repairs, risk matrix for prioritising works, frequency and a strategy for the allocation of resources.

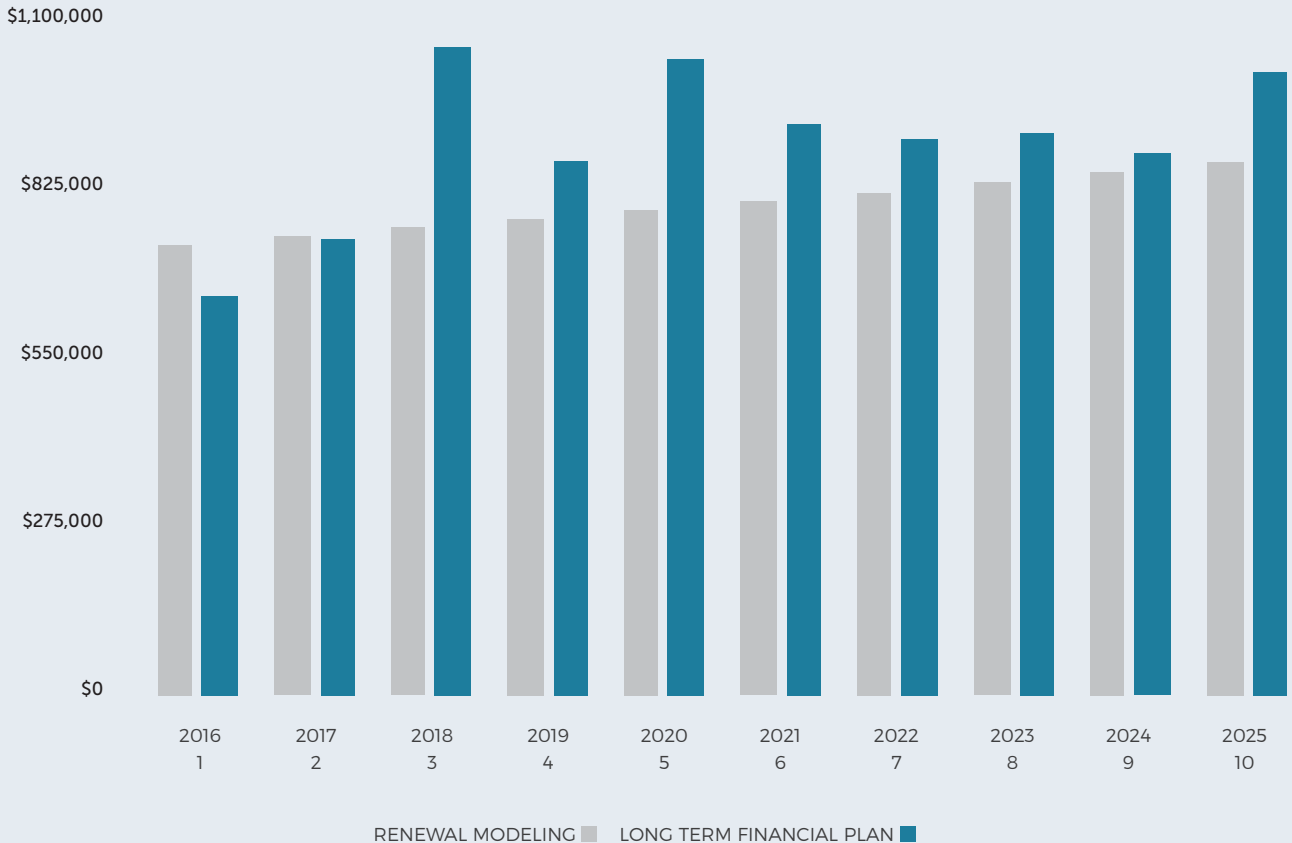
**Financial**

The City of Albany has spent an average of \$117,000 per annum on maintenance and an average of \$1,500,000 per annum on capital works projects over the last 3 years. The current renewal modelling is indicating a minimum of \$700,000 per annum averaged over the next 10 year horizon. The next iterations of renewal modelling with more data confidence is likely to vary from the expenditure predictions in the graph below.

Confidence of condition data for stormwater infrastructure is generally lower than other infrastructure asset classes due to it being difficult and expensive to survey. Where both condition, age and material

are assumed, renewal modelling accuracy is compromised. This information can be improved, commencing with a tactical CCTV assessment approach and desktop analysis of development dates.

**COMPARISON OF RENEWAL MODELLING TO LONG TERM FINANCIAL PLAN EXPENDITURE**



## Our projects for the future

What is the project	What is the driver	When	Cost
LeGrande Avenue Bioretention Basins	Rapid expansion in the new suburb of McKail has led to the need for an attenuation and nutrient stripping basin located on LeGrande Ave	Funding dependent	\$1m
Yakamia Creek Bioretention and Attenuation Basins	Two basins to be built to meet both industrial pollutant and attenuation and biofiltration and attenuation of stormwater within the Centennial Park Precinct	18/19	\$1m
Stormwater Renewal and Upgrades to Bayonet Head Flood zones	Protection of residential property on Bayonet Head Road from ongoing flood damage during heavy rainfall events as part of an integrated upgrade of the urban catchment	19/20	\$1m

## Levels of service

Level of Service	How we measure performance	Previous Years		Targets	How we will meet the performance target
		2015	2017	2019	
The City will have an effective stormwater system that manages a 1:5 year rainstorm	Predicted number of properties impacted by a 1:5 event	New	2%*	< 2%*	Adequate stormwater prerequisites in developments
We will have safe overland flood routing that does not enter habitable buildings to cause danger to residents properties in storms greater than 1:5 recurrence intervals	Predicted number of habitable buildings impacted by a greater than 1:5 event	New	4.1%*	<4%*	Timely upgrade of the network with infill development
Stormwater assets will be in a condition appropriate to the hierarchy	% of stormwater value of assets over intervention	New	<1%**	<2%**	Renewal prioritised based on hierarchy and level of risk of failure
We will seek to treat stormwater to remove gross pollutants and dissolved contaminants before water is discharged into Albany waterways.	Number of projects to improve water quality completed			1	Be project ready and actively seek funding as the opportunities arise
Residents will be satisfied with the function and overall performance of the stormwater system	Stormwater Drainage Satisfaction Survey	*52%	*53%	>56% to meet the LG Average	Devising and resourcing an appropriate preventative maintenance and risk based reactive maintenance programs  Improved education and awareness

\* RESULTS BASED ON NO. OF URBAN ASSESSMENT NUMBERS IN MODELLED AREA

\*\* BASED ON AN AGREED CONDITION INTERVENTION LEVEL USUALLY 4 (1 - 5 SCALE) DEPENDENT ON HIERARCHY



## Major Threats

Threat	Description	Mitigation
<b>Drainage product failure</b>	Non-conforming quality assured manufacturing processes has resulted in premature product failure at 25-50 years. Many road drainage systems were installed or retrofitted in older suburbs with these poor quality pipe materials resulting in a degrading pipe system and an unplanned growing liability.	Identify failing pipes through implementation of a CCTV strategy and plan for earlier replacement based on hierarchy.
<b>Extreme rainfall events</b>	Rainfall events that have exceeded pipe design capacity have occurred numerous times in the last 10 years. This mainly occurs where smaller catchments may experience high intensity rainfall 'cloudburst' that subject the catchment or a street to higher than average rainfall. This leads to 'localised flooding'. The City of Albany has experienced a greater number of intense storms in the last 10 years than is statistically probable.	Whilst extreme weather events are outside the control of the City we mitigate the impacts by adopting design criteria that directs stormwater that exceeds the piped system into overland floor routes of least risk to property and the public. The City also responds to events with a coordinated storm response plan.

## Improvement Plan

To develop and fund a targeted and ongoing stormwater condition & CCTV Strategy.

Drainage Upgrades to meet contemporary standards and increasing capacity through a suite of Stormwater Guidelines including:

- Urban open drains,
- Kerbs & drainage in Special Residential and Special Rural Zones and
- Stormwater management on private land

Develop a planned and preventative maintenance program to document maintenance service levels.



### Further reading

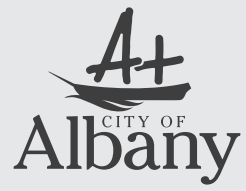
[Stormwater Management Strategy \(in final stages\)](#)

[Stormwater Condition & CCTV Strategy \(to be developed\)](#)

[Stormwater Maintenance Program \(to be developed\)](#)

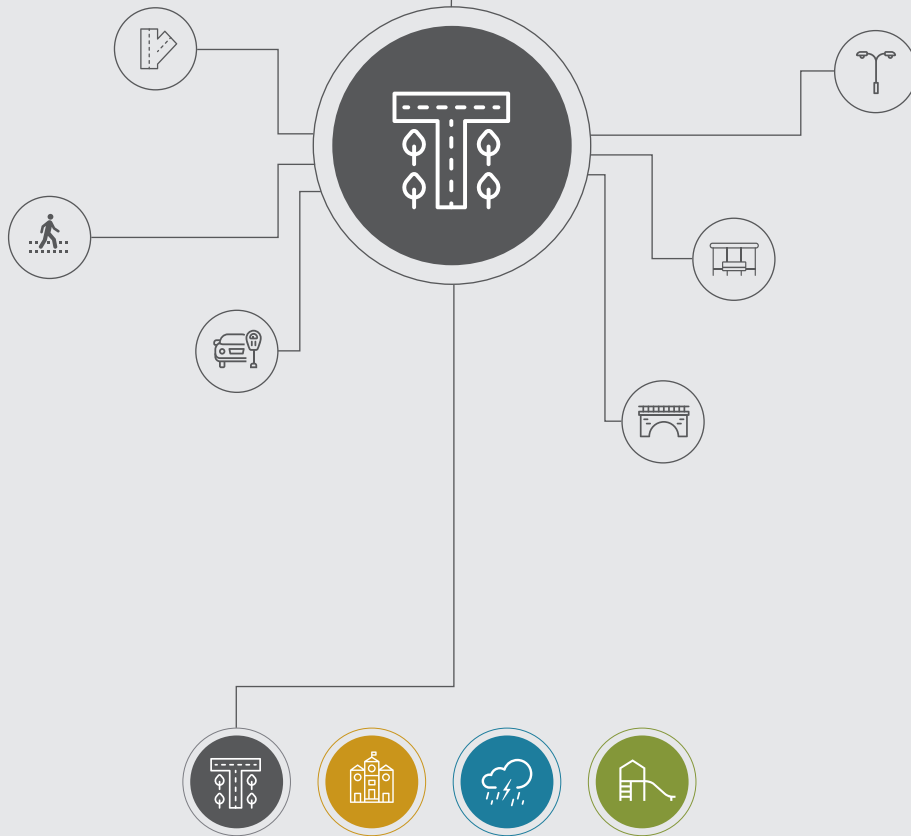






# TRANSPORT

PART 1



TRANSPORT | BUILDING | STORM WATER | MANAGED SPACE

## What we do

Transport networks such as roads and paths link us to work, recreation and essential services. The quality of transport infrastructure can be linked to the health and prosperity of the community they service.

The Transport network is by far the largest asset class in both value and quantity, making up 66% of the total asset base. Transport assets include 1559km of formalised roads including sealed and gravel roads in almost equal quantities. This asset class also includes an extensive network of footpaths, 150km in length. And many sub groups of assets that are in the road

reserves such as carparks, bridges, bus shelters, street lighting, guard rails and extensive signage.

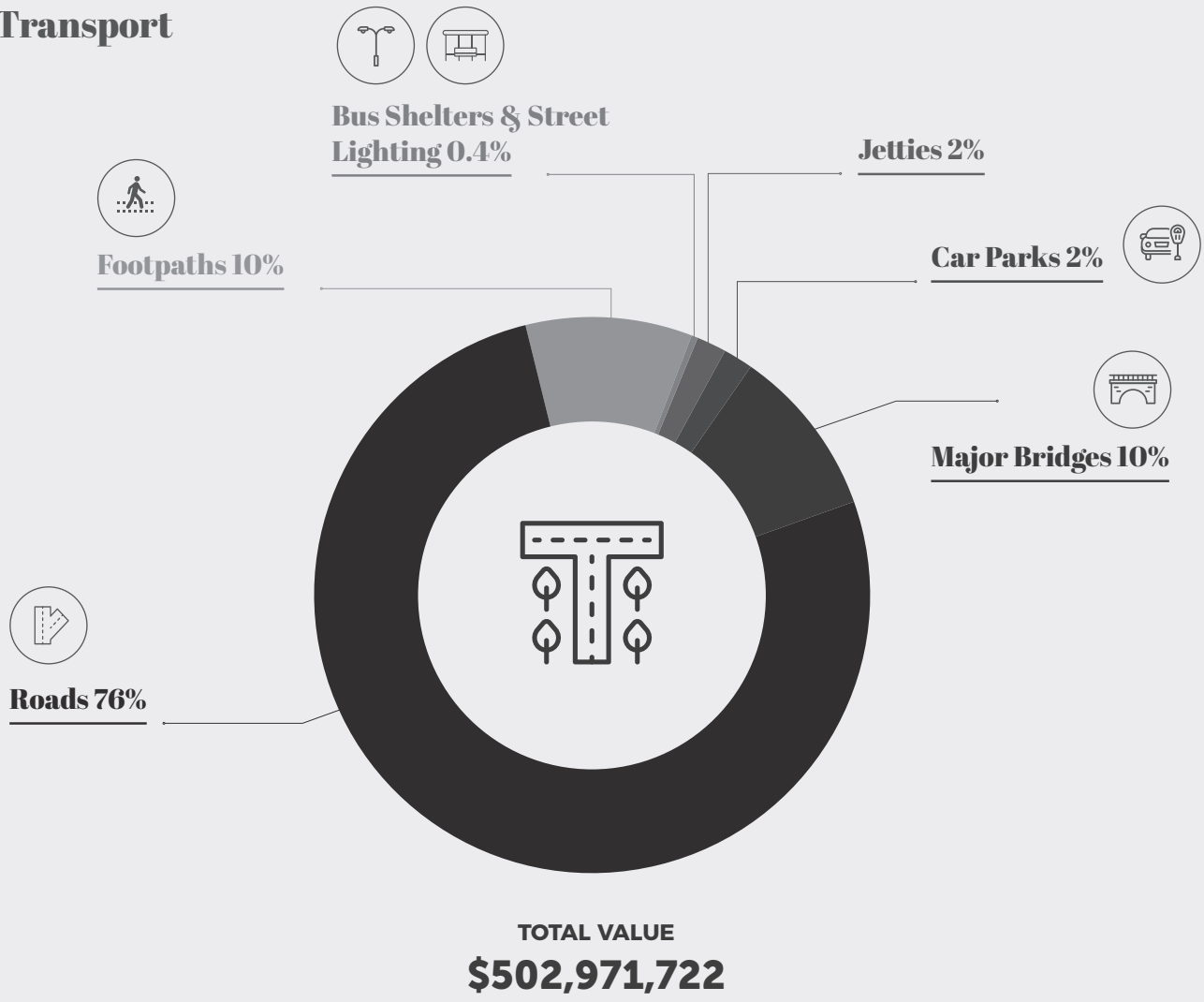
Not all roads in Albany are the responsibility of the City, some are controlled by Main Roads WA. These include Hanrahan Rd, Chester Pass Road, South Coast Highway, Princess Royal Drive and the majority of Albany Highway.



### FUN FACT 1#

**Roundabouts are excellent for low-traffic intersections. The City currently has 50 roundabouts!**

## Transport



## Why we do it

The value of the transport assets is over \$500m and although much of this infrastructure can last a very long time, the replacement costs are ever increasing. Exacerbating this, is greater competition between Local Governments for funding projects and a decline in road funding in real terms.

Transport routes are critical to the economic growth of the City and therefore we have an obligation to manage these assets in the most sustainable way possible.

The City has a road network that is 8 times the size as metropolitan local governments with similar populations. It is not sustainable to deliver the same level of service with less revenue on a network vastly different. To best meet the needs of this expansive network tough decisions are required to meet the aspirations of the community whilst meeting the service levels of the

existing assets. Expanding the sealed network and building new footpaths has to be balanced with with maintenance and reconstruction.

Sound asset management practices will continue to provide valuable evidence of the cost of increasing or upgrading our transport assets as well as our long term renewal liability. Allowing for informed decisions to prioritise expansion works, to renew assets at the optimal time and to adjust service levels to satisfy the needs of our community.

## Community outcomes

- Appropriate transport infrastructure designed to maximise life, capacity and function
- A transport network to connect the community that is safe and encourages pedestrians and cyclists
- Improved asset data and analysis for informed decision making

## Growth & Demand

There are some specific and high priority issues around the completion of the ring road to allow heavy vehicles to bypass the main Albany Highway roundabout. The City will continue to lobby for funding to achieve this key objective. Although this is a State project it is important to the local community and therefore a high priority for the City of Albany.

Strategic planning is more sophisticated and cross agency than through past stages of Albany's development. As a result upgrades are required to mitigate the impact of higher traffic volumes in urban area through road widening and new connections are needed to meet future growth. Where road reserves are not sufficient additional land may be required and this requires long term planning.

An increase in freight traffic has been predicted by the West Australian Planning Commission. This

type of heavy haulage traffic has several impacts including an increase in road maintenance costs and more frequent road maintenance. Along with the safety issues resulting from passenger vehicles being in conflict with heavy vehicles.

This plan will endorse priorities that provide an efficient and safe transport network for all users, now and into the future.

### FUN FACT 2#

**The City of Albany has 8 times the length of road per resident than the City of Melville!**



# Managing our Roads

## Road Hierarchy

It is advisable and typical to allocate a level of importance to assets to determine appropriate levels of service, maintenance and priority of works. Main Roads have a functional road hierarchy that we have expanded upon to provide more scope to distinguish between rural and urban roads and multiple levels of access roads.

The Albany Road Hierarchy is a separate technical document that includes a map of the entire network with each road allocated to a level on the hierarchy. Along with all of the parameters to measure the level of each roads function.

The following table is a summary of the Albany Road Hierarchy with a short definition of each level:

Albany Road Hierarchy	Description
<b>Primary Distributor</b>	Main Roads WA controlled. The core road networks throughout Western Australia. Typical roads include South Coast Highway, Albany Highway and Hanrahan (Albany Port) Road.
<b>District Distributor A</b>	Urban roads serving the dual function of carrying traffic between suburbs and providing development frontage for adjoining properties. These roads suit tertiary education, civic, large-scale commercial, with service roads suitable for residential and home based businesses
<b>District Distributor B</b>	Urban area roads similar to District Distributor A with reduced capacity due to flow restrictions from access to and adjoining property and roadside parking. Often older roads with demand exceeding original function. These roads suit pedestrian-based retail streets, centres and limited access to residential and commercial properties.
<b>Regional Distributor</b>	Rural area roads not primary distributors that link significant destinations and are designed for passenger vehicles and goods within and beyond regional areas.
<b>Local Distributor Urban</b>	Urban roads that link neighbourhoods and have pre-dominantly residential frontage. Care is required to ensure that local distributor roads do not become short cuts between district distributors. They should not attract substantial long distance through-traffic, but provide safe and convenient local travel to and from arterial routes, usually at controlled intersections.
<b>Local Distributor Rural</b>	Rural roads that provide for the movement of trucks, machinery and tourists.
<b>Access Urban 1</b>	
<b>Access Urban 2</b>	Urban access roads are the most common in the road network. They provide access in built up areas to individual dwellings and they provide a link between the dwellings and the Local Distributor Roads. Urban access roads have been divided into 4 levels based on criteria outlined in the Albany Road Hierarchy document.
<b>Access Urban 3</b>	
<b>Access Urban 4</b>	
<b>Access Rural 1</b>	
<b>Access Rural 2</b>	The function of rural access roads is to access individual properties. They have low speed and very low traffic volume.
<b>Access Rural 3</b>	

The road inventory is maintained in RAMM software which has several additional applications including GIS, valuation, work prioritisation and other data analysis tools.

**SEALED ROADS**

Albany has a sealed road network that has predominantly two surface types. Being a sprayed bitumen seal (chip seal) and asphalt. There are also small amounts of brick paved, red asphalt and slurry seal.

Sealed roads are expensive to maintain and are associated with additional drainage infrastructure further adding to the lifecycle costs of the road asset. The benefits to sealing roads are the reduction of dust, more consistent surface for safer all year round weather access.

**UNSEALED ROADS**

Approximately half of the City’s road network is unsealed, generally formed roads using laterite gravel pavement. These gravels are of a high quality compared with many other materials found around Australia, and can service low levels of traffic with minimal maintenance.

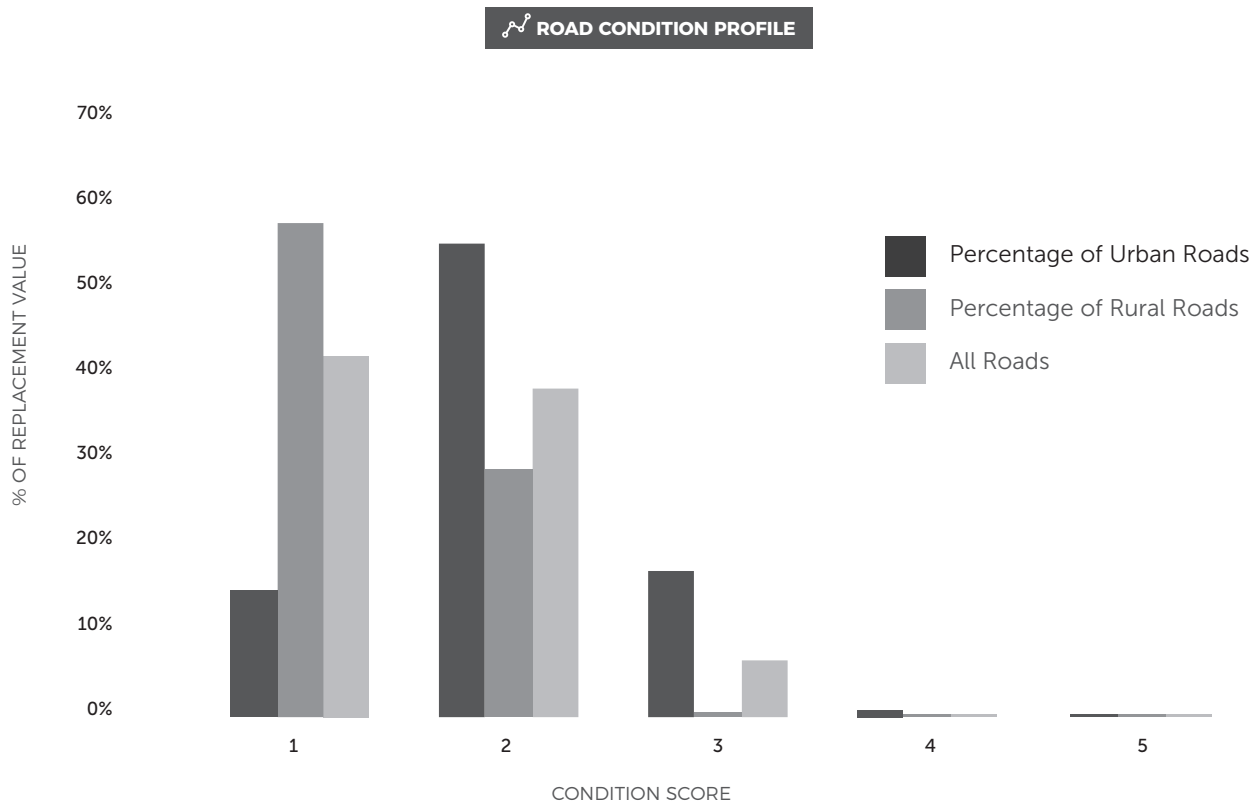
The City frequently receives requests to seal gravel roads. For this reason a guiding document has been created for prioritising these requests within the allocated budget for upgrades. The associated document *Upgrade Criteria for Unsealed Roads* has the detail and methodology for this decision making process.

**ROAD CONDITION**

Sealed road condition is measured through multiple criteria such as cracking, patching, surface defects, surface deficiencies edge break and roughness using a high speed condition survey tools and video analysis. We have created a Road Condition Index calculator in-house that weights and amalgamates these parameters into a single 1 – 5 condition score for each road treatment length.

The intention is to undertake road condition assessments on a 3 year cycle in sync with our fair value obligations. A condition survey was recently conducted but the analysis of the survey data is still being undertaken. The condition profile on the 2013 high speed condition survey is in the following graph. The profile indicates that rural sealed roads were in better condition than urban sealed roads when this condition survey was undertaken.

Road condition from 2013 will be closely compared with road condition in 2017 as an indicator as to whether we are spending an appropriate amount on road maintenance.



Measuring the condition of unsealed roads is more problematic as it requires manual inspection of large lengths of road at great distances. As condition attributes can change rapidly after heavy rainfall, this data is ephemeral in nature. The City surveyed a selection of unsealed roads in 2014 for pavement depth, road shape and integrity of the drainage to inform grading and resheeting practices. Some

lessons learned from this initial trial survey will be formalised in an Unsealed Condition Survey document to improve confidence in grading and re-sheeting requirements for our unsealed network. This will include the timing and frequency of surveys, extent of the network to be surveyed, methodology and how the data will be used to improve outcomes.

## Managing our Paths

We have a variety of footpath materials throughout the network including bitumen, asphalt, red asphalt, concrete, concrete slabs and brick pavers.

The Cycle City Albany Strategy, produced in 2014 was a guiding document for identifying missing links in the path network, and for prioritising projects to achieve a more attractive network to encourage bicycles as a transport option. This has been integrated with other priorities such as access to a variety of destinations, pedestrian needs and safety.

### PATHWAY HIERARCHY

For similar reasons to other assets our path network has a hierarchy applied. The hierarchy is used to prioritise where we construct new paths to ensure they are providing the most value to the community.

In addition, to the hierarchy in the table below we have a calculator for weighting safety, cost, connectivity to schools, health care, recreation and commerce to support decision making. The hierarchy uses similar definitions and levels to the road hierarchy.

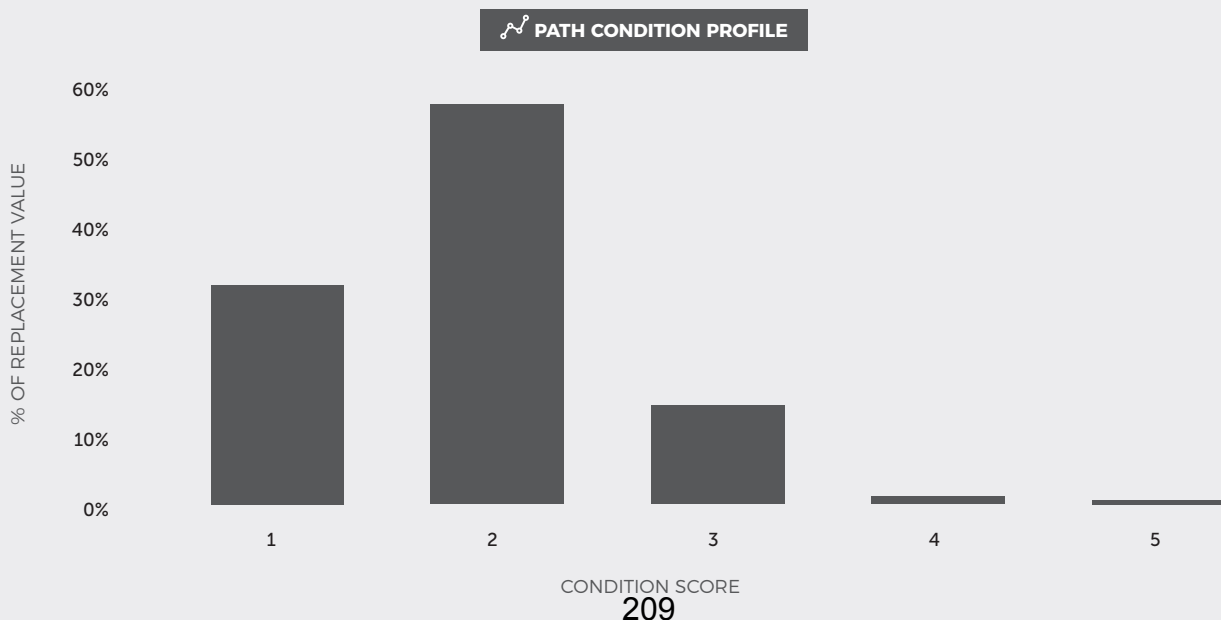
The Albany Path Hierarchy and Calculator are a separate document that includes the mapped hierarchy, parameters

Albany Path Hierarchy	Description
Principal Distributor	Major pedestrian and cycle commuter use. These paths provide connectivity between suburbs and major destinations.
Local Distributor	Service suburbs providing main connectivity to the Principal Distributor pathways
Local Access A	Minor low use pedestrian pathways that provide connectivity to local destinations, like schools and parks.
Local Access B	

### PATHWAY CONDITION

Our paths were condition rated in 2016 and the following condition profile is the result. Generally our footpath network is in good condition. However, we do have some issues with meeting current compliance standards with our older paths, pram ramps and crossovers. It is not viable to have the entire network to today's compliance, as standards are a constantly moving target. The goal is to meet all contemporary Australian Standards as paths are replaced.

Condition surveys will also be conducted on a 3 year cycle in line with fair value. Depending on resources available and based on the good condition of the network, this may only occur on the higher levels footpaths in the hierarchy. As defect inspections and maintenance repairs are more beneficial with a path network than frequent condition survey intervals.





## Managing our Carparks

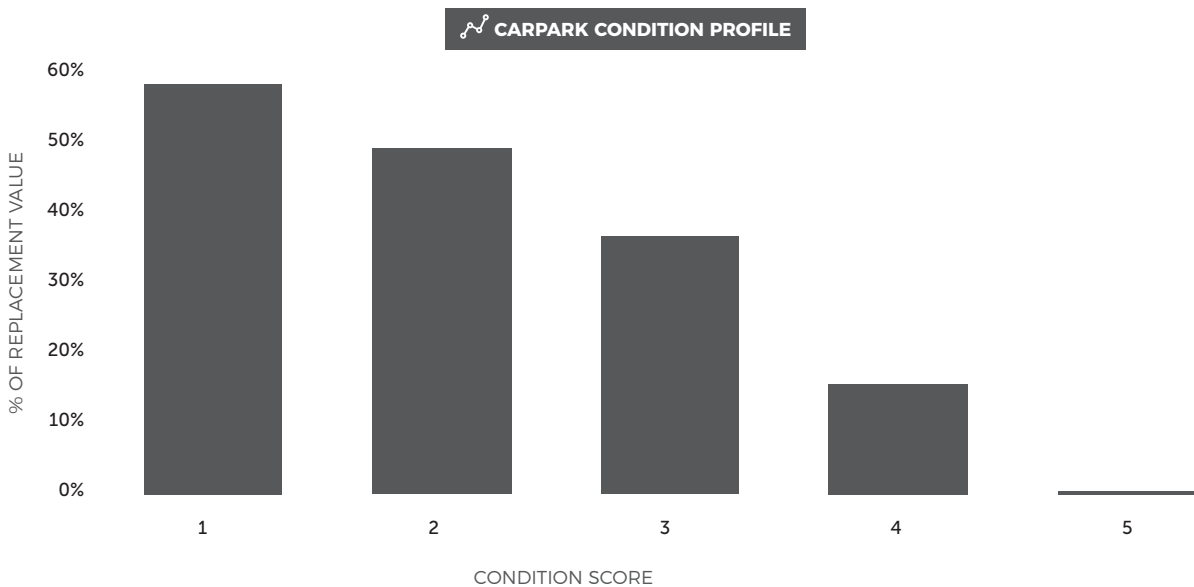
Carparks are treated similarly to the road network but perhaps not to the same level of efficiency as our road management at present. Over the last 2 years the inventory has been improved and will soon be included in our RAMM software with our road inventory.

This will improve our capacity to store condition data and to use the condition data to inform capital works programming using the same methodology as our roads.

Our carpark inventory is approximately 173,000m2 in area. The seal types are a small amount of brick pavers, and similar amounts between chip seal and asphalt.

### CARPARK CONDITION

The following condition profile is based on seal condition estimated from a variety of site visual inspections on aerial imagery dated February 2015. This indicates 10% of our carpark seals are due for replacement in the short term. The condition data for this asset sub-class requires improvement and is likely to tie in with future road condition surveys.



## Managing our Bridges

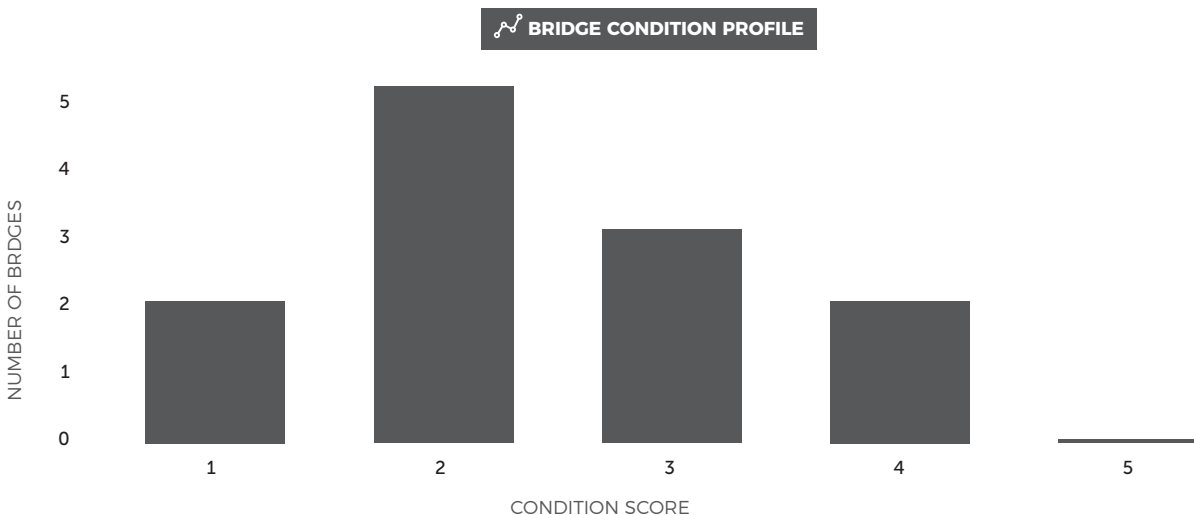
The City has 44 road bridges and 1 pedestrian bridge linking the CBD to the foreshore. The total combined span of bridges is approximately 1km. 12 road bridges and the pedestrian bridge are maintained by the City of Albany, 17 being the responsibility of the Water Corporation and the balance being controlled by Main Roads WA.

Main Roads WA undertake all required major works and provide technical advice on the City's bridges.

The City Operations Trades team do all preventative and minor reactive maintenance activities.

### BRIDGE CONDITION

This condition profile is based on remaining life of bridges from 14/15 fair value calculations. The confidence in construction dates for major bridges or major refurbishments dates are reasonably accurate and have been used as the basis for calculating condition.



## Managing our Bus Shelters

The City is currently responsible for approximately 104 bus shelters in both urban and rural locations. There are multiple types of shelters particularly in the urban area. The plan is to rationalise shelters in the urban area with improved outcomes in appearance, safety and lifecycle costs.

The intention is to have one style of shelter for the urban area with the potential for commercial advertising to be installed. With the continued use of the existing style of rural shelters. Commercial advertising will only be permitted on selected Distributor Roads and in appropriate and safe locations. Ideally, commercial advertising will be integrated into the urban style shelter. A 10 year replacement program that will prioritise the works to rationalise our bus shelter network is in progress.

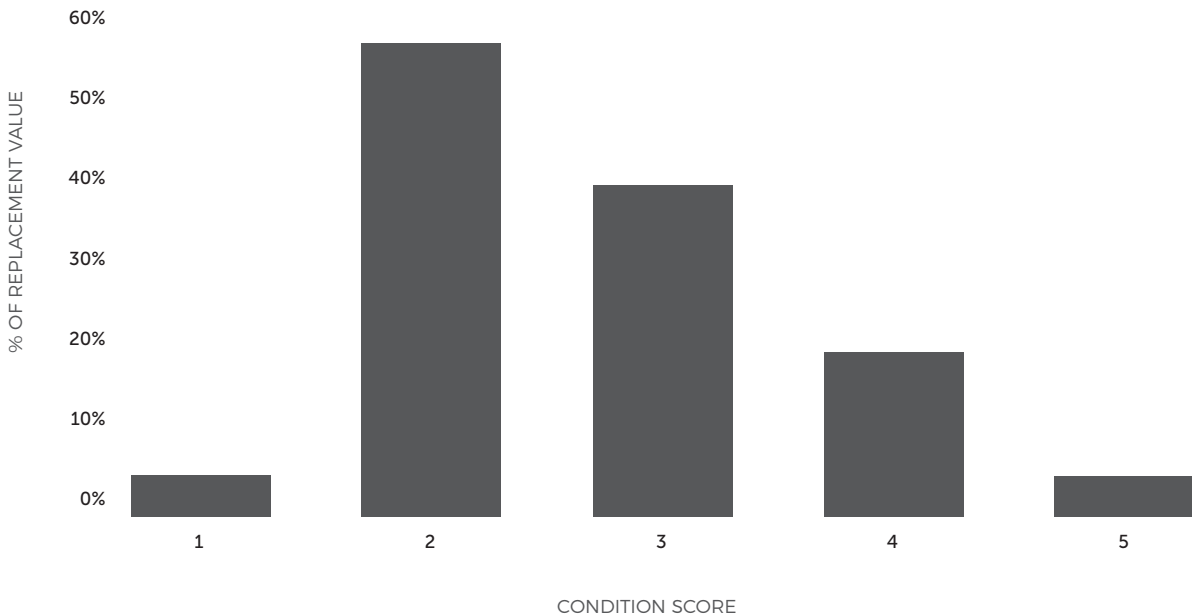
The City aims to provide bus shelters wherever a viable number, currently set at 10 users, regularly board the bus. These numbers are provided to the City by the bus service provider.

The Public Transport Authority has recently tendered for TransAlbany town and school bus service. On award of this tender the Public Transport Authority plans community consultation in regard to the bus services offered in Albany. The outcome of this community consultation is likely to impact on the City's rationalisation plan for bus shelters.

### BUS SHELTER CONDITION

All bus shelters were audited in 2015 with the results displayed graphically below. This indicates there are approximately 20 shelters at or past intervention levels.

 BUS SHELTER CONDITION PROFILE



## Managing our Street Lighting

This asset sub group includes all types of public lighting such as street, car park, path, access, crossing and special airport lighting. Essentially all lighting that has a transport purpose.

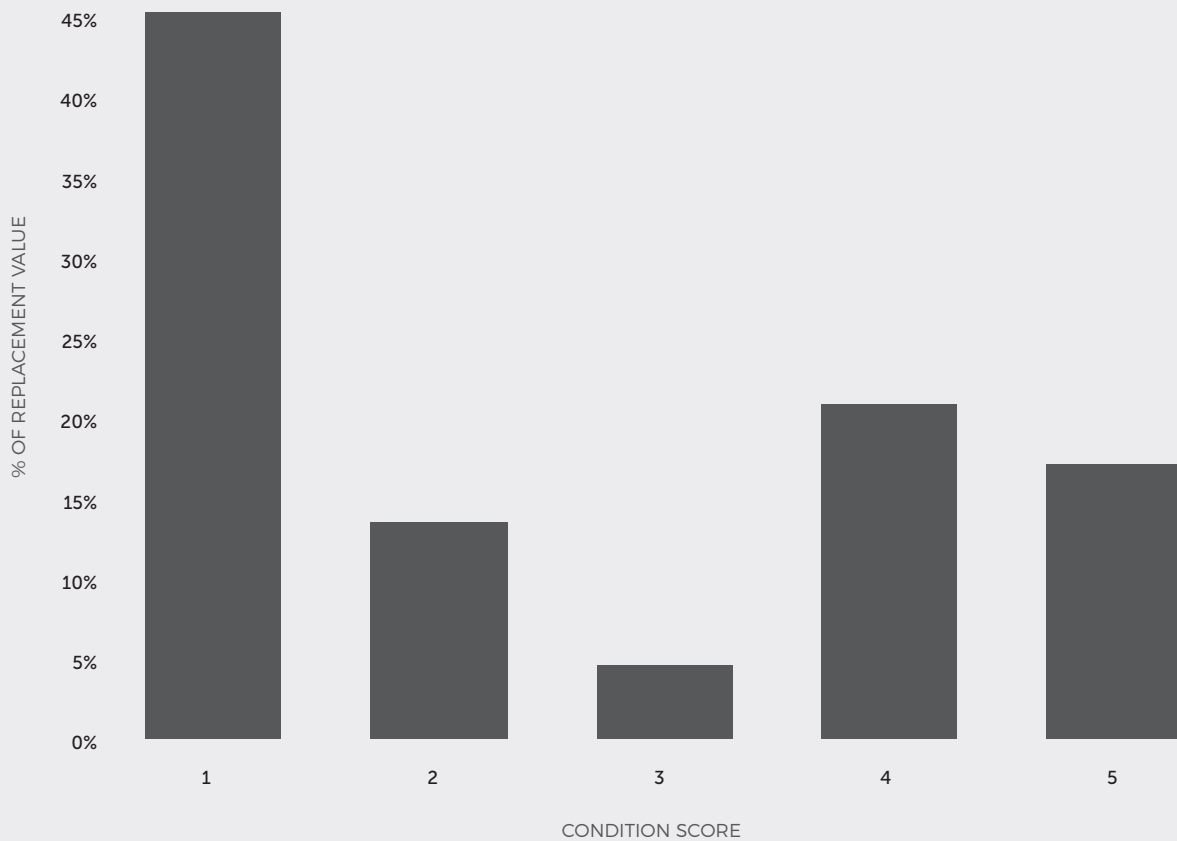
The majority of streetlights in Albany are owned by Western Power. The City is responsible for any energy costs and maintenance tariff associated with them. Energy costs are calculated based on the type and wattage of the light, based on an average hours of operation per year.

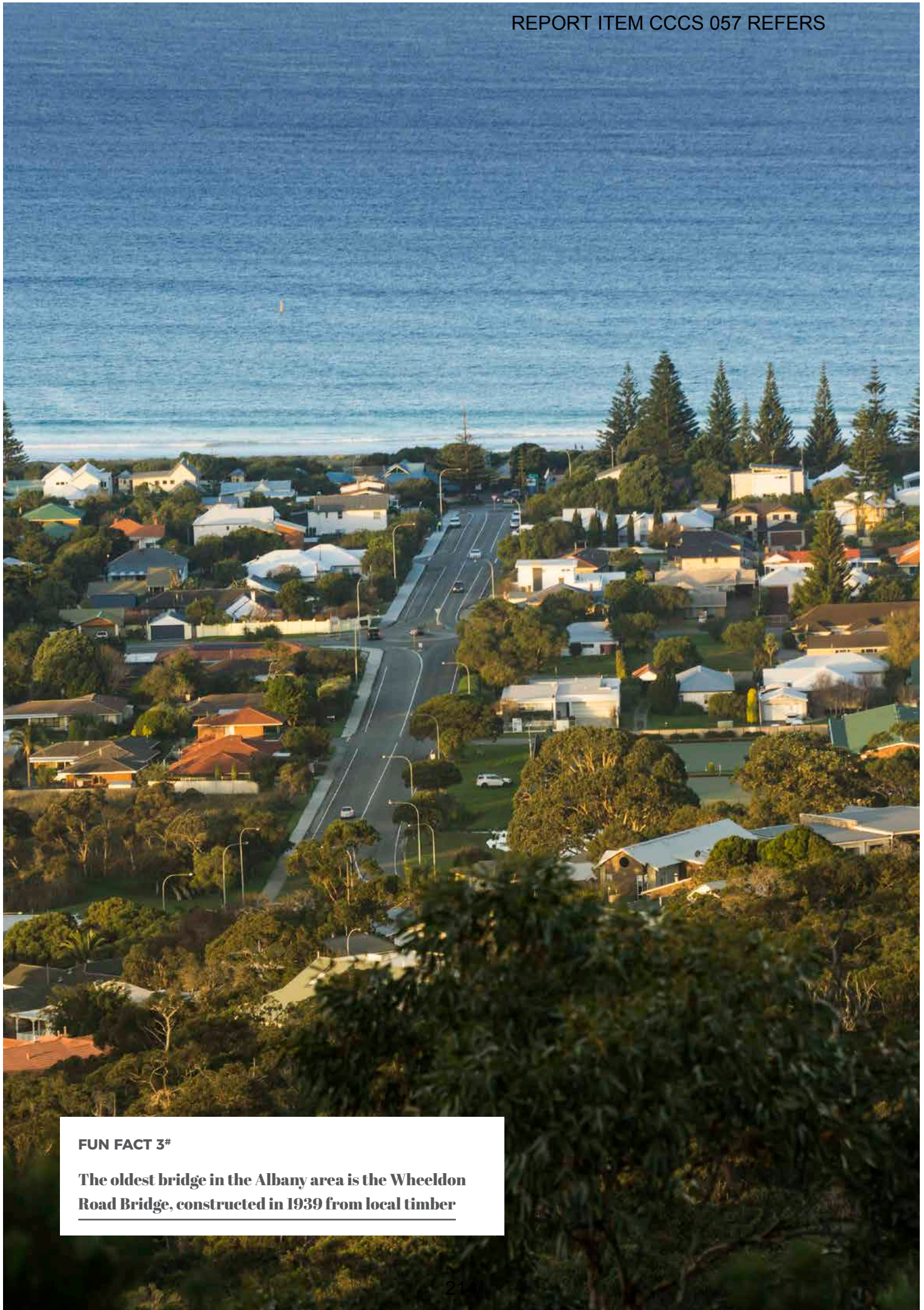
The City currently undertakes biennial audits and reports defects to Western Power for their action.

There were 186 City owned street lights at the end of the 2014/15 financial year on which the following condition profile is based. The condition is based on age and further investigation is required to improve our condition assumptions. The inventory now holds 350 assets, which is a substantial improvement in inventory data in the last 2 years.

Most street lights are in the York Street, Stirling Terrace, Princess Royal Drive, Middleton Beach and the Airport.

 **STREETLIGHTS CONDITION PROFILE**





**FUN FACT 3#**

**The oldest bridge in the Albany area is the Wheeldon Road Bridge, constructed in 1939 from local timber**



## Transport Maintenance

The City Operations team undertake preventative and reactive maintenance activities for roads, paths, carparks and other infrastructure in-house.

These processes are well entrenched in City Operations team. A logical improvement is to document the specifications for each maintenance activity, structuring frequencies and when we intervene with defects. This would allow the quantifying of costs for each activity over a budget period.

This would allow for maintenance levels of service to be adjusted with more accurate correlation of budget and resources.

Information from the maintenance teams greatly enhances the condition data to improve capital works programming. A formalised process for this information flow would be beneficial in generating efficiencies and optimising capital works.

## Levels of service

Level of Service	How we measure performance	Previous Years		Targets	How we will meet the performance target
		2015	2017	2019	
Sealed roads & carparks will be in a condition appropriate to the hierarchy	% of sealed network over intervention level	New	**2.5%	**<3.5%	Renewal budget driven by renewal modelling based on condition
Paths will be in a condition appropriate to the hierarchy	% of path network over intervention level	New	**3.0%	**<3.5%	Prioritised based on the hierarchy
Sealed roads will be functional, safe and appropriately maintained	Maintenance of Sealed Roads Satisfaction Survey	*51%	*41%	45 - 55%	Planned maintenance program & risk based reactive maintenance system including target response times  Well supervised contracts  Use data to optimise maintenance and renewal works  Renewal works based on hierarchy and level of risk of failure
Unsealed roads will be safely traversable in all weather conditions	Maintenance of Unsealed Roads Satisfaction Survey	*45%	*38%	40 - 45%	Initiate condition surveys to inform grading and re-sheeting practices
Paths to be functional, safe and appropriately maintained	Footpaths Cycleways & Trails Satisfaction Survey	*56%	*56%	54 - 58%	Planned maintenance program & risk based reactive maintenance system including target response times

\* RESULTS BASED ON THE BI-ANNUAL COMMUNITY PERCEPTION SURVEY

\*\* BASED ON AN AGREED CONDITION INTERVENTION LEVEL USUALLY 4 (1 - 5 SCALE) DEPENDENT ON HIERARCHY

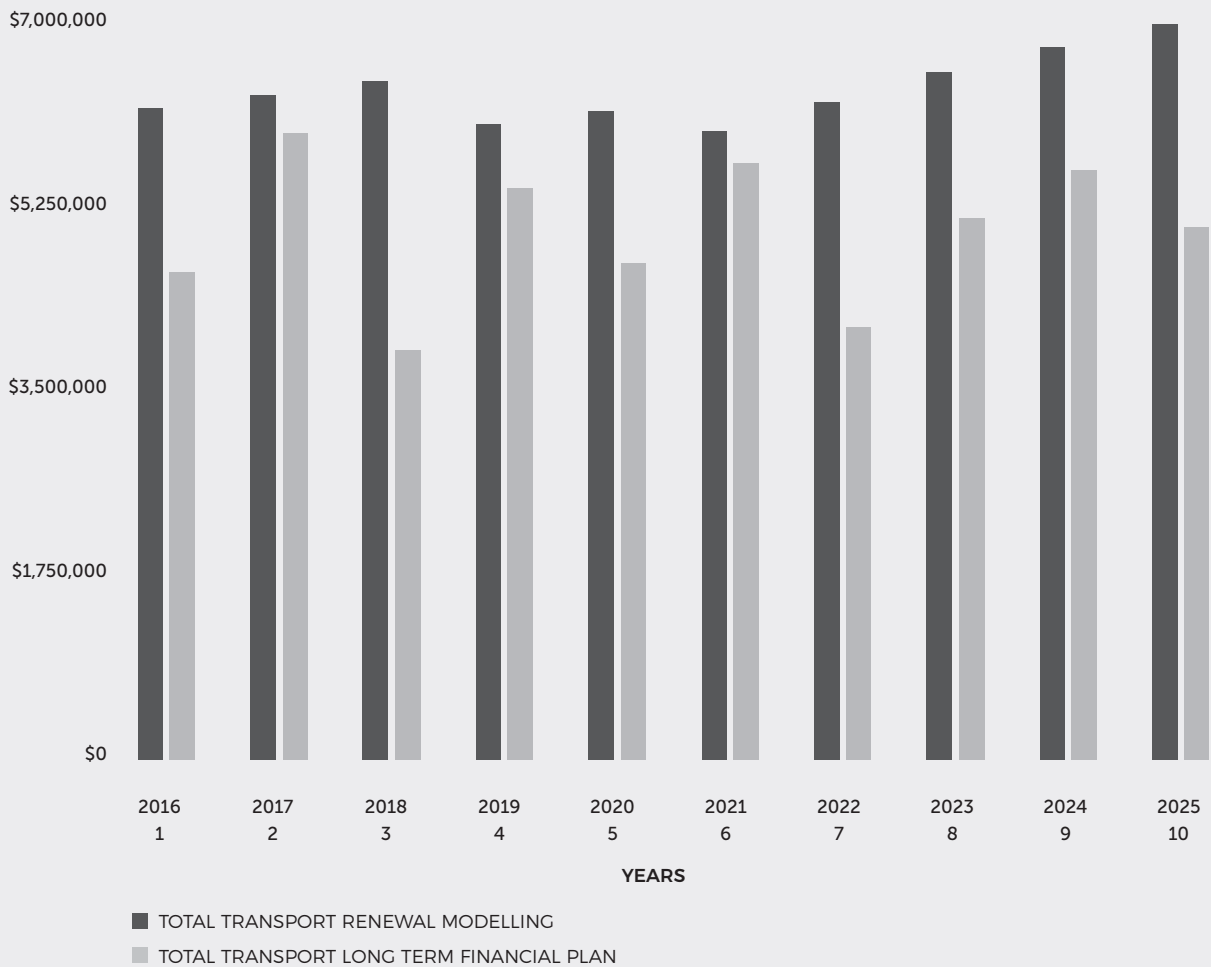
## Financial

The City spends an average of \$5.4m per annum on roads, carparks & bridges in capital works and \$5m per annum on maintenance averaged over the last 3 years. This expenditure is a mix of state and federal government funding and municipal funds.

The expenditure in the long term financial plan is a little lower than the financial modelling is indicating. However, this modelling is conducted annually

with updated condition information, inventory and reviewed unit rates. The next round of modelling will be expanded to include gravel re-sheeting.

 **COMPARISON OF RENEWAL MODELLING TO LONG TERM FINANCIAL PLAN EXPENDITURE**



## Our projects for the future

What is the project	What is the driver	When	Cost
<b>Albany Highway reconstruction</b>	Failure of pavement on District Distributor A Road	19/20	\$1.5m
<b>Middleton Road Overlay</b>	Surface at end of life and past intervention levels on Local Distributor Road that serve a commercial, residential & tourist function. Inclusive of some upgrade works to meet cycle strategy and urban greening outcomes.	17/18	\$2.0m
<b>Sanford Road upgrade &amp; North Rd Roundabout</b>	Installation of a roundabout at the North Rd & Sanford Rd intersection, design and reconstruction of Sanford Rd.	18/19-19/20	\$2.1m
<b>Mt Elphinstone path link to CBD</b>	Cycle City Albany highlighted the need for a pedestrian and cycle link. This project has attracted Department of Transport funding.	17/18 – 18/19	\$1.2m

## Threats

Threats	Description	Mitigation
<b>Inheritance of aging assets from State Government</b>	Increase in arterial road network due to the addition of the ring road. Such as Chesterpass Road, Albany Hwy & Roundabout.	Forward planning and sufficient reserves for increased renewal & maintenance costs. Negotiation of future funding to assist with this expenditure prior to hand over of aging assets.
<b>Increases to Service levels</b>	Increasing levels of Service have a corresponding increase in expenditure that is currently unknown.	Being able quantify the long term cost of changes to levels of service can provide the basis for informed decisions
<b>Community Expectations</b>	A better understanding of the expectations of the community in regard to transport assets. Particularly around the expansion of the network.	Education and communication with the public around what is sustainable. Opening a dialogue on what the community is willing to pay for any increase in service levels

## Improvement Plan

- Creation of a “Maintenance Manual”, that details tasks performed on the road network and how they should be performed, specific to the region’s methods and materials used. Inclusive of frequency and intervention levels and response times for reactive maintenance. Associated costs so changes in maintenance levels of service can be modelled.
- Identification of key tasks that can assist in prolonging the life of high-value assets and determining a business case for their introduction based on benefit-cost ratio.
- Condition based valuation of the road network.
- Improved inventory and condition data for Transport sub groups for the next iteration of this plan.



## **Further reading**

**Albany Road Hierarchy (in final stages)**

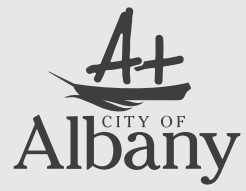
**Upgrade Criteria for Unsealed Roads (in final stages)**

**Bus Shelter Guidelines (in development)**

**Maintenance Program (to be developed)**

**Streetlighting Strategy (to be developed)**







ALBANY 2030

# PEOPLE STRATEGY

2016 - 2019

## FOREWORD

**ALBANY IS A VIBRANT COASTAL COMMUNITY OF 37,000 PEOPLE AND THE COMMERCIAL HEART OF THE GREAT SOUTHERN. IT IS THE ONLY CITY LOCATED ALONG THE SOUTH COAST OF THE STATE AND IS ONE OF THE LARGEST CITIES IN REGIONAL WESTERN AUSTRALIA. THE REGION RATES HIGHLY IN TERMS OF OVERALL LIVE ABILITY WITH MOST OF THE CONVENIENCES OF CITY LIVING YET SURROUNDED BY AN AMAZING NATURAL ENVIRONMENT ONLY MINUTES DRIVE IN ANY DIRECTION.**

The official population of the City of Albany as of the 30 June 2014, is 36,940. The Census population of the City of Albany in 2011 was 33,648, living in 15,678 dwellings with an average household size of 2.41.

Bounded by the southern ocean, the picturesque Stirling Range and the Great Southern hinterland, Albany embraces clean, green principles, from wind-generated energy to sustainable and organic agriculture, to ensure its continuing viability as a liveable, progressive centre.

The City of Albany is building strategic capacity for the challenges now and into the future. With recent achievements including the; National Anzac Centre, major upgrades to Mt Clarence and Princess Royal Fortress, new Town Square, upgrade of Stirling Terrace and continued development of the Centennial Park Sporting Precinct, giving the organisation and community a high spirit of confidence and enhanced a culture that is focused on delivering excellence in community services and facilities.

This people strategy is divided into four key themes that define how we will address and respond to the external context and drivers that influence our organisational goals. It links every aspect of an employee's career cycle at the City; from the factors that count when first joining such as recruitment and induction; to offering development opportunities to support career and promotion. From ensuring the highest standards of leadership and management to sustain a motivated and engaged workforce; to fostering a culture which is inclusive and provides a work life balance.

By adopting a flexible approach, we are able to remain responsive and stay on track to fulfil our vision – to be Western Australia's most sought after and unique Regional City to live, work and visit.

Warm regards,



**Andrew Sharpe**

Chief Executive Officer





**PART 1 - GUIDING PRINCIPLES**

The Human Resources Department supports the City of Albany and is committed to provide strategic, innovative and flexible policies and practises, programs and services to:

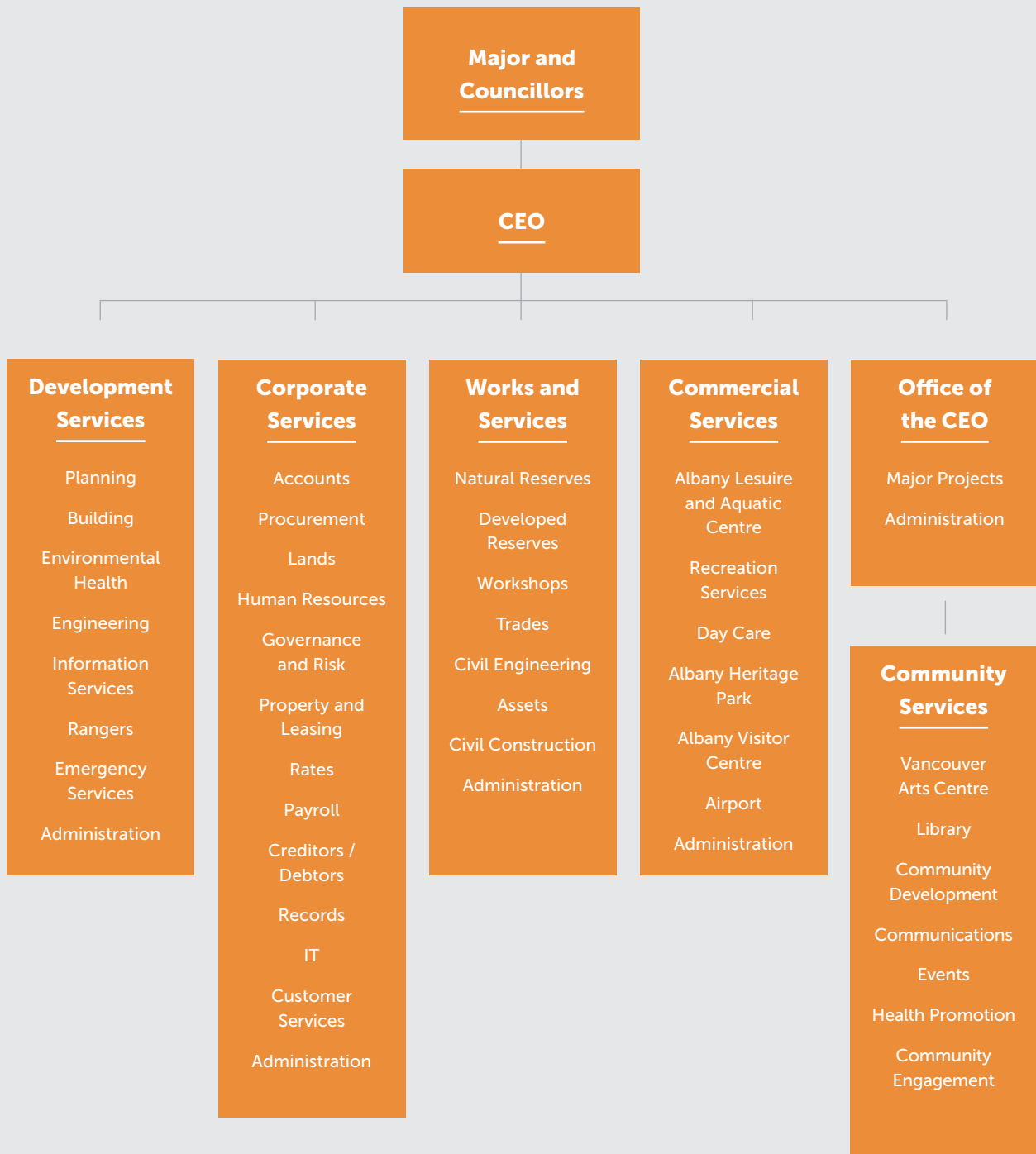
- Attract, develop, reward and retain a diverse and talented workforce;
- Operate as a strategic, integrated and business-oriented service across all that we do;
- Foster a productive work environment where people feel valued;
- Work in partnership with managers, staff, trade unions and all other relevant stakeholders;
- Respond to the changing nature of work and the workplace environment and embrace a culture of continuous improvement;
- Ensure that our services are always delivered in a timely, responsive, flexible and solutions-focused way;
- Ensure that equity, fairness and transparency shape and inform our policies, practices and processes;
- Create an environment that fosters creativity and innovation in our ideas, initiatives and the solutions we offer; and
- Act in a way that is responsible, accountable and ethical.



**PART 2 - WORKFORCE PLANNING**

The People Strategy is an informing strategy to the Corporate Business Plan / Integrated Planning Framework. By definition Workforce Planning is “a continuous process of shaping the workforce to ensure that it is capable of delivering organisational objectives now and in the future.” (Australian National Audit Office (2004), ANAO Audit Report No.55 2004–05: Workforce Planning, Commonwealth of Australia). It will indicate how capable the City is of delivering the services and assets required by the community and is continually evolving in response to internal and external changes.

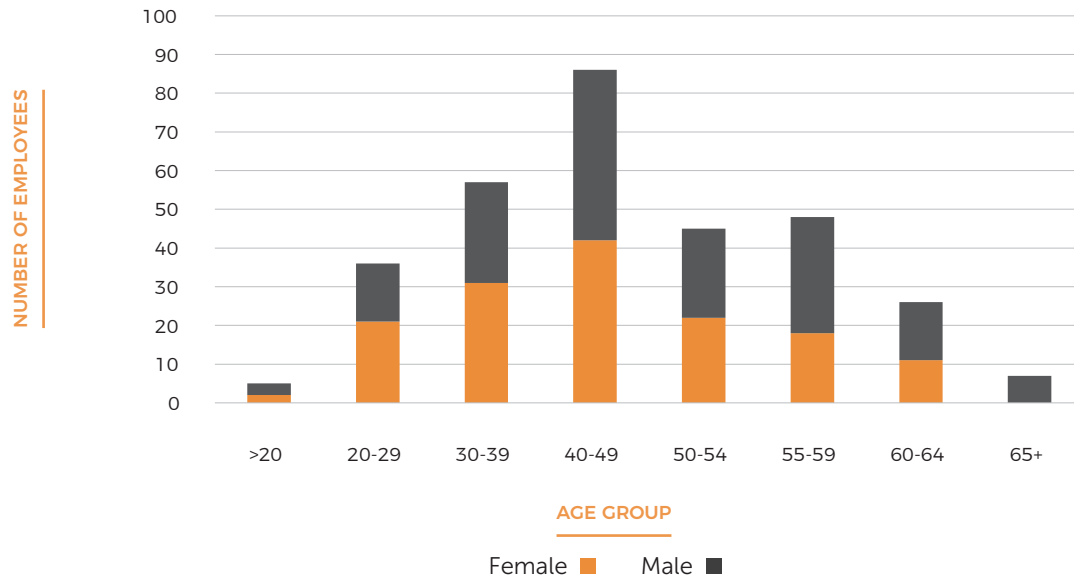
**OUR PROFILE**



### Age and Gender of Employees

- The City’s permanent workforce consists of 147 females and 163 males. Females and males are proportionately represented across the organisation however this then varies by Directorate.
- Operational areas (i.e. construction, reserves, waste) are still predominately male with administrative functions predominately female.
- Demographically, for permanent staff only 13% of the workforce are aged under 30 and the largest percentage, 28% is within the 40-49 age bracket.
- Operational areas (i.e. construction, reserves, waste) continue to retain a mature workforce whilst Commercial Services (i.e. Albany Leisure and Aquatic Centre) has a slightly younger workforce.

 **PERMANENT STAFF BY AGE AND GENDER**



By Corporate Position (where an employee is supervising one or more employees) more of a distinction can be made between the genders at a managerial level as 25% are female employees and 75% are male employees. At an Executive level 100% are male.

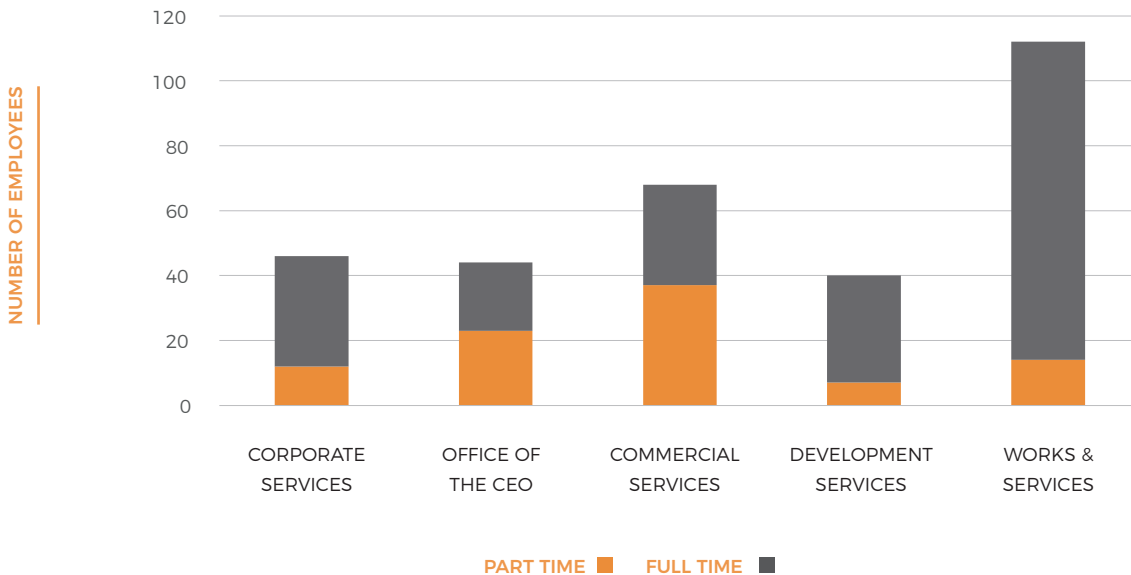
Gender Distribution by Corporate Position			
Corporate Position	Female	Male	Total
Executive	0	6	6
Manager	5	15	20
Coordinator/Supervisor	23	45	73

**Type of Employment**

The City of Albany’s total workforce comprises of 384 people as at 30 September 2016, including 283 permanent (full and part time), 74 casual and 27 temporary / contract staff members. City of Albany’s Full Time Equivalent (FTE) is 266.92.

Full Time Equivalent			
Directorate	Permanent	Temporary/Fixed Term	Total FTE
Corporate Services	36.69	4.8	41.49
Office of the CEO	28.23	6.6	34.83
Commercial Services	38.52	8.43	46.95
Development Services	33.27	4	37.27
Works and Services	104.38	2	106.38
<b>TOTAL</b>	<b>241.09</b>	<b>25.83</b>	<b>266.92</b>

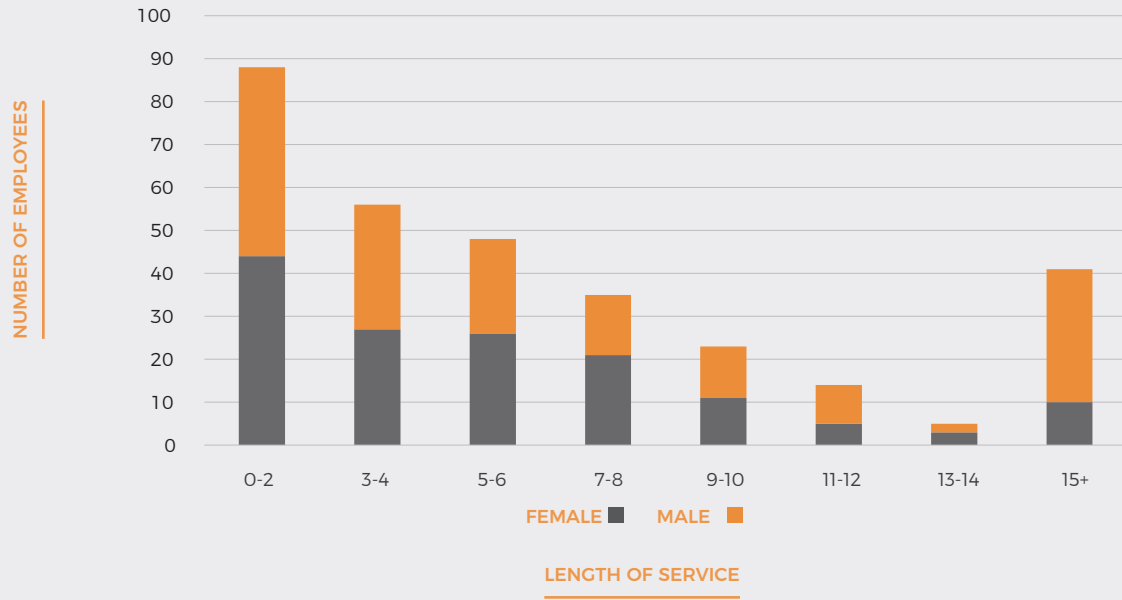
**EMPLOYMENT TYPE BY DIRECTORATE**



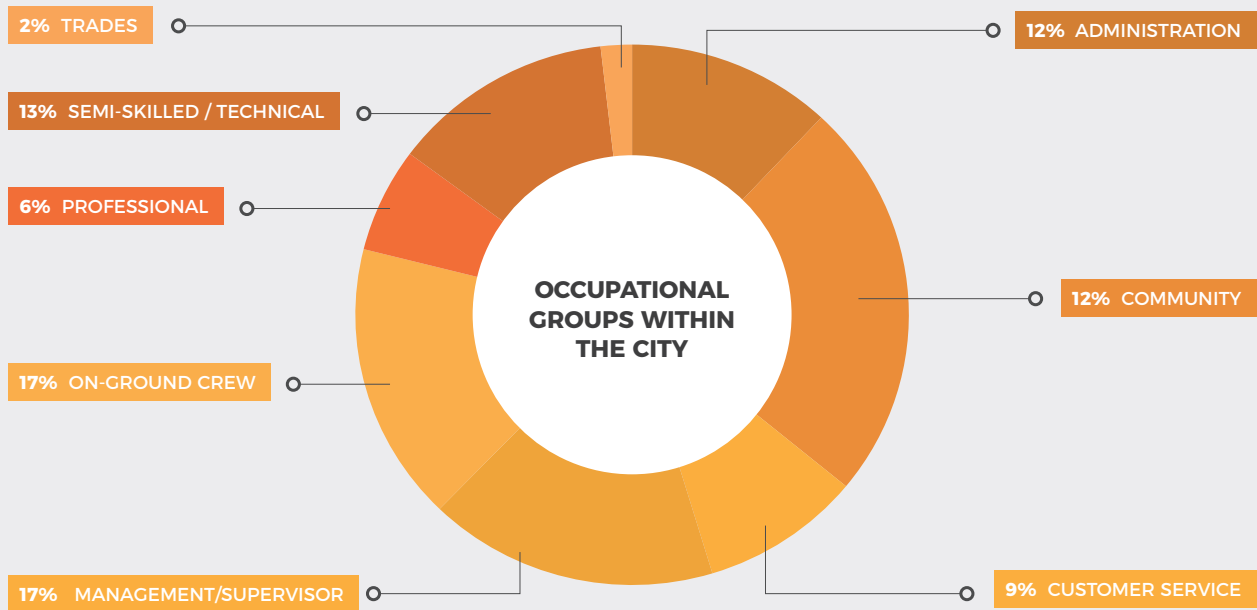
**Years of Service and Occupational Groups**

The average length of service for staff is between 0 to 4 years.

**PERMANENT STAFF BY GENDER AND LENGTH OF SERVICE**

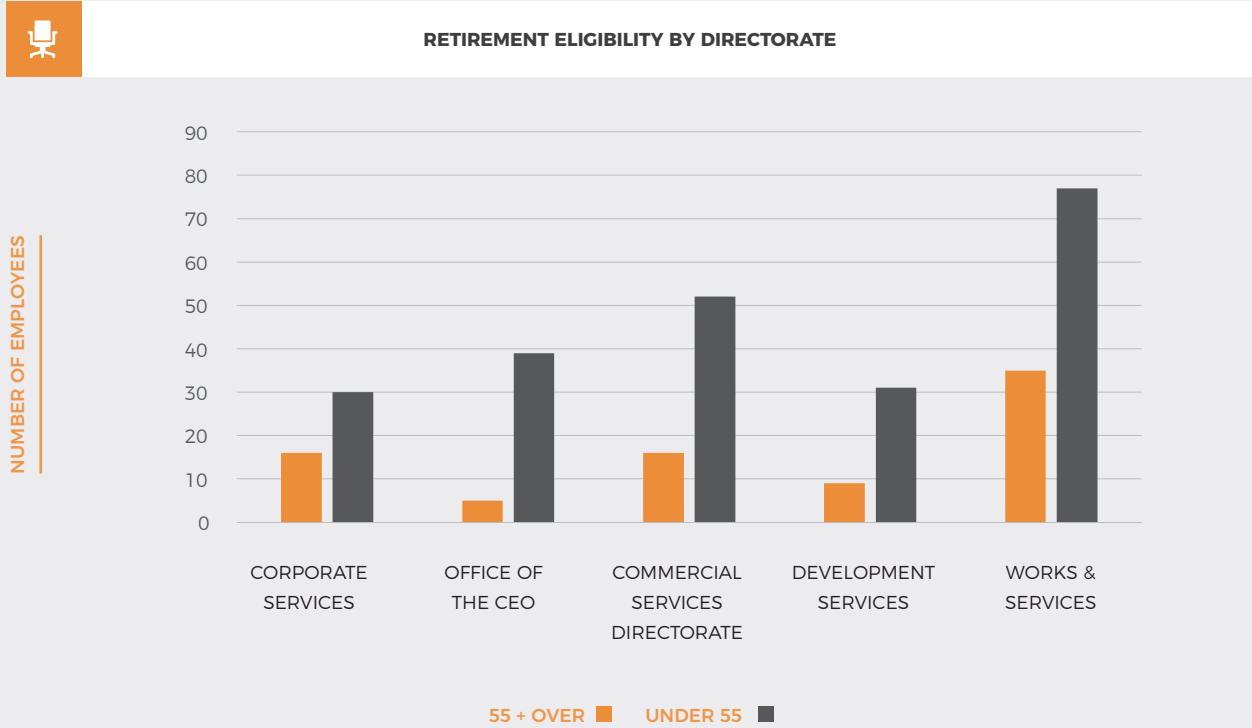


**OCCUPATIONAL GROUPS WITHIN THE CITY**



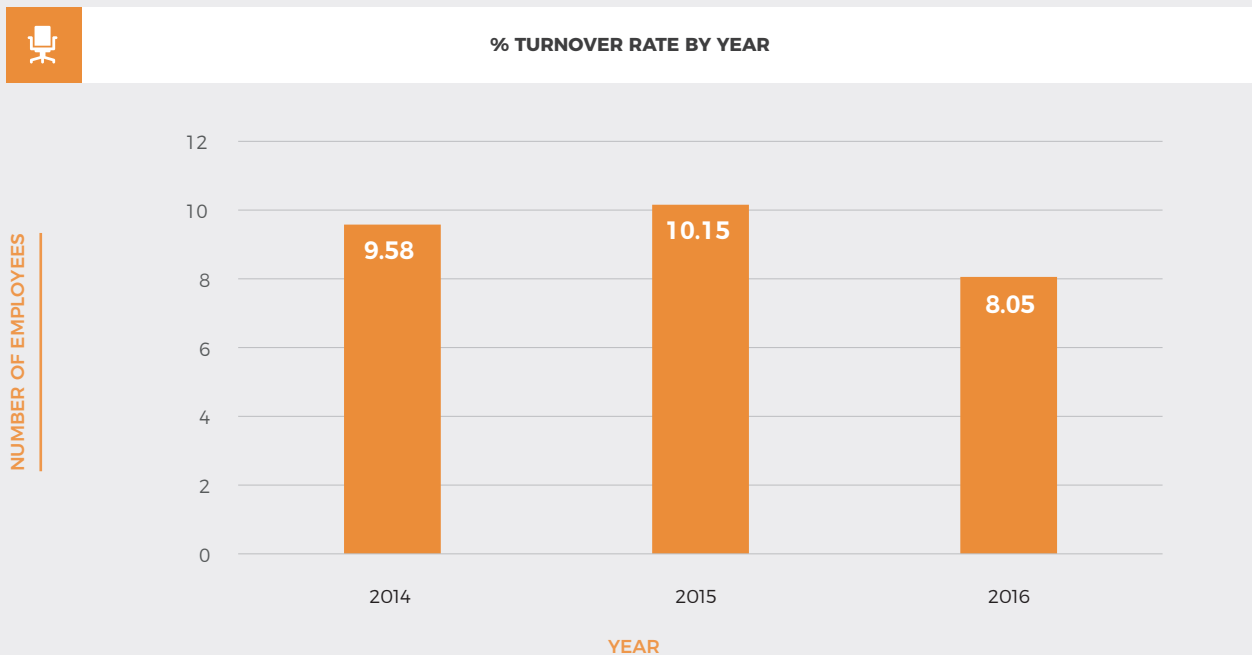
### Retirement Eligibility

26% of our employees are currently eligible for retirement (i.e. 55 years and older). Many of the staff who are eligible for retirement bring with them years of experience; the loss of which will need to be managed in some areas of the City.

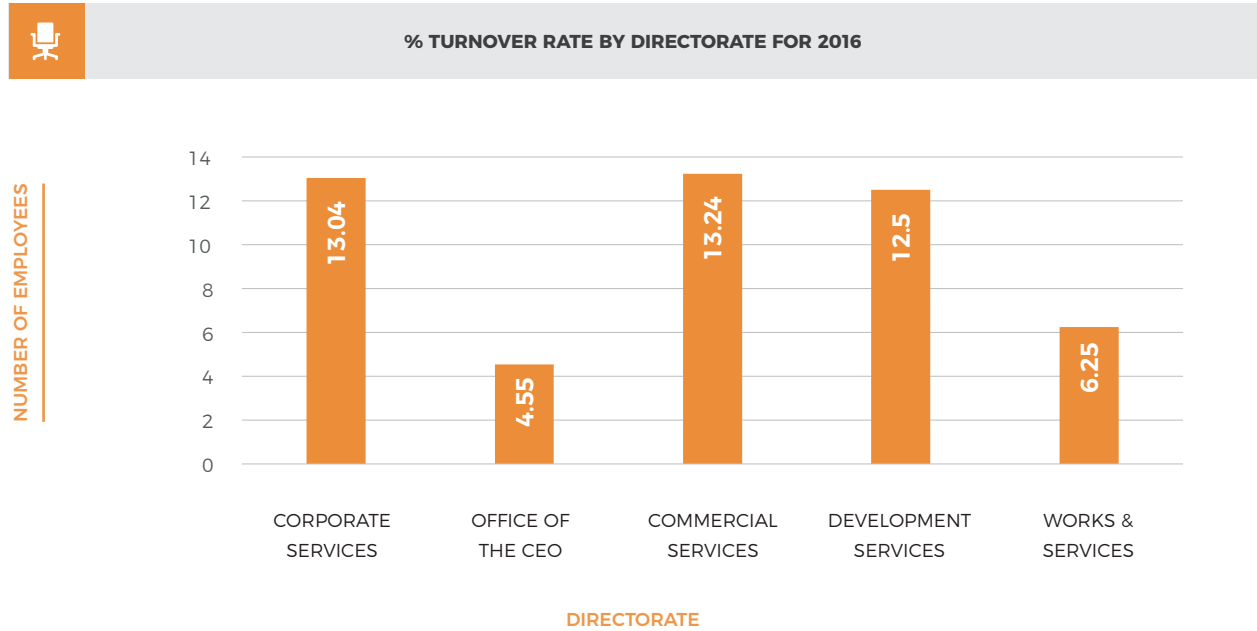


### Turnover

Employee turnover in the last three years has been stable and is for a variety of turnover reasons such as relocation, personal reasons and performance management.



**Turnover (cont.)**



**Diversity**

In producing this People Strategy, the City reviewed and analysed the demographic profile of its local communities versus our current workforce profile.

This analysis indicates that the demographics of the City’s workforce was largely consistent with the demographics of our communities but that there were areas which could be improved on as demonstrated in the table below. More effort will be made to increase our commitment to indigenous employment, people with disability and those from culturally diverse backgrounds.

Workforce Diversity		
Category	Albany Community	City of Albany
Female	50.92%	53.65%
Male	49.08%	46.35%
Aboriginal	3.3%	1.82%
Disability	5.2%	0.26%
Culturally Diverse Background	6.3%	0.26%

## PART 3 - STRATEGIC CONTEXT

The operational direction of this People Strategy has been based on the status quo; therefore no additional resources have been included within the administration workforce. The Council is open to State Government funded initiatives which is in line with our strategic plan and may affect the workforce plan going forward.

### Challenges Facing the City of Albany

#### **POPULATION GROWTH**

As our population grows so will the need for development therefore the additional infrastructure will need to be maintained, e.g. Public open space, roads, signage etc, this has been incorporated in the plan. However this may not equate to a growth in City's resources.

Population growth may result in:

- Increased demand for services and facilities such as refuse collection, leisure and library services and the age specific community for different age groups such as youth groups and aged care; and
- Increased need for economic development/activity. The City's ability to attract business and investment would be a key factor.

#### **USE OF TECHNOLOGY**

Services and work processes are constantly evolving to take advantage of technology, including:

- Increased use of iPads, Skype, Wi-Fi and social media to access information and provide decentralised/mobile services; by staff and customers.
- Increased use of "virtual services" e.g. Visitors Centre, online planning approval systems and other digital applications.
- CCTV security (fixed and mobile) making it easier to identify and report incidents.

#### **COMMUNITY EXPECTATIONS**

- Community service expectations are constantly increasing and our communities utilise and expect a wider range of services.
- The community is better informed and more knowledgeable.

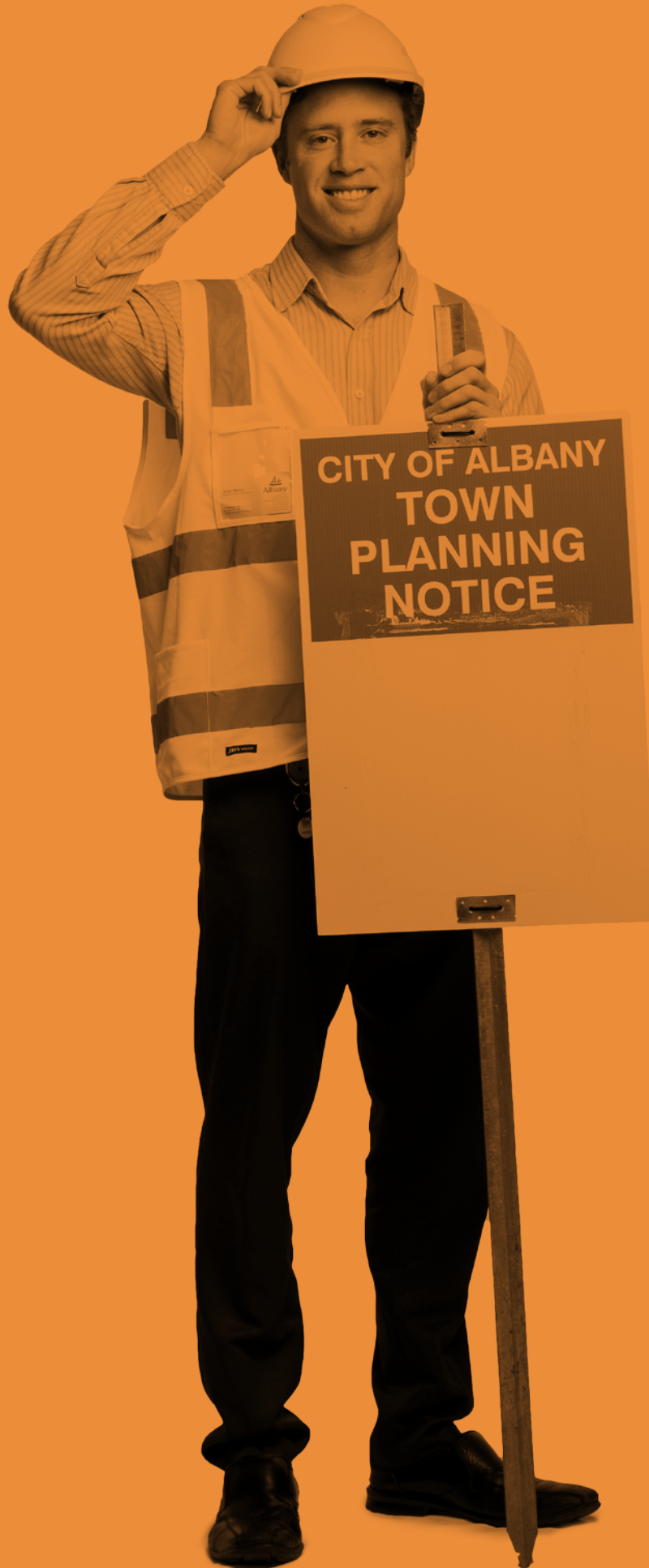
We are increasingly expected to deliver services, customer support and information outside business hours and on weekends.

#### **AGEING WORKFORCE**

It is estimated that approximately 19% of the City's workforce will retire in the next 5–10 years which in turn could be influenced by such factors as personal financial position, health and job satisfaction and competency etc.

If we do not continue to focus on career and succession planning, we could encounter a situation where our service delivery to our communities and customers might be impacted due to a loss of corporate knowledge and experience.





## PART 4 - OUR APPROACH

The purpose of this Strategy is to shape, develop and contribute to organisational effectiveness, through the identification of actions and plans that position the City of Albany in the strongest possible place, to be able to address the multiple and complex challenges described above.

These challenges can be considered in more detail under key strategic themes, which relate to the goals, objectives and strategies in the City's Community Strategic Plan. These key themes are, by their very nature, integrated. For example, 'attract, reward and retain the best talent' is linked to civic leadership, which fosters culture. These strategies should therefore be seen as part of a holistic approach to realising our strategic ambitions.

The main aim of our People Strategy is to value, support, develop and utilise the full potential of our staff, working with each other across the City of Albany, to make it a successful place to work.

### Values and Culture

#### **OUR VALUES AND CULTURE FOSTER AN ENVIRONMENT THAT EMBODIES OUR COMMITMENT TO EQUALITY AND DIVERSITY, AND PROMOTES A POSITIVE CULTURE FOR WORKING.**

We recognise the importance of ensuring that all staff make a valuable contribution to the success of the City of Albany, working in effective and collaborative ways to create a vibrant and innovative work place, in which all staff feel a sense of professional achievement.

Our working environment reflects the type of employer we are; emphasis will therefore be placed on creating a healthy working environment. We are mindful of the need to achieve a fair work-life balance, ensure equitable workloads, and support staff in maintaining a healthy lifestyle.



## **Leadership**

**EXCELLENT LEADERSHIP SKILLS FORM AN ESSENTIAL PART OF MEETING OUR GOALS. WE WILL DEVELOP OUR LEADERSHIP COMPETENCIES AT ALL LEVELS, TO ENSURE THAT STAFF UNDERSTAND THEIR OWN LEADERSHIP STYLES, AND CAN ADAPT THEM TO DEAL WITH DIFFERENT SITUATIONS, IN ORDER TO MOTIVATE AND ENGAGE THEIR TEAMS.**

Significant steps will be taken to achieve greater diversity among our leaders. Therefore it will be important to understand how we can make leadership roles more attractive and appealing to a wider talent pool.

## **Management**

**MANAGEMENT SKILLS WILL BE EQUALLY IMPORTANT TO LEADERSHIP SKILLS, AND EMPHASIS WILL BE PLACED ON PREPARING MANAGERS TO DELIVER CHANGE AND INNOVATION EFFECTIVELY.**

Through development and coaching, managers will become accomplished in creating a high-performance culture, and will be confident in dealing with every aspect of managing staff: from setting clear expectations and rewarding excellence, to managing poor performance where necessary.

## **Talent Management in Practice**

**TALENT MANAGEMENT IS THE PRACTICE OF STRATEGIC, LONG-TERM, CAREER MANAGEMENT, WHICH ADDRESSES RETENTION AND DEVELOPMENT. THERE ARE MANY DIFFERENT MODELS OF TALENT MANAGEMENT AND THE CITY OF ALBANY WILL MOVE AWAY FROM A MORE TRADITIONAL MODEL OF CAREER MANAGEMENT, WHICH DEFINES CAREER PROGRESSION PURELY IN TERMS OF AN UPWARD, LINEAR TRAJECTORY.**

Adopting a 'life-cycle' model will represent our commitment to sourcing, attracting, selecting, training, developing, retaining, promoting and moving employees through the organisation, throughout their career with the City. It's also a flexible model to: facilitate a motivated, responsive and agile workforce through effective leadership, and succession planning centred on an individual's strengths and career development potential.

A long-term benefit of talent management is that it involves an ongoing evaluation of workforce capabilities. City staff should continue to have the skills, competencies and expertise to contribute to our future growth and development, and be able to adapt to meet new conditions and changing demands at a time of increasing uncertainty and competition.

Expanding the opportunities for staff to benefit from mentoring and coaching will also provide future investment.

**PART 5 - KEY PEOPLE THEMES**

Our People Strategy is divided into four high-level people themes, which represent the key people management priorities in the Strategic Plan:

1. **Attract, reward and retain the best talent;**
2. **Promote, champion and support transformational leadership and management;**
3. **Develop people and build capability;**
4. **Foster a culture of inclusivity, safety, good health and wellbeing.**

Each of these four people themes is underpinned by strategies to fulfil their successful implementation and delivery.

**Theme 1 - Attract, Reward and Retain the Best Talent**

Strategy	Action	2016/17	2017/18	2018/19
<b>Promote the attractiveness of the City as an employer, through tailored recruitment strategies that market our reputation and distinctiveness.</b>	Review and explore the use of social media to attract the highest calibre of staff (e.g. online media, e-job boards etc).	●	●	
	Review the City's promotional materials for potential and new employees.	●	●	
	Develop and deploy recruitment training for recruitment panel staff.		●	●
<b>Support new staff through tailored induction processes, to enable them to quickly become effective in their new roles.</b>	Review and improve the induction policy and processes.		●	●
	Source and deliver meaningful cultural awareness training.		●	
<b>Reward excellence and success in a variety of ways through a total reward strategy aligned with City goals.</b>	Ensure pay parity and equity in our salary policies, through equal pay audits and review processes.		●	
	Review contribution rewards to facilitate greater flexibility.			●
	Compare employment packages with other Local governments and create a reward and recognition scheme.		●	
<b>Measure employee opinion on various components of the Employee Relationship</b>	Conduct annual Employee Engagement surveys and report recommendations to the Executives and share results with staff.	●	●	●
	Conduct Exit Surveys to ascertain employee views (noting this is not compulsory).	●	●	●

**Theme 2 - Promote, Champion and Support Transformational Leadership and Management**

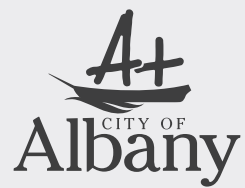
Strategy	Action	2016/17	2017/18	2018/19
<b>Foster a culture of high performance, excellent leadership, effective management and high levels of employee engagement, by providing a wide range development initiatives.</b>	Continue to develop and deploy Leadership Development Training and offer follow up online training modules.	●	●	●
	Invest strategically in our staff, to inspire and equip them with a range of skills to shape, influence and lead by building supervisor and management capability from team leader / coordinator / supervisor level down.	●	●	●
	Identify and nurture talent early, to support effective succession planning and build the next of leaders.		●	●
	Develop a strengthened induction programme for line managers, operational managers and leaders.		●	●
<b>Build on models of good practice to increase the proportion of women and other under-represented groups in leadership roles at all levels of the City.</b>	Offer opportunities for secondments, acting higher duty roles, involvement in special projects etc. where appropriate.		●	●

**Theme 3 - Develop People and Build Capability**

Strategy	Action	2016/17	2017/18	2018/19
<b>Promote flexible, interdisciplinary team-working, providing opportunities for staff to broaden their experience, skills and knowledge and operate effectively in an increasingly cross-functional work environment.</b>	Assist leaders to manage staff performing below expectations.	●	●	
	Conduct an annual needs analysis which covers core skills, management capability and technical capability.	●	●	●
	Undertake competency assessment and skills audits.		●	●
	Ensure that our staff are clear about what is expected of them and their role as advocates of the City of Albany (PPDR's).		●	●
<b>Support professional and career development, planning and advancement.</b>	Develop and maintain a comprehensive, up-to-date training calendar aligned to identified needs.		●	●
	Identify difficult to replace roles and key skills.		●	●
	Ongoing development and expansion of our online learning capability 'Amity'.		●	●
	Link employee learning and development to performance expectations and accountabilities.		●	●
	Motivate and inspire staff, communicate visibly and effectively, and create opportunities for staff to collaborate and innovate.		●	●

**Theme 4 - Foster a Culture of Inclusivity, Safety, Good Health and Wellbeing**

Strategy	Action	2016/17	2017/18	2018/19
<b>Contribute to wider social objectives i.e. addressing employment of young people.</b>	Target recruitment activity at younger workers and ensure traineeships and apprenticeship positions are supported to ensure successful outcomes.	●	●	
	Identify roles which may be targeted for indigenous recruitment including traineeships as well as identifying roles which may be suitable for a proactive approach in recruiting Aboriginal people.	●	●	
	Continue to work with disability employment providers vocational training organisations, and schools to support employment or work experience placement of people with disability.		●	●
	Conduct training, offer information and support for supervisors with Aboriginal people as employees.		●	●
<b>Maintain and promote the importance of mental health and wellbeing.</b>	Develop and promote a program of health and wellbeing activities such as health assessments, skin cancer screening, gym membership discounts, flu vaccinations etc.		●	●
	Provide and actively promote an Employee Assistance Program for employees and their families.	●	●	●
<b>Maintain a healthy and safe workforce and workplace.</b>	Conduct job relevant pre-employment medicals including drug and alcohol screening.	●	●	●
	Develop and implement online OSH inductions and training.		●	●
	Implement an internal audit program to align with 3 year LGIS audit cycle.			●



Synergy Ref: NS1439711

Adoption Date:

Adoption Reference:

**CITY OF ALBANY**  
**102 NORTH ROAD YAKAMIA**  
**PO BOX 484, ALBANY, WA 6331**  
**TEL: (08) 6820 3000**  
**FAX: (08) 9841 4099**  
**WWW.ALBANY.WA.GOV.AU**



**PROJECT ASSESSMENT SHEET**

This page is for the use of the relevant Local Government Authority to be used for both community and LGA projects. Please **attach copies of council minutes** relevant to the project approval.

<b>Name of Local Government Authority:</b> City of Albany
<b>Name of Applicant:</b> Samantha Stevens – Acting Executive Manager Community Services

Note: The applicant's name cannot be changed once the application is lodged at DSR.

**Section A**

The CSRFF principles have been considered and the following assessment is provided:  
(Please include below your assessment of how the applicant has addressed the following criteria)

**All applications**

	Satisfactory	Unsatisfactory	Not relevant
Project justification	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Planned approach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Community input	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Management planning	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access and opportunity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Design	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financial viability	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Co-ordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Potential to increase Physical activity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sustainability	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Development applications only**

	Satisfactory	Unsatisfactory	Not relevant
Location	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sustainability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Co-Location	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Special Interest Group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Section B**

LGA – priority ranking of this project	Complete
Priority ranking of no of applications received	1 of 1 applications received
Is this project consistent with the	<input checked="" type="checkbox"/> Local Plan <input checked="" type="checkbox"/> Regional Plan <input checked="" type="checkbox"/> State Plan
Have all planning and building approvals been given for this project?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If no, what approvals are still outstanding?	None

**Project Rating (Please tick the most appropriate box to describe the project)**

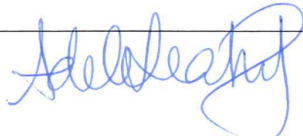
- A Well planned and needed by municipality
- B Well planned and needed by applicant
- C Needed by municipality, more planning required
- D Needed by applicant, more planning required
- E Idea has merit, more planning work needed
- F Not recommended

**Our whole  
Community wins**

**LGA comments (Required):**

- The turf has reached the end of its life, being the oldest turf in the state at 12 years old
- The replacement of the hockey turf is necessary for the continuation of hockey in the region.
- The project has been well researched, well supported has a sustainable financial model.
- This project demonstrates a successful working relationship between LGSHA and the City of Albany.
- Hockey has a strong participation and represents an important part of the regions access to sport, especially during the winter months where participation drops off
- No other feasible solution is available.

Signed



Position

Acting Rec Services  
Team Leader

Date 27.8.17

Applications for CSRFF funding must be submitted to your Department of Sport and Recreation office by **4pm on 16 September 2017**. Late applications cannot be accepted in any circumstances.

**DSR OFFICES**

**PERTH OFFICE**

246 Vincent Street  
Leederville WA 6007  
PO Box 329  
Leederville WA 6903  
Tel: (08) 9492 9700  
Fax: (08) 9492 9711

**PEEL**

Suite 94  
16 Dolphin Drive  
PO Box 1445  
Mandurah WA 6210  
Tel: (08) 9550 3100  
Fax: (08) 9550 3199

**PILBARA**

Karratha Leisureplex  
Dampier Hwy, Karratha  
PO Box 941  
Karratha WA 6714  
Tel: (08) 9182 2100  
Fax: (08) 9182 2199

**SOUTH WEST**

80A Blair Street  
PO Box 2662  
Bunbury WA 6230  
Tel: (08) 9792 6900  
Fax: (08) 9792 6999

**GREAT SOUTHERN**

22 Collie Street  
Albany WA 6330  
Tel: (08) 9892 0100  
Fax: (08) 9892 0199

**GASCOYNE**

4 Francis Street  
PO Box 140  
Carnarvon WA 6701  
Tel: (08) 9941 0900  
Fax: (08) 9941 0999

**GOLDFIELDS**

106 Hannan Street  
PO Box 1036  
Kalgoorlie WA 6430  
Tel: (08) 9022 5800  
Fax: (08) 9022 5899

**KIMBERLEY – Broome**

Unit 2, 23 Coghlan Street  
PO Box 1476  
Broome WA 6725  
Telephone (08) 9195 5750  
Facsimile (08) 9166 4999  
Mobile 0438 916 185

**WHEATBELT - NORTHAM**

298 Fitzgerald Street  
PO Box 55  
Northam WA 6401  
Tel: (08) 9690 2400  
Fax: (08) 9690 2499

**WHEATBELT – NARROGIN**

Government Offices  
Level 2, 11-13 Park Street Narrogin  
WA 6312  
Telephone 0429 881 369  
Facsimile (08) 9881 3363

**MID-WEST**

Level 1, 268-270  
Foreshore Drive  
PO Box 135  
Geraldton WA 6531  
Tel: (08) 9956 2100  
Fax: (08) 9956 2199



**Lower Great Southern Hockey Association Inc**  
PO Box 39 Albany WA 6331

---

15 August 2017

Samantha Stevens  
Acting Executive Manager Manager Community Services  
City of Albany  
PO Box 484  
ALBANY WA 6331

Dear Samantha

**Provisional Commitment for Self-Supporting Loan**

Thank you for your letter received 14 August 2017 outlining financial arrangements in relation to the replacement of the Albany synthetic hockey turf.

The Lower Great Southern Hockey Association (LGSHA) discussed the funding arrangements for the project at the Board Meeting held on Monday 14 August 2017 and is in a position to advise that the Association is able to provide provisional commitment to meet the loan repayments as per the schedule provided for a loan of \$183,000.00.

Once the project funding has been secured through the CSRFF funding, the LGSHA will need to pass a resolution through a Special General Meeting enabling the Association to formally enter into a loan arrangement.

Yours sincerely



**Geoff Sandilands**  
**PRESIDENT**



Department of  
Local Government, Sport  
and Cultural Industries





**Lower Great Southern Hockey Association Inc**  
PO Box 39 Albany WA 6331

---

28 August 2017

Sam Stevens  
Manager Recreation Services  
City of Albany  
PO Box 484  
ALBANY WA 6331

Dear Sam

**Support for Turf Replacement - Albany**

The Lower Great Southern Hockey Association (LGSHA) would like to express its support for the City of Albany's (COA) application to the Department of Local Government, Sport and Cultural Industries Community Sporting and Recreation Facilities Fund (CSRFF) for the replacement of the Albany Hockey Turf in 2018.

The current synthetic hockey turf in Albany was installed in 2005. The LGSHA is the regional body for hockey within the Lower Great Southern and the Albany hockey turf is the regional facility with games scheduled on the turf at least six days out of seven during the hockey season. Clubs and schools within the LGSHA contribute up to 700 players in 61 teams participating in junior and senior competition including an introductory Hin2H programme. In July this year, the Great Southern Hockey Carnival was hosted by the LGSHA over two days with 22 regional and Perth teams competing.

After twelve seasons of hockey, the Albany hockey turf has deteriorated to the point where it now needs to be replaced. Sections of the turf have become slippery because of tears and seams starting to give way, contributing to players falling and tripping and increasing the possibility of injury and risk management issues. Due to the carpet losing height and flexibility, water retention is becoming more noticeable within and on top of the turf surface with an increase in algae build-up.

The LGSHA and COA are concerned that if funding is not received for turf replacement in 2018 a turf assessment plan may need to be developed for use during the hockey season to ensure the safety of players. Alternatives to an unreliable and sub-standard turf include increased fixturing on grass and/or additional fixtures at the Mount Barker turf, approximately 40 minutes away. Both of these possibilities may contribute to a significant

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reduction in player numbers, particularly at the top level of competition. This in turn may have a negative impact on the growth of hockey within the Lower Great Southern Region.

In addition, a second-rate turf may reduce the Association's chance of attracting outside competition to Albany and the region.

The first Albany hockey turf was laid in 1992, at a cost of \$848,000.00. The LGSHA committed significant cash and labour support to this project; \$126,000.00 in cash, \$100,000.00 through a self-supporting loan from the City and an additional \$111,000.00 in volunteer labour. In 2005, when the turf was replaced and the sub-layer remodelled to allow for adequate drainage, the LGSHA committed \$124,000.00 (roughly one third) to this project through another self-supporting loan. The remaining two thirds of the project was funded by the COA. The self-supporting loan was settled in the 2014/2015 financial year. We believe this was a major achievement for a small volunteer association and demonstrated our commitment to providing top level facilities for our members and the sport of hockey.

It should be noted that the Albany hockey turf is one of the oldest in the state and that it has been twenty five years (1992) since the State Government through the Department of Local Government, Sport and Cultural Industries contributed financially to its replacement.

As you are aware, the LGSHA's Turf Replacement Committee has met with COA representatives to discuss a financial model for the turf replacement and have agreed to apply to use the same type of self-supporting loan. It has since been confirmed that this self-supporting loan may be up to \$183,000.00.

I have attached a letter from Mount Barker Hockey Club, a club which operates a turf in conjunction with the LGSHA regional competition. Also a letter from Hockey WA, the State Sporting Body for hockey, recognises and is supportive of the need for a new synthetic turf.

The LGSHA is committed to the funding and delivery of a start of the art surface which would help to support and grow the standard of play within the region, contribute to the growth of hockey, develop players and enable the Association to host high level hockey tournaments within the Lower Great Southern.

If you need any further information in support of the grant application please contact me on 0428 514 030.

Yours sincerely

**Geoff Sandilands**  
**PRESIDENT**



Hockey WA, PO Box 1090, Bentley MDC,  
Western Australia, 6983  
Curtin University, Hayman Road, Bentley  
Phone (08) 9351 4300, Fax (08) 9458 552  
admin@hockeywa.org.au  
www.hockeywa.org.au  
ABN: 93 502 752 344

Geoff Sandilands  
President LGSHA  
By email: [gsandilands@iinet.net.au](mailto:gsandilands@iinet.net.au)

25 August 2017

Dear Geoff,

TURF REPLACEMENT IN ALBANY:

HWA would like to express its support for the City of Albany's (COA) application to the Department of Local Government, Sport and Cultural Industries Community Sporting and Recreation Facilities Fund (CSRFF) for the replacement of the Albany Hockey Turf in 2018.

The Albany hockey turf is one of the oldest in WA and the turf was last resurfaced in 2005. The Albany hockey turf is the regional facility with games scheduled on the turf at least six days out of seven during the hockey season. Over time the turf has deteriorated to the point where it now needs to be replaced. Sections of the turf have become unplayable because of tears and seams starting to give way, contributing to players falling and tripping and increasing the possibility of injury and risk management issues. The proposed replacement will greatly improve the playing surface and therefore advance the overall standard of the hockey.

Lower Great Southern Hockey Association have seen steady growth and in 2016 with 66 teams entered, 43 of these teams were juniors and 23 were seniors, an increase from 2015 by 3 teams. During the 2016 Hockey WA Regional Road Show, HWA targeted 11 schools in Albany with more than 750 kids participating.

The LGSHA is rightly concerned that if funding is not received for turf replacement in 2018, the poor state of the turf will impact fixtures and negatively impact the popularity and growth of the sport.

Hockey WA is extremely positive towards this project and hopes for a successful CSRFF application.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Garry Fitzpatrick".

Garry Fitzpatrick  
President  
Hockey WA



PO Box 397, Mt Barker WA 6324  
[mtbarkerhockey@live.com.au](mailto:mtbarkerhockey@live.com.au)

Geoff Sandilands  
President  
Lower Great Southern Hockey Association  
PO Box 39  
ALBANY WA 6330

Dear Geoff,

Please accept this letter as an extension of our support for the Lower Great Southern Hockey Association in the replacement of the Albany hockey turf.

The Mt Barker Hockey Club supports to the Association in the pursuit of a high standard of hockey surfaces across the region, including the Albany surface.

It is well recognised, both within the Association and to a broader audience, that the Albany turf requires replacement. Issues such as seam separation, mold and wearing have become serious risk and safety issues for players due to slipping and unexpected ball lift during play. These issues mean that important fundraising and promotional activities, such as attracting high level games, are in put in jeopardy and those external to the hockey community do not benefit from the flow on effects of accommodation, hospitality and regional promotion that such crowds bring.

Hockey is one of the few winter ball sports offering an ongoing fixtured competition where both males, females and families have the opportunity to compete together. As a sport, we do not benefit from funding from our state sporting body and have consistently demonstrated our ability to be self sufficient, whilst catering to the sporting requirements of over 700+ players of all ages. In order to continue in this way, it is vital that the Albany hockey surface is of a standard that it will continue to attract new and existing players as well as high level events from beyond the region.

Given the current fixturing pressures on both the Albany and Mt Barker turfs, maintaining the Albany turf to a high standard is essential in order to maintain and continue to grow one of the largest mixed gender sports in the Great Southern.

Kind regards,

A handwritten signature in black ink, appearing to read "Rob Wright". The signature is fluid and cursive, written over a light grey background.

Rob Wright  
President,  
Mt Barker Hockey Club  
14<sup>th</sup> August 2017

Street: 244 Nanarup Rd, Albany WA  
Postal: PO Box 1151, Albany WA 6331  
T: (08) 9844 0300  
F: (08) 9844 0380  
E: reception@gsg.wa.edu.au  
W: gsg.wa.edu.au  
ABN:29 973 249 677  
CRICOS Code 03178E

**27 August 2017**

**To Who It May Concern**

**Great Southern Grammar is an independent co-educational boarding school located in Albany. Our student population consists of 789 students which includes 125 residential boarders.**

**Hockey is one of the key sports at Great Southern Grammar. We have increased our team numbers from 9 teams and 99 players in 2008 to 16 teams and 202 players in 2017. This represents an approximate 100% increase in players over 9 years. (See attached chart)**

**The current Albany hockey facility is showing signs of wear including; an uneven playing surface due to gluing down small tears, a slippery surface due to a worn out pile and uneven bounce. The deteriorating surface has the potential to lead to greater and more severe injuries for our students.**

**The school also has difficulty in finding suitable training times on the synthetic surface in Albany due to the large volume of games and training times. The only other viable hockey turf is in Mt Barker. This is a 100 kilometre round trip for parents and players and we have particular difficulty transporting boarding students to this venue. If training or more games are played in Mt Barker this would have a detrimental effect on our student's ability to play hockey and they may drop out of the game.**

**Our school is planning to have a multi-purpose synthetic field that would mainly be designed for six tennis courts but could be used for hockey training for younger grades. This surface will not be built for 5-10 years. Subsequently it is important that Albany have a suitable playing surface for hockey.**

**Great Southern Grammar strongly supports a replacement hockey surface in Albany in order to improve the number of student participants, provide a better playing surface for all players and to assist in developing our elite and sub-elite level players.**

**Yours sincerely**

**Adam Scott**

**Head of Middle School and Teacher in Charge of Hockey**



# PROPOSED FRENCHMAN BAY HERITAGE TRAIL

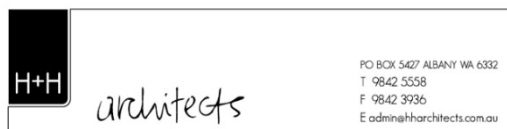


## FEASIBILITY STUDY

PREPARED BY H+H ARCHITECTS FOR THE FRENCHMAN BAY ASSOCIATION

FUNDED BY LOTTERYWEST

**SEPTEMBER 2015**



# CONTENTS

<b>EXECUTIVE SUMMARY</b>	<b>3</b>
<b>INTRODUCTION</b>	<b>5</b>
The Purpose of the Heritage Trail Project	5
Purpose of Feasibility Report	6
Funding for Feasibility Report	6
<b>OVERVIEW OF PROPOSED TRAIL SITE</b>	<b>7</b>
Location and Ownership	7
Heritage Significance of the Site	7
Process of Development and Engagement	9
<b>PROPOSED TRAIL</b>	<b>10</b>
Outline of Proposed Trail	10
Environmental Considerations	11
Construction of Trail	11
Elements and Interpretive Nodes along the Trail	12
Indicative Costs	13
Potential Future Phases	13
<b>STAGING OF DEVELOPMENT</b>	<b>13</b>
<b>ATTACHMENTS</b>	<b>14</b>
1) Plan of Proposed Trail	
2) State Register Heritage Assessment Documentation	
3) The Heritage of Frenchman Bay	
4) Indicative Cost Estimate	
5) Interpretative Information	

Cover page : Louis de Sainson's 1826 painting of water being collected from the springs at Stream Bay (Whalers Beach)

## EXECUTIVE SUMMARY

This feasibility study (made possible by a grant from Lotterywest) has been prepared for the Frenchman Bay Association (FBA) and outlines a proposal to create a Heritage Trail (the 'Trail') at Whalers Beach, Frenchman Bay, Albany. The Trail would run along the escarpment between the existing stairs at the western and eastern ends of the beach. The stairs lead from the escarpment to the beach, forming a circular route. The section of the Trail on the escarpment would be constructed with a stabilised limestone base and the beach itself would constitute the lower section of the Trail.

The project's overall objective is to commemorate, preserve and share with visitors the rich heritage of this historic section of Frenchman Bay. In addition to the construction of the path, the intention is to provide two sheltered areas to view the expanse of Whalers Beach, plus interpretive signage that would explain the cultural and historical significance of the location. The signage would describe:

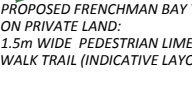
- stories of the Noongar people and their early contact with Europeans;
- the critical importance of the fresh water springs to Vancouver, Flinders, Baudin and the other navigators who followed;
- the Vancouver Dam, still in existence, that was so important to the development of Albany;
- the quarantine station on Mistaken Island;
- the Norwegian Whaling Station of which so little remains;
- the wrecks on the beach;
- the colourful history of the islands seen from the escarpment;
- the work of the early botanists, and the visit of Charles Darwin; and
- other events, places and persons of interest.

A world-class Heritage Trail at Frenchman Bay would add to the concentration of tourism attractions on Torndirrup Peninsula. Its appeal to tourists would lay not only in the panoramic scenery but also in the rich and largely unknown history of the location. Access would be free and open to visitors of all ages.

Important infrastructure is already in place in the project area - toilets, BBQ areas and a swimming beach. Discovery Bay, and its café, is close by.

The proposed Concept Plan for the Trail is shown on the following page.

**LEGEND**

-  EXISTING WALK TRAILS
-  EXISTING POWER LINE
-  EXISTING CONTOUR LINES
-  PROPOSED FRENCHMAN BAY TRAIL ON PUBLIC LAND: 1.5m WIDE PEDESTRIAN LIMESTONE WALK TRAIL (INDICATIVE LAYOUT)
-  PROPOSED FRENCHMAN BAY TRAIL ON PRIVATE LAND: 1.5m WIDE PEDESTRIAN LIMESTONE WALK TRAIL (INDICATIVE LAYOUT)
-  PROPOSED PATH & STEPS TO VANCOUVER SPRING: 1.5m WIDE PEDESTRIAN LIMESTONE WALK TRAIL (INDICATIVE LAYOUT)
-  PROPOSED STEPS ADJACENT TO EXISTING HERITAGE STEPS: 1.5m WIDE PEDESTRIAN LIMESTONE WALK TRAIL (INDICATIVE LAYOUT)
-  PROPOSED FRENCHMAN BAY TRAIL: BEACH
-  PROPOSED LOCATION OF NEW TRAIL HEAD, TRAIL INFORMATION POINT OR INFORMATION NODE WITH INTERPRETIVE STRUCTURE
-  PROPOSED LOCATION FOR INFORMATION NODES WITH 'INTERPRETIVE SIGNAGE' (INDICATIVE LAYOUT)
-  PROPOSED LOCATION FOR 'DIRECTIVE SIGNAGE', DIRECTIVE SIGNAGE IN NEW PATH WAY CAST IN LIME STONE COLOURED CONCRETE TO FORM A DISTINGUISHED SECTION IN NEW LIME STONE WALK TRAIL (INDICATIVE LAYOUT)
-  FRENCHMAN BAY WHALING STATION (RUIN)  
HERITAGE REGISTER PLACE 16612

NEW INFORMATION NODE WITH INTERPRETATIVE STRUCTURE



NEW INFORMATION NODE WITH INTERPRETIVE STRUCTURE & SEATING - VIEWING POINT AND A PLACE TO REFLECT



VANCOUVER DAM - NEW VIEWING PLATT FORM



TIMBER DECKED VIEWING PLATFORM WITH TIMBER SEAT AND A TIMBER BOARD WALK FORMING THE TRANSITION TO NEW LIMESTONE PATHWAY

REPORT ITEM DIS 045 REFERS

TRAIL HEAD - INTERPRETATION



TRAIL HEAD - INTERPRETATION STRUCTURE & SEATING

'DIRECTIVE SIGNAGE'



'DIRECTIVE SIGNAGE' IN NEW PATH WAY CAST IN LIME STONE COLOURED CONCRETE TO FORM DISTINGUISHED SECTION IN NEW LIME STONE WALK TRAIL (INDICATIVE LAYOUT)

PATHWAYS



STABILISED LIME STONE WALK TRAILS

SEATING



CONCRETE OR QUARY-CUT GRANITE BLOCK SEATING TO NEW TRAIL HEAD & ALONG NEW PATH WAYS



**Proposed Concept Plan - Draft**

WITH INDICATIVE STRUCTURES, MATERIALS AND INTERPRETATION OPTIONS

SCALE 1:1500 @ A1

INDICATIVE INTERPRETATION OPTIONS





### **The Purpose of the Feasibility Report**

The purpose of this report is to:

- explain the rationale for the Trail;
- describe the heritage values of the site;
- map the proposed route;
- identify any environmental impacts in regard to site erosion, disturbance of flora, aesthetics and safety;
- suggest the location and content of the interpretative signage; and
- estimate the cost of construction of the various elements of the Trail

The report will be used to consult further with stakeholders and to approach: (i) various authorities for approvals; and (ii) funding bodies for support.

### **The Funding for the Feasibility Report**

The funding for this feasibility study was provided by a grant from Lotterywest (Grant 421005719).



Picnic group posing on the jetty carrying a pipeline from the P&O Dam to a water lighter towed by the SS Bruce c.1904

# OVERVIEW OF PROPOSED TRAIL SITE

## Location and Ownership

The site for the proposed Heritage Trail is located on the City of Albany Reserve located between Vancouver Road and Frenchman Bay, along the northern boundary of privately owned Lots 1 and 2 Frenchman Bay Road and along Whalers Beach.

## Heritage Significance of the Site

Frenchman Bay has considerable historical significance, some of which has been formally recognised by the Heritage Council of Western Australia through inclusion on the State Register of Heritage Places. A section of the bay incorporates the Frenchman Bay (Norwegian) Whaling Station (ruin), Whalers Beach, Vancouver Spring and Vancouver Dam. The Frenchman Bay Whaling Station (ruin) (1914) is a Permanent Entry (Place No. 16612) on the State Register of Heritage Places. The extent of the registered place is shown on the Heritage Council of Western Australia diagram (Attachment 2).

The statement of significance from the Register is included below.

*'Frenchman Bay Whaling Station (ruin), has cultural heritage significance for the following reasons:*

*the place has considerable value as an archaeological site, being rare as a place where the original purpose is clearly apparent, thus having the ability to reveal characteristics of the early structures of the place;*

*the place was established in the 20th century and represented an attempt to re-establish the whaling industry in Western Australia;*

*the freshwater spring has historical significance with recorded use over more than 200 years, and usage also predating European settlement;*

*the set of concrete steps built in 1914 has aesthetic value as a rustic and aged element in the natural beach and bush setting; and,*

*the place is important for its association with the Norwegian and other Scandinavian whaling men who worked in a harsh, noxious and often dangerous industry in an isolated environment.*



The P&O Dam above Whalers Beach c.1870



The Norwegian Whaling Station at Whalers Beach c.1915

The FBA has undertaken considerable research into the history of the Frenchman Bay area. This research has been informed by the Assessment Documentation compiled by the Heritage Council of Western Australia as part of the process of placing the Frenchman Bay Whaling Station on the State Register of Heritage Places.

The FBA has prepared a document entitled 'The Heritage of Frenchman Bay' to support the construction of the proposed Heritage Trail. A copy of this document and the Heritage Council of Western Australia Assessment documentation are included as Attachments 2 and 3.

There are few written stories of Noongar people that are particular to Frenchman Bay and during the next stage it is proposed to fund an archaeologist/anthropologist who could work with Noongar families to recover stories that could be incorporated in the interpretative signage. In addition, the early British and French navigators and their teams of natural scientists; American sealers; British whalers; the Vancouver Dam that supplied Albany with fresh water; and the Norwegian whaling station will all form part of the signage narrative along the proposed Trail.

This location should become a major tourist destination. There are few sites along the Australian coast that have so much history concentrated into such a small geographical area. However, the rich history of this area is not well publicised and is in danger of being lost. We believe that there is the potential for visitors from around Australia and overseas to make this place a major destination when they visit Albany.



## Process of Development and Engagement

In preparing this report various stakeholder groups and individuals were consulted to ascertain their views on the type, location and impact of the proposed Trail. Several inspected the proposed Trail circuit accompanied by the FBA and H + H team members. Organisations, listed in alphabetical order, that were consulted include:

- Aurora Environmental
- Albany Historical Society
- Albany Museum
- Albany Public Library
- City of Albany
- Department of Water
- Department of Parks and Wildlife
- Discovery Bay
- Great Southern Development Corporation
- Kinjarling Trail Project Committee
- Noongar traditional Indigenous land owners
- South Coast Natural Resource Management



H+H Architects onsite with Aurora Environmental during the early stages of the Feasibility Study

# PROPOSED TRAIL

## Outline of Proposed Trail

The proposed Trail can be considered in four parts (Attachment 1):

**Part 1** – is the lower portion of the Trail and encompasses Whalers Beach. It commences from a new Trail Head to be located in the upper car park across from the ablution block. The lower portion of the Trail then leads down the access road to the existing lower car park/picnic area at the eastern end of the beach and extends along the beach to the existing steps at the western end.

**Part 2** - runs along the top of the escarpment through the City of Albany Reserve from the steps at the western end of Whalers Beach to the western edge of the privately owned Lots 1 and 2, Frenchman Bay Road ('Lots 1 and 2').

**Part 3** - consists of a staircase leading from the Trail to a viewing platform situated above the Vancouver Dam.

**Part 4** - runs along the escarpment within the privately owned Lots 1 and 2 to the Trail Head located across from the ablution block in the upper car park area above the eastern end of the beach.

There is also an alternative entrance to the Trail at the lookout on Vancouver Road, as mentioned below and shown in Attachment 1. Existing and additional signage will also direct walkers to the main Trail at this entrance.

Depending on the availability of funding, the Trail could be constructed on a part-by-part basis. It would be preferable, however, to build the Trail as a single development.

The proposed route is intended to wind along the top of the escarpment to maximise the view of King George Sound, but also to bring walkers in close proximity to the unique vegetation of the Great Southern District. It is anticipated that there will be different levels of use of the Trail:

- locals who would use the Trail regularly;
- visitors from Perth and other locations in WA who are exploring the south coast; and
- national and international tourists.

The primary Trail Head would be to the side of the existing car park at the end of Frenchman Bay Road. Toilets are conveniently located at the car park. It will have signage showing a map of the Trail and describing key features.

An important and largely unknown historical feature of Frenchman Bay is Vancouver Dam, which was the only source of water to Albany in the early 20<sup>th</sup> century. In order to avoid disturbance to the vegetation and soil, steps will lead down from the escarpment to a viewing platform situated above the dam. Signage will provide photos of the Dam in the early days and explain its significance.

One of the best vantage points is located midway along the escarpment. It will have a major display, seating and a shelter. This node can be accessed from the existing Vancouver Lookout and this location will provide a second car park and an alternative entry point to the Trail.

Shelters, aesthetically sculpted, will be provided at the Trail Head and mid-way along the escarpment to protect walkers from the rain.

The section of the Trail that runs along the top of the escarpment across the privately owned Lots 1 and 2 would be situated within the required coastal set back and in accordance with the City of Albany's zoning ordinances. The exact siting of the path would most likely follow the existing cleared section on the coastal perimeter of Lots 1 and 2 and would be undertaken in consultation with the owners or their representatives.

## Environmental Considerations

Aurora Environmental consultant Melanie Price and Landscape Consultant Sally Malone viewed the proposed Trail location and provided advice about the siting of the Trail and its construction. The route of the proposed Trail takes account of their advice.

In summary, the four main threats are dieback (*Phytophthora cinnamomi*); erosion; disturbance to rare or endangered flora; and fire.

Dieback is present across the study area. This infestation has most likely been due to the earlier introduction of contaminated soil. The vegetation is dieback-susceptible and there is evidence of recent vegetation death. The soil is sandy, free draining and with appropriate trail construction and siting dieback on the site can be managed.

The topography is steep from the escarpment to the beach below. The Trail should be sited well back from the ridge, except where there are opportunities for viewpoints and interpretation facilities at specified locations along the proposed trail alignment. The topography and environmental considerations may constrain the width and therefore a limestone path is initially preferred to a dual use path.

The site contains unique vegetation types, including *xanthorrea* close to the beach and fairly intact banksia woodland. A sensitive approach in these areas is required. For this reason, the Trail pathway should wind around the banksia woodland and avoid, during construction, other unique vegetation types

Fire management will be necessary. The access track under the Western Power powerlines appears to also serve as a permanent strategic firebreak. If confirmed, this will need to be considered in the final fire management design.

Any clearing of new sections of the Trail will require permits from the Department of Parks and Wildlife.

## Construction of the Trail

After consideration of advice from the City of Albany Reserves Officers, Aurora Environmental consultants and landscaping consultants it has been determined that the most appropriate trail path is a 1500mm wide stabilised limestone path. This should minimise any risk of dieback and erosion. The path would be constructed in a manner that would enable it to be widened and sealed in a future stage if the need arose.

The key elements and 'signage nodes' along the Trail have been identified and costed. The nodes are identified on the attached plan (Attachment 1). The information shown is indicative only and will be designed when the final budget is known.



Views across the escarpment showing the steep topography



Example of the typical pathways already established onsite

## Elements and Interpretive Nodes along the Trail

Eleven node points have been identified:

**Node 1** - An 'information' node should anyone enter the Trail from Goode Beach. Orientation information will be provided on the directions and the length of the Trail.

**Node 2** - A 'Context' node on the edge of the scarp that provides a broad context for Frenchman Bay and the Trail. There is also an opportunity to provide information on the flora and fauna within the area.

**Node 3** - A 'Significant' node that will incorporate a covered 'iconic' lookout with seating. Information will be provided about Frenchman Bay and Mistaken, Seal and Michaelmas Islands

**Node 4** - A 'Start' node for visitors approaching the Trail from the Vancouver Road car park. Orientation information will be provided on the directions and the length of the Trail. Information will also be provided on 'The Frenchman Bay Story'

**Node 5** - A 'Directional' node to provide directions to Vancouver Dam

**Node 6** - A 'Significant' node that will incorporate timber steps and a timber viewing deck. Information will be provided on the Vancouver Dam site. The exact location of the steps and deck will be determined in consultation with the traditional owners of the area to ensure that the course of the natural stream is not disturbed.

**Node 7** - A 'Significant' node. Information will be provided on the former Hostel and Tea Rooms and on the concrete steps to the beach.

**Node 8** - The 'Trail Head' node - for visitors approaching the Trail from the Frenchman Bay Road car park. Orientation information will be provided on the directions and the length of the Trail. Information will also be provided on Bald Head and 'The Frenchman Bay Story'. The 'Trail Head' node will also incorporate a covered area and seating.

**Node 9** - A 'Significant' node. Information will be provided on the former Norwegian whaling station.

**Node 10** - A 'Significant' node. Information will be provided on the discharge stream from Vancouver Spring.

**Node 11** - A 'Significant' node. Information will be provided on various wrecks – *Elvie* and *Rip*.

Details of the information to be conveyed at the significant node points is outlined in the attached document (Attachment 5).

### Indicative Costs

An Indicative Cost Estimate has been prepared by Chris O'Keefe -Quantity Surveyor and Construction Cost Consultant (Attachment 4).

The estimate of \$370,000.00 (Excl GST) includes an allowance for:

- the construction of the Trail;
- the various structures;
- the interpretive panels;
- professional fees; and
- design and contract contingencies
- archaeological survey of Noongar heritage

### Potential Future Phases

The proposed Trail is considered a worthwhile stand-alone initiative that will add value to a location that deserves much more recognition and protection. However, it will be undertaken so that it can, if it became desirable, become a section of the much larger and more ambitious network of trails that were reflected in the Kinjarling Trail proposal dating back several years. There are logical extensions of this section of pathway, leading in one direction to Discovery Bay and the Bald Head Walking Trail, and in the other to Little Grove and eventually Albany city centre and beyond.

## STAGING OF THE DEVELOPMENT

It is probable that the project will need to be completed in stages as funds become available. The stages in priority order are:

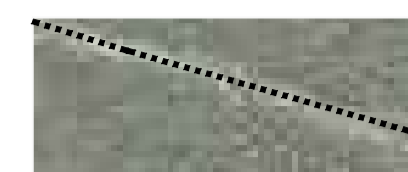
- a) Construction of the stabilised limestone path.
- b) The construction of the main Trail Head (Node 8) and interpretation information at the Vancouver Road car park (Node 4).
- c) Viewing shelter and associated interpretation (Node 3); the steps and viewing deck at the Vancouver Dam site (Node 5); and the interpretation signs associated with the dam and the spring (Nodes 5, 6 and 10).
- d) New steps to Whalers Beach (Node 7)
- e) Other Interpretation nodes (Nodes 1, 2, 9 and 11).

**ATTACHMENT 1** - Plan of Proposed Trail

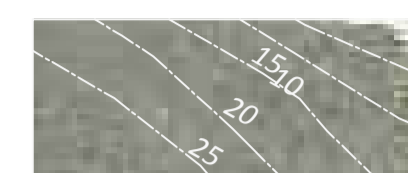
**LEGEND**



EXISTING WALK TRAILS



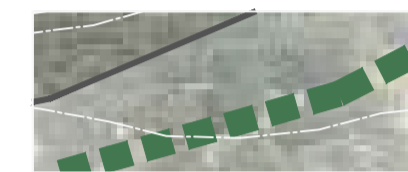
EXISTING POWER LINE



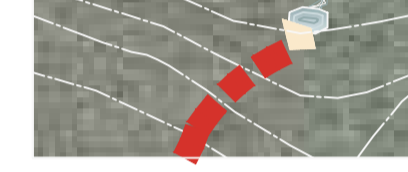
EXISTING CONTOUR LINES



PROPOSED FRENCHMAN BAY TRAIL ON PUBLIC LAND: 1.5m WIDE PEDESTRIAN LIMESTONE WALK TRAIL (INDICATIVE LAYOUT)



PROPOSED FRENCHMAN BAY TRAIL ON PRIVATE LAND: 1.5m WIDE PEDESTRIAN LIMESTONE WALK TRAIL (INDICATIVE LAYOUT)



PROPOSED PATH & STEPS TO VANCOUVER SPRING: 1.5m WIDE PEDESTRIAN LIMESTONE WALK TRAIL (INDICATIVE LAYOUT)



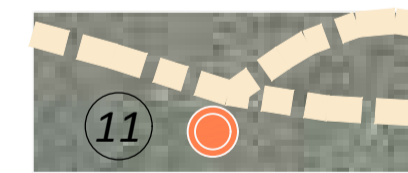
PROPOSED STEPS ADJACENT TO EXISTING HERITAGE STEPS: 1.5m WIDE PEDESTRIAN LIMESTONE WALK TRAIL (INDICATIVE LAYOUT)



PROPOSED FRENCHMAN BAY TRAIL: BEACH



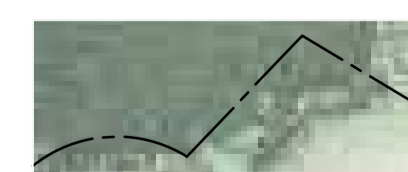
PROPOSED LOCATION OF NEW TRAIL HEAD, TRAIL INFORMATION POINT OR INFORMATION NODE WITH INTERPRETIVE STRUCTURE



PROPOSED LOCATION FOR INFORMATION NODES WITH 'INTERPRETIVE SIGNAGE' (INDICATIVE LAYOUT)



PROPOSED LOCATION FOR 'DIRECTIVE SIGNAGE'. DIRECTIVE SIGNAGE IN NEW PATH WAY CAST IN LIME STONE COLOURED CONCRETE TO FORM A DISTINGUISHED SECTION IN NEW LIME STONE WALK TRAIL (INDICATIVE LAYOUT)



FRENCHMAN BAY WHALING STATION (RUIN) HERITAGE REGISTER PLACE 16612

NEW INFORMATION NODE WITH INTERPRETATIVE STRUCTURE



NEW INFORMATION NODE WITH INTERPRETIVE STRUCTURE & SEATING - VIEWING POINT AND A PLACE TO REFLECT

VANCOUVER DAM - NEW VIEWING PLATT FORM



TIMBER DECKED VIEWING PLATFORM WITH TIMBER SEAT AND A TIMBER BOARD WALK FORMING THE TRANSITION TO NEW LIMESTONE PATHWAY

REPORT ITEM DIS 045 REFERS

TRAIL HEAD - INTERPRETATION



TRAIL HEAD - INTERPRETATION STRUCTURE & SEATING

'DIRECTIVE SIGNAGE'



'DIRECTIVE SIGNAGE' IN NEW PATH WAY CAST IN LIME STONE COLOURED CONCRETE TO FORM DISTINGUISHED SECTION IN NEW LIME STONE WALK TRAIL (INDICATIVE LAYOUT)

PATHWAYS



STABILISED LIME STONE WALK TRAILS

SEATING



CONCRETE OR QUARY-CUT GRANITE BLOCK SEATING TO NEW TRAIL HEAD & ALONG NEW PATH WAYS



**Proposed Concept Plan**

WITH INDICATIVE STRUCTURES, MATERIALS AND INTERPRETATION OPTIONS

SCALE 1:1500 @ A1

INDICATIVE INTERPRETATION OPTIONS



SCULPTURES

STRUCTURES

WALLS & SCREENS

FLOORS

PANELS



**ATTACHMENT 2** - State Register of Heritage Places - Assessment Documentation





# REGISTER OF HERITAGE PLACES

## Permanent Entry

1. **DATA BASE No.** 16612
2. **NAME** *Frenchman Bay Whaling Station (ruin)* (1914)  
OTHER NAME Norwegian Whaling Station
3. **LOCATION** Whalers Beach, Frenchman Bay Road, Albany
4. **DESCRIPTION OF PLACE INCLUDED IN THIS ENTRY**  
Portion of Lot 300 on Deposited Plan 46683 being part of Reserve 21337 and part of the land contained in Crown Land Title Volume 3136 Folio 715 and Lot 301 on Deposited Plan 53420 being unallocated Crown land and the whole of the land contained in Crown Land Title Volume 3149 Folio 236 as shown on Heritage Council of Western Australia Survey Drawing 16612 (DP53432) prepared by Midland Survey Services.
5. **LOCAL GOVERNMENT AREA** Shire of Albany
6. **OWNER** State of Western Australia  
(As to Reserve 21337. Management Order to the City of Albany)
7. **HERITAGE LISTINGS**

Register of Heritage Places:	Permanent Entry	02/09/2008
National Trust Classification:		-----
Town Planning Scheme:		-----
Municipal Inventory (Vancouver Spring):	Adopted	30/06/2001
Register of the National Estate:		-----
8. **CONSERVATION ORDER**  
-----
9. **HERITAGE AGREEMENT**  
-----
10. **STATEMENT OF SIGNIFICANCE**  
*Frenchman Bay Whaling Station (ruin)*, has cultural heritage significance for the following reasons:  
  
the place has considerable value as an archaeological site, being rare as a place where the original purpose is clearly apparent, thus having the ability to reveal characteristics of the early structures of the place;

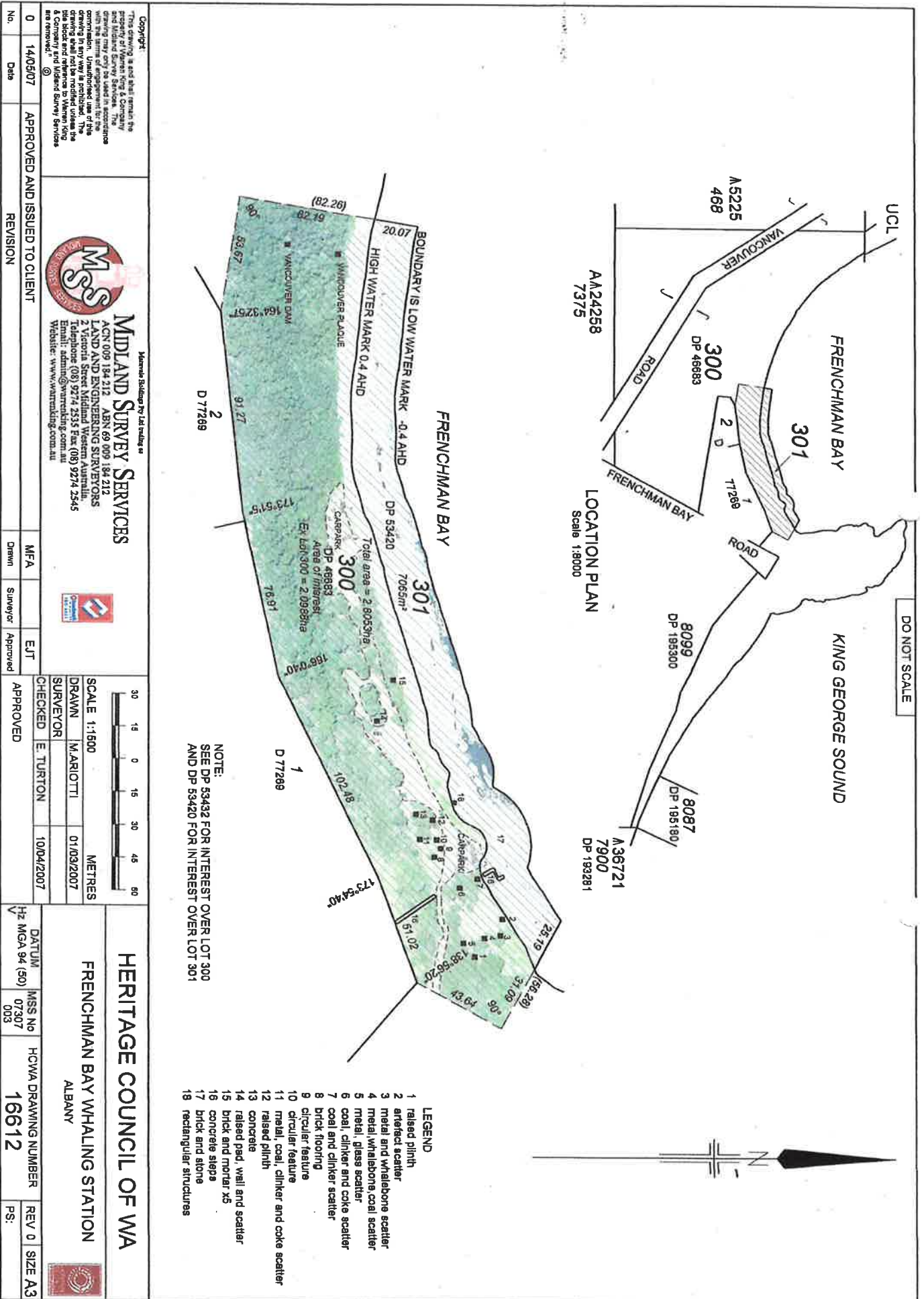
the place was established in the 20th century and represented an attempt to re-establish the whaling industry in Western Australia;

the freshwater spring has historical significance with recorded use over more than 200 years, and usage also predating European settlement;

the set of concrete steps built in 1914 has aesthetic value as a rustic and aged element in the natural beach and bush setting; and,

the place is important for its association with the Norwegian and other Scandinavian whaling men who worked in a harsh, noxious and often dangerous industry in an isolated environment.

The buildings associated with the former hostel and caravan park have some significance for their social and historical value but are outdated and substandard for the purpose for which they are intended and are not readily redeemable.





## REGISTER OF HERITAGE PLACES - ASSESSMENT DOCUMENTATION

### 11. ASSESSMENT OF CULTURAL HERITAGE SIGNIFICANCE

The criteria adopted by the Heritage Council in November 1996 have been used to determine the cultural heritage significance of the place.

#### PRINCIPAL AUSTRALIAN HISTORIC THEME(S)

- 1.4 Appreciating the natural wonders of Australia
- 3.3.2. Fishing and whaling
- 3.23 Catering for tourists
- 5.1 Working in harsh conditions

#### HERITAGE COUNCIL OF WESTERN AUSTRALIA THEME(S)

- 106 Workers (incl. Aboriginal, convict)
- 305 Fishing & other maritime industry
- 311 Hospitality industry & tourism
- 503 Natural disasters

#### 11.1 AESTHETIC VALUE\*

*Frenchman Bay Whaling Station (ruin)*, in association with the hostel and tearoom buildings on the bluff, contributes to the attractive seaside beach environment that is a popular picnic area. (Criterion 1.1)

*Frenchman Bay Whaling Station (ruin)* is important for its ability to reveal aesthetic characteristics of the early structures of the place. (Criterion 1.1)

The concrete steps of *Frenchman Bay Whaling Station (ruin)*, that lead from the beach to the bluff, have aesthetic value as a rustic and aged element in the natural beach and bush setting. (Criterion 1.3)

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\* For consistency, all references to architectural style are taken from Apperly, R., Irving, R., Reynolds, P. *A Pictorial Guide to Identifying Australian Architecture. Styles and Terms from 1788 to the Present*, Angus and Robertson, North Ryde, 1989.

For consistency, all references to garden and landscape types and styles are taken from Ramsay, J. *Parks, Gardens and Special Trees: A Classification and Assessment Method for the Register of the National Estate*, Australian Government Publishing Service, Canberra, 1991, with additional reference to Richards, O. *Theoretical Framework for Designed Landscapes in WA*, unpublished report, 1997.

## 11.2 HISTORIC VALUE

*Frenchman Bay Whaling Station (ruin)* was established by a Norwegian based whaling company as part of the expansion of their activities in the southern hemisphere, and operated from 1914 to 1916. The place therefore represents an association with Norway, one of very few countries to continue whaling to the present. (Criterion 2.1)

*Frenchman Bay Whaling Station (ruin)* was the first station established in WA in the 20th century and represented an attempt to re-establish the industry on the south coast of the State on a larger scale than had been previously practised. (Criteria 2.1 & 2.2)

The freshwater spring has historical significance with recorded use over more than 200 years, predating European settlement, and including the visits of Captain George Vancouver in 1791, Dumont D'Urville's *Astrolabe* in 1827, American whalers in the 19th century, as a water supply for ships calling into the port at Albany from 1900 to 1912, used by *Frenchman Bay Whaling Station (ruin)* from 1912-16 and the Frenchman Bay hostel and caravan park from the 1930s. (Criterion 2.1)

Frenchman Bay has been a popular seaside holiday resort from as early as the 1890s, enhanced by the construction of the hostel in 1936 and establishment of the caravan park in 1959. (Criterion 2.2)

*Frenchman Bay Whaling Station (ruin)* is important for its association with the Norwegian and other Scandinavian whaling men who worked in a harsh, noxious and often dangerous industry in an isolated environment far from their homes. (Criterion 2.3)

*Frenchman Bay Whaling Station (ruin)* marked a new era of whaling with technological advancements such as steam-powered ships and machinery and the use of explosive harpoons that increased industry effectiveness and safety. (Criterion 2.4)

## 11.3 SCIENTIFIC VALUE

*Frenchman Bay Whaling Station (ruin)* contributes to a wider understanding of the cultural history of the district and the State and has high importance as a possible teaching and research site. It contains within its boundaries 18 archaeological sites associated with the first Western Australian whaling station to use modern whale catching and processing techniques. In addition, there is high potential for subsurface, minimally disturbed archaeological remains. (Criterion 3.1)

*Frenchman Bay Whaling Station (ruin)* was the first permanent European occupation of this part of King George Sound. Its operation had a significant but short economic impact on Western Australia and the Albany area. The potential therefore to yield further information about the region's early European cultural history through the archaeological record is high. (Criterion 3.2)

## 11.4 SOCIAL VALUE

*Frenchman Bay Whaling Station (ruin)* has social significance for its historical associations as an early 20th century whaling station and as a popular site for seaside holidays. (Criteria 4.1 & 4.2)

**12. DEGREE OF SIGNIFICANCE****12.1 RARITY**

*Frenchman Bay Whaling Station (ruin)* is rare as a group of archaeological sites at a place where the original purpose is clearly apparent. The station was the first whaling station in Western Australia to use modern whaling catching and processing techniques, and therefore serves as a benchmark site for the later Australian whaling industry. (Criterion 5.1)

*Frenchman Bay Whaling Station* is rare as a place in Western Australian settled and operated exclusively by men of non-British decent. (Criterion 5.1)

The place is uncommon for its combination of a popular holiday destination directly adjacent to the whaling industry. (Criterion 5.1)

The archaeological remains of *Frenchman Bay Whaling Station* provide a physical reminder of a way of life and an industry no longer practiced. (Criterion 5.2)

**12.2 REPRESENTATIVENESS**

*Frenchman Bay Whaling Station (ruin)* is a ruin representative of the former whaling industry in Western Australia. (Criterion 6.1)

**12.3 CONDITION**

*Frenchman Bay Whaling Station (ruin)* archaeological sites are in a disturbed but sound condition. In addition, the sites are presently not under threat and their condition will not alter if land uses remain unchanged. However, the use of some of the remains for picnic seating is severely detrimental to the place, and this practice needs to be discouraged. The historical record shows use of the beach area as a garden, with the eastern section dug for manure, but there is high potential for undisturbed archaeological remains 20cm below the surface over the rest of the site.

**12.4 INTEGRITY**

*Frenchman Bay Whaling Station (ruin)* is in poor condition with all elements beyond restoration. The site presents interpretive opportunities, but it has a low degree of integrity. The set of concrete steps has high integrity and continues to function in its original intention.

**12.5 AUTHENTICITY**

There is some evidence of recent unsympathetic changes to the remaining fabric, but generally, *Frenchman Bay Whaling Station (ruin)* displays a high degree of authenticity.

### 13. SUPPORTING EVIDENCE

The documentation for this place is based on the heritage assessment completed by Irene Sauman, Historian and Shane Burke, Archaeologist, in October 2006, with amendments and/or additions by HCWA staff and the Register Committee.

#### 13.1 DOCUMENTARY EVIDENCE

*Frenchman Bay Whaling Station (ruin)* comprises the site and remnants of a bay whaling station established in 1915 by the Norwegian owned Spermacet Whaling Company at Whalers Beach on Frenchman Bay, Albany. On the bluff above the beach are a 1936 former hostel/tearoom and 1960s caravan park, with associated outbuildings.

Frenchman Bay was chosen as the site of the Spermacet Company's operations because of an ample supply of fresh water and shelter from the prevailing weather. However, the limited nature of this shelter is shown by the number of wrecks in Frenchman Bay and the erosion of the beach during heavy storms.

The water supply at Frenchman Bay was first charted by Captain George Vancouver during his exploratory journey along the coast in September 1791. He watered his ships here at a freshwater spring, which is now marked by a memorial erected by the Albany Historical Society. American whalers who operated off the south coast in the 1800s also watered their ships at the spring, and in 1827 Louis de Sainson painted a meeting between local Aboriginal people and the sailors of the *Astrolabe* while the latter collected fresh water at Frenchman Bay. This painting, showing the saddle-backed rock at the tip of Waterbay Point, hangs in the Western Australian Art Gallery.

The site was marked as a watering place in the 1870s, although not officially gazetted as such until 1893, when it became Reserve 2295 as a watering place for travellers and stock.<sup>1</sup>

In 1900, Captain Alex Armstrong and his partner, Waters, leased two acres of the Reserve at a cost of £1 per year for the purpose of providing water for the steamers that called at the Albany port. The water supply at the port at this time was not suitable for the boilers of the steamers, which required water uncontaminated with minerals. The Road Board considered it good sense to make the port more welcoming to all shipping, but it would only provide a lease for twelve months at a time with a six-month cancellation clause so as not to tie up the resource should it need it for its own proposed town water supply scheme.<sup>2</sup>

In 1902, Armstrong complained that the issue of twelve-monthly leases did not give him security of tenure to improve the site, which he needed to do in order to provide a sufficient supply, as some ships were leaving Albany without a full supply of water and this was giving the port a bad name. The terms of the lease do not appear to have been increased, but Armstrong undertook the improvement work anyway. A sketch map drawn by the Albany District Surveyor's Office in February 1912 shows that Armstrong had made an excavation and dammed the spring, and built a 200-foot jetty with pipes from the dam to the head of the jetty

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<sup>1</sup> Department of Land Information (DLI), Reserves Index & Correspondence 29-3-1900, File for Reserve 2295, SROWA, ACC 541 Item 3172/1900.

<sup>2</sup> File for Reserve 2295, Item 3172/1900, op cit.

where lighters were loaded with water for transport to the Town Jetty. The improvements had cost between £500 and £600.<sup>3</sup>

The Road Board established its own town water supply in 1912, and Armstrong and Water's lease ended in December that year. The Road Board did not want competing supplies for the port as the provision of water and other facilities for shipping there was a major source of revenue.<sup>4</sup>

American whalers were operating in the Indian Ocean after 1789 and had visited King George Sound before the end of 1828.<sup>5</sup> By 1837, two whaling companies were operating out of Western Australia: the Fremantle Whaling Company (established February 1837) based at Bather's Beach in Fremantle and the Perth Whaling Company on Carnac Island. The first whale was caught by their combined efforts on 10 June 1837:

This day will be memorable in the annals of the Colony for the killing of the first whale. At Perth, great firing was heard in the direction of Fremantle and it was supposed that a ship had arrived, but a messenger came in breathless haste to say that boats had struck a whale and were engaged with it. This was all that was known when I came away but everyone was running about elated with the news; I went to Fremantle on Thursday with the Governor and others, to examine a jetty and proposed tunnel which has been projected to be cut through a hill there giving an easy access from the beach to the main street. The plan is quite practicable and not very expensive for the distance is only eighty yards and the rock is soft limestone.<sup>6</sup>

The tunnel provided direct access to Fremantle for the sale of whale goods to the community. In that first year of operations, whaling generated revenue of £3,000 from 100 tons of oil and 5 tons of whalebone. By comparison, American whalers earned £30,000 that year from the same coastline.<sup>7</sup> Large numbers of American whalers, as well as French, frequently operated close inshore, causing conflicts with local whalers. There were numerous incidents between the various companies. James Stirling was lobbied to ban the foreign vessels.<sup>8</sup>

Despite fluctuations in the price of whaling products, by 1844 they comprised 40% of the State's exports. In 1845 there were approximately 300 American, French, British and Australian whaling ships operating off the south coast with numerous shore stations.<sup>9</sup> 1860 legislation prohibiting unlicensed whalers from operating in WA waters, although this appears to have had little impact. But after the discovery of petroleum oil in Pennsylvania in 1859, whale oil prices crashed. Subsequently, only a few vessels were still operating at the turn of the century.<sup>10</sup>

Around 1911, Norwegian whaling interests were looking to the southern hemisphere for possible whaling grounds due to heavy competition in the whaling

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- 3 Correspondence & sketch map, 17 February 1912, File for Reserve 2295, Item 3172/1900, op cit.
- 4 Correspondence 19 March & 2 July 1912, File for Reserve 2295, Item 3172/1900, op cit; DLI File 2268/1914 for Reserve 2295.
- 5 Nairn, John, *Western Australia's Tempestuous History* (Carlisle, Vic: Hesperion Press, 1986)
- 6 Moore, George Fletcher, *Diary of Ten Years Eventful Life of an Early Settler in Western Australia* (1884, facsimile edition 1978, UWA Press)
- 7 Battye, J.S., *Western Australia: A History from its Discovery to the Inauguration of the Commonwealth* (Oxford, 1924)
- 8 Nairn, *Tempestuous History*
- 9 [www.whaleworld.org/About\\_Whale\\_World/Whaling\\_History/Whaling\\_in\\_Albury](http://www.whaleworld.org/About_Whale_World/Whaling_History/Whaling_in_Albury), consulted 22 Nov 2006
- 10 Nairn, *Tempestuous History*



grounds in the northern hemisphere.<sup>11</sup> Western Australia already had a history of whaling, particularly along the south coast, and the State Government saw economic benefit in the development of the whaling industry. On 1 January 1912 it issued seven-year licences to the Cape Leeuwin Whaling Company (renamed the Spermacet Whaling Company in November 1913), the Western Australian Whaling Company (located at Point Cloates in the northwest) and the Fremantle Whaling Company, all of which had been established by the Norwegian firm of Christian Nielsen & Associates. Nielsen was represented in Western Australia by the Norwegian Vice-Consul at Fremantle, August Stang, whose brother Christian was associated with the Nielsen company. To ensure the best benefits for the State, the licences required the construction of shore stations. Whalers operating from factory ships were unable to use the whole carcass and only processed the whale for the oil, whereas a shore station allowed the manufacture of guano (fertiliser), cattle fodder and bonemeal from what remained.<sup>12</sup>

The Cape Leeuwin Whaling Company was licensed to operate along the south coast from Cape Leeuwin to Esperance, where it planned to hunt sperm whales. Sperm whales did not migrate and travelled in a loose and widely spread manner rather than the schools favoured by the humpback whales, which followed a seasonal migratory path along the coast. In the 1912 migratory season (winter), the ships of the Spermacet Co, *Vasco Da Gama*, *Fynd* and *Klem*, assisted the Western Australian Whaling Company in the northwest to hunt humpbacks. On 29 October 1912, the ships arrived at Albany and began hunting sperm whales. The Company took 205 sperm whales during the 1912-13 summer, which were processed on a factory ship. A piece of ambergris was also discovered, worth around £4,000. Ambergris is a solid, opaque, ash-coloured inflammable substance secreted by whales and used in the manufacture of perfumes.<sup>13</sup>

On 22 February 1913, the Norwegian vessel *Prince George* is reported as arriving at Albany with machinery for the whaling company. The Cape Leeuwin Company's ships assisted in the northwest hunt again in the winter of 1913, and in September six vessels arrive in Albany from Point Cloates: the steamers *Fynd*, *Hawk*, *Vasco de Gama*, *Clem* and *Eagle*, and the sailing ship *Commonwealth*.<sup>14</sup> In October, the Company leased an area at Frenchman Bay for its shore station. The area was created as Plantagenet Location 3961 and did not include the site of the dam and lighter jetty, although the Company purchased the jetty from Armstrong & Waters.<sup>15</sup> In November 1913, the Company's name was officially changed to the Spermacet Whaling Company.<sup>16</sup>

The Company hunted sperm whales again during the 1913-14 summer but not as successfully as the previous summer. *Frenchman Bay Whaling Station (ruin)* was built early in 1914 on the leased land at Frenchman Bay, at a cost of £20,000 to

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- 11 For overview of the establishment and operation of the whaling industry in WA by Norwegian companies see HCWA documentation for P04321 Norwegian Whaling Station (ruin), Point Cloates.
- 12 Puls, Colin, *Frenchman Bay whaling companies and Western Australian Government, 1911-19*, BA honours thesis, UWA, 1970, pp. 22-29.
- 13 Puls, Colin, p. 36, 107.
- 14 List of Norwegian vessels calling at Albany during the year 1913, Norwegian Vice-Consulate Albany, Record Book, 1913-1916, Battye private archives, MN1069, ACC 3314A.
- 15 Correspondence 17 July 1914 from Norwegian Vice-Consul at Fremantle, August Stang, DLI file 2268/1914 for Reserve 2295.
- 16 Puls, Colin, op cit, p. 30.

£28,000.<sup>17</sup> The buildings were constructed from imported timber and bricks, but there was some local building material used. A report in the *Albany Advertiser* in February 1914 on the revival of the timber industry stated that a consignment of karri flooring measuring 6" by 1.5" and 6" by 1" had been delivered to Albany from a mill at Denmark to 'the order of the Whaling Co who are using it in their buildings at Frenchman Bay'.<sup>18</sup>

The following gives some idea on the operation and layout of the site:

Frenchman Bay soon changed in appearance. A great wooden platform was built on the beach; it stood on piles and projected over the water as a wide and low pier or wharf. At the seaward extremity this platform sloped down to the water, and extended a little below the surface at low tide, forming a slipway up which whales could be easily hauled. One side at the shore end of this flensing platform, a high two-storey building of wood contained the boilers in which bones and meat could be digested under steam pressure. At the other side another shed contained open boilers for the blubber. There were unglazed windows to the top floor of the big boiler house and up to these openings wooden shores acted as rails on which great metal buckets filled with chunks of whale-meat were hoisted. The contents were tipped through the windows in a manner most convenient for filling the boilers. At the landward end of the flensing platform, and facing the sea, there stood a very well equipped engineer's 'shop'. All sorts of repairs had to be carried out there; but two regular jobs were the fitting of new heads to the explosive harpoons, and making new parts for the engine of a launch which as regularly consumed them. In front of the engineer's 'shop' were steam winches for hauling the heavy whale carcasses up the oily slipway from the sea. As for the rest, there were wooden houses on the bushy slopes above the boiler houses for the shore gangs and for the crews when not on board the 'chasers'. By 1915, £28,000 had been spent on machinery, and much more on coal and stores.<sup>19</sup>

Les Douglas, son of Captain Clem Douglas and from a family of Albany seafarers, described *Frenchman Bay Whaling Station (ruin)* as he remembered it as a lad:

There were a large number of big sheds stretching along the beach front, behind a very long brick retaining wall. A long flight of concrete steps led to the top of the hill. At the time of writing, [1991] the steps are still there. The steps were always there. They would have been built for access when the factory was first built. The path went straight up to the first building on the hill which was the kitchen and mess room for all the workers. It was only about 100 ft from the top of the steps. The men's quarters comprised of 5 huge houses including the kitchen and mess room. The four other buildings were spaced about 20 ft apart, to the right. These were the sleeping quarters and contained many rooms. I remember clearly, each room was painted a different colour. Being young I had never seen so many colours and to this day every time I think of Frenchman's Bay Station I see this rainbow of rooms. All, the buildings were built of Norwegian pine, resting on long spruce pine timbers, supported on brick pillars about 2' off the ground.<sup>20</sup>

There was a small jetty about 200' long with a large 'T' Platform at the end which provided a good working area. There was also a derrick for loading. A light gauge

<sup>17</sup> Puls, Colin, op cit, pp. 37-38, 92-93; *Albany Advertiser*, 5 May 1920, p. 3. Figures vary among sources.

<sup>18</sup> *Albany Advertiser*, 25 February 1914, p. 3.

<sup>19</sup> Dakin, William J., *Whalemen adventurers: the story of whaling in Australian waters and other southern seas related thereto, from the days of sails to modern times*, Sydney, Angus & Robertson, 1938, p. 186.

<sup>20</sup> Marshall, Gordon de L., *Maritime Albany Remembered: Les Douglas et al*, Kalamunda, Tangee Pty Ltd, c.2001, p. 14; photograph on p. 12, numbered 3715B in the Battye Library collection, is purported to be of the Norwegian whaling station but the landscape indicates it depicts the Cheynes Beach station.

railway line ran down to the jetty and connected to all parts of the station. Hand operated trolleys were used.<sup>21</sup>

The ramp on the seaward end of the flensing deck went out into about ten-feet of water. It appeared to have been held in position by eight to ten large wooden crates about eight-foot square filled with pieces of granite. The slats of the crates were spaced about six inches apart, apparently to allow the underwater surge to pass through.<sup>22</sup>

When the station was in operation, the whale chasers towed the whales to *Frenchman Bay Whaling Station (ruin)* where they were treated, but the presence of the factory ship *Rakirua* at various times indicates that some processing was still done on board ship. The oil was stored in large wooden barrels and shipped back to Norway. Other Norwegian ships arrived at Albany occasionally with a load of empty barrels for the station.<sup>23</sup>

On 5 June 1914, a day before the Spermacet fleet left for Point Cloates once again, 19-year-old deckhand Christian Flagstad was killed when a one ton piece of whale flesh fell on him while he was collecting oil from the deck of the factory ship *Rakiura* in Frenchman Bay. The accident occurred as a result of the failure of a spruce pine toggle from which the whale flesh was hanging.<sup>24</sup>

The Public Works Department Water Supply section and August Stang had considerable correspondence over several years regarding the use of the water from Reserve 2295 and how much *Frenchman Bay Whaling Station (ruin)* should pay for it. Stang maintained in July 1914 that they had used very little water from the spring to that time and had water on their own lease close to the surface, which they could tap into. He steadfastly refused to pay any amount the Department claimed as the figure had been arrived at by guesswork and anyway the Company was already paying a licence fee, which should include water. In November 1915, however, he offered to pay £10 for water use for the coming year. An inspection of the site in March 1916 found two wells on the Company's lease supplying most of its water needs.<sup>25</sup>

During the operation of *Frenchman Bay Whaling Station (ruin)*, the beach became 'most unpleasant, with a thick coating of oil and large pieces of whale lying around, and a noisome smell'. There were no roads connecting Frenchman Bay to Albany and all supplies had to come in by sea. It must have been a lonely life for the whalers, described for the most part as 'clean young men'.<sup>26</sup> Most of their wages would have gone back to Norway, but the operation of the station and its vessels was a bonus to the local economy, with a reported £80,000 spent on provisions, coal and general supplies in 1915.<sup>27</sup>

Two more deaths occurred at *Frenchman Bay Whaling Station (ruin)*. Chief Engineer Hans P. Kittelsen died at age 40 on 24 November 1915, but no cause of

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21 Marshall, Gordon de L., op cit, p. 14.

22 Marshall, Gordon de L., op cit, p. 14; Garratt, Dena, *Frenchman Bay Whaling Station (ruin), Frenchman Bay: maritime site inspection report*, Fremantle, WA Maritime Museum, 1994, p. 6.

23 List of Norwegian vessels, op cit; Marshall, Gordon de L., op cit, p. 15.

24 Article from *Albany Advertiser* in the Norwegian Vice-Consulate Albany, Record Book, 1913-16, op cit.

25 Correspondence 17 July 1914 to 14 March 1916, DLI file 2268/1914 for Reserve 2295.

26 Marshall, Gordon de L., op cit, p. 12.

27 Heritage Today, *City of Albany Municipal Inventory*, 2000.

death is recorded, and 44-year-old steward Karl Adoff Nielsen drowned two weeks later on 4 December while swimming at Frenchman Bay.<sup>28</sup>

On 15 December 1915, Stang informed the Government of Spermacet's decision to close down, caused by both a poor whaling season and the impact of World War I. The closure was gazetted on 29 December, but it was 3 March 1919 before Stang signed an indenture legally surrendering the Company's licence. The size of the sperm whale catch had made the undertaking economically unfeasible and the War created suspicions that the whalers were sympathisers of Germany. The boilers and equipment were relocated to the new station established that year at Point Cloates, but the buildings were left behind. During its period of operation from 1912 to December 1916, the Spermacet Company took 1,125 whales, producing 28,675 casks of oil (1.2 million gallons) and 730 tons of fertiliser. The value of the oil would have been £119,475 and the fertiliser £5,840. This return was about 30% of that achieved by the Point Cloates station in the same period.<sup>29</sup>

Two Norwegians remained as caretakers at *Frenchman Bay Whaling Station (ruin)*, brothers Hurbert and Lans Larsen. They built a boat and used it to sail into Albany for their stores. In 1920, there were reports that the Spermacet Company had applied to renew its licence to operate the place, but the application was refused.<sup>30</sup>

In the early 1930s, Point Cloates again began servicing Norwegian whaling ships, but World War II brought rapid closure. Expanded use of factory ships and support chasers also lessened the need for shore-based services. In July 1949, the Nor'-West Whaling Company reopened the station. In September 1950, the Australian Government commenced whaling itself as the Australian Whaling Commission in a station at Babbage Island near Carnarvon. The operation ran until 1955, when the station was sold to Nor'-West Whaling Company, which closed down its Point Cloates station and relocated to the Carnarvon site.<sup>31</sup> The Albany Whaling Company operated at Frenchman's Bay from 1947 until 1950. It took only six humpback whales.

The Cheynes Beach Whaling Station commenced operations at Frenchman's Bay in 1952 until closure in 1978, the last such station to close in Australia. The last whale was taken on 20 November 1978. The operation had struggled commercially for several years because of increased fuel costs and dwindling stocks. Environmental lobbying pressure finally brought an end to a WA industry that had operated for more than 140 years.

In 1921, a big south-easterly gale that lasted many days created havoc along the Albany coastline, tearing up trees, washing away beaches and sinking boats at their moorings. It wrecked a large portion of *Frenchman Bay Whaling Station (ruin)*. The jetty was swept away leaving only the end standing. The brick retaining wall collapsed, allowing seas to undermine the foundation of buildings

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28 Norwegian Vice-Consulate Albany, Record Book, 1913-16, op cit.

29 Puls, Colin, op cit, p. 92-95.

30 Marshall, Gordon de L., op cit, p. 15; *Albany Advertiser*, 5 May 1920, p. 3.

31 <http://www.whales.org.au/published/whalemen/forward.html>, consulted 22 November 2006

close to the wall and many fell, including the brick building on the right of the flensing deck.<sup>32</sup>

In May 1923, tenders were called for purchase of what remained.

Tenders for all the buildings as they now stand. Soft wood, hard woods, kitchen ranges, trolleys and light rails at the Frenchman's Bay Whaling Station. Tenders are invited for the lot as it now lies at the station... Walter Wheeldon, Auctioneer and Sworn Valuer.<sup>33</sup>

Members of the Douglas family, namely Clem, his father William and brother Bert successfully tendered to dismantle and salvage *Frenchman Bay Whaling Station (ruin)*. They camped at the site for periods over the ensuing five years while they did the work. Bert Douglas was Captain of the State Steamship *Eucla*, which made several trips into the Bay where its surfboats were used to take off material.

There was a vast quantity of wood around... There were also hundreds of wooden barrels, for whale oil, some in good condition which they were able to sell... The station's jetty was in such a poor state of repair that the Douglasses had to construct a makeshift one of their own to bring the wood off.<sup>34</sup>

A lot of coal and whale manure was salvaged, which was sold in Albany. The whale manure was discovered by accident as it had been covered by sand over the years. Some of the salvaged timbers were used to build a lighter, with a single spruce pole providing a 35-foot mast. In 1998, some of the wood and rails were still in storage at the old Douglas homestead, 'Maitland' on the Upper Kalgan River. The younger family members, including Les Douglas and his cousin Lenny Powell searched for 'lost treasure'; the ambergris that was reputed to have been buried somewhere at the site. It was not found.<sup>35</sup>

Frenchman Bay had been a favoured holiday venue since at least 1896, when the steam launch *Jessie* made several trips, ferrying people for a public picnic. On New Year's Day 1902, Armstrong & Sons ran two launches on excursions to the Bay. The operation of the whaling station curtailed the enjoyment of the place until 1920, when Armstrong & Waters took the Steamship *Awhina* on two round trips on 26 January.<sup>36</sup> Access was only possible by sea, but in the early 1930s, as more people owned motor vehicles, there was considerable local agitation for a road to the Bay. Letters were published in the *Albany Advertiser* and the Tourist and Information Bureau offered funds to build the road on a route they had planned and which the Road Board inspected. The Frenchman Bay Road was completed by December 1934 when it was reported that:

The road terminates a few yards from the flight of steps leading down to the old whaling station and the beach. Water is obtainable a few chain from the steps along the beach.<sup>37</sup>

Mrs D. van Raalte applied to the Road Board for a licence to operate a tea kiosk near the beach during the summer months. It was to be of rustic design, and the licence appears to have been issued because a newspaper report on 7 January states that on New Year's Day there were a considerable numbers of people

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32 Marshall, Gordon de L., op cit, p. 16.

33 *Albany Advertiser*, 12 May 1923, p. 2.

34 Marshall, Gordon de L., p. 12.

35 Marshall, Gordon de L., p. 14-16.

36 *Albany Advertiser*, 15 October 1896 p. 2; 3 January 1902, p. 3 & 21 January 1920, p. 2.

37 *Albany Advertiser*, 6 December 1934.

swimming and fishing, with a number of families having a camping holiday, while 'the convenience of visitors had been further added to by the establishment of a tea kiosk near the beach'.<sup>38</sup>

In February 1935, the *Albany Advertiser's* editorial extolled the virtues of the beauty spot that was Frenchman Bay and which was so popular among holiday makers, but called for the provision of sanitary conveniences as soon as possible, by working bee if necessary.<sup>39</sup> Also at this same time, Reserve 2295 was cancelled and was included with the site of the former *Frenchman Bay Whaling Station (ruin)* in a new reserve, 21337 for the purpose of camping, which was vested in the Albany Road Board.<sup>40</sup> In July 1935, the Board called tenders for the leasing of an area of the Reserve, the tenders to include specifications for improvements to cater to tourists. Included in the lease was the right to draw water from the dam at Vancouver's Spring and to erect a pump and pipes for the purpose.<sup>41</sup> A few months later the purpose of Reserve 21337 was altered to 'Recreation, Health & Pleasure Resort... somewhat similar to Yancheep'.<sup>42</sup>

The first lease was issued to Herbert (Bert) Harding and in November 1936 it was reported that 'an enterprising young man is even now erecting a hostel and tea rooms'. Harding's 'Frenchman's Bay Hostel' offered accommodation for a limited number of guests at moderate tariff, and supplied dainty afternoon teas, cool drinks, ices, lunches, fruit, confectionary and other necessities for the perfect picnic. Fresh running water from the spring and shade from the abundant number of willow-leaved Peppermint Myrtles (*Agonis flexuosa*) in the area added to the appeal of the Bay. By 1938 a tennis court had been laid and a golf course was under construction.<sup>43</sup>

Mr. Bert Harding's Frenchman's Bay Hostel, overlooking the Bay, is a splendid place to stay for a Bay holiday, or to have a meal if you prefer comfort to picnic simplicity and sand in the sandwiches. There is a tennis court for those who can't work off all their energy in hikes, bathing and the other pursuits for which the area is noted.<sup>44</sup>

Bert Harding and his wife ran the Hostel for several years, until 1 January 1941, when the lease was transferred to Edgar Stubbs.<sup>45</sup> During the war years, Edgar and Evelyn Stubbs' four young grandchildren lived at the Hostel while their father Ches Stubbs served in the armed forces. Edgar Stubbs had a vegetable garden near the foot of the steps that did very well, probably because the area was well fertilized with whale manure. The hostel had five bedrooms and a communal bathroom. The main clientele during the war years were honeymooners, while defence force personnel posted to the signal station on Stony Hill, a few miles to the west, spent their leave at Frenchman Bay.<sup>46</sup>

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38 *Albany Advertiser*, 7 January 1935, p. 3

39 *Albany Advertiser*, 21 February 1935.

40 DLI Reserves Index, Reserves 2295 & 21337.

41 DLI file, Reserve 21337, SROWA, WAS 211 CONS 1641, Item 2182-1934-01RO, 1934-1981.

42 Correspondence 25 July & 13 October 1935 & map of the reserves and leased area, DLI file, Reserve 21337, Item 2182-1934-01RO, op cit.

43 *Albany Advertiser*, 16 November 1936, holiday issue, p. 17.

44 *Albany Advertiser*, 28 November, 1938, holiday issue, p. 36.

45 DLI file, Reserve 21337, Item 2182-1934-01RO. op cit.

46 Abbott, Pat (nee Stubbs), 'Life at Frenchman Bay in the Forties (The hostel, the whaling station)', In *Southside of Princess Royal Harbour: history and personal reminiscences*, compiled by the South Coast Progress Association (Inc), Albany, South Coast Progress Association, 1988, pp. 109-113.

In 1948, the lease of the Frenchman Bay Hostel was acquired by William, Kenneth and Alick Proudlove of Proudlove's Bus & Taxi Service. They had taken the lease on behalf of a relative, Harold Gibson, who was in England at the time, and on 21 January 1948, the lease was transferred to Gibson who, with his wife, ran the place for the next eighteen years. In 1959, the Gibsons leased a further five acres and established a caravan park.<sup>47</sup> The timber and tile ablution block is likely to have been added at this time to service the caravan sites.

On 1 October 1963, in the presence of 150 people and after much research to establish the location where Captain George Vancouver had watered his ships, *Discovery* and *Chatham* in September 1791, the Albany Historical Society erected a Notch Weir Memorial at the site of the spring at Frenchman Bay. Emu Point was previously thought to be the site of this event when Vancouver had claimed the western half of Australia for Britain.<sup>48</sup>

The Memorial subsequently had to be removed by the Town Council after storm damage. Modern GPS technology later threw doubt on the location of Vancouver's Spring and the Memorial was not replaced immediately. It was later argued that GPS technology should not be applied to the calculations as Vancouver would have been using eighteenth century navigation technology and that had to be used to correctly locate his watering place. The Notch Weir Memorial was replaced at Frenchman Bay in March 2004.<sup>49</sup>

Later lessees of the hostel and caravan park were Mr and Mrs W. Broughall (4 years), Mr and Mrs E. Freeman (5 years) and Mr and Mrs C. Cooper, who took over in December 1972. In 1971, the guesthouse section ceased to operate. Apart from the fact that sufficient trade was generated by the shop and tearoom, the guest facilities were in need of costly modernising.<sup>50</sup>

The lease of the hostel and caravan park site included a clause whereby the Road Board could not allow a competing facility to offer refreshments within one mile of the place. When the Jaycee Community Foundation leased the former Cheynes Beach whaling station they were not able to develop the facilities into a tourist attraction as they were within a mile radius of the Frenchman Bay hostel. To solve this problem it was decided to create a freehold site for the hostel and caravan park and thus release the Shire from the lease and its restrictions. Plantagenet Location 7584 was created with an area of 3.26ha covering the hostel buildings and the caravan park, and the lessees at that time, Peter and Anne Bott, purchased the site, which they then leased out.<sup>51</sup> In the 1990s a prefabricated house was added to the site and the hostel building was no longer occupied as for a residential function.

In 1994, *Frenchman Bay Whaling Station* was included in the Albany Maritime Heritage Survey and in 1995 it was included in the Port-Related Structures

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- 47 DLI file, Reserve 21337, Item 2182-1934-01RO, op cit; *Albany Advertiser*, 15 December 1972, p. 11.  
 48 *Albany Advertiser*, 1 October 1963, p. 1. A weir is a notch of regular form through which water flows, and the term is also applied to the structure containing such a notch.  
 49 'Site of notch weir memorial, Vancouver Spring, Frenchman Bay Albany', Albany Historical Society, Inc, *Members' Magazine*, May 1999, pp. 2-10; Plaque attached to the Memorial.  
 50 *Albany Advertiser*, 15 December 1972, p. 11.  
 51 DLI file, Reserve 21337, SROWA, WAS 211 CONS 6461, Item 2182-1934-02RO, 1981-1989; Certificate of Title, Vol. 1746 Fol. 534, 28 March 1986.

Survey.<sup>52</sup> Vancouver Spring is entered on the City of Albany Municipal Heritage Inventory as an historic site.<sup>53</sup>

Physical evidence indicates that there have been numerous additions to the 1936 hostel building over the years. The timber and tile ablution building shows evidence of having been used for another purpose and relocated to the site. The bunkhouse appears to date from the same period as the hostel. The garage is a typical c.1950s construction. Physical and historical evidence show that none of these buildings are remnants of *Frenchman Bay Whaling Station (ruin)*. The tennis court associated with the hostel is now covered by the public car park while it is not known where the golf course was located. The last tenant of the hostel building was undertaking renovations and had replaced the timber floor in the tearoom before his tenancy was terminated.

The beach at Frenchman Bay, as elsewhere, is subject to change due to the action of storms and tides. In 2004, a storm washed away several metres of Whalers Beach, further undermining and moving the brick and concrete remains of *Frenchman Bay Whaling Station (ruin)*.<sup>54</sup> This is confirmed by surveys of the site undertaken in the early 1990s, which indicate that more of the remnants were visible at that time.<sup>55</sup>

In 2005, title to the freehold land on the bluff was transferred to Frenchman's Bay Pty Ltd, and the site has been further subdivided into two lots.<sup>56</sup> A development proposal for the site, put forward in 2006, involves the construction of a five-star resort with beach houses, holiday apartments, convention/function centre, shopping and office facilities. The plan proposes to retain the existing concrete steps from *Frenchman Bay Whaling Station (ruin)* and construct two more in similar style.<sup>57</sup>

In 2006, the caravan park and all buildings on the bluff are vacant and the site has been secured by a cyclone wire fence. The Notch Weir Memorial remains in place, and Vancouver's Spring and the dam remain largely intact in the undergrowth. The ruins of *Frenchman Bay Whaling Station (ruin)* remain along the beach and the concrete steps continue to provide access between the beach and the bluff.

### 13.2 PHYSICAL EVIDENCE

*Frenchman Bay Whaling Station (ruin)* comprises objects of brick, stone and unreinforced concrete at Whalers Beach in Frenchman Bay on the south side of Waterbay Point, located on reserve land. On the bluff above the beach is a former caravan park with associated outbuildings on freehold land. The site is situated on the northern edge of Torndirrup National Park, approximately 22 kilometres from Albany off Frenchman Bay Road, which ends in a bituminised car park adjacent to the entrance to the former caravan park site. A 1980s cement

<sup>52</sup> Wolfe, Adam, *The Albany Maritime Heritage Survey, 1627-1994*, December 1994, pp. 144-45; Cumming, D.A., et al, *Port related structures on the coast of Western Australia*, Fremantle, WA Maritime Museum, 1995.

<sup>53</sup> Heritage Today, *City of Albany Municipal Inventory*, 2000; HCWA database.

<sup>54</sup> Information provided on site by Ian Wilson, president of the South Coast Progress Association.

<sup>55</sup> Garratt, Dena, op cit; Wolfe, Adam, op cit, pp. 144-145.

<sup>56</sup> Certificates of Title, Vol. 1883 Fols. 426 & 427 for Lots 1 & 2 on Diagram 77269.

<sup>57</sup> Dykstra Planning, *Development application: Proposed five star resort, Frenchman Bay, Albany*, May 2006.



toilet block is located at the north end of the car park, and a road runs from the west corner down to Whalers Beach, about 17 metres below, where there is a parking area and picnic facilities with rotundas, barbeques and seating, and the remnant fabric of *Frenchman Bay Whaling Station (ruin)*.

The buildings associated with the former caravan park consist of the 1936 weatherboard and iron hostel building that has had numerous additions; a rectangular weatherboard and tile ablution building, likely relocated to the site c.1959; a rectangular weatherboard and iron bunkhouse of similar age to the hostel; a c.1950s timber-framed asbestos clad double garage with timber lean-to; and a 1990s pre-fabricated timber and iron residence. The buildings are located in a group at the eastern end of the site near the entrance from the car park, with rough concrete slabs marking the caravan sites to the west along the top of the bluff. The site has been landscaped. There is a levelled and grassed outdoor area associated with the tearoom of the former hostel overlooking the Bay. It is enclosed with a brick and pipe fence on the north and east sides. Other landscaping includes low stone retaining walls, bitumen and gravel roadways and parking areas, native bush and some exotic plantings, the main feature of which is a mature date palm (*Phoenix canariensis*) adjacent to the hostel.

Further west along the beach is a stone memorial marking the location of Vancouver's Spring, which has been dammed.

#### Ablution building

The ablution building was considered a possible remnant of *Frenchman Bay Whaling Station (ruin)*. It functioned as an ablution block with toilet and shower facilities for patrons of the caravan park west of the hostel. The building abuts the west wall of the hostel. It is single-storey and rectangular measuring 14.1m by 3.3m, with the longest margin on 65° magnetic. The foundations are cement with laterite inclusions, while the walls are 165mm and 170 mm (6½" and 7") wide weatherboards attached with bullet head wire nails to a timber cross frame. Some of the weatherboards are hand cut, but most are machine sawn. All timber framing is machine sawn. Samples of timber from the weatherboard and frame were examined with a microscope that showed the timber's cellular structure to be of the *Eucalyptus* genus, most likely jarrah (*Eucalyptus marginata*).

The roof comprises unbranded cement Marseille style tiles attached to jarrah battens nailed to jarrah rafters. The roof timbers do not contain old nail holes suggestive of roof alteration, but blanked off windows in the north and east walls (the later against the west wall of the tearoom) suggest the structure had a different purpose in the past.

There is no archaeological evidence supporting the claim that the ablution building is contemporary with *Frenchman Bay Whaling Station (ruin)*. The materials used are local (jarrah), and these are cut to Imperial measurements used in Australia from first settlement to 1972. The historical record states that the station's accommodation and kitchen facilities were of Norwegian pine, with bearers supported by brick stumps, but the survey encountered none of these features and the building had a concrete foundation.

The concrete in the foundation contained a small amount of laterite aggregate. Many of the beach-based sites also contained concrete, but none had laterite as an aggregate inclusion indicating that the ablution building and beach sites are not contemporary. In addition, the roof frame of the ablution building carries

cement tiles that came into vogue shortly after World War II. The roof's rafters and battens show no evidence for alterations such as old nails, nail holes or timber stains suggesting that the building's present roof is original comprising materials forty year's older than the whaling station's period of use.

Blacked off windows suggest a different original function for the building.

#### Whalers Beach archaeological sites

The purpose of this section is to describe the material remains of *Frenchman Bay Whaling Station (ruin)* in detail to determine the past function of the place and evaluate preservation. Some of the archaeological remains – in the form of granite and brick piers – have been used to provide seating in an area near the western boundary of the site. This practice needs to be discouraged.

The archaeological record is spread over a 150 metre line parallel with the beach. The survey comprised visually analysing, measuring and photographing the components comprising the place.

Site 1 is a raised plinth of brick and mortar stucco. It measures 762mm by 647mm, with the longest measurement on 65° magnetic. Four heavy corroded studs protrude from the top. A recessed trapezoid shape on the top of the plinth suggests that a structure with this shape rested on it at some stage.

Site 2 is a high-density (25 to 50 artefacts per square metre) artefact scatter of coal, clinker and iron fragments eroding from a 2m by 2m cup-shaped depression facing the beach. One piece of clear glass was also present. The artefacts are eroding from a lighter coloured, sandy matrix that sits on a natural unit of black, peaty soil.

Site 3 comprises a low-density (0.5 to 10 artefacts per square metre) scatter of metal and small whalebone fragments in a 1.5m by 2m wide clearing. A Peppermint (*Agonis flexuosa*) in the middle of this clearing has grown over time and brought the artefacts to the surface.

Site 4 comprises a medium density (11 to 49 artefacts per square metre) scatter of metal, small whalebone and coal fragments in a 2m by 2.5m wide clearing. Similar to Site 3, a Peppermint tree's growth has brought the artefacts to the surface.

Site 5 comprises a low-density scatter of metal fragments and one piece of melted glass in a 2.5m by 3m wide clearing. Similar to Sites 3 and 4, a Peppermint tree has brought the artefacts to the surface.

Site 6 is a high-density 1.5m by 3m wide scatter with large (12.5mm to 25mm) pieces of coal, clinker and coke. The coal is similar to eastern Australian Newcastle coal and is not from Collie Western Australia. The artefact scatter's density is high around the trunk of a peppermint tree, the growth of which has brought the material to the surface.

Site 7 is a high-density 1m by 2m wide scatter with large (12.5mm to 25mm) pieces of coal and clinker, similar to that at Site 6. A peppermint tree has again brought the material to the surface.

Site 8 is a fragmented section of collapsed brick wall or brick flooring. It has 17 courses with lime-based mortar used for cement. The machine pressed, unbranded bricks average 224mm long, 62mm deep and 110mm wide. The

feature is angular but 1.3 by 2 metres at its widest points. Tree growth has raised the southern end. Also associated with the site are fragmented clinker and one piece of creamware ceramic.

Site 9 is a circular, ground level feature with a 4m diameter. It contains brick (averaging 224mm long, 62mm deep and 110mm wide), hewn metamorphosed granitic stone and un-reinforced mortar sections. The mortar sections suggest that a round object, like a tank, sat on the feature. In the centre is a 915mm by 915mm square cement boss. Four heavily corroded studs protrude from the top of the boss, and a 390mm by 390mm square recess in the boss suggests a support function for this component. The boss is set at 65° and 155° magnetic. (Refer photo Site 9 & 10)

Site 10 is similar to site 9 but has a 4.4 m diameter. The boss and square recess is 915mm by 915mm and 390mm by 390mm respectively. Nearby but associated with this site were large (12.5mm to 25.4mm) coal fragments. (Refer photo Site 9 & 10)

Site 11 is a high-density 1.5m by 3m wide scatter with large (12.5mm to 25mm) pieces of coal, clinker, coke and corroded ferrous metal fragments. The coal is similar to eastern Australian Newcastle coal and is not from Collie.


Site 12 comprises a rectangular raised 1110 mm by 640 mm concrete and brick plinth with a flat 580mm by 640mm concrete section 100mm to the south. Four recesses for studs are in the corners of the raised section.

Site 13 is a 2870mm by 690mm concrete feature. It comprises two raised sections measuring 2870mm by 300mm and 2870mm by 190mm respectively, separated by a lowered area measuring 2870mm by 200mm.

Site 14 is a raised pad with 19.6m by 8m dimensions. A 0.5m high retaining wall of hewn metamorphosed granitic stone brick forms the pad's north face and sections of the east face. A 4m by 3m area in the pad's north-east corner contains a heavy density scatter of coal and clinker fragments but, the whole pad area contains light and medium density artefact scatters of mostly coal and clinker fragments. The feature's long axis is at 64.5° magnetic.

Site 15 is complex of five ground level brick and mortar features in a 3.5m by 3m area. Two of the features contain heavily corroded studs suggesting a support function.

Site 16 is a flight of 62 concrete steps from the top of the bluff to bottom. The steps are 1m wide. The feature's alignment is 146° magnetic.

Site 17 is a 15m by 25m area comprising brick and stone. The brick component consists of high-fired machine pressed red brick (averaging 224mm long, 62mm deep and 110mm wide) used in pier construction between 1.5m and 1.9m in length. No piers are in situ, with all collapsed. Three pier shapes exist: 'L' shaped measuring 800mm on the long arm and 400mm on the short;  shaped, and square measuring 370mm by 370mm. (Refer photos Site 17[1] & Site 17[2])

The metamorphosed granitic stone component of Site 17 consists of large angular blocks. Some blocks have flat faces on which brick has been mortared, while others have been split to form 1.8m by 0.3m long blocks placed end-on-end on the seaward side of the site.

Site 18 comprises four rectangular structures. The construction of two of these structures is the same, measuring 2270mm by 1740mm by 640mm, and consisting of brick outside sections and a stone and mortar centre. The outside brick sections have three, 1-inch diameter steel studs with eight threads to an inch protruding from them. The west face of the west feature has unpointed mortar, suggesting that the bricks were laid against an already existing wall or other feature that inhibited the pointing of the mortar. Between these two features is a square structure of granite and brick rubble held together with mortar. Distinct formwork patterning of either timber or corrugated iron is visible in the four sides of the structure and eight highly corroded steel studs protrude from the top surface. These three structures are tilted seaward about 10 degrees.

The last feature of Site 18 is a brick and mortar structure at ground level. The partial covering with sand dunes inhibited the taking of accurate measurements or determining the extent of the structure.

This archaeological record reflects only a small percentage of the physical remains of *Frenchman Bay Whaling Station (ruin)* when operating in the 1910s. However, despite cultural and natural disturbance, function can be determined for much of the archaeological remains. Site 17 is the slipway and flensing deck. Descriptions of the structure when it was in use suggest that many of the brick pier components were buried in sand, much of which was washed away with the 1921 storm.<sup>58</sup> The brick piers were cemented to metamorphosed granitic stone that formed the foundations of the slipway and flensing deck. The 1921 storm also exposed these.

Despite damage inflicted by natural causes and the apparent disorder of the site, the slipway and flensing deck's artefacts retain structural integrity to approximate deck dimensions and possibly what the structure looked like when in use. The piers' stone foundations have moved little (with two possibly in situ), suggesting that the slipway and flensing deck was supported by four lines of piers running at right angles from the beach. Stone appears to have been used as a retaining wall or minor breakwater on the east face of the slipway and flensing deck. The centre piers supporting the slipway and flensing deck were square or rectangular, but the 'L' and ■ shaped piers are in an approximate line 13 metres from the edge of the present car park. This line of irregular shaped piers suggests the edge of some part of the slipway and flensing deck, whether the extent of the beach before the 1921 storm or the location of the brick retaining wall mentioned in historical documents.<sup>59</sup> The site's archaeological remains suggest eight metres for the deck's approximate width.

The condition of sites 2 and 18 also indicate disturbance by storm surge and wind. Evidence preserved on the four brick and stone features indicate they were originally enclosed in a structure, while their 10 degree angle seaward indicates foundation undercutting. There is evidence suggesting that the four features have resided and slumped forward by as much as one metre. The shape of three of the four brick and stone features and the steel stud fittings attached suggest their use to support machinery, most likely a steam engine. Douglas' sketch of the station's layout shows a double-storey brick building west of the slipway and

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<sup>58</sup> Garrett, Dena, *Frenchman Bay Whaling Station (ruin), Frenchman Bay. Maritime Heritage Site Inspection Report*. Department of Maritime Archaeology, Western Australian Maritime Museum, number 82, 1994; Marshall, Gordon, *Maritime Albany Remembered Les Douglas et al.* 2001, p.16.

<sup>59</sup> Marshall, Gordon, op cit.

flensing deck, but it is unclear if this structure housed the components of Site 18.<sup>60</sup> There are no other brick remains near Site 18 indicative of a collapsed brick structure, and this supports Dakin's claim that the structure was of timber, rather than brick.<sup>61</sup> The exposure of Site 2 is also due to natural disturbance.

Sites 9 and 10 are most likely foundations for digesters or cookers, and not tanks as previously suggested. These cylindrical steel objects that sometimes operated under steam pressure contained agitators that mixed the fluid containing whale meat and blubber allowing rapid processing. The concrete and steel bosses in the centre of the structures held the agitators' shafts.

Sites 2 to 7 and 11 are indicators for the nature of the subsurface archaeological remains. All are formed by natural processes: Site 2 by wind and wave action, and Site 3 to 7 and 11 by tree growth bringing material to the surface. These sites were not selected points where artefacts were deposited but instead suggest that the whole area has a subsurface layer of material from the whaling station period. Site 2 suggests that this layer is about 20 cm below the present ground level, with a high potential of containing small artefacts like coal, clinker, whalebone and iron fragments, but also larger structural objects.

Douglas' sketch suggests a barrel storage function for the west section of the site, and the retaining wall and level area of Site 14 suggests it was used for this function.<sup>62</sup> Site 15 nearby probably has a related function, and may be associated with the narrow gauge tramway that took trolleys from the processing area to the barrel shortage site, and finally to the loading jetty. The function of sites 1, 12 and 13 is unclear, while the bricks used for various site features do not appear Western Australian made. Western Australian pressed bricks from this period were frogged and carried a brand name, but none of the bricks on the site have these characteristics. Their origin is unknown.

The steps (site 16) are most likely from the whaling station period, but their location does not positively correlate with the historical record. Douglas places them west of the flensing deck and the structure containing digesters, but the results of the archaeological survey suggest that the deck and digesters are west of the steps.<sup>63</sup> A survey of the slope leading to the former tearooms failed to find any evidence for a previous flight of steps.

#### Vancouver Spring, Dam and Memorial

Vancouver Spring Memorial is located west along the beach, past the picnic facilities. A stone structure about one metre high and wide, it straddles the stream issuing from the spring. The base section is partially covered with sand.

A plaque attached to the horizontal section reads;

This spring was charted by  
Captain George Vancouver  
in September 1791  
It has been used ever since as a source of fresh water by  
explorers and seafarers, local residents and visitors  
16 March 2004 City of Albany

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60 Marshall, Gordon, op cit.

61 Dakin, William, *Whalemen Adventures*, 1938, p.186.

62 Marshall, Gordon, op cit, p. 19

63 Marshall, Gordon, op cit.

The course of the stream over the sand to the sea is clearly discernible. An overflow stream can be seen a little further back to the east. A full inspection of the dam that is built around the spring was attempted through the thick undergrowth, but a swarm of bees had established a hive in the pump house and one sting was sufficient warning to leave promptly. The following is a description of the dam when last inspected by Les Douglas about 1991.

The dam cannot be more than five or so metres above the level of the beach, but the thick undergrowth goes up to the water's edge, in some places overhanging it, with the result that one comes upon the dam suddenly, noticing it only when the ground becomes wet underfoot. The best method of approach appears to be up the creek bed, then veering to the right.

There is a small corrugated iron pumphouse on the left shoreward side, housing an engine... giving the name on the inside wall of Bates & Co. The stream discharges just next to this and again further along the dam... The dam itself is long and narrow... but it is difficult to see its full length owing to the overgrowth.

The stream enters at the north end, and there are two or more wooden barriers across the dam, and a pipe running across it from the pumphouse. The water is clear and fresh looking, and it is possible to see into it for a distance of six or eight feet, except that it is full of freshwater grass. The sides are lined with wood ...[that] looks only forty or so years old, but may be older. The pipes have been replaced... It was not possible to go to the other side of the dam ... owing to the undergrowth.<sup>64</sup>

*Frenchman Bay Whaling Station (ruin)* is in poor condition with all elements beyond restorative opportunities. However, the archaeological signature of the place suggests rich subsurface material strata. Presently the subsurface archaeological remains are in a stable environment and unthreatened, but consultation should occur before proposed ground breaking activities are undertaken. The site presents interpretive opportunities, but it has a low degree of integrity. There is some evidence of recent unsympathetic changes to the remaining fabric, but generally, *Frenchman Bay Whaling Station (ruin)* displays a high degree of authenticity.

There was no physical evidence found on the bluff of *Frenchman Bay Whaling Station (ruin)* buildings that had been located in that area.

### 13.3 COMPARATIVE INFORMATION

Western Australia's south coast was the home of many 19th century shore-based whaling stations.<sup>65</sup> Owned mostly by Australian or British companies, the stations had moderate success using aspects of the natural environment like granite shelves as slipways and flensing decks and hills for lookout positions. However, many of the shore-based operations could not compete against the American pelagic whaling. Stations existed at Torbay between 1844 and c.1864, Barker Bay 1849 to c.1873, Two Peoples Bay between 1842 and 1844 and c.1870s, Cheynes Beach 1846 to 1877, Cape Richie 1870 to c.1872, Doubtful Island Bay 1836 to 1838 and 1863 to 1870s, Barrier Anchorage c.1871 and Thomas' Fishery near Cape Arid c.1862.<sup>66</sup>

64 Marshall, Gordon de L., op cit, p. 17; sketch plan of dam from 'Site of Notch Weir Memorial...', op cit, p. 7.

65 Gibbs, Martin, *The Historical Archaeology of Shore Based Whaling in Western Australia 1836-1879*. PhD thesis, Centre for Archaeology, University of Western Australia, 1995.

66 Gibbs, Martin, op cit; pp. 410-52.

After a lapse of about thirty years, *Frenchman Bay Whaling Station (ruin)* began a new era in Western Australian whaling. It was the first station established in the 20th century, and was dissimilar to the former 19th century stations because of technological advancements like steam-powered ships and station machinery and the use of explosive harpoons that increased industry effectiveness and safety. In addition, the station's operation by men from the efficient Norwegian whaling industry saw the introduction of whaling experience not seen previously.

*Frenchman Bay Whaling Station (ruin)* and *Norwegian Bay Whaling Station (ruin)* north of Point Cloates, Ningaloo, were the only two whaling stations operating in Western Australia before 1950. The Spermacet Whaling Company was associated with both stations and the layout of the stations was understandably similar. A photograph of Cheynes Beach station around 1952 shows that little had changed over forty years. Digesters are located at the flensing deck's end and the whale processing area and loading jetty linked by narrow gauge tramway. However, historical and archaeological evidence indicate that *Frenchman Bay Whaling Station (ruin)* was much smaller than the *Norwegian Bay Whaling Station (ruin)*, potentially containing two digesters compared with possibly 40 at Point Cloates.<sup>67</sup>

#### 13.4 KEY REFERENCES

Garratt, Dena, *Frenchman Bay Whaling Station (ruin), Frenchman Bay: maritime site inspection report*, Fremantle, WA Maritime Museum, 1994.

Puls, Colin, *Frenchman Bay whaling companies and Western Australian Government, 1911-1919*, BA honours thesis, UWA, 1970.

#### 13.5 FURTHER RESEARCH

*Frenchman Bay Whaling Station (ruin)* was one of only two whaling stations operating in Western Australia in the early 20th century. Its foreign ownership and operation is unusual in Western Australian history. Information about the number of whales caught and the financial turnover is available, but little is known about the Norwegian men who lived at the station. Further research on these men's lives working as whalers, harpoon smiths, cooks, carpenters and other professions is needed to add humanness to presently innate physical remains. In addition, the archaeological survey recorded sites associated only with whale processing, with no personal artefacts like smoking pipes, ceramics or glass found. The place needs further archaeological and historical research on these topics to enable a more complete and rounded picture of operation and life at Frenchman Bay.

Further research is required into the Aboriginal history of the place, both before and after European occupation.

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<sup>67</sup> HCWA assessment documentation, P04231 Norwegian Bay Whaling Station (ruin).

**ATTACHMENT 3** - The Heritage of Frenchman Bay



## **The Heritage of Frenchman Bay**

**This document has been written to support the proposal to construct a  
history trail in Frenchman bay**

**Frenchman Bay Association  
March 2014**

## Introduction

### Producing an account

The historical accounts of Albany and its hinterland are mainly about the settlement and development of the township; the events that unfolded at Frenchman Bay are incidental. The historical record contains few photographs taken at Frenchman Bay. Further, the sites where key events occurred and the remnants of early settlement on the southern shores of King George Sound have not been adequately preserved and commemorated.

This is all the more surprising given the colorful early history in which French, Americans and Norwegians, along with the British, played a prominent part. As for the Indigenous landowners who watched the visitations and colonisation unfold, there is almost no reference to their life at Frenchman Bay.

This documents summarises some of the stories that could feature on a history trail situated above Whalers Beach.

### Narrative

The narrative of the early history Frenchman Bay can be woven around several themes:

1. The Mineng people who had lived around King George Sound for thousands of years;
2. The arrival of the British, initially Vancouver in 1791, and later Flinders in 1801, who searched for a safe anchorage, a supply of timber, and above all a year-round supply of potable water;
3. The scientific expeditions of Baudin, Freycinet and Peron in 1803, and d'Urville in 1826;
4. The development of the settlement of Albany and its dependence on fresh water from Frenchman Bay during the 19<sup>th</sup> and early 20<sup>th</sup> centuries;
5. The Norwegian and Cheynes Beach whaling stations at Frenchmen Bay; and
6. Frenchman Bay as a destination for picnickers and tourists during the late 19<sup>th</sup> and 20<sup>th</sup> centuries.

### What's visible from the escarpment above Whalers Beach

The bay, defined by present day Whalers Beach, was considered by Vancouver and Flinders to be part of King George Sound and not specifically named. It constitutes a section of Frenchman Bay that stretches from Mistaken Island in the north to the Flinders Peninsula and Bald Head in the south.

The two permanent springs that flow into the ocean at Whalers Beach are of particular importance in the narrative of Frenchman Bay. In addition, the islands and other geographic features visible from above Whalers Beach are the sites of important events that contribute to the narrative.

## Frenchman Bay: Then and Now

### Vancouver's Spring

A number of springs feed into Frenchman Bay but by far the most significant is Vancouver's Spring. The stream fed by this spring empties onto present day Whalers Beach. The spring was of enormous significance to ships visiting the west coast of New Holland because it produced a strong, permanent flow of good quality water. A second spring within a hundred metres of Vancouver's Spring also produced a steady flow and is documented by early European visitors.

Francois Peron, who visited Frenchman Bay in 1803 as a naturalist later wrote:

Discovered in 1791 by Vancouver, its {King George Sound} importance is made all the greater by the fact that along a stretch of coast at least equal in magnitude to the distance between Paris and St Petersburg, it is the only well-known part of New Holland where it is possible to obtain fresh water at all times. (p. 105, Voyage of Discovery to the Southern Lands)

Peron records that the knowledge of the spring saved the lives of the crew of the *Casuarina* that arrived from the Cape of Good Hope at the site with only a few bottles of water remaining.



Vancouver's Spring, 2014

Later in the 19<sup>th</sup> century the P & O shipping Company dammed the spring in order to supply vessels anchored in the Sound (see below).

Today, the existing signage needs to be replaced. The sign identifying the site as Vancouver's Spring has rusted at its base and toppled. The gully leading up the hill towards the dam is gradually being eroded because of unauthorised pedestrian traffic. However, the notch weir, to which a plaque was attached in 2004, remains in good condition.

### Stream Bay

The French, led by Nicolas Baudin, named the bay into which the springs flowed Stream Bay (*Anse de l'Aiguade*) in 1803. The expeditions cartographer, Louis Freycinet, drew a

map showing the promontory now known as Waterbay Point, Mistaken, Island and the two streams running across the sandy beach to the ocean.



Freycinet's map of Stream Bay

Baudin set up tents on the beach, one for sick crewmembers and the other for his scientific team. He used the opportunity to wash the ship's linen and hammocks in the fresh water available from the springs.



Louis de Sainson's painting of water collection from the springs at Stream Bay (Whalers Beach)

In an 1826 expedition, Durmont d'Urville's visited Frenchman Bay. The expedition's artist, Louis de Sainson produced a painting from that expedition depicting crewmembers loading fresh water from the springs by bucket on to a small boat. The Frenchmen are shown conversing with Mineng people, one of whom is carrying a bucket of water.

### **Mistaken Island**

Mistaken Island was initially named by Matthew Flinders who visited King George Sound in 1801, a year ahead of the Baudin expedition. Because of his imprisonment in Mauritius when attempting his return to England, Flinders' journal and maps were not published until 1814.

During his visit in 1803 Baudin, remarked that it was 'a reasonably pleasant island'. He instructed his astronomer to set up a camp on the island to undertake scientific observations and named it 'Observatory Island'. The scientists had to subsequently move from the island to the mainland after they accidentally set fire to it.

Mistaken Island was used as a make-shift quarantine station in the 1830s. A map of 1831 names the whole of Frenchman Bay 'Quarantine Bay'. Passengers on ships with contagious diseases such as smallpox were required to stay on the island in tents for two weeks. The quarantining of the Colonial Secretary, F. P. Barlee, (second only to the Governor in importance) and his wife on the island triggered some prompt improvements. The indignant Barlee used his office to ensure the construction of the permanent quarantine station near Point Possession in 1874.

Later the island acquired the name 'Rabbit Island' following the attempt by early settler George Cheyne to breed rabbits. Other livestock were introduced to the island. These ventures failed and the island resumed its earlier name 'Mistaken Island'.

### **Seal Island**

Seal Island was named by Vancouver after observing a large colony of seals basking on its rocky shore. After reading Vancouver's account of the seals in the Sound, Captain Isaac Pendleton from New York visited the Sound in 1803 in search of 20,000 seal skins which he planned take to Canton on the China coast. Instead, when he arrived in King George Sound there was not the bonanza he was hoping for. He did have the good fortune of meeting Baudin who told him over dinner on the *Geographe* about the rich takings in Bass Strait. Pendleton, supplied with maps and directions by Baudin, set off for the Tasmanian coast. A year later, Islanders in the Pacific murdered Pendleton and six of his crew when they went ashore.

When Vancouver sailed from the Sound he left a bottle containing a parchment on the island. A decade later Flinders visited the island to look for the bottle but couldn't find it leading him to surmise that there had been other European visitors who had taken it.

It was assumed by Flinders that a British whaler, the *Elligood*, captained by Christopher Dixon, was the culprit. He visited the Sound in 1800, though died of scurvy along with nine of his crew on his way back to Britain.

Flinders in turn left a bottle and parchment on Seal Island. However, when Captain Phillip King landed on Seal Island in 1818 to look for Flinders' bottle and parchment he found instead the skeleton of a goat's head and the remains of a bottle that were left by Lieutenant Forster, captain of the *Emu* which visited in 1815.

When Lockyer visited the Island in 1827 he found the remains of a hut, presumably erected by a sealer – but no bottles.

Local Historian, Robert Stephens sardonically referred to Seal Island as the 'Isle of Lost Bottles'. What happened to the bottles, and the parchments they contained, remains a mystery.

### **Michaelmas Island**

In the early 19<sup>th</sup> century a large number of whalers and sealers plied the southern coast of New Holland. Most were American though some were from New South Wales. Among them were boats with gangs of sealers who could be likened to pirates. Often Indigenous people bore the brunt of their criminal behaviour.

When Major Lockyer first visited King George Sound in the *Amity* in 1826 he noticed a large plume of smoke rising from Michaelmas Island. He assumed it was set by persons in distress or else for some inexplicable purpose and resolved to send a boat to investigate.

An officer from his ship subsequently returned from Michaelmas Island with four Indigenous men who had had been marooned there. That same day, one of Lockyer's crewmembers was fatally speared while bathing in Oyster Harbour. It was thought that the rescued men were among the party that murdered the crewmember.

The next day on an island inside Oyster Harbour, Lockyer found the body of an Indigenous man who, as it became clear, had been murdered over two months earlier by sealers.

Several days later Lockyer encountered a gang of sealers who had approached the *Amity* for provisions. It emerged that the men marooned had been taken to Michaelmas Island shortly after their tribesman had been murdered. Further, a woman and child had been abducted and were being held on Eclipse Island by a Samuel Bailey. Bailey was apprehended and the woman released. The child's parents could not be identified and she was later sent to Sydney. Lockyer did his best to restore relations between the Mineng and the settlers.

He wrote in his journal:

From the lawless manner in which these Sealers are ranging about requires some immediate measures to control them as, from what we know as also from what I have learnt from themselves, they are a complete set of Pirates going from Island to Island along the southern coast...a great scene of villainy is going on, where to use their own words there are a great many graves, a number of desperate Characters, runaway prisoners from Sydney and Van Dieman's Land.

### **Bald Head**

Bald Head, dominating the entrance to King George Sound, was named by Vancouver in 1791. It was visible to the early seafarers 'from 14 leagues out to sea'. Bald Head has retained its name and is often referred to by early visitors to the Sound in their journals.

Vancouver appears to have hiked to the end of the peninsula (later named Flinders Peninsula) as he observed in his diary the existence on the peak of Bald Head of 'coral'. 'Nowhere have I seen it so high up and so perfect' he wrote in his journal. This seemed to him evidence that the over many years the sea level must have fallen.

The so-called 'coral' became a matter of fascination among the scientists who followed in Vancouver's footsteps. Later visitors thought it might be petrified tree parts. Peron, a naturalist on Baudin's expedition, thought that the coral or petrified trees sections were in fact 'more or less hard sandstone, which preserves merely the shape of the plants that served them as moulds'. They were not genuine fossils.

Further, contrary to Vancouver, the French read the evidence to show that the sandstone peninsula leading to Bald Head had risen from the floor of the sea. It must have been a 'peaceful upheaval', according to Peron.

Captain King, who visited King George Sound in 1818 and obtained specimens of the material, was of the view that the material was 'merely sand agglutinated by calcereous matter', essentially agreeing with Peron..

De Sainson and M, Gaimard, officers on d'Urville's *Astrolabe* wrote that on their visit to the top of Bald Head in 1826 they 'did not find the faintest trace of any coral'. However, they did report that the top of Bald Head was 'pocked with meteors', a rather dubious claim.

To end matters, none other than Charles Darwin in 1836 made the trip to inspect the limestone material and provided a detailed explanation in his account *The Voyage of the Beagle*. It was largely consistent with that of Peron and King.

Interest in fossils, geomorphology, and variations in fauna and flora produced the intellectual ferment that eventually led to Darwin's groundbreaking *The Origin of the Species* published in 1859.

### **The Flora and Fauna**

Early English and French Botanists quickly recognised that King George Sound was a botanic 'hot spot' with a huge number of previously unclassified plants. Menzies, Brown and Leschenault are some of the most prominent botanists who visited. Some of the species growing above Whalers Beach bear the names of these early botanists.

The ships had qualified gardeners on board who assisted the botanists collect specimens though their special function was to pot and nurture exotic specimens that were then returned to Kew gardens in England or to Paris. Sometimes the officers had to vacate their cabins to make room for the large number of specimens collected.

A major destination was the chateau of Empress Josephine, the wife of Napoleon Bonaparte. Animals were also collected and shipped back to France where some ended up in the estate of Joesphine.

In addition to collections held by museums and displayed in government gardens there were also collections from New Holland in private hands. Botanists exchanged or bought specimens to build their collections.

The botanical work undertaken on these voyages was multifaceted. Botanists and gardeners collected specimens. Artists were employed to illustrate them. Botanists, not necessarily the collectors, scientifically named and classified the specimens. Gardeners propagated from seed or cuttings. There was an ambiguous grey area concerning the claims of those who collected and illustrated the plants to sell the items privately.

In later years, collectors in Europe employed locals to visit King George Sound and scour the countryside for new specimens and send the material back to them for classification.

### **The P & O Dam**

Visiting whalers and sealers would have continued to use the water source during the 19<sup>th</sup> Century as it was available at any time of the day or night, all year round and free of charge. The early seafarers collected the fresh water from the stream as it entered the beach. It is thought that the first dam was constructed in the 1850s – amounting to little more than an excavation on the side of the escarpment immediately below the emergence of the spring.

Demand for fresh water was growing. The Peninsular & Orient Company (P & O) won the sea-mail contract across southern Australia with a scheduled stop in Albany. These vessels carried the mail for the whole of the Swan River Colony.



The P & O dam in the 1890s

In order to supply the water requirements of their fleet in Albany, P & O built a dam at Vancouver's Spring to form a reservoir with a reliable and sustainable supply from which lighters would fill up and take water to their steamers. The water from Vancouver's Spring was preferred because of its purity. They could not risk using water with mineral contaminants that would corrode the boilers.

From about 1890 to 1902, Albany's water supply was insufficient to meet shipping demands. As a result, in 1902 Armstrong and Sons acquired a lease for the section of Frenchman bay containing the old P & O Dam. They refurbished the dam and constructed a jetty at the beach. Water was pumped from the dam through a pipeline that ran to the end of the 200-foot jetty seen in the photo below. The water was stored on lighters (flat bottomed barges) that were towed to ships anchored in the Sound.

Armstrong was contracted to supply water from Vancouver Dam to the Town of Albany and various types of shipping (including Boer War transports) until about 1912. By 1914, Albany's water supply had improved and the Frenchman Bay supply was only occasionally required for shipping purposes.





The jetty and pipeline to water lighter circa 1902

From the 1920s to the 1980s, various tearooms, chalets and caravan parks were established above Whalers Beach and used the Vancouver Dam reservoir as a water supply - until a bore was drilled above the beach in the late 1980s. Even when the mains water supply from Albany reached the Goode Beach area in 1983, people still collected water from Vancouver Spring for various domestic purposes (including tea making), because of the good taste of the water compared to the scheme water!



The dam in 2014

### **Norwegian whaling station**

In 1912, the Norwegian-owned Spermacet Whaling Company began hunting sperm whales on the southern coast. After taking over 200 whales in the first season they decided to set up a shore station. They began by purchasing the lighter jetty from Armstrong and Waters that contained the pipeline from the Vancouver Spring.

Today, little is left of the Norwegian Whaling Station. Further, there are few photographs and no contemporary accounts of life of the Norwegians who lived there. The workforce

was almost entirely Scandinavian and the station was not accessible by road. A rare photograph illustrates the substantial collection of buildings that were in use from 1914 to 1916 – a fact that is hard to imagine when visitors swim and barbeque at the site today. It is extraordinary that over such a short space of time the whole complex was obliterated. There are no plaques or signs explaining the significance of the site.

The station was constructed from imported timber and bricks as well as from some locally supplied karri planks. In the area above the beach that became the site of a hostel and later a caravan and camping site, there are no known archaeological remains of the whaling station of any significance. Yet this area contained the station's living quarters and consisted of five large houses, one of which served as a kitchen and mess. Four are visible in the photograph below.



The Norwegian Whaling Station circa 1915

The large two-storey building on the beachfront contained the boilers and was of timber construction. To the right is another two-storey building of brick that was used for engineering purposes.

The concrete stairs led from the processing buildings on the beachfront up the escarpment to the living quarters clearly seen in the photograph above. The stairs are the only intact remnant of the whaling station that survives today.



2014 photo showing the stairs leading from the work area to the living quarters

There are scattered remains of the brick embankment used to form a retaining wall on the lower level of the whaling station. This wall was intended to protect the buildings and equipment from high tides and erosion.

A massive storm in 1921 undermined the brick embankment causing a large brick building to topple. This storm, in effect, ended any plans for a renewal of the whaling station on that site. The site was subsequently sold for salvage,



The debris in the 1960s



The debris in 2014

Although the Norwegians dug two wells they also used Vancouver Dam for both a potable and process water supply – by installing a pipeline along the beach from the dam to various areas of the whaling station. Both the spring and the dam occur within the heritage-listed precinct of the Norwegian Whaling Station at Whalers Beach.

### **Wrecks**

There are a number of wrecks in Frenchman Bay, usually hidden under sand. One that has a section visible on Whalers beach is the *Elvie*, a water lighter made locally from jarrah. The lighters were used to haul water or coal to ships anchored in the Bay.



Elvie wreck, Frenchman Bay 1922

The wrecks were usually plundered for usable pieces of timber and in most cases little is now visible. A section of the *Elvie* has been restored and is shown above Whalers Beach in the photo below. The rough-hewn ribs are clearly visible.



Restored section of *Elvie* showing jarrah planks and ribs

### **The Hostel and Tea Rooms**

Frenchman Bay was a favoured picnic destination from the late nineteenth century. Access to Whalers Beach was possible only by boat and the enterprising Armstrong and Waters company ferried Albanians to the cove for one shilling per round trip. There were even moonlight cruises. Albany had a strong picnic culture and it was common for people to take large hampers and dress to the nines.

Tourism temporarily ceased at Frenchman Bay following the establishment of the Norwegian whaling station - the oil slick and pieces of whale carcasses that floated about made sure of that. The odors were described as 'noisome'. Following the demise of the whaling station tourism resumed. In 1934, a road was built that connected Albany to Whalers Beach and a tea kiosk was established.

Recognising its potential for tourism, the local authority established a new reserve for the purpose of camping and issued a lease that allowed water from the dam at Vancouver Spring to be pumped to the site for tourist purposes. In 1936 a hostel was built on the site of the Norwegian kitchen and mess at the summit of the stairs from Whalers Beach.



The tea rooms and hostel in the 1940s

Today there is nothing left of the hostel except the date palm that once graced its entrance.



The site of the tea rooms and hostel , 2014

Frenchman Bay Association: March 2014

**ATTACHMENT 4** - Indicative Cost Estimate

# **INDICATIVE COST ESTIMATE**

## **FRENCHMAN BAY TRAIL PROJECT**

**H + H ARCHITECTS**

**CHRIS O'KEEFE CONSTRUCTION COST CONSULTANT**

**Jun-15**



FRENCHMAN BAY TRAIL PROJECT

Ref : A794

**INDICATIVE COST ESTIMATE****9/06/2015****PROJECT COST SUMMARY**

<b>Total Cost from Summary</b>	\$ 251,000
<b>Design/Contract Contingency</b>	\$ 38,000
<b>Professional Fees</b>	\$ 51,000
<b>Subtotal</b>	\$ 340,000
<b>GST</b>	\$ 34,000
<b>TOTAL INDICATIVE COST ESTIMATE</b>	\$ 374,000

Exclusions :

**This estimate excludes the following costs :**

Cost escalation to date of construction

## Full Estimate Summary

Job Name : <u>A794 - FRENCHMAN</u>	<u>Job Description</u>
Client's Name:	FRENCHMAN BAY TRAIL PROJECT

Trd No.	Trade Description	Trade %	Cost/m2	Sub Total	Mark Up %	Trade Total
	Roads, Footpaths, Paved Areas	51.75		129,900		129,900
	Outbuildings and Covered Ways	37.85		95,000		95,000
	Landscaping and Improvements	10.40		26,100		26,100
		<b>100.00</b>		<b>251,000</b>		<b>251,000</b>
<b>Final Total : \$</b>						<b>251,000</b>

# Trade Breakup

Job Name : <u>A794 - FRENCHMAN</u>	<u>Job Description</u>
Client's Name:	FRENCHMAN BAY TRAIL PROJECT

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
<i>Trade : 1 <u>Roads, Footpaths, Paved Areas</u></i>						
1	1.5m wide limestone trail	1,000.00	m	70.00		70,000.00
2	Timber decked viewing platform, access path & steps	64.00	m2	350.00		22,400.00
3	Timber stairs adjacent to existing tearooms	15.00	m	2,500.00		37,500.00
<u>Roads, Footpaths, Paved Areas</u>						<b>Total : 129,900.00</b>
<i>Trade : 2 <u>Outbuildings and Covered Ways</u></i>						
1	Trail head interpretation structure & seating		Item			45,000.00
2	Information node interpretative structure		Item			50,000.00
<u>Outbuildings and Covered Ways</u>						<b>Total : 95,000.00</b>
<i>Trade : 3 <u>Landscaping and Improvements</u></i>						
1	Vancouver spring barrier		Item			3,000.00
2	Relocate existing elements		Item			3,100.00
3	Interpretive panels		Item			20,000.00
<u>Landscaping and Improvements</u>						<b>Total : 26,100.00</b>

**ATTACHMENT 5** - Interpretative Information

## The Heritage of Frenchman Bay

*Note: The text below will need to be abbreviated and simplified if we decide to use it. We will need to decide whether to employ someone to do this after we have agreed on the level of detail and style of presentation required. Max Angus*

### **Nodes 4 and 8: The Frenchman Bay Story**

Frenchman Bay, as this location is now named, has a surprisingly rich history.

The Noongar people have lived around King George Sound for many thousands of years. They observed the comings and goings of the first Europeans to visit King George Sound. *(Is there a Noongar word for the Sound?)* Though initial contacts with sailors from the British and French navies were friendly, their encounters with the sealers and whalers were sometimes bloody and abusive.

The arrival of the British, first Captain George Vancouver in 1791, and a decade later Commander Matthew Flinders in 1801 put King George Sound on the map. They found a safe anchorage, timber for repairs and fuel, and, above all, a year-round supply of potable water.

The French followed shortly after, launching a large scientific expedition, led by Commander Nicolas Baudin, assisted by his head-strong lieutenant Louis Freycinet and scientist Francois Peron in 1803. Captain Jules d'Urville followed in 1826. They were attracted by the certainty of fresh water provided by the spring that has flowed continuously to this day. In later years this section of King George Sound became known as Frenchman Bay and the beach onto which the stream flowed is now known as Whalers Beach.

Botanists and naturalists on board the British and French vessels were astounded by the diversity of the fauna and flora. Hundreds of specimens were collected and sent back to Europe.

The settlement of Albany developed during the 19<sup>th</sup> and early 20<sup>th</sup> centuries was also dependent on fresh water from the same spring that had supplied the early British and French sailors. The need for the spring water increased as sailing ships were replaced by steam ships. Their boilers required pure water. A dam was built in the 1860s. Pipes carried the water along a jetty to lighters that carted the water to waiting ships.

In 1914 a Norwegian company established a large whaling station at Frenchmen Bay at this very site. It closed after a few years and little now remains.

Frenchman Bay was a destination for picnickers and tourists during the late 19<sup>th</sup> and 20<sup>th</sup> century. There was no access by road until the 1930s. In the second half of the 20<sup>th</sup> century a hostel was built on this site.

You can find out more about the history of Frenchman Bay from the 11 plaques that are situated at intervals along this circular trail that runs along the top of the scarp and then returns along the beach.

It will take about 40 minutes to walk the trail.

## **Nodes 4 and 8: Map showing the various features of King George Sound and an outline of the trail.**

### **Node 8: Bald Head**

Bald Head, dominating the entrance to King George Sound, was named by Vancouver in 1791. It was visible to the early seafarers 'from 14 leagues out to sea'. Bald Head has retained its name and is often referred to by early visitors to the Sound in their journals.

Vancouver appears to have hiked to the end of the peninsula as he observed in his journal the existence of 'coral' on the peak of Bald Head. 'Nowhere have I seen it so high up and so perfect' he wrote in his journal. This seemed to him evidence that the over many years the sea level must have fallen.

The so-called 'coral' became a matter of fascination among the scientists who followed in Vancouver's footsteps. Later visitors thought it might be petrified tree parts. Peron, a naturalist on Baudin's expedition thought that the coral or petrified trees sections were in fact 'more or less hard sandstone, which preserves merely the shape of the plants that served them as moulds'. They were not genuine fossils.

Further, contrary to Vancouver, the French read the evidence to show that the Bald Head peninsula had risen from the floor of the sea. It must have been a peaceful upheaval, according to Peron.

Captain King, who visited King George Sound in 1818 and obtained specimens of the material, was of the view that the material was 'merely sand agglutinated by calcereous matter', essentially agreeing with Peron..

De Sainson and M, Gaimard, officers on d'Urville's *Astrolabe* wrote that on their visit to the top of Bald Head in 1826 they 'did not find the faintest trace of any coral'. However, they did report that the top of Bald Head was 'pocked with meteors', a rather dubious claim.

To end matters, none other than Charles Darwin in 1836 made the trip to inspect the limestone material and provided a detailed explanation in his account *The Voyage of the Beagle*. It was largely consistent with that of Peron and King.

Interest in fossils, geomorphology, and variations in fauna and flora produced the intellectual ferment that eventually led to Darwin's groundbreaking *The Origin of the Species* published in 1859.

### **Node 7: The Hostel and Tea Rooms**

Frenchman bay was a favoured picnic destination from the late nineteenth century. Access to Whalers Beach was possible only by boat and the enterprising Armstrong and Waters company ferried Albanians to the cove for one shilling per round trip. There were even moonlight cruises. Albany had a strong picnic culture and it was common for people to take large hampers and dress to the nines.

Tourism temporally ceased at Frenchman Bay following the establishment of the Norwegian whaling station - the oil slick and pieces of whale carcasses that floated about made sure of that. The odours were described as 'noisome'. Following the demise of the whaling station tourism resumed. In 1934 a road was built that connected Albany to Whalers Beach and a tea kiosk was established.

Recognising its potential for tourism, the local authority established a new reserve for the purpose of camping and issued a lease that allowed water from the dam at Vancouver Spring to be pumped to the site for tourist purposes. In 1936 a hostel was built on the site of the Norwegian kitchen and mess at the summit of the stairs from Whalers Beach.

Today there is nothing left of the hostel except the date palm that once graced its entrance.

### **Node 9: Norwegian whaling station**

In 1912 the Norwegian-owned Spermacet Whaling Company began hunting sperm whales on the southern coast. After taking over 200 whales in the first season they decided to set up a shore station. They began by purchasing the lighter jetty from Armstrong and Waters that contained the pipeline from the Vancouver Spring.

Today, little is left of the Norwegian Whaling Station. Further, there are few photographs and no contemporary accounts of life of the Norwegians who lived there. The workforce was almost entirely Scandinavian and the station was not accessible by road. A rare photograph illustrates the substantial collection of buildings that were in use from 1914 to 1916 – a fact that is hard to imagine when visitors swim and barbeque at the site today. It is extraordinary that over such a short space of time the whole complex was obliterated. There are no plaques or signs explaining the significance of the site.

The station was constructed from imported timber and bricks as well as from some locally supplied karri planks. In the area above the beach that became the site of a hostel and later a caravan and camping site, there are no known archaeological remains of the whaling station of any significance. Yet it contained the station's living quarters and consisted of five large houses, one of which served as a kitchen and mess. Four are visible in the photograph below.

The large two-storey building on the beachfront contained the boilers and was of timber construction. To the right is another two-storey building of brick that was used for engineering purposes.

The concrete stairs led from the processing buildings on the beachfront up the escarpment to the living quarters clearly seen in the photograph above. The stairs are the only intact remnant of the whaling station that survives today.

The remains of the brick embankment used form a retaining wall on the lower level of the whaling station. It was intended to protect the buildings and equipment from high tides and erosion.

A massive storm in 1921 undermined the brick embankment causing a large brick building to topple. This storm, in effect, ended any plans for a renewal of the whaling station on that site. The site was subsequently sold for salvage,

### **Node 10: The stream Vancouver's Spring**

A number of springs feed into Frenchman Bay but by far the most significant is Vancouver's Spring. The stream fed by this spring empties onto present day Whalers Beach. The spring was of enormous significance to ships visiting to the west coast of New Holland because it produced a regular flow of good quality water all year round. A

second spring within a hundred metres of Vancouver's Spring also produced a steady flow and is documented by early European visitors.

Francois Peron, who visited Frenchman Bay in 1803 as a naturalist later wrote:

Discovered in 1791 by Vancouver, its {King George Sound} importance is made all the greater by the fact that along a stretch of coast at least equal in magnitude to the distance between Paris and St Petersburg, it is the only well-known part of New Holland where it is possible to obtain fresh water at all times. (p. 105, Voyage of Discovery to the Southern Lands)

Peron records that the knowledge of the spring saved the lives of the crew of the *Casuarina*. The boat had broken its rudder and the voyage had taken much longer than expected. The crew headed straight for King George Sound and reached the spring with only a few bottles of water remaining.

### **Hydrology and Hydrogeology of the Spring**

The catchment area for the spring is predominantly to the west and northwest in the granite hills above the Whalers Beach. Rainfall and surface runoff infiltrate the soil and sand covering the granite hills and form groundwater flow, which moves along the top the low permeability granite into the sand forming the escarpment above Whalers Beach. Within the spring catchment, all groundwater flow reports to the spring area and discharges near the base of the escarpment above Whalers Beach.

The size of this catchment and the annual amount of rainfall-runoff infiltration determines the sustainable yield of Vancouver Spring. The rate of flow from the spring is seasonal and depends on the rainfall pattern. The smallest flows occur at the end of summer (April), when groundwater levels are declining due to the lack of rainfall over summer. The largest flows occur at the end of winter (October), when groundwater levels are higher due to infiltrating rainfall over winter. There is enough rainfall-runoff recharge over winter to increase groundwater storage in the catchment and this storage sustains groundwater flows to the spring during summer.

The spring has probably been flowing for thousands of years and therefore the balance of catchment size and rainfall-runoff infiltration volumes has resulted in a sustainable, continuous flow from the spring, which has served historical maritime expeditions and Albany well.

### **Stream Bay**

The French named the bay into which the springs flowed Stream Bay (*Anse de l'Aiguade*) in 1803. The expedition's cartographer, Louis Freycinet, drew a map showing the promontory now known as Waterbay Point, Mistaken Island and the two streams running across the sandy beach to the ocean. He explains in an annotation that the long beach to the north, now known as Goode Beach, is not drawn to scale.

Baudin set up tents on the beach, one for sick crewmembers and the other for his scientific team. He used the opportunity to wash the ship's linen and hammocks in the fresh water available from the springs.

In an 1826 expedition, Durmont d'Urville's visited Frenchman Bay. The expedition's artist, Louis de Sainson produced a painting from that expedition depicting crewmembers loading fresh water from the springs by bucket on to a small boat. The



Frenchmen are shown conversing with Noongar people, one of whom is carrying a bucket of water.

### **Node 3 (Below lookout showing a panoramic view of the Sound)**

#### **Mistaken Island**

Mistaken Island was initially named by Matthew Flinders who visited King George Sound in 1801, a year ahead of the Baudin expedition. Because of his imprisonment in Mauritius when attempting his return to England, Flinders' journal and maps were not published until 1814.

During his visit in 1803 Baudin, remarked that it was 'a reasonably pleasant island'. He instructed his astronomer to set up a camp on the island to undertake scientific observations and named it 'Observatory Island'. The scientists had to subsequently move from the island to the mainland after they accidentally set fire to it.

Mistaken Island was used as a make-shift quarantine station in the 1830s. A map of 1831 names the whole of Frenchman Bay 'Quarantine Bay'. Passengers on ships with contagious diseases such as smallpox were required to stay on the island in tents for two weeks. The quarantining of the Colonial Secretary, F. P. Barlee and his wife on the island triggered some prompt improvements. Barlee used his office to ensure the construction of the permanent quarantine station near Point Possession in 1874

Later the island acquired the name Rabbit Island following the attempt by early settler George Cheyne to breed rabbits. Other livestock were introduced to the island. These ventures failed and the island resumed its earlier name 'Mistaken Island'.

#### **Seal Island**

Seal Island was named by Vancouver after observing a large colony of seals basking on its rocky shore. After reading Vancouver's account of the seals in the Sound, Captain Isaac Pendleton from New York visited the Sound in 1803 in search of 20,000 seal skins which he planned take to Canton on the China coast. Instead, when he arrived in King George Sound there was not the bonanza he was hoping for. He did have the good fortune of meeting Baudin who told him over dinner on the *Geographe* about the rich takings in Bass Strait. Pendleton, supplied with maps and directions by Baudin, set off for the Tasmanian coast. A year later, Islanders in the Pacific murdered Pendleton and six of his crew when they went ashore.

When Vancouver sailed from the Sound he left a bottle containing a parchment on the island. A decade later Flinders visited the island to look for the bottle but couldn't find it leading him to surmise that there had been other European visitors who had taken it.

It was assumed by Flinders that a British whaler, the *Elligood*, captained by Christopher Dixon, was the culprit. He visited the Sound in 1800, though died of scurvy along with nine of his crew on his way back to Britain.

Flinders in turn left a bottle and parchment on Seal Island. However, when Captain Phillip King landed on Seal Island in 1818 to look for Flinders' bottle and parchment he found instead the skeleton of a goat's head and the remains of a bottle that were left by Lieutenant Forster, captain of the *Emu* which visited in 1815.

When Lockyer visited the Island in 1827 he found the remains of a hut, presumably erected by a sealer – but no bottles.

Local Historian, Robert Stephens sardonically referred to Seal Island as the 'Isle of Lost Bottles'. What happened to the bottles, and the parchments they contained, remains a mystery.

### **Michaelmas Island**

In the early 19<sup>th</sup> century a large number of whalers and sealers plied the southern coast of New Holland. Most were American though some were from New South Wales. Among them were boats with gangs of sealers who could be likened to pirates. Often Indigenous people bore the brunt of their criminal behaviour.

When Major Lockyer first visited King George Sound in the *Amity* in 1826 he noticed a large plume of smoke billowing from Michaelmas Island. He assumed it was set by persons in distress or else for some inexplicable purpose and resolved to send a boat to investigate.

An officer from his ship subsequently returned from Michaelmas Island with four Noongar men who had had been marooned there. That same day, one of Lockyer's crewmembers was fatally speared while bathing in Oyster Harbour. It was thought that the rescued men were among the party that murdered the crewmember.

The next day on an island inside Oyster Harbour, Lockyer found the body of a Noongar man who, as it became clear, had been murdered over two months earlier by sealers.

Several days later Lockyer encountered a gang of sealers who had approached the *Amity* for provisions. It emerged that the marooned Noongar men had been taken to Michaelmas Island shortly after their tribesman had been murdered. Further, a woman and child had been abducted and were being held on Eclipse Island by a Samuel Bailey. Bailey was apprehended and the woman released. The child's parents could not be identified and she was later sent to Sydney. Lockyer did his best to restore relations between the Noongar and the settlers.

He wrote in his journal:

From the lawless manner in which these Sealers are ranging about requires some immediate measures to control them as, from what we know as also from what I have learnt from themselves, they are a complete set of Pirates going from Island to Island along the southern coast...a great scene of villainy is going on, where to use their own words there are a great many graves, a number of desperate Characters, runaway prisoners from Sydney and Van Dieman's Land.

## **Node 3**

### **The Flora and Fauna**

Early English and French Botanists quickly recognised that King George Sound was a botanic 'hot spot' with a huge number of previously unclassified plants. Menzies, Brown and Leschenault are some of the most prominent botanists who visited. Some of the species growing above Whalers Beach bear the names of these early botanists.

The ships had qualified gardeners on board who assisted the botanists collect specimens though their special function was to pot and nurture exotic specimens that were then returned to Kew gardens in England or to Paris. Often the officers had to vacate their cabins to make room for the large number of specimens collected.

A major destination was the chateau of Empress Josephine, the wife of Napoleon Bonaparte. Animals were also collected and shipped back to France where some ended up in the estate of Josephine.

In addition to collections held by museums and government gardens collections from New Holland were in private hands. There was a flourishing market for rare plants. Botanists exchanged or bought specimens to build their collections.

The botanical work undertaken on these voyages was multifaceted. Botanists and gardeners collected specimens. Artists were employed to illustrate them. Botanists, not necessarily the collectors, scientifically named and classified the specimens. Gardeners propagated from seed or cuttings. There was an ambiguous grey area concerning the claims of those who collected and illustrated the plants to sell the items privately.

In later years, collectors in Europe employed locals to visit King George Sound and scour the countryside for new specimens and send the material back to them for classification.

## **Node 6: Vancouver Dam Site**

### **The P & O Dam**

Visiting whalers and sealers would have continued to use the water source during the 19<sup>th</sup> Century as it was available at any time of the day or night, all year round and free of charge. The early seafarers collected the fresh water from the stream as it entered the beach. It is thought that the first dam was constructed in the 1850s – amounting to little more than an excavation on the side of the escarpment immediately below the emergence of the spring.

Demand for fresh water was growing. The Peninsular & Orient Company (P & O) won the sea-mail contract across southern Australia.

In order to supply the water requirements of their fleet, P & O built a dam at Vancouver Spring to form a reservoir with a reliable and sustainable supply from which lighters would fill up and take water to their steamers. The water from Vancouver's Spring was preferred because of its purity. They could not risk using water with mineral contaminants that would corrode the boilers.

From about 1890 to 1902, Albany's water supply was insufficient to meet shipping demands. As a result, in 1902 Armstrong and Sons acquired a lease for the section of Frenchman bay containing the old P & O Dam. They refurbished the dam and constructed a jetty at the beach. Water was pumped from the dam through a pipeline that ran to the end of the 200-foot jetty seen in the photo below.

Armstrong was contracted to supply water from Vancouver Dam to the Town of Albany and various types of shipping (including Boer War transports) until about 1912. By 1914, Albany's water supply had improved and the Frenchman Bay supply was only occasionally required for shipping purposes.

Although the Norwegians dug two wells they also used Vancouver Dam for both a potable and process water supply – by installing a pipeline along the beach from the dam to various areas of the whaling station.

From the 1920s to the 1980s, various tearooms; chalets; and caravan parks were established above Whalers Beach and used the Vancouver Dam reservoir as a water supply until a bore was drilled above the beach in the late 1980s. Even when the mains water supply from Albany reached the Goode Beach area in 1983, people still collected water from Vancouver Spring for

various domestic purposes (including tea making), because of the good taste of the water compared to the scheme water!

**Node 11: Wrecks**

There are a number of wrecks in Frenchman bay, usually hidden under sand. One that has a section visible on Whalers beach is the *Elvie*, a water-lighter made locally from jarrah. The lighters were used to haul water or coal to ships anchored in the Bay.

The wrecks were usually salvaged for usable pieces of timber and so in most cases little is now visible. A section of the *Elvie* has been restored and is shown above Whalers Beach in the photo below. The rough-hewn ribs are clearly visible.

Another wreck, the *Rip* rests in the waters below, mostly buried by sand. An outline of the *Rip* can sometimes be seen close to shore 100 metres south of the *Elvie*.

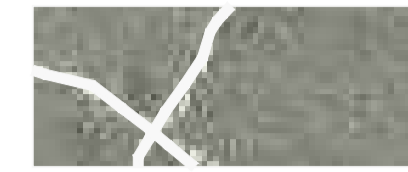


NEW INFORMATION NODE WITH INTERPRETIVE STRUCTURE & SEATING - VIEWING POINT AND A PLACE TO REFLECT

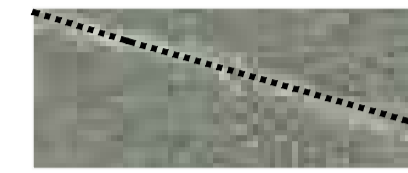


TIMBER DECKED VIEWING PLATFORM WITH TIMBER SEAT AND A TIMBER BOARD WALK FORMING THE TRANSITION TO NEW LIMESTONE PATHWAY

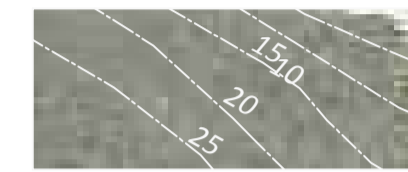
LEGEND



EXISTING WALK TRAILS



EXISTING POWER LINE



EXISTING CONTOUR LINES



PROPOSED FRENCHMAN BAY TRAIL ON PUBLIC LAND: 1.5m WIDE PEDESTRIAN LIMESTONE WALK TRAIL (INDICATIVE LAYOUT)



PROPOSED FRENCHMAN BAY TRAIL ON PRIVATE LAND: 1.5m WIDE PEDESTRIAN LIMESTONE WALK TRAIL (INDICATIVE LAYOUT)



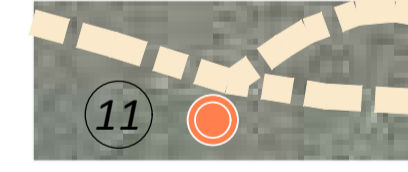
PROPOSED STEPS ADJACENT TO EXISTING HERITAGE STEPS: 1.5m WIDE PEDESTRIAN LIMESTONE WALK TRAIL (INDICATIVE LAYOUT)



PROPOSED FRENCHMAN BAY TRAIL: BEACH



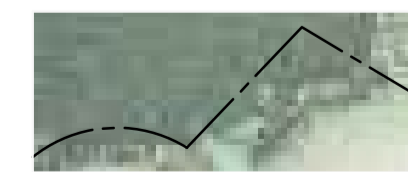
PROPOSED LOCATION OF NEW TRAIL HEAD, TRAIL INFORMATION POINT OR INFORMATION NODE WITH INTERPRETIVE STRUCTURE



PROPOSED LOCATION FOR INFORMATION NODES WITH 'INTERPRETIVE SIGNAGE' (INDICATIVE LAYOUT)



PROPOSED LOCATION FOR 'DIRECTIVE SIGNAGE', DIRECTIVE SIGNAGE IN NEW PATH WAY CAST IN LIME STONE COLOURED CONCRETE TO FORM A DISTINGUISHED SECTION IN NEW LIMESTONE WALK TRAIL (INDICATIVE LAYOUT)



FRENCHMAN BAY WHALING STATION (RUIN) HERITAGE REGISTER PLACE 16612



**Proposed Concept Plan - Draft**  
WITH INDICATIVE STRUCTURES, MATERIALS AND INTERPRETATION OPTIONS  
SCALE 1:1500 @ A1

TRAIL HEAD - INTERPRETATION



TRAIL HEAD - INTERPRETATION STRUCTURE & SEATING

'DIRECTIVE SIGNAGE'



'DIRECTIVE SIGNAGE' IN NEW PATH WAY CAST IN LIME STONE COLOURED CONCRETE TO FORM DISTINGUISHED SECTION IN NEW LIMESTONE WALK TRAIL (INDICATIVE LAYOUT)

PATHWAYS



STABILISED LIME STONE WALK TRAILS

SEATING

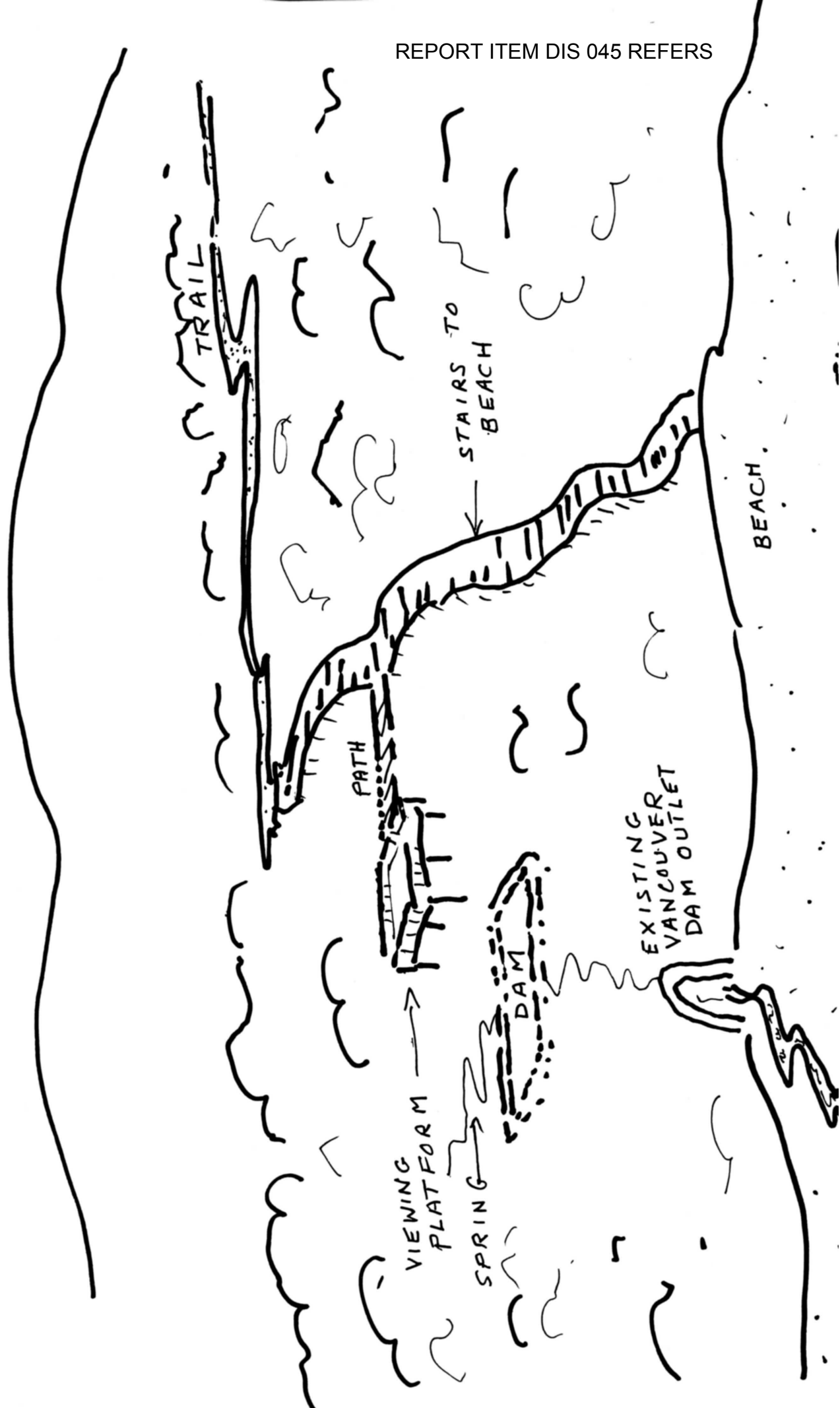


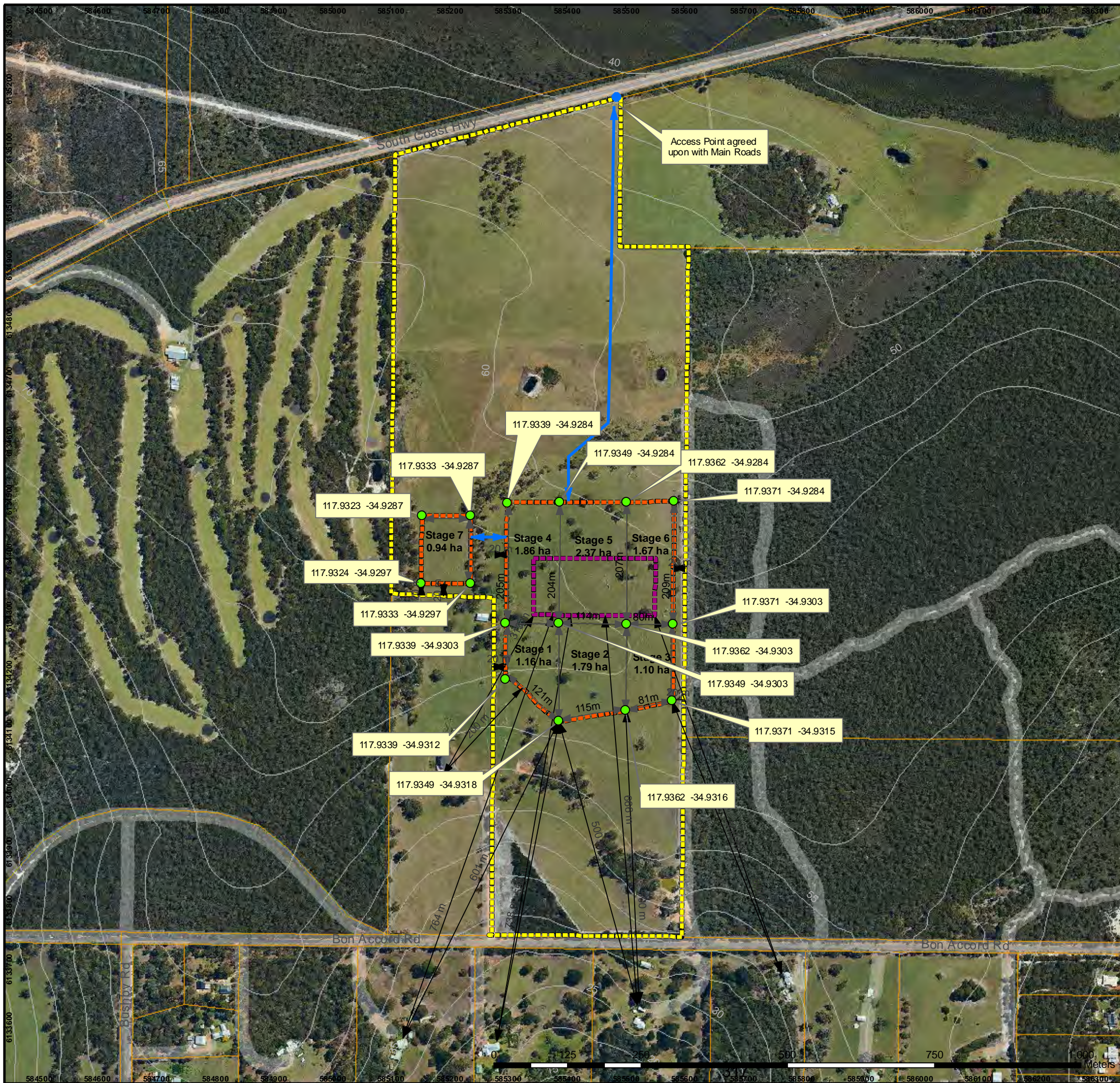
CONCRETE OR QUARY-CUT GRANITE BLOCK SEATING TO NEW TRAIL HEAD & ALONG NEW PATH WAYS

INDICATIVE INTERPRETATION OPTIONS



FRENCHMAN BAY HERITAGE TRAIL  
VANCOUVER SPRING & DAM SECTION





REPORT ITEM DIS 046 REFERS



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Overview Map Scale 1:100,000

Legend

- Lot 5241
  - Subject Site
  - Crushing & Screening Extents
  - Cadastre
  - 5m Contours
  - Access
  - Lot Dimensions
  - Separation Distances
- Stage Plan**
- Stage



Scale  
1:6,500 @ A3  
GDA MGA 94 Zone 50

**Data Sources**  
Aerial Imagery: SLIP Virtual Mosaic WMS Service, Landgate 2016  
Cadastre and Contours: Landgate 2016  
Overview Map: World Topographic map service, ESRI 2012

CLIENT

Gary Howie  
Lot 56 Bon Accord Road  
Lower King, WA 6330

Site Plan

STATUS	FILE	DATE
FINAL	MSC0143	29/08/2017

**Lot 56 Bon Accord  
Road, Lower King  
WA 6330**

# Environmental Assessment Report and Operations Plan



Bio Diverse Solutions

30<sup>th</sup> August 2017





DOCUMENT CONTROL

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CONTENTS

1.	INTRODUCTION.....	1
2.	BACKGROUND.....	1
	2.1.SITE DETAILS.....	1
	2.2.EXISTING LAND USES.....	1
	2.3.ALIGNMENT TO LEGISLATION, POLICY AND GUIDELINES.....	1
	2.4.SCOPE OF WORKS.....	2
	2.2.1.DESKTOP SURVEY.....	2
	2.3.1.SITE ASSESSMENT.....	2
3.	EXISTING ENVIRONMENT.....	3
	3.1.EXISTING LAND USE.....	3
	3.2.ADJACENT LAND USES AND TENURE.....	4
	3.3.CLIMATE.....	5
	3.4.TOPOGRAPHY.....	5
	3.5.GEOLOGY AND SOILS.....	5
	3.5.1.DESKTOP ASSESSMENT.....	5
	3.5.2.SITE SOIL TESTING (AUGUST 2011).....	6
	3.6.HYDROGEOLOGY AND GROUNDWATER.....	6
	3.7.SURFACE WATER AND WETLANDS.....	7
	3.8.ACID SULPHATE SOILS.....	7
	3.9.FLORA.....	7
	3.9.1. THREATENED FLORA DATABASE SEARCHES.....	7
	3.9.2. REMNANT VEGETATION.....	7
	3.9.3. VEGETATION TYPES.....	7
	3.9.4. VEGETATION ASSESSMENT AND CONDITION.....	8
	3.10.FAUNA.....	10
	3.10.1 DATABASE SEARCHES.....	10
	3.10.2. FAUNA HABITAT.....	11
	3.11.HERITAGE.....	11
4.	PROPOSED DEVELOPMENT.....	12
	4.1. EXTRACTION PROCESS, STAGING AND HAULAGE ROUTES.....	12
	4.2. VEGETATION AND TOPSOIL REMOVAL.....	12
	4.3. OPERATION TIMES.....	12
	4.4. VEHICLES AND MACHINERY.....	12
5.	ENVIRONMENTAL CONSIDERATIONS.....	14
	5.1.NOISE.....	14
	5.2.DUST.....	14
	5.3.LIGHT.....	14
	5.4.DISCHARGES TO WATER.....	14
	5.5.DISCHARGES TO LAND.....	15
	5.6.WETLANDS.....	15
	5.7.FLORA AND VEGETATION.....	15
	5.8.FAUNA.....	15
	5.9.HERITAGE.....	15
6.	MANAGEMENT PLANS.....	16
	6.1.WEED MANAGEMENT.....	16
	6.2.DIEBACK AND GENERAL HYGIENE MANAGEMENT.....	18
	6.3.BUSHFIRE RISKS AND MANAGEMENT.....	18
	6.4.DUST MANAGEMENT.....	22
	6.5.NOISE MANAGEMENT.....	23
	6.6.REHABILITATION MANAGEMENT.....	23
	REHABILITATION METHODS.....	23
	SEED STOCK.....	23
	METHODOLOGY.....	23
	TOPSOIL MANAGEMENT.....	24
	BANK STABILITY WORKS/EROSION CONTROL.....	24
	6.7.ACID SULFATE SOIL MANAGEMENT.....	24
	6.8.SURFACE WATER AND DRAINAGE MANAGEMENT PLAN.....	24
	6.9.CONTROL OF ENVIRONMENTAL INCIDENTS.....	24
	6.10.CORRECTIVE AND PREVENTATIVE ACTIONS.....	25
	6.11.CONTINGENCY PROCEDURES.....	25
	6.12.SPILL MANAGEMENT PROCEDURES.....	25
	6.13.MONITORING AND CONTINGENCY PLANNING.....	27
7.	CONSULTATION PROCESS.....	28
8.	IMPLEMENTATION PROCESS.....	29
9.	REFERENCES.....	30

APPENDICES

- APPENDIX A – LOCATION AND SITE FACILITY MAPPING
- APPENDIX B – 250K HYDROGEOLOGICAL MAPPING
- APPENDIX C – SIGNIFICANT WETLANDS AND ENVIRONMENTALLY SENSITIVE AREAS.
- APPENDIX D – ACID SULPHATE SOIL MAPPING
- APPENDIX E – IBRA AND PRE-EUROPEAN VEGETATION MAPPING
- APPENDIX F – DATABASE SEARCHES
- APPENDIX G – BUSHFIRE MAPPING

## 1. Introduction

Bio Diverse Solutions (Environmental Consultants) was commissioned by Gary Howie (“The Client”) as Environmental Consultants to prepare an Environmental Assessment Report and Operations Plan for a proposed Gravel extraction project at Lot 56 Bon Accord Road, Lower King within the City of Albany.

The purpose of this document is to assess the environmental values for the site, assess the proposed facility and provide supporting documentation for a Development Application with the City of Albany. The document provides and outlines details of emissions associated with the project and associated mitigation measures.

## 2. Background

### 2.1. Site Details

The “property” is defined as Lot 56 and is located 15km north of the Albany CBD along Bon Accord Road in the municipality of the City of Albany. The property is 56.56 hectares in total and is situated in a rural residential/rural interface. The property is zoned as “General Agriculture” under the City of Albany Local Planning Scheme No. 1. The “subject site” is defined as the 10.93 ha area in which extraction will occur and “crushing and screening extents” are defined as the area in which crushing and screening operations will occur within the property.

Please refer to Figure 1 below and Appendix A - Location Mapping.



**Figure 1 – Property Locality**

### 2.2. Existing Land Uses

The existing land use within the subject site is “General Agriculture”. There will be no further impacts to the Subject Site. The adjacent properties to the east and west are also zoned general agriculture, with the adjacent property to the south west currently running a small herd of sheep. After extraction activities are complete (anticipated 5 years) the Subject Site will return to agricultural grazing pursuits.

### 2.3. Alignment to Legislation, Policy and Guidelines

In assessing the proposed gravel extraction facility, Bio Diverse Solutions has prepared this report aligned to the following legislation:

- *Biosecurity and Agriculture Management Act 2007 (BAM Act);*
- *Environmental Protection Act 1986;*
- *Environmental and Protection and Biodiversity Conservation Act 1999 (EPBC Act);*

- Environmental Protection Authority (EPA) (2015) *Draft Environmental Assessment Guideline for Separation Distances between Industrial and Sensitive Land Uses*;
- Environmental Weeds Strategy for Western Australia 1999;
- *Wildlife Conservation Act 1950*;
- *Conservation and Land Management Act 1980 (CALM Act)*;
- Environmental Code of Practise – Extractive Industries (1990) – DEP (now EPA);
- Water Quality Protection Guidelines No.6 (2000) – WRC (now DoW); and
- City of Albany Policy Extractive Industries and Mining

## 2.4. Scope of Works

### 2.2.1. Desktop Survey

Desktop assessment was undertaken of government databases and associated literature. A desktop review of the Subject Site within and adjacent to the site was undertaken. This assessment was conducted to various levels, ranging from state-wide to area specific information.

The following desktop searches were undertaken as part of this report:

- Interim Biogeographic Regionalisation of Australia (IBRA) – identifies, at a regional level, the vegetation communities and land systems present within Australia;
- Land Systems – Further detailed information on the vegetation communities and land systems;
- Department of Indigenous Affairs - Aboriginal Heritage Database
- Department of Water – 250K Hydrogeological Mapping and Public Drinking Water Source Areas datasets, 2001;
- Department of Agriculture and Food WA (DAFWA) – Declared weeds database;
- Pre-European vegetation mapping dataset (DEC 2005) based on the project AJM Hopkins, GR Beeston, JM Harvey (2000);
- Beard's Vegetation Classification dataset, 1:3,000,000 digital representation of Beard's vegetation map of the state of Western Australia;
- Department of Water (DoW) Water Information Reporting tool;
- Department of Parks and Wildlife threatened flora and fauna dataset publicly available online;
- NatureMap (DPaW) – Provides Species Reports for a chosen area; and
- EPBC Act Protected Matters Search Tool – Provides guidance on matter of national environmental significance.

### 2.3.1. Site Assessment

Assessment of the property was previously undertaken in 2011 as part of a Land Capability Assessment conducted by Bio Diverse Solutions. A follow up secondary site survey was again conducted by Bio Diverse Solutions in April 2017 to ensure that no major changes had occurred within or surrounding the subject site. The original site assessment undertaken for a proposed subdivision involved an assessment of remnant vegetation, site soils analysis and laboratory testing of soils by Structerre and CSBP Soil Laboratory. Soil testing was undertaken in late winter conditions in August 2011. A summary of results of these assessments are included in the following sections.

3. Existing Environment

3.1. Existing Land Use

The property was cleared of native vegetation in 1949 (E. Rogister 2010) for agricultural use. Historically the land has been used for cattle grazing, a dairy and for general stock grazing. The property and the Subject Site currently has no residential dwelling, or other infrastructure on the property. Subdivision of the property in 2015 resulted in the original house being separated and two lots created. Refer to photographs 1-6 below.



Photograph 1: View to the South of the property of cattle pasture areas internal to the subject site. Photo taken in 2017.



Photograph 2: View to the east of the property of cattle pasture areas internal to the subject site. Photo taken in 2017.



Photograph 3: Cattle waiting to go into the cattle yards. Photo taken in 2017.



Photograph 4: View of shed infrastructure located on the adjacent property to the south east. Photo taken in 2017.



Photograph 5: View from the east to west of the creek / seepage area through the paddock. Photo taken by K. Kinneer in 2011.



Photograph 6: View of seepage dam in the western area of the property adjacent to the Golf Course. Photo taken by K. Kinneer in 2011.

**3.2. Adjacent Land uses and Tenure**

The subject site is located within a Rural Residential/Rural interface, with rural residential properties to the south and south east along Bon Accord Road. There is also a residential property located directly to the west – this dwelling formed the original property and was part of Lot 56 but has since been subdivided. City of Albany Reserves are adjacent to the west (Golf Course Reserve 28686 and Bon Accord Road Nature Reserve 30469), and east (Reserve 18779 and 34934). North of the property is the South Coast Highway and Bakers Junction Nature Reserve Vested with the DEC (Reserve 30463). Refer to Photographs 7-12 below.



Photograph 7: View of the neighbouring existing dwelling.



Photograph 8: View of bushland to the west of the property within the Golf Course Reserve 28686.



Photograph 9: View of remnant bushland within reserve 18779 along the eastern boundary of the property.



Photograph 10: View of remnant bushland within Reserve 18779 along the eastern boundary of the property.



Photograph 11: Roadside vegetation present along Bon Accord Road, view looking towards the Bon Accord Road Nature Reserve (R30469).



Photograph 12: Remnant vegetation within Reserve 34934 located to the east of property.

### 3.3. Climate

The nearest Bureau of Meteorology (BoM) operational station is Albany (Site No. 009500). The average maximum temperature is 19.5°C whilst the average minimum temperature is 11.7°C. The average annual rainfall for the station is 929.2mm, with the majority of rainfall occurring between May and September (BoM, 2017).

### 3.4. Topography

The property is located in an undulating landscape in the King River Catchment area. The average slope for the area is (rise/run) calculated to be 3-6°. The site slopes from a central ridge (highest point 65m AHD) to the north east and to the south (35m AHD) towards Bon Accord Road. There is a creek line (Johnson Creek) entering the property from the west exiting to the east with the areas within the creek line relatively flat (<2°).

### 3.5. Geology and Soils

#### 3.5.1. Desktop Assessment

Regolith Mapping (Department of Mines and Petroleum - Geological Survey Division 2001) indicates soils across the Subject Site are classified as Sandplain, mainly eolian; includes some residual deposits. In addition, Australian Geoscience Mapping indicates the site is from the Cainozoic/Quaternary Period Qzs (refer to Figure 2 below) – Sand – white, grey or brown, commonly contains iron pisoliths and overlies laterite; and Qa – Clay Silt, sand and gravel in watercourses; and Cainozoic/Tertiary Period Tp - Plantagenet Group: mostly Pallinup Siltstone; spongolite with minor siltstone and sandstone, includes Nanarup Limestone Member of the Werrilup Formation (1984 Geological Survey WA). Refer to Figure 2.

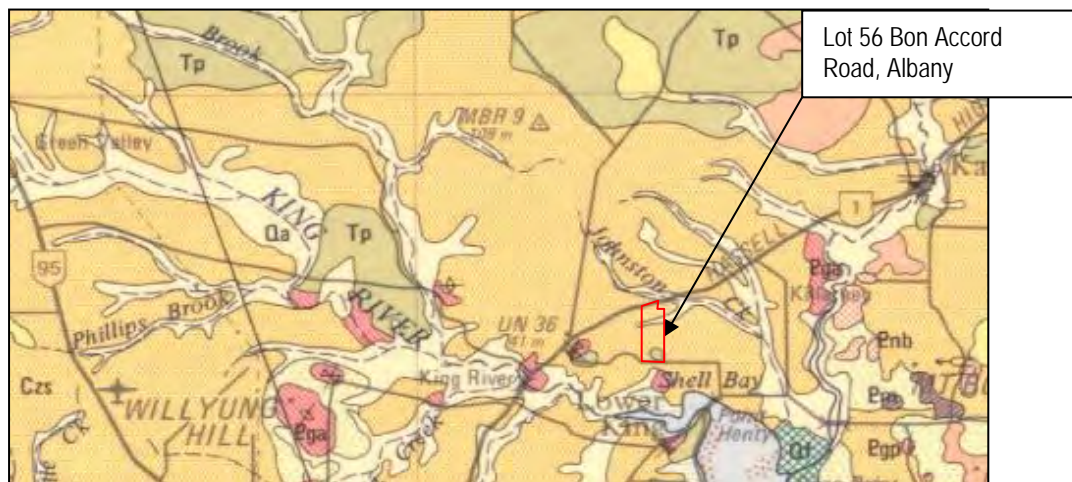


Figure 2: Australian Geoscience Mapping

### 3.5.2. Site Soil Testing (August 2011)

Site soil testing was undertaken by Bio Diverse Solutions in April 2011. The soil types encountered were:

- Sands over Sandy Gravel; and
- Sand over Sandy Gravel/Laterite Rock.

#### Sands over Sandy Gravel

This soil type was encountered in approximately 30% of the property in southern areas below the 50m AHD contour (north of Bon Accord Road) at Boreholes 1 and 10, and in the creek area at Borehole 6. Soils were commonly dark grey/black silty sandy topsoil, over dark grey sand over white/grey sand and sandy gravels. Refer to Appendix G – Previous Reports for more detail.

Laboratory testing was undertaken for rates of permeability by Structerre in the cream sands (A and B Soil Horizon) of Borehole 1 and 10 with a result of 0.3 m/day and 0.2 m/day respectively this indicates the soils are moderately draining (Bio Diverse Solutions, 2011). Refer to Appendix G – Previous Reports for more detail.

Phosphorous Retention Index Testing (PRI) was undertaken by CSBP Laboratories of the same soil with a result of 0.2 for the sands and 675 in the sandy gravels. This indicates the sands have a poor ability to fix nutrients, however the underlying sandy gravels have a high ability of fixing nitrogen and phosphorous (Bio Diverse Solutions, 2011). Refer to Appendix G – Previous Reports for more detail.

#### Sand over Sandy Gravel/Laterite Rock

This soil type was encountered over approximately 70% of the site at Boreholes 2, 3, 4, 5, 7, 8 and 9. Soils were commonly dark grey sandy topsoil, with light brown/grey sandy gravel over laterite rock. Soils were moist from previous day's heavy rains. Refer to Appendix G – Previous Reports for more detail.

Shallow rock was noted within this soil type, often exposed at the surface. The machine managed to penetrate through the laterite rock in Borehole 9 and mottled red/pink/white clay was reached. It would be assumed that this would be common across the site as the material underlying laterite rock. Drilling through the rock was able to be undertaken by penetrating through the "floater" laterite rocks. Noted on site were excavated "floater" laterite rocks from previous disturbances from farming activities.

Laboratory testing was undertaken for rates of permeability by Structerre in the Sandy Gravels/Laterite rock at Borehole 2 and 9 (A and B Soil Horizon) with a rate of 0.1m/day for both. These results indicate the sandy gravels/laterite rock soils are moderately draining. Refer to Appendix G – Previous Reports for more detail.

PRI tests were undertaken by CSBP Laboratories of the sandy gravels and gravel/laterite at Borehole 2 and 9 had a result of 303.4 and 697.9 indicating the sandy gravels and gravel soils have an extremely high capability of fixing nitrogen and phosphorous.

### 3.6. Hydrogeology and Groundwater

Australian Geoscience Mapping and Department of Water 250K Hydrogeological mapping places the property and the Subject Site from the "Tertiary–Cainozoic-Phanerozoic (TP): Plantagenet Group - siltstone, spongolite; minor sandstone, peat, and conglomerate". The aquifer is a "sedimentary aquifer with intergranular porosity – extensive aquifers, major groundwater resources". Refer to Appendix B - 250K Hydrogeological Mapping.

The subject site is situated within the Albany Coast Basin and the Oyster Harbour Kalgan King Catchment. Department of Water Database searches show there are no groundwater resources on the Site, however groundwater was encountered at 1.2m in Borehole 6 during the August 2011 soil testing. Borehole 6 was located in the central portion of the property. Groundwater was not encountered at any of the other 9 boreholes during the August (late winter) 2011 soil investigations (Boreholes were constructed to a maximum depth of 2.5m). There are two small existing dams within the lower lying area through the centre of the Subject Site and one dam within the adjacent golf course in the same low-lying area which appear to be groundwater fed, it is likely a groundwater stream is present through this low-lying section which discharges in a north easterly direction to Johnston Creek.

The subject site is not in a Public Drinking Water Source Area (PDWSA).



### 3.7. Surface Water and Wetlands

The Subject Site is gently sloping with little to no surface runoff occurring most of the year. Subjected to heavier rainfalls the northern portion of the site drains in a north easterly direction towards Johnston Creek, located outside of the Subject Site. The central portion of the site also drains towards Johnston creek via a floodplain running through the centre of the property which is likely underlain with a groundwater stream. Johnston Creek ultimately discharges to Oyster Harbour. The southern portion of the site drains in a southerly direction, likely discharging to the King River via the Bon Accord Road Reserve. Refer to Surface Water Mapping Appendix B.

Database searches show that the northern and central portions of the site are located in the Johnston Creek Conservation Class Wetland area. Refer to Appendix C – Significant Wetlands and Environmentally Sensitive Areas. The vegetation at the Subject Site is classified as completely degraded (as described below in Section 3.9.4) due to its long history of agricultural use, there is very little habitat for fauna (Section 3.10.2) and there are no significant waterways across the Site as such it is recommended that the Subject Site be reclassified to Priority Agriculture and not include any significant wetlands.

### 3.8. Acid Sulphate Soils

Database searches indicate the subject is not situated on any known Acid Sulphate Soils. There is however a section of moderate to low risk of ASS occurring within 3m of natural soil surface but high to moderate risk of ASS beyond 3m of natural soil surface just outside of the North-East corner of the property. Refer to Appendix D – Acid Sulphate Soil Mapping.

### 3.9. Flora

#### 3.9.1. Threatened Flora Database Searches

Desktop inventory of potential threatened flora species likely to occur within 10 km of the survey area was undertaken using the following databases:

- DPaW's Nature Map Database Search (combined data from DPaW and Western Australian Museum) (DPaW 2007-); and
- Protected matters search tool (DoE 2017).

The property is adjacent to a population of a Declared Rare Flora (DRF) under the Western Australian Wildlife Act 1950. *Chordifex abortivus* was declared as Rare Flora in May 1991 and is currently ranked Vulnerable (VU) under World Conservation Union (IUCN 2001) Red List criterion D2 due to its restricted area of occupancy and its small number of locations. Three populations approximately 40 kilometres apart are currently known and together total around 2,000,000 plants over an area of 194 hectares. The species is listed as Endangered under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999.

A search was undertaken in 2011 by Bio Diverse Solutions with no individuals of *C. abortivus* located on the property.

#### 3.9.2. Remnant Vegetation

Database searches show there are 23 patches of remnant vegetation within the 1km assessment area. One of these identified patches is situated along the southern boundary and to the east of the lot boundary along Albany Highway. Refer to Appendix E – IBRA and Pre-European Vegetation Mapping.

#### 3.9.3. Vegetation Types

The vegetation has been mapped on a broad scale by J.S. Beard (Shepherd *et al* 2002) in the 1970's, where a system was devised for state-wide mapping and vegetation classification based on geographic, geological, soil, climate structure, life form and vegetation characteristics (Sandiford and Barrett 2010). A GIS search of J.S. Beards (DEC, 2005) vegetation classification for the general area places the site within 1 Vegetation Association:

- **System Association Name:** Albany
- **Vegetation Association Number:** 978
- **Vegetation Description:** Low forest; jarrah, *Eucalyptus staeri* & *Allocasuarina fraseriana* (Source DEC Pre-European Vegetation GIS dataset, 2005)

The area is classified as Jarrah Forest under the Interim Biogeographic Regionalisation for Australia:

- **IBRA6.1 and 7 Name:** Jarrah Forest
- **Region Code:** JAF
- **IBRA6.1 Region Number:** 61

3.9.4. Vegetation Assessment and Condition

Jarrah/Marri/Blackbutt Woodland

Site Assessment by Bio Diverse Solutions in 2011 classified the vegetation on site as containing areas of remnant Jarrah/Marri/Blackbutt Woodland scattered throughout. This vegetation type consisted of an overstorey containing *Eucalyptus marginata*, *E.patens*, *E.staeri*, *Allocasuarina fraseriana* and *Banksia grandis*. Midstorey species included *Taxandria fragrans* in wet areas, *Hakea florida* and *Dasypogon bromeliifolius*. This vegetation type is still present along the south-western boundary adjoining the Golf course and the residential lot to the south west. Vegetation condition was assessed using the vegetation condition scale as per Keighery (1994). Please refer to Table 1 for details on the Condition Rating Scale. Remnant vegetation within the northern area of the property were generally devoid of understorey vegetation due to grazing from cattle. Therefore, this is considered to be “*Completely Degraded: The structure of the vegetation is no longer intact and the area is completely or almost completely without native species*” (Keighery, 1994). Please refer to Photographs 13 – 16 below.



Photograph 13: View of Jarrah/Marri Woodland in the western portion of site, adjacent to the golf course, taken by Kathryn Kinnear in 2011.



Photograph 14: View of Jarrah/Blackbutt vegetation through central area of property, taken by Kathryn Kinnear in 2011.



Photograph 15: View of the Jarrah/Marri Woodland in the western portion of the site adjacent to the golf course, taken in 2017.



Photograph 16: View of the Jarrah/Blackbutt vegetation through the central area of the subject site, taken in 2017.



Photograph 17: View of the Jarrah/Marri Woodland along the eastern boundary adjacent to Reserve 18779.



Photograph 18: View of Jarrah Woodland central to the subject site.

The pocket of Jarrah/Marri Woodland adjacent to Reserve 18779 (See Photograph 17 and 18 above) contain some mid and understorey species, but is still heavily altered due to grazing activities. This small pocket is classified as “Degraded” (See Table 1 below). Although classified as degraded if fenced off and rehabilitated this small pocket could provide significant habitat for fauna species as it is connected to the adjacent reserve. It is likely the mature tree currently holds habitat value for Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*) and Carnaby’s Black Cockatoo (*Calyptorhynchus latirostris*) (Bio Diverse Solutions, 2011).

The small area of vegetation previously described by Bio Diverse Solutions as being heavily weed infested with Sydney Golden Wattle and Coastal Tea Tree adjacent to the existing driveway has been extensively managed for weeds. Current owners have removed all mature weedy individuals and are continuing to manage weed regrowth. See photographs 19 and 20 below



Photograph 19: View of vegetation within the southern extent of the subject site, showing extensive weed management activities.



Photograph 20: View of remnant vegetation within the southern extent of the subject site, showing the results of an extensive weed management strategy.

### Managed Grassland

This vegetation type occurs across the entire subject site as the land is used for grazing/agricultural purposes. All native vegetation has been cleared (except for a few small stands and individual mature trees) and now consists of introduced pasture species such as Kikuyu (*Cenchrus clandestinus*) and Clover (*Trifolium sp.*). Please refer to photographs 21 – 24 over the page.



Photograph 21: View of the grasslands central to the subject site.



Photograph 22: view of the grasslands at the rear of the property.



Photograph 23: View of grasslands surrounding the farm shed in the adjacent property.



Photograph 24: View of grasslands surrounding the cattle yard, with a small stand of mature trees in the background.

**Table 1 – Condition Rating Scale**

Vegetation Condition Rating	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species.
Very good	Vegetation structure altered, obvious signs of disturbance.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate to it.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management.
Completely Degraded	Vegetation structure not intact; the area completely or almost completely without native species.

(Keighery, 1994)

### 3.10. Fauna

#### 3.10.1 Database Searches

Desktop inventory of potential threatened fauna species likely to occur within 10 km of the survey area was undertaken using the following databases:

- DPaW's Nature Map Database Search (combined data from DPaW, Western Australian Museum and Birds Australia) (DPaW 2007-); and
- Protected matters search tool (DoE 2017).

The list compiled from this data (Appendix F) is based on observations from a broader area than the survey area and is likely to include species that are vagrants or would not occur in the actual survey area due to a lack of suitable habitat or poor ecological connectivity. The databases also often included very old records and in some cases the species in question may have become locally or regionally extinct.

### **3.10.2. Fauna Habitat**

The subject site itself has very little habitat value to native fauna as the area has been cleared land used for agricultural purposes. The temporary use of the area for extractive industries will have no detrimental effect on fauna persisting in the broader area.

### **3.11. Heritage**

A search of the Department of Aboriginal Heritage Aboriginal Heritage Inquiry System (AHIS) database revealed that there are no Aboriginal Heritage sites located within the Subject Site.

A search of the Heritage Council State Heritage Office shows there are no other registered heritage sites on the Subject Site or within a 1km radius of the property boundary.

Although no heritage values were identified, on-site consultation with local Indigenous spokespersons was undertaken by the client in August 2017.

## 4. Proposed Development

### 4.1. Extraction process, staging and haulage routes

The location and extent of the proposed gravel extraction area is shown in Appendix A – Location and Site Mapping covering an area of 10.93 hectares in total of cleared agricultural land. It is assumed that the average amount of 10,000 tonnes per year over the life of the extraction pit. In times of high demand, it is expected a maximum of 15,000 tonnes per year would be extracted (*Pers. comms. M. Palmer, 2017*). Ultimately the amount of extracted materials will be reliant upon industry demand. It is proposed that the entire life of the project will be approximately 5 years (each pit open for maximum of 12 months) with extraction planned to commence as soon as possible after all required approvals are obtained. Refer to Implementation Plan Section 8. The extraction facility will be gated and locked, with no unauthorised persons able to enter.

The extraction of gravel including crushing and screening will take place on site by Palmer Civil Construction Pty Ltd. All extraction, crushing and screening operations will be conducted throughout the months of July-October as this is when the gravel is moist / damp, resulting in better crushing and screening efficiency and aiding in the mitigation of noise and dust. Extracted products will then be transported to various construction sites within the City of Albany and adjoining areas. Various machinery will be used during the extraction process such as bulldozers, front end loaders, excavator, crusher, screener and a stacker. No blasting will be required, whilst portable crushing and screening equipment will be utilised. The crushing of large gravel “boulders” will only occur when required and it is therefore expected that most of the extracted resource will not require crushing. Crushing and screening is to occur within a defined area within the pits and is restricted as shown on the Site Buffers Mapping in Appendix A.

It is proposed that extraction will be staged, where only one of the 7 pits of approximately 1-2.5ha will be exposed/operated at any given time. In stages / pits that exceed the 2 ha in area a maximum of 2 ha will be extracted. This area will then be rehabilitated / closed up (covered with topsoil) and the remaining area of the stage will be opened. Gravel will be stockpiled within the stage / pit area adjacent to the next stage, for use as demand requires. It is estimated that the maximum amount of time gravel will be stockpiled is 6-12months. Stockpiles will be no higher than 2.5 meters.

Trucks will access the property via a to be installed crossover along South Coast Highway, in the north-east corner of Lot 56. It is understood a Memorandum of Understanding (MOU) will be signed between Main Roads and the client (landowner) in regards to the proposed access point / crossover. This proposed access route will allow for trucks to head either east or west along South Coast Highway. This access will be utilised solely for trucks engaged in gravel extraction operations.

### 4.2. Vegetation and Topsoil Removal

This proposal requires no clearing of native vegetation as the subject site consists of approximately 10.93ha of agricultural land. Topsoil will be removed to a depth of 100-150mm, with the maximum depth of excavations to 600-700mm below ground level. Topsoil will be replaced over extracted pits prior to the commencement of excavation works within each stage (estimated 70% of pit area will be rehabilitated within 2-3 weeks). Topsoil will be stockpiled in piles no higher than 2.5m which will then be respread over the pit area once excavation activities have ceased. This will be done as the client wishes to continue agricultural practices once the extractive proposal has ceased.

### 4.3. Operation Times

Operation times will be restricted to the hours between 7:00am and 6:00pm Mondays to Fridays only, not including Public Holidays. Actual operation times will vary as a result of product demand, if demand is low due to no construction projects being carried out then the facility will not be operational. Truck movements during operation times an average will equate to 1.97 truck movements per day. This has been calculated based on the premise there will be 230 work days (5-day weeks for 46 weeks of the year) with an average of 10,000 tonnes to be moved per year (*Pers. Comms. M. Palmer, 2017*). During peak operation times, this may reach a maximum of 30 truck movements per day for a period no longer than 2 weeks (*Pers. comms. M. Palmer, 2017*). Truck signs are to be installed prior to operations commencing on the day prior to the access point along South Coast Highway, warning of truck movements.

### 4.4. Vehicles and Machinery

No hydrocarbons, chemicals, fuels, coolants etc. will be stored onsite. These will be transported onsite as required by a contained mobile service vehicle which will be appropriately equipped with spill kits in the unlikely event there is a spillage. Furthermore, no trucks will be stored on site outside of operation hours (Mon-Fri 7am to 6pm), only screening and crushing equipment will be stored on site. If major servicing of these machines is required they will be removed from site. In the

unlikely event of a major breakdown on site all necessary precautions to ensure no hydrocarbons or other liquids enter the environment, and any contaminated soil will be removed and disposed of at an appropriate location.

## 5. Environmental Considerations

### 5.1. Noise

The Client and the site manager will ensure all extraction operations and vehicular movements are to be carried out only between 7:00am and 6:00pm Mondays to Fridays. The properties located off Bon Accord road to the south of the subject site are zoned as “Rural Residential”. The current land owners of Lot 56 have spoken to the landowners directly adjoining the subject site and they have indicated they have no opposition to the temporary extraction proposed (*Pers. Comms. G. Howie, 2017*).

Noise will be the largest consideration to the project from crushing and screening operations. Crushing and screening operations will be only undertaken in the designated crushing and screen extents within the pits to create further buffers to residents and sensitive receptors. The closest dwelling is located to the south east (200m) from the closest pit (Stage 1) and 313m from the crushing and screening extent. Dwellings to the south of Bon Accord Road (measured to the closest Stage) are all over 500m away, whilst separation distances from the crushing and screening range between 648-764m (See Site Buffers Mapping in Appendix A).

To create noise buffers, topsoil stockpiles will be placed around the perimeter of the pit (e.g. stage 1). Vegetation to the east and south of the subject site will act as buffers to residential dwellings located along Bon Accord and Bushby Road. Traffic routine internal to the site will be planned out in such a way as to minimise vehicle reversing requirements and thus minimise reversing alarm noise (particularly for the nearest residence). Replacing standard “beeping” reversing alarms with a mixed frequency alarm (which does not carry as far) should also be considered to further reduce noise issues to nearby residences.

In conjunction with these activities regular maintenance of onsite plant and machinery will help to reduce unnecessary noise pollution. Any equipment identified as noisy will either be removed from site or its use terminated until repairs are made.

All employees and contractors will be educated through site inductions raising awareness and outlining company practices to be employed to help mitigate noise pollution whilst on site and when entering and exiting the property. It will be the site manager’s responsibility to ensure all personnel adhere to noise reduction measures.

Finally, a noise complaint system should be implemented. A notice should be placed at the front gate providing the contact details of the site manager. Any noise related complaints will be recorded by the site manager and acted on immediately. Any complaints made should be kept in a register. Refer to Section 6.5 for Noise Management to be implemented during all operations.

### 5.2. Dust

Dust emissions are anticipated during topsoil removal, resource excavation, crushing and screening, loading, haulage and wind erosion of exposed surfaces in adverse weather conditions. However, dust management can be implemented in order to mitigate dust emissions, ensuring dust levels cannot reach levels that adversely impact health, welfare, surrounding amenities and the environment.

All topsoil stockpiles and stockpiled gravel will be no greater than 2.5 meters in height. Long-term stockpiling should be avoided where possible and will be dependent on demand, it is expected stockpiling will range between 6-12months (*Pers. Comms. D. Palmer, 2017*). Stockpiles will not be located in areas subject to adverse environmental conditions (e.g. prevailing winds) such as prominent ridges, and will be located within the stage or extraction pit currently in operation.

Pits adjacent to the vegetated reserve (west and east) are to be excavated in damp/wet conditions only (approximately May-November) to ensure dust is not prevalent on the adjacent vegetation. The crushing and screening operations are located 50m from the CoA Reserve to the east, together with damp soil operations this will reduce the impact on dust to native vegetation areas.

### 5.3. Light

Extraction activities will not be conducted outside of daylight hours, therefore there will be no light emissions.

### 5.4. Discharges to water

There will be no discharge to surface or ground water.



**5.5. Discharges to land**

There will be no discharges to land.

**5.6. Wetlands**

The subject site and crushing and screening extent lie within the Johnston Creek catchment area (Refer to Appendix C). However, all works within the subject site and the crushing and screening extent will be 176m and 276m away from the Johnston Creek line respectively.

**5.7. Flora and Vegetation**

There are no significant areas of native remnant vegetation within the subject site. There will be no discharges to land or water and this further reduces any risk to surrounding flora and vegetation. Weed management will be undertaken to ensure no invasive weeds identified will spread into the surrounding remnant vegetation. Furthermore, the Clients have stated that they are willing to implement the proposed Weed Management Plan in Section 6.1.

**5.8. Fauna**

As the subject site is located in an area that has already been cleared and highly modified for agricultural practices, there will be no further impacts to fauna than are already present.

**5.9. Heritage**

Not applicable as no heritage sites were detected within or surrounding the subject site or the property.

## 6. Management Plans

### 6.1. Weed Management

Weed management is to be used in conjunction with dieback hygiene management (See Section 6.2). The following Weed Management Plan is to apply to all aspects of site operations. All operations shall conform to this Weed Management Plan, and monitoring to occur post construction for any infestations. Weed management will primarily be undertaken through avoiding introducing new weeds to the site, whilst also controlling weeds already present.

#### 6.1.1. Aims of Weed Management Plan

The aims of the weed management program at will be:

- Eradicate Declared plants (BAM Act) from the property;
- Maintain a weed free environment;
- Ensure all vehicles are clean on entry prior to any soil or vegetation movement;
- Site is to be secured to prevent trespassers illegally accessing, dumping rubbish and green waste;
- All weeds on site removed promptly on discovery;
- Remove weeds from least affected areas to the most affected areas (Bradley Method);
- Do not use weed affected soils for rehabilitation, but remove infected soils to waste disposal; and
- Regularly monitor the site for invasive species.

If weeds are discovered on site, they will be treated using the following methodology:

- Large woody weeds will be burned, poisoned or removed from site and disposed to approved green waste;
- Small weeds will be sprayed by a licensed contractor or landholder; and
- Initial follow up spraying will be undertaken at 6 months and 18 months and repeated as necessary.

#### 6.1.2 Program for weed control

The following program for weed management will be implemented prior to commencement of extractive activities, during extractive activities, and post extraction monitoring activities. Table 2 (over the page) is a guide for aggressive common species (adapted from Department of Agriculture and Food and Department of Parks and Wildlife (FloraBase) recommended technique) and should be used as a guide to treat any infestations promptly. Further information for any species and recommended treatment not listed in Table 2 should be gained from the Department of Agriculture and Food.

Table 2 – Weed Management Program

Species	Treatment
<b>Grasses</b>	
Kikuyu <i>Cenchrus clandestinus</i>	Control with herbicides whilst growing.
African Love Grass <i>Eragrostis curvula</i>	Removal of small plants/infestations Annual Spray during winter, small infestations all year round as required.
Flat weed <i>Hypochaeris sp.</i>	Annual Spray during winter, small infestations all year round as required.
Hare's-tail Grass <i>Lagurus ovatus</i>	Prevent seed set for 2-3 years by the removal of the topsoil through civil works. Hand removal of small infestations. Annual spray during winter
Perennial Grasses <i>Phalaris sp.</i>	Selective control can be achieved with 800mL/ha Verdict®520 plus 1% spray oil. Or use 10mL Verdict®520 plus 100mL of spray oil per 10L water for hand sprays.
<b>Woody Weeds</b>	
Golden wattle <i>Acacia longifolia</i>	Hand pull seedlings. Fell mature plants, apply herbicides and diesel to trunk, or cut and paste or inject with Glyphosate
Tayloriana <i>Psoralea pinnata</i>	Treat seedlings early summer with Glyphosate, juveniles can be hand pulled. Fire not recommended. Slash or doze large trees.
Blackberry <i>Rubus ulmifolius</i>	Mechanical control difficult. Annual summer applications of Grazon, 3 applications required, use Glyphosate in sensitive areas (i.e. creek lines).
Ink weed <i>Phytolacca octandra</i>	Uproot heavy infestations and cut remaining plants 5cm below ground. Spraying is effective.
Kangaroo Apple <i>Solanum laciniatum</i>	Herbicide treatment of 150mL Access® in 10L diesel to the lower 50cm of the trunk of the plant. Young growing seedlings can be sprayed with 1L/ha Starane® or hand pulled. Control spread for a radius of 5km. Plant perennial species to provide a good mulch on the soil.
<b>Herbs</b>	
Spear thistle <i>Cirsium vulgare</i>	Spray control effective for seedlings and adults. Manual control by eliminating seed production by close mowing/cutting twice per season
## Arum Lily <i>Zantedeschia aethiopica</i> P1 and P4	Mechanical control only effective if all root fragments removed. Multiple rotary hoeing over a few years provides control. Herbicides are most effective use 1g chlorsulfuron(750g/kg) plus 10mL 2,4-D amine(500g/L) plus 25mL Pulse® per 10L of water. Or use 1g metsulfuron(600g/L) plus 25mL Pulse® per 10L of water.
Curled Dock <i>Rumex crispus</i>	Remove isolated plants by cutting their roots at least 20cm below ground level. Small infestations 0.5g chlorsulfuron(600g/kg) plus 100mL Tordon®75-D in 10L of water in winter will control existing plants and seedlings for about a year.
Cape Weed <i>Arctotheca calendula</i>	Manual removal before flowering effective. For large infestations apply Lontrel® 6 ml/10 L (300 ml/ha) in early growth stages. Glyphosate at 0.2% will provide some selective control if the plants are young or at the budding stage, otherwise spot spraying glyphosate at 10 ml/L. Introduction of native species which provide shade.
## Paterson's Curse <i>Echium plantagineum</i> P1 and P4	Isolated plants can be manually removed and burnt if flowering or seeding. Graze heavily with wethers (castrated ram) over spring to reduce seed production. Spray graze pasture with 500mL/ha Tigrex® in early winter before the weed has reached the 6-leaf stage and repeat if necessary.
**Penny Royal <i>Mentha pulegium</i>	Improve drainage, spray with 40 g/ha metsulfuron before flowering, establish a vigorous perennial pasture such as kikuyu then spray graze annually in early winter with 750 mL/ha 2,4-D amine.
Smooth Cats-ear <i>Hypochaeris glabra</i>	Mowing and grazing ineffective. Hand remove small infestations and/or isolated plants, ensuring the taproot is removed. For dense infestations, apply Lontrel® and wetting agent. Introduction of native species which provide shade.

Western Australian Herbarium (1998-); Wheeler (2002), \*\*HerbiGuide (2014).

## Denotes Declared weeds

## 6.2. Dieback and General Hygiene Management

The aims of the dieback and hygiene management are to:

- To ensure there is zero spread of Phytophthora and other diseases into and out of the area;
- Implement measures for successful completion of the project in terms of education to personnel, decontaminating equipment, and defining access measures.

The following will apply to all aspects of operations and will form part of the hygiene management briefing to all site workers:

- Earth moving vehicles and equipment are to be cleaned prior to entering site;
- Visual inspections on vehicles, plant, equipment and footwear are clean when entering the site;
- Access to the site during excavation will be controlled (fenced and gated and locked when unattended);
- Completed areas will be rehabilitated as soon as practicable;
- The rehabilitated surface will be free draining and not contain wet or waterlogged soils;
- Materials used in rehabilitation will be from on-site stockpiled material; and
- Road and transport vehicles are to be restricted to defined road reserve, loading and turn around areas.

### Clean down specification:

A visual inspection is necessary of in-coming and out-going vehicles to determine whether or not vehicles, machinery or equipment is free of a build-up of:

- Clods of soil and plant material and / or slurry consisting of a mixture of soil, plant and water;
- Dust and grime adhering to the sides of vehicles need not be removed before entering the site; and
- Records of inspections and clean downs are to be maintained.

## 6.3. Bushfire Risks and Management

Vegetation Classification to AS3959-2009 was undertaken by Kathryn Kinnear (level 2 BPAD Practitioner, BPAD 30794). Refer to the Vegetation Classes Map in Appendix G. As per the requirement of State Planning Policy (SPP) 3.7 (WAPC, 2015) a Bushfire Hazard Level (BHL) map was produced as per the defined methodology of the Guideline for Planning in Bushfire Prone Areas Version 1.1 (WAPC, 2017). Refer to Bushfire Hazard Level mapping in Appendix G.

Areas of moderate BHL's occur on and adjacent to the site, generated off Woodland Type B05 and Scrub Type D14 (AS3959). Where moderate BHL's occur Grassland Type G (Low BHL) will adopt a moderate BHL for 100m (WAPC, 2017).

### Bushfire Management Statement

Planning in Bushfire Prone Areas Version 1.1 (WAPC, 2017) requires assessment to the bushfire protection criteria – a process where land is assessed for compliance to the criteria. The bushfire protection criteria (Appendix 4, WAPC, 2017) are a performance based criteria in assessing bushfire risk management.

The bushfire protection criteria (Appendix 4, WAPC, 2017) outline four elements, being:

- Element A1: Location;
- Element A2: Siting and Design of Development;
- Element A3: Vehicle Access; and
- Element A4: Water.

(WAPC, 2017)

The Subject site is located in a Bushfire Prone Area (OBRM, 2016), refer to Figure 3 over the page.

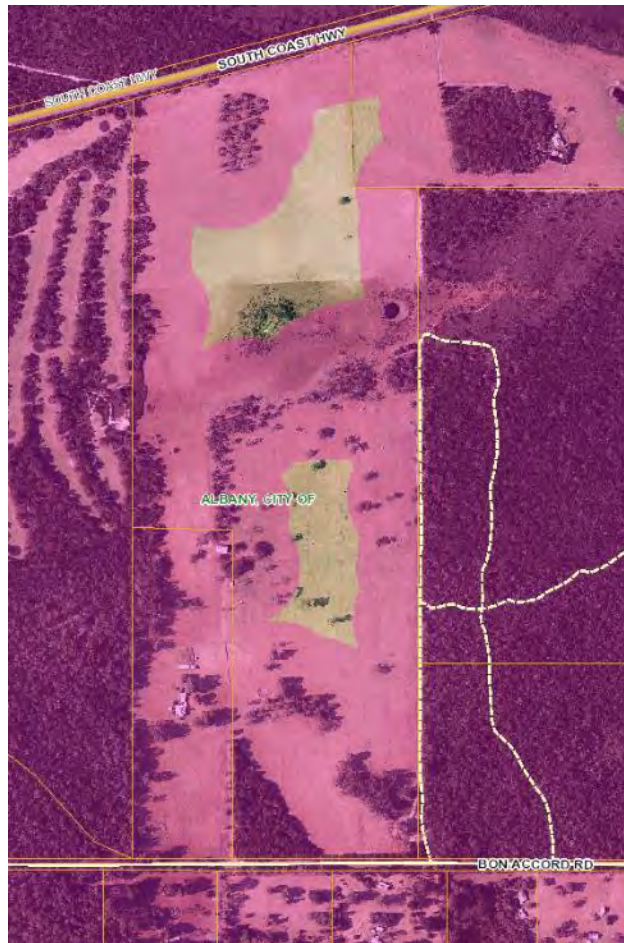


Figure 3 – State Bushfire Prone Mapping (SLIP, 2016). <https://maps.slip.wa.gov.au/landgate/bushfireprone2016/>

**Element 1: Location**

**Intent:** To ensure that strategic planning proposals, subdivision and development applications are located in areas with the least possible risk of bushfire to facilitate the protection of people, property and infrastructure.

*Acceptable Solution applied A1.1: the strategic planning proposal, subdivision and development application is located in an area that is or will, on completion, be subject to either a moderate or low Bushfire hazard level or BAL-29 or below*

*Acceptable Solutions Applied:*

As per SPP.3.7 and the Guidelines for Planning in Bushfire Prone Areas, the development will not be subject to a higher BHL than moderate. There are no proposed habitable buildings for this development (site office or dwellings) on the extraction site.

Development deemed to meet Acceptable Solution A.1.1

**Element 2: Siting and design of development**

**Intent:** To ensure that the siting and design of development minimises the level of bushfire impact.

*Assessment to the Acceptable Solutions – every habitable building is surrounded by, and every proposed lot can achieve, an APZ depicted on submitted plans, which meets the following requirements:*

- *Width: Measured from any external wall or supporting post or column of the proposed building, and of sufficient size to ensure the potential radiant heat impact of a bushfire does not exceed 29kW/m<sup>2</sup> (BAL-29) in all circumstances.*
- *Location: the APZ should be contained solely within the boundaries of the lot on which the building is situated, except in instances where the neighbouring lot or lots will be managed in a low-fuel state on an ongoing basis, in perpetuity (see explanatory notes).*
- *Management: the APZ is managed in accordance with the requirements of ‘Standards for Asset Protection Zones’.*

(WAPC, 2017)

**WAPC Guidelines Standard for an APZ (WAPC, 2017)**

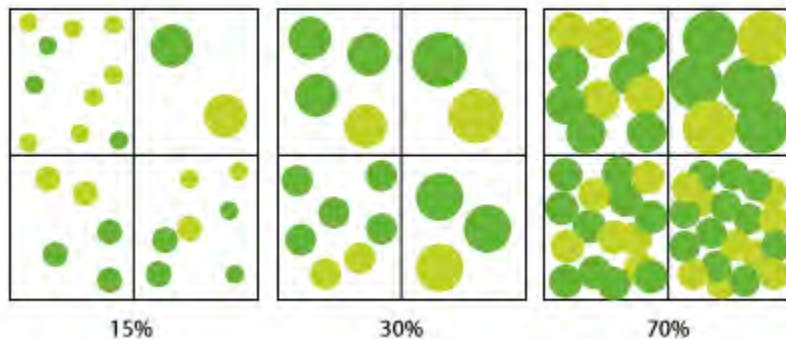
**Fences:** within the APZ are constructed from non-combustible materials (e.g. iron, brick, limestone, metal post and wire). It is recommended that solid or slatted non-combustible perimeter fences are used.

**Objects:** within 10 metres of a building, combustible objects must not be located close to the vulnerable parts of the building i.e. windows and doors.

**Fine Fuel load:** combustible dead vegetation matter less than 6 millimetres in thickness reduced to and maintained at an average of two tonnes per hectare.

**Trees (> 5 metres in height):** trunks at maturity should be a minimum distance of 6 metres from all elevations of the building, branches at maturity should not touch or overhang the building, lower branches should be removed to a height of 2 metres above the ground and or surface vegetation, canopy cover should be less than 15% with tree canopies at maturity well spread to at least 5 metres apart as to not form a continuous canopy. See Figure 4 (WAPC Figure 16, Appendix 4) below

**Figure 16:** Tree canopy cover – ranging from 15 to 70 per cent at maturity



**Figure 4:** Tree Canopy Cover (WAPC, 2017)

**Shrubs (0.5 metres to 5 metres in height):** should not be located under trees or within 3 metres of buildings, should not be planted in clumps greater than 5m<sup>2</sup> in area, clumps of shrubs should be separated from each other and any exposed window or door by at least 10 metres. Shrubs greater than 5 metres in height are to be treated as trees.

**Ground covers (<0.5 metres in height):** can be planted under trees but must be properly maintained to remove dead plant material and any parts within 2 metres of a structure, but 3 metres from windows or doors if greater than 100 millimetres in height. Ground covers greater than 0.5 metres in height are to be treated as shrubs.

**Grass:** should be managed to maintain a height of 100 millimetres or less.

(WAPC, 2017)

*Acceptable Solutions Applied:*

The Crushing and screening equipment will be in low fuel areas as defined by a AS3959 whereby bare areas will exist. No habitable buildings are proposed for this development.

Development deemed to meet Acceptable Solution 2.1.

**Element 3: Vehicular Access**

**Intent:** To ensure that the vehicular access serving a subdivision/development is available during a bushfire event.

*Acceptable Solutions Applied:*

A3.1 Two Access Routes – Site personnel will have access in alternative directions north to South Coast Highway and south to Bon Accord Road (both fully formed public roads), which enables unimpeded emergency access-egress to both the east or west meeting Acceptable Solution A3.1.

A3.2 Public Road – not assessed, no public roads proposed.

A3.3 Cul-de-sacs – not assessed, no cul-de-sacs proposed.

A3.4 Battle Axes – not assessed, no battle axes proposed.

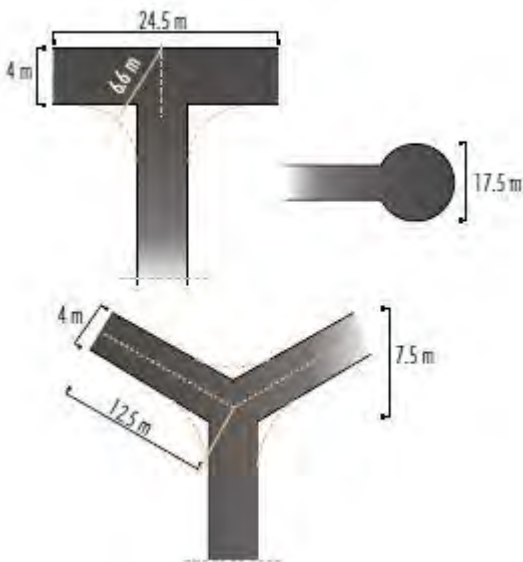
A3.5 Private Driveways – The access road from South Coast Highway will be along a private driveway between 700-950m (to both the crushing and screening area and stage 7). Access from Bon Accord Road measures between 440 - 700m (furthest extents of pits). The standards for private driveways is required to meet the following:

- 4m minimum trafficable surface (m);
- 6m horizontal clearance (m);
- 4.5m vertical clearance (m);
- Maximum grade 1:10
- Minimum weight capacity 15 (t);
- Maximum crossfall (1 in 33; and
- Curves inner radius (8.5 (m).

Where a driveway exceeds 50m from a public road, the following design standards are to apply:

- Turnaround areas at 500m intervals from the public road;
- Passing lanes every 200m.

Refer to standards below in figure 5 for design requirements for private driveways >50m



**Figure 5: Private driveway design requirements (WAPC, 2017)**

The access road from South Coast Highway will have a minimum 6m horizontal clearance and 4m stabilised all weather surface. The private driveway (accessed from Bon Accord Road) is to meet the same minimum technical requirements. This will enable fire service appliances to access the site in the event of a bushfire emergency. Open pit areas will have adequate turn around areas as per the minimum requirements as per Figure 5 above.

A3.6 Emergency Access Ways – not assessed, no emergency access ways proposed.

A3.7 Fire Service Access – not assessed, no fire service access ways proposed.

A3.8 Firebreaks – Fire breaks are currently in existence around the property and to the standards required in the CoA Annual Fire Management Notice. The farm will continue to operate as agriculture and all firebreaks are to continue to be to the CoA standards.

The proposal will meet Acceptable Solutions A3 (1-8).

#### Element 4: Water

Intent: To ensure that water is available to the subdivision, development or land use to enable people, property and infrastructure to be defended from bushfire.

Water will be required for bushfire safety and dust control. A 10,000 L water tank dedicated for bushfire control will be located within Lot 56 to the west of the extraction area, near the neighbours existing shed. Reticulated water will not be available. Water sources are from onsite dams and pumps to the storage tank.

The proposal will meet Acceptable Solutions A4.3.

#### Other bushfire mitigation measures

There is a potential bushfire risk from operations on days rated > “Extreme” “Fire Danger Index” (FDI) rated days. The predominant bushfire risk associated with the site is the adjacent reserves (east and west) where heavily vegetated areas (Extreme Risks) under hot conditions can give rise to hot and intense fires. The following fire control methods should be enforced at all times during summer periods.

#### Summary of bushfire control methods to apply to this development:

- Driveway construction standards as outlined in this document (responsibility of the developer);
- Abide by CoA imposed Vehicle Movement and/or Harvest ban due to dangerous fire weather conditions or if there are bush fires already burning during the Restricted and Prohibited Burning Times (i.e. High-Very High Fire Danger days) (responsibility of the contractor); and
- Maintain at all times minimum 10,000L of water in separate firefighting tank for firefighting purposes (responsibility of the developer and contractor); and
- A mobile firefighting appliance dedicated to firefighting operations is located on the property at all times during bushfire season operations (November - April) (responsibility of the contractor).

#### 6.4. Dust management

The aims of the dust management plan are to:

- Ensure dust is not prevailing over adjacent residences and properties;
- Maintain a dust free working environment for all employees on site;
- Ensure all employees and contractors are educated to minimise dust from all operations; and
- Ensure dust is controlled and minimised at all times.

The following is to be implemented by the contractor during excavation operations:

- All crushing and screening to occur within the designated boundary of the “Crushing/screening’ area as defined in Appendix A.
- Topsoil mounds to be no greater than 2.5 metres in height.
- Stock piles to be located in pit areas and along the southern edge of pits to assist in noise reduction to the southern properties and should not exceed 2.5m.
- Stockpile to be configured to accommodate easy access for watering/dust minimisation.
- The access road, immediate extraction area and fixed plant (screen) to be watered as required to minimise dust emissions.
- Education to employees and contractors to raise awareness of dust management issues.
- Minimise area impacted on and the time between extraction and rehabilitation, a recommended maximum of 2 ha of pit open at any one time.
- Managing operations to minimise work in windy conditions to minimise dust emissions. Works only to occur in low velocity winds (i.e. less than 20km/hr).
- Truck to be fully covered by tarpaulins when fully loaded.



- Dust complaint register in place to record any issues from neighbours. A contractor sign at the front gate to be erected clearly showing the contractors contact details.

### 6.5. Noise Management

The aims of the Noise Management Plan are to:

- Ensure noise does not prevail over adjacent residences and properties;
- Ensure all employees and contractors are educated to minimise noise from all operations; and
- Ensure noise is controlled and minimised at all times.

The following is to be implemented by the contractor during excavation operations:

- All crushing and screening to occur within the designated boundary of the "Crushing/screening" area as defined in Appendix A.
- All extraction operations and vehicular movements are to be carried out only between 0700 and 1800 hours Monday to Friday.
- Mounding of topsoil along the southern edge of pits to act as noise bunds to assist in noise reduction to properties to the south.
- Regular inspections of all plant and machines on site to ensure working and functioning correctly without excess noise.
- Education to employees and contractors to raise awareness of noise management issues.
- Strongly recommended that excavation crushing and screening operations are only carried out on southerly and south westerly winds to ensure that noise to adjacent neighbours is restricted.
- Noise complaint register in place to record any issues from neighbours. A contractor sign at the front gate to be erected clearly showing the contractors contact details.

### 6.6. Rehabilitation Management

Rehabilitation will be to constructed soils and a return to pasture paddocks. The following aims will apply to all rehabilitation works:

- To re-instate pastures for ongoing agricultural pursuits;
- To establish pasture vegetation through seeding and compaction through use of preserved topsoil; and
- To reduce weed invasions and competition of weeds with native species.

#### Rehabilitation methods

- The method of revegetation is to use the seed from existing topsoil and seeding pasture paddocks;
- Any weeds likely to significantly impact on the rehabilitation will be sprayed with Roundup or similar herbicide, or grubbed out, depending on the species involved. Refer to Weed Management Plan Section 6.1; and
- Rehabilitation will be carried out promptly after soil disturbance (within two weeks of extraction).

#### Seed stock

Species shall be sourced from stockpiled topsoil from clearing operations. If regeneration is slow then pasture seed shall be collected at the first spring period and spread at the first Autumn rains (usually after three continuous rain days is recommended). It is anticipated that most species will regenerate from site topsoil. Paddock trees will be planted where appropriate to assist in wind buffers for the long term agricultural pursuits.

#### Methodology

The rehabilitation methodology is proposed to be undertaken using the following steps:

1. Remove topsoil and place on regeneration area or store adjacent to the site (no more than 10m from removal area).
2. Store topsoil in piles no higher than 2.0m.
3. Spread topsoil over batters and regeneration areas of the pits.
4. Ensure batters do not exceed 1:5m slopes.
5. Seeding of paddocks / closed stage pits and compaction of soil.
6. Inspect site after first large rainfall event, ensure erosion has not occurred over any slopes.
7. Inspect site after 6 months to determine success rate of seeding and any weed establishment. Remove weeds either through selective spraying or hand removal.

8. Inspect site after 6, 12 and 18 months to determine success rate of native plant establishment and any weed establishment. Remove weeds either through selective spraying or hand removal.
9. Instigate any seeding to assist regenerating areas.

### Topsoil Management

Where topsoil removal is required, topsoil and overburden will be directly transferred from an area being cleared to an area to be rehabilitated. Where this is not possible the topsoil and overburden will be stored in low dumps (overburden and 2.0m for topsoil) for future use in rehabilitation. No topsoil soil rehabilitation/movement is to occur during high to avoid erosion and slumping.

### Bank stability works/erosion control

The predominant soil type is deep sands and gravels over laterite. Loose sands during revegetation works can be subject to prevailing winds and water erosion. Mounding of the rehabilitation areas will assist with any runoff and brushing will reduce the effects of wind erosion. The mounding and contouring of soil will also assist in trapping water for seedling germination and growth and will be employed where applicable. Mounding should occur along contours or in flat areas perpendicular to surface flow direction.

Stabilisation techniques may need to be applied during and post construction activities (i.e. use of sediment traps). Mulching of pit faces or use of geo-fabrics should be used wherever possible to ensure there is minimal erosion to the site. The creek area should not receive untreated storm water from surface water run-off, buffers of operations of 50m to any creeks or dams on site will ensure there is minimal sedimentation to these areas.

It is recommended as the site is predominantly sandy (topsoil) in nature, best practise is carried out when site is developed and sediment traps are installed during development activities with any bare ground areas stabilised (i.e. mulching).

### 6.7. Acid Sulfate Soil Management

As the site operation does not involve excavation or disturbance of soils to wetlands or creek areas, there is no requirement to treat Acid Sulfate Soils.

### 6.8. Surface water and drainage management plan

The proposed extraction will be designed, constructed and operated to avoid disruption to surface water flows, minimise erosion and ensure that potential contaminants are not released into the environment. The surface water drainage management plan aims to achieve the following:

- Manage run off from disturbed areas to minimise erosion and exportation of sediments;
- Contouring of pit edges to contain surface water;
- Encourage point source infiltration across the existing rural areas (future stages) and in rehabilitated areas; and
- Ensure all surface water is contained and treated on site.

Soils in the development area recorded sandy gravels over rock over clay. Sandy gravels are moderately draining soils where pits are not excavated rainfall and surface water runoff will continue to occur as per agricultural management practises. Excavated pits will be to clay layers so pooling of water is expected to occur in open pit areas. Where excavation is taking place, contour banks will be constructed downstream of works to prevent the transportation of sediment to neighbouring properties and significant waterways. Contour banks will be constructed to retain and infiltrate at source rainfall events up to the 100yr ARI critical rainfall event.

Once excavation is complete the ground surface will be flattened and contour banks maintained until groundcover has been established. The contour banks should be flattened once groundcover has been established to maintain the existing surface hydrology. Furthermore, the process of seeding and compaction during rehabilitation will reduce surface erosion post rehabilitation stages.

### 6.9. Control of Environmental Incidents

An important aspect in the environmental program is management of non-conformance or incidents. An environmental incident is an event which could result in pollution to the local environment. The planning of site works and methodology as outlined within this management plan limits the risk and harm of construction works impacting on-site or off-site.

If an incident or event occurs during operations and excavation, it should be emphasised to all personnel working on site that all incidents are documented. Investigations should be conducted and action plans established in order to ensure the

event does not happen again. The Site Operations Manager will be responsible for maintaining records of environmental incidents and reporting.

Examples of an “incident” for this project may include:

- Hygiene protocols not adhered to;
- Topsoil has not been appropriately placed;
- Unplanned vegetation clearing has occurred;
- Mechanical breakdown occurring along a waterway and hydraulic oil spill occurs;
- Refuelling occurs within the creek area;
- Complaints from “stakeholders” or neighbours; and
- Any event which causes non-compliance with the Operations Management Plan.

Should an incident occur which leads to a non-conformance, the Site Manager shall inform the owner of the property of any non-compliance or potential non-compliance within seven days of that non-compliance being known, and if further action is required then the CoA will be informed.

#### 6.10. Corrective and Preventative actions

An environmental investigation should include the following basic elements:

- Identify the cause of the incident;
- Identifying and implementing the necessary corrective action;
- Identifying the personnel responsible for carrying out corrective action;
- Implementing or modifying controls necessary to avoid repetition;
- Recording changes in written procedures required; and
- Reporting to the appropriate government agencies if required.

#### 6.11. Contingency Procedures

Contingency measures are included within this management plan. These protocols are designed to reduce adverse environmental impacts and provide an early detection of non-conformance and subsequent corrective action. Any modifications to the outlined strategies and methodologies to meet unexpected conditions shall be agreed to by the Site Manager. Monitoring shall be used to confirm the effectiveness of any changes.

Should it be identified by any personnel involved in the project there is a non-conformance to the acceptable methodology or there is reason to cause environmental harm, in consultation with the Site Manager and owner of the property, activities should cease during resolution of the required change in methodology.

The Site Manager should be notified of any environmental non-conformances and undertake site investigation. It will be the responsibility of the Site Manager to report any environmental incidents to the appropriate government agencies (e.g. Department of Water and Environmental Regulation – contamination, spills etc., Parks and Wildlife Service (PAWS) - impacts to flora or fauna).

#### 6.12. Spill Management Procedures

The following information is from the PAWS Spill Management Brochure (DEC 2011). This should be the methodology employed should a spill from fuel or chemical occur.

##### Dealing with minor spills

A small spill is considered to be a spill of 5 litres or less providing the product is not concentrated. For concentrated products of any quantity the spill must be treated as a large spill.

1. **Assess safety.** Make sure that people are kept clear, and that you have the right training and equipment to deal with the spill.
2. **Stop the source.** Providing it is safe to do so, stop the spill at its source. This may involve righting an overturned container or sealing holes or cracks in containers.
3. **Contain and clean up the spill.** The spill should be mopped up immediately.

**4. Record the spill.** Record when, what, how and where the spill occurred, clean up measures undertaken and the names of any witnesses. Also, make note of what changes can be made when handling, transporting or storing chemicals to ensure a similar incident does not happen again.

**Dealing with large spills**

A large spill is considered to be anything over 5 litres or concentrated chemicals of any volume.

**1. Assess safety.** Make sure that people are kept clear, and that you have the right training and equipment to deal with the spill.

**2. Consult the Material Safety Data Sheet (MSDS).** The MSDS will have instructions on how to deal with specific chemical spills.

**3. Put on protective clothing.** If necessary, put on gloves and goggles, a mask and an apron.

**4. Stop the source.** Providing it is safe to do so, stop the spill at its source. This may involve righting an overturned container or sealing holes or cracks in containers.

**5. Contain and control the flow.** The spill should be prevented from filtrating into the ground or entering the stormwater system. The outer edge of the spill should be dammed with rags, blankets, sand, sands bags, mops and/or absorbent booms.

**6. Clean up the spill.** Promptly cover the spill using absorbent materials such as the correct absorbent granules for the product (Note that some strong acids will react with some types of granules and sawdust), sand and rags, being mindful not to splash the spill. Using a dustpan or spade, the absorbent granules or sand must then be scooped up and placed into a container. This waste material is not to be buried or thrown into the environment. The method of disposing this waste will depend on the amount and the type of chemical that was spilt. The Department of Environment Controlled Waste Section will advise on the appropriate disposal of hazardous substances. There are several contractors that will dispose of contaminated substances and soils. All contact phone numbers can be found below

**7. Notify the appropriate authority.** If the spill does enter a stormwater drain or open ground, the Department of Environment and your local council must be notified. Please refer to the phone numbers listed below. If there is a hazard to health or property, call Fire and Rescue on 000 immediately.

**8. Record the incident.** Record what, how and where the spill occurred and the names of any witnesses. Also, make note of what changes can be made when handling, transporting or storing chemicals to ensure a similar incident does not happen again.

**Who to call in an emergency**

**All hours' phone numbers**

Life / property emergencies: Ambulance, Fire or Police	000
Pollution emergencies - Department of Water and Environment Regulation	1300 784 782
Poisons Information Centre	13 11 26
Water Corporation – Emergencies and water service difficulties	13 13 75

**6.13. Monitoring and contingency planning**

Environmental controls during construction will be checked at frequent intervals as outlined in Table 3 below. This will be the responsibility of the Site Supervisor and the Environmental Officer to ensure all the below activities are carried out.

**Table 3: Environmental Monitoring Activities During Construction**

<i>Frequency &amp; Compliance Number</i>	<i>Activity</i>
<b>Daily</b>	Check all sediment controls
	Check waste materials collected from site are correctly sorted and stored (i.e. green waste, refuelling in designated areas only).
	Check personal safety equipment before each use.
	Check dust filters on equipment.
	Visually check vehicles and equipment for leaks or potential oil spills.
	Check signage, gates and demarcation tapes (trees and dieback) in place
	Check noise suppression devices on equipment prior to working.
	Check no disturbance to Soils in wetlands/creek areas for disturbance of ASS.
	Check vehicle/hygiene requirements have been met.
	Check topsoil has been appropriately placed.
	Check no unplanned vegetation clearing has occurred.
	Incident reports have been completed if required.
	Check containers of hazardous materials are properly stored and not damaged (away from site)
<b>Twice weekly</b>	Ensure dust suppression controls in place
	Visually check vehicles and equipment for leaks or potential oil spills
<b>Weekly</b>	Inspect all sediment control structures
<b>After rain (i.e. &gt;10mm)</b>	Check all drains are free from debris or chemicals (i.e. hydrocarbons)
	Stormwater structures are checked and/or are cleaned out
	Check for erosion after wet periods and winter months
	Ensure drainage structures are working as required
<b>Monthly</b>	Ensure sediment controls are working appropriately
	Ensure rehabilitation areas are healthy and free of weeds
	Apply stabilisation on any bare regenerating areas
	Remove weeds as per Weed Management Plan
	Ensure public access is restricted and signage in place

## 7. Consultation process

To ensure that all aspects of the project encompass current best practise, legislative requirements and guidelines, the following consultation plan shall be implemented.

Consultation shall occur with government agencies:

- At approval of the CoA Planning Approval and prior to implementation, for CoA feedback and comment regarding the document;
- A site meeting/walk over with government agency representatives (if requested) prior to commencement of any site works to confirm refuelling area, demarcation, turnarounds, areas of concern etc.; and
- Post construction periods.

Recommended government agencies to consult are:

- Department of Water and Environmental Regulation – regarding all storm water and water quality issues;
- Department Biodiversity, Conservation and Attraction (Parks and Wildlife Service) – vegetation and flora, fauna, wetlands weeds, disease, flora and fauna issues;
- City of Albany – regarding site construction activities, areas of environmental concern, pit and track design, control measures implemented and ongoing management.

Personnel whom contact and consultation has already been initiated regarding the proposal include:

- Adjacent neighbour; and
- City of Albany – Alex Bott and Jan Van der Mescht.

Regular consultation can occur during operations with other stakeholders as required and may include but not be limited to:

- Neighbours;
- Community groups;
- City of Albany representatives;
- Department of Parks and Wildlife; and
- Interest groups as identified.

The client and site supervisor shall have overall responsibility of conveying information to relevant government agencies regarding any environmental or operational issue or concern.

**8. Implementation Process**

The first operational pit (Stage 1) is proposed during 2017. A generalised implementation for each phase of the construction of the track is shown below in Table 6. All extraction, crushing and screening operations will occur in May – November (weather depending) with screening lasting approximately 2 to 3 weeks. Carting of gravel products will occur during times of high demand such as through the construction period of November to May. Each stage / pit is to be rehabilitated prior to the next stage being opened, which should take no more than 1 week to complete.

**Table 6 –Implementation Program**

Year	2017	2018	2019	2020	2021	2022
<b>Stage</b>						
Stage 1 extraction						
Rehabilitation						
Stage 2 extraction						
Rehabilitation						
Stage 3 extraction						
Rehabilitation						
Stage 4 extraction						
Rehabilitation						
Stage 5 extraction						
Rehabilitation						
Stage 6 extraction						
Rehabilitation						
Stage 7 extraction						
Rehabilitation						

It is recommended that this management plan is reviewed post initial excavation stages to ensure site management is occurring to the plan and any modifications are undertaken to the document consistent with operational duties and environmental requirements. Any factors which need to be considered for long term management should be documented into an updated post completion report or long-term maintenance schedule. At each stage/activity the management goals/objectives should be met prior to commencement of the next stage of works.

## 9. References

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- Personal Communication from Dave Palmer to Kathryn Kinnear during the review process, 17<sup>th</sup> May 2017.
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- Western Australian Planning Commission (WAPC) (2015) State Planning Policy 3.2 Planning in Bushfire Prone Areas. Department of Planning WA and Western Australian Planning Commission.



APPENDICES

Appendix A – Location and Site Facility Mapping

Appendix B – 250k Hydrogeological Mapping

Appendix C – Significant Wetlands and Environmentally Sensitive Areas.

Appendix D – Acid Sulphate Soil Mapping

Appendix E – Vegetation Mapping

Appendix F – Database Searches

Appendix G – Bushfire Mapping

Appendix A

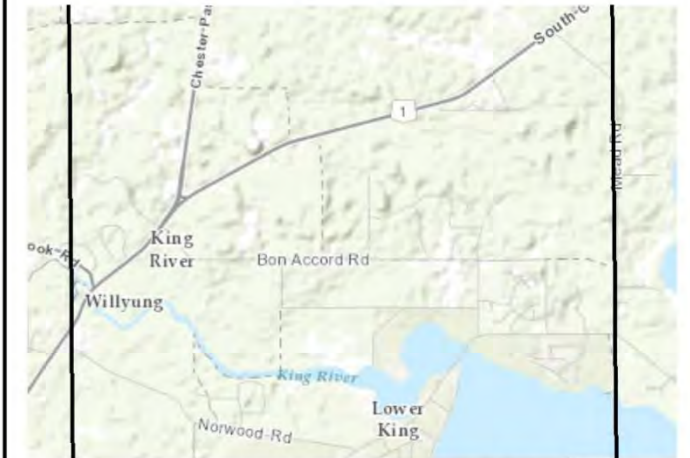
Location and Site Facility Mapping



REPORT ITEM DIS 046 REFERS



29 Hercules Crescent  
Albany, WA 6330  
Australia  
Tel: 08 9842 1575  
Fax: 08 9842 1575



Overview Map Scale 1:100,000

Legend

- Lot 5241
- Subject Site
- Cadastre



Scale  
1:20,000@ A3  
GDA MGA 94 Zone 50

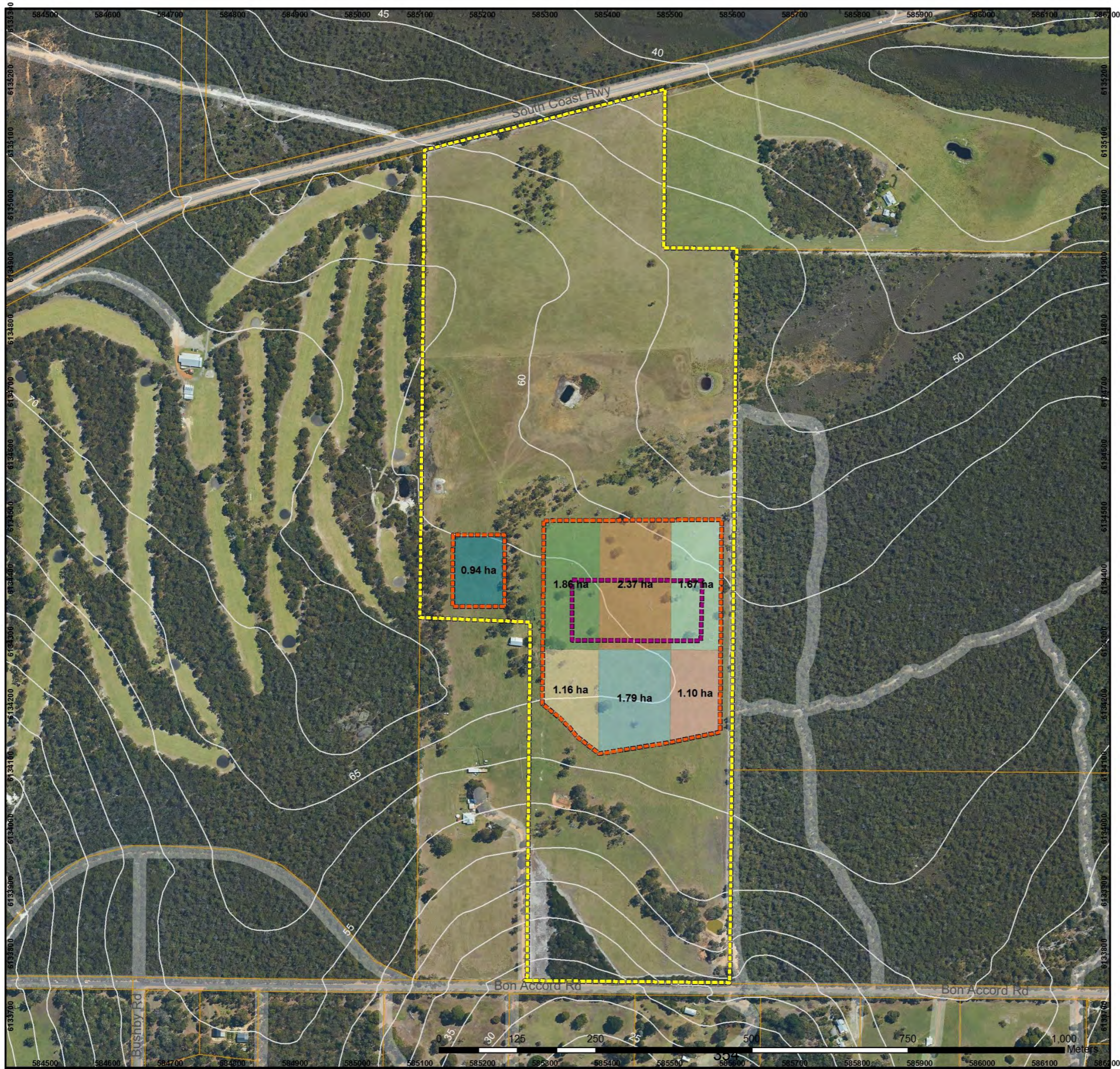
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Cadastre and Contours: Landgate 2016  
Overview Map: World Topographic map service, ESRI 2012

CLIENT

Gary Howie  
Lot 56 Bon Accord Road  
Lower King, WA 6330

Location Mapping

STATUS	FILE	DATE
FINAL	MSC0143	15/08/2017



REPORT ITEM DIS 046 REFERS



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Australia  
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Fax: 08 9842 1575



Overview Map Scale 1:100,000

Legend

- Lot 5241
- Subject Site
- Crushing & Screening Extents
- Cadastre
- 5m Contours

Stage Plan

- Stage 1
- Stage 2
- Stage 3
- Stage 4
- Stage 5
- Stage 6
- Stage 7
- Stage 8



Scale  
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GDA MGA 94 Zone 50

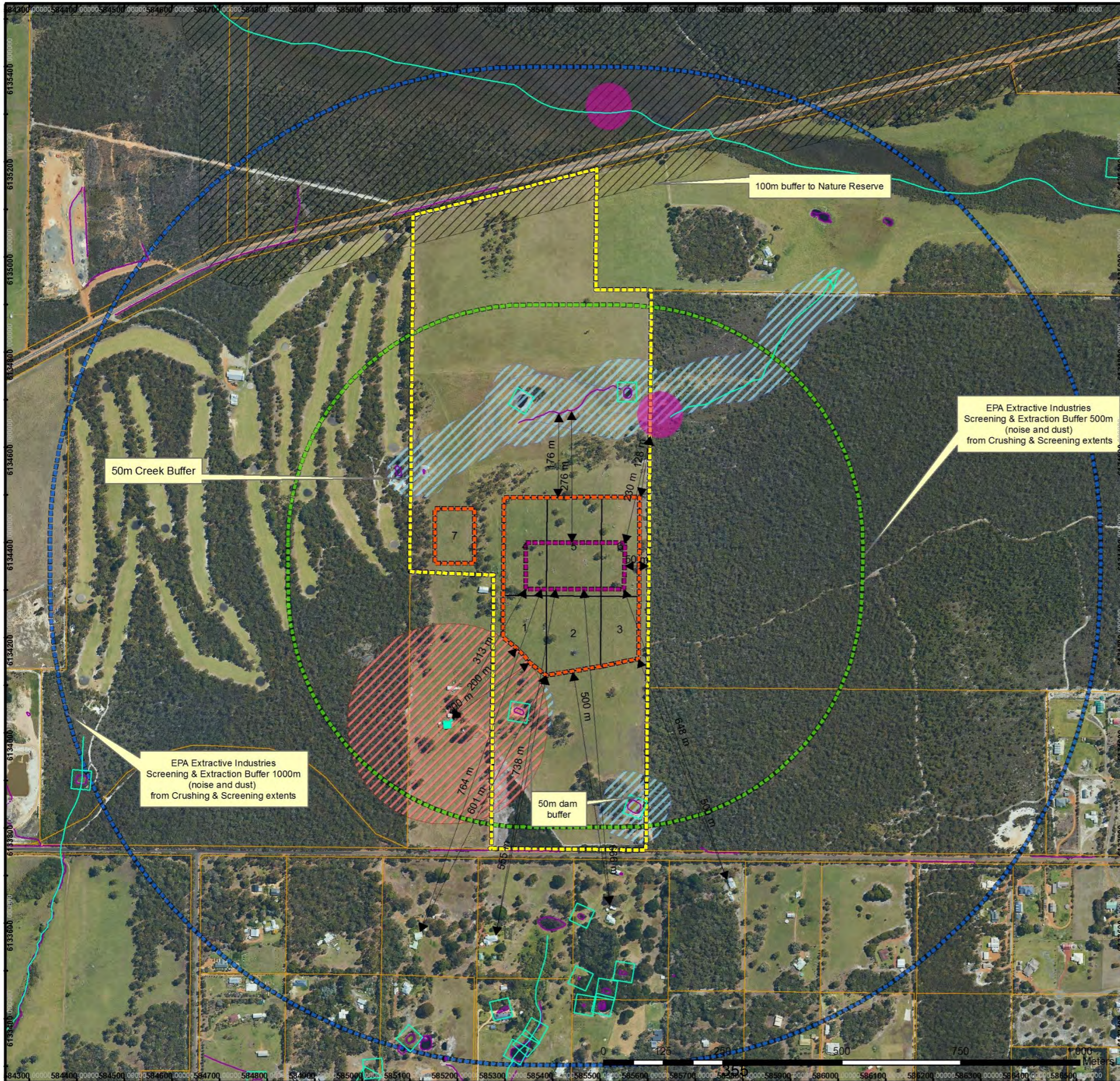
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Overview Map: World Topographic map service, ESRI 2012

CLIENT

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Lower King, WA 6330

Staging Plan

STATUS	FILE	DATE
FINAL	MSC0143	15/08/2017



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Overview Map Scale 1:100,000

Legend

- Lot 5241
- Subject Site
- Existing Dwelling
- Crushing & Screening Extents
- Stage Plan
- Buffers**
- 50m Dam/Creek Buffer (CoA)
- 100m Nature Reserve Buffer (DPaW)
- 200m Adjacent residences (CoA)
- 300m Sand Extraction Buffer (EPA)
- 500m Noise and Dust Buffer (EPA)
- 1000m Noise and Dust Buffer (EPA)
- Separation Distances
- Cadastre
- Creekline
- waterfeatures\_25000
- waterfeatures\_2000



Scale  
1:8,000 @ A3  
GDA MGA 94 Zone 50

Data Sources  
Aerial Imagery: SLIP Virtual Mosaic WMS Service, Landgate 2016  
Cadastre and Contours: Landgate 2016  
Overview Map: World Topographic map service, ESRI 2012

CLIENT  
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Lower King, WA 6330

Site Buffers Mapping

STATUS	FILE	DATE
FINAL	MSC0143	15/08/2017

Appendix B

250k Hydrogeological Mapping  
& Surface Water Flows



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Fax: 08 9842 1575



Overview Map Scale 1:100,000

**Legend**

- Lot 5241
- Subject Site
- Crushing & Screening Extents

**Buffers**

- 1000m
- 500m

- Cadastre
- 5m Contours

**250K Hydrogeology Map Series**

- TP: Tertiary-Cainozoic-Phanerozoic
- P\_go: Proterozoic
- P\_n: Proterozoic



Scale  
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GDA MGA 94 Zone 50

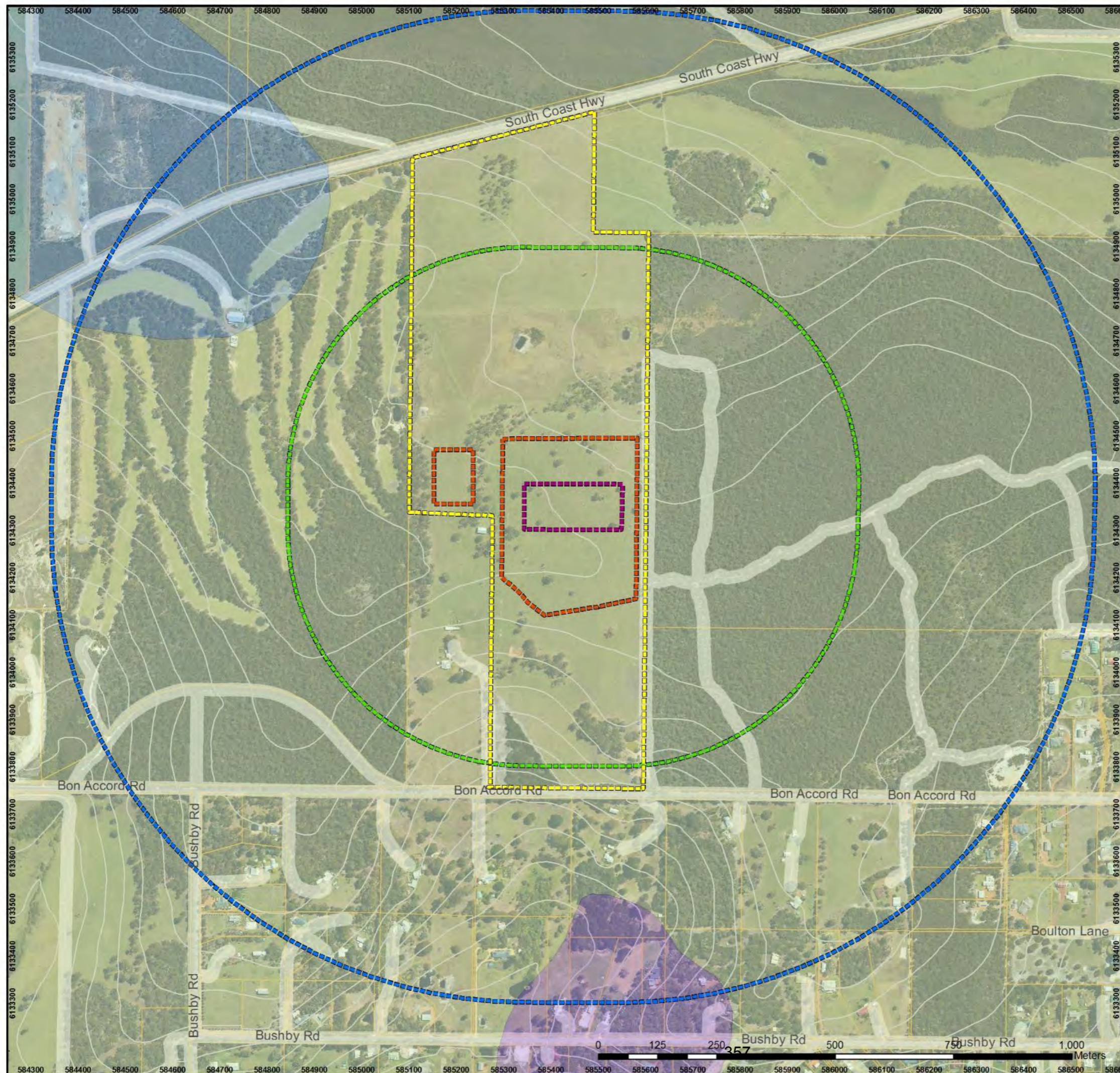
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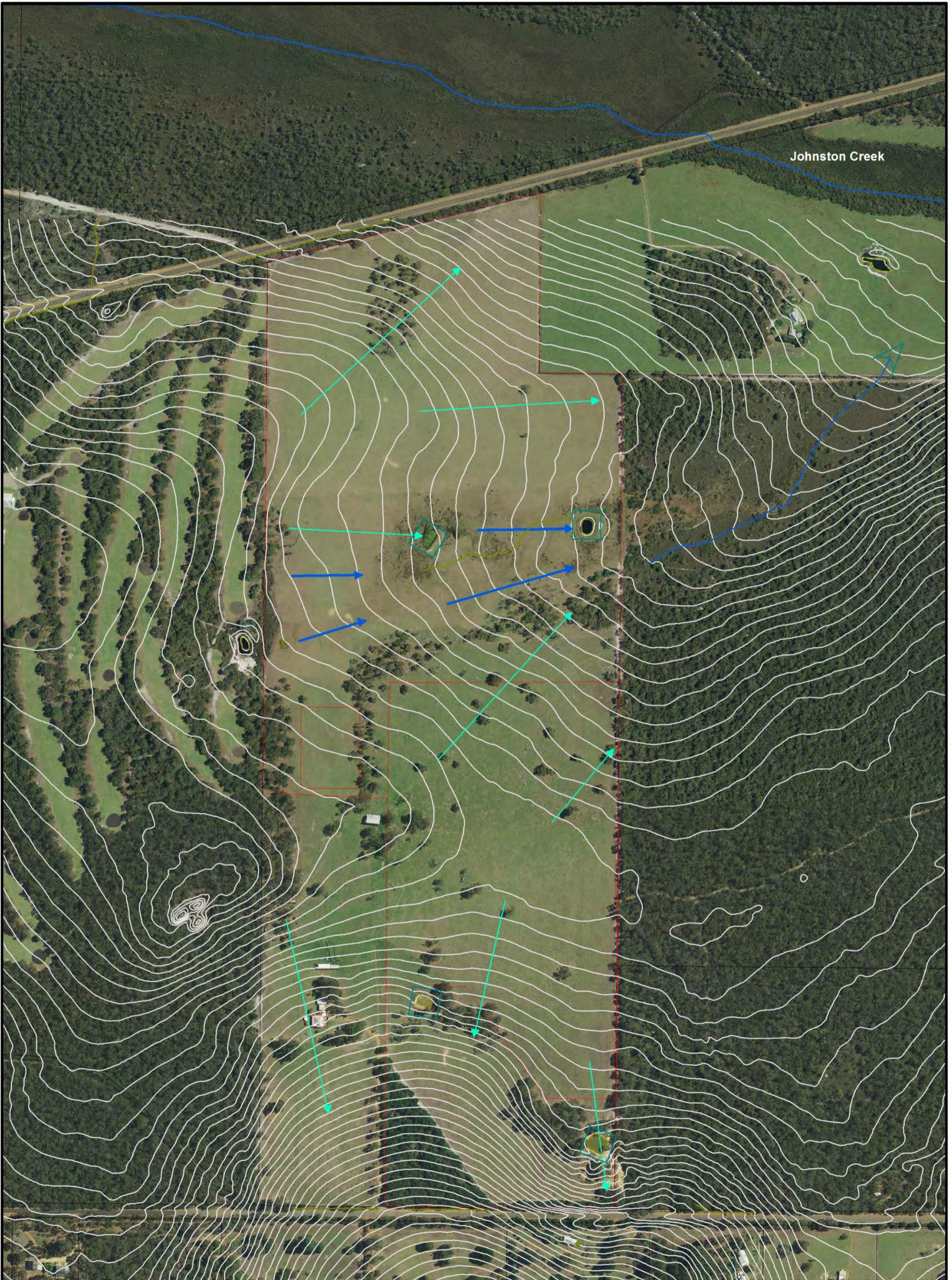
**CLIENT**

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Lower King, WA 6330

**250K Hydrogeological Mapping**

STATUS	FILE	DATE
FINAL	MSC0143	15/08/2017



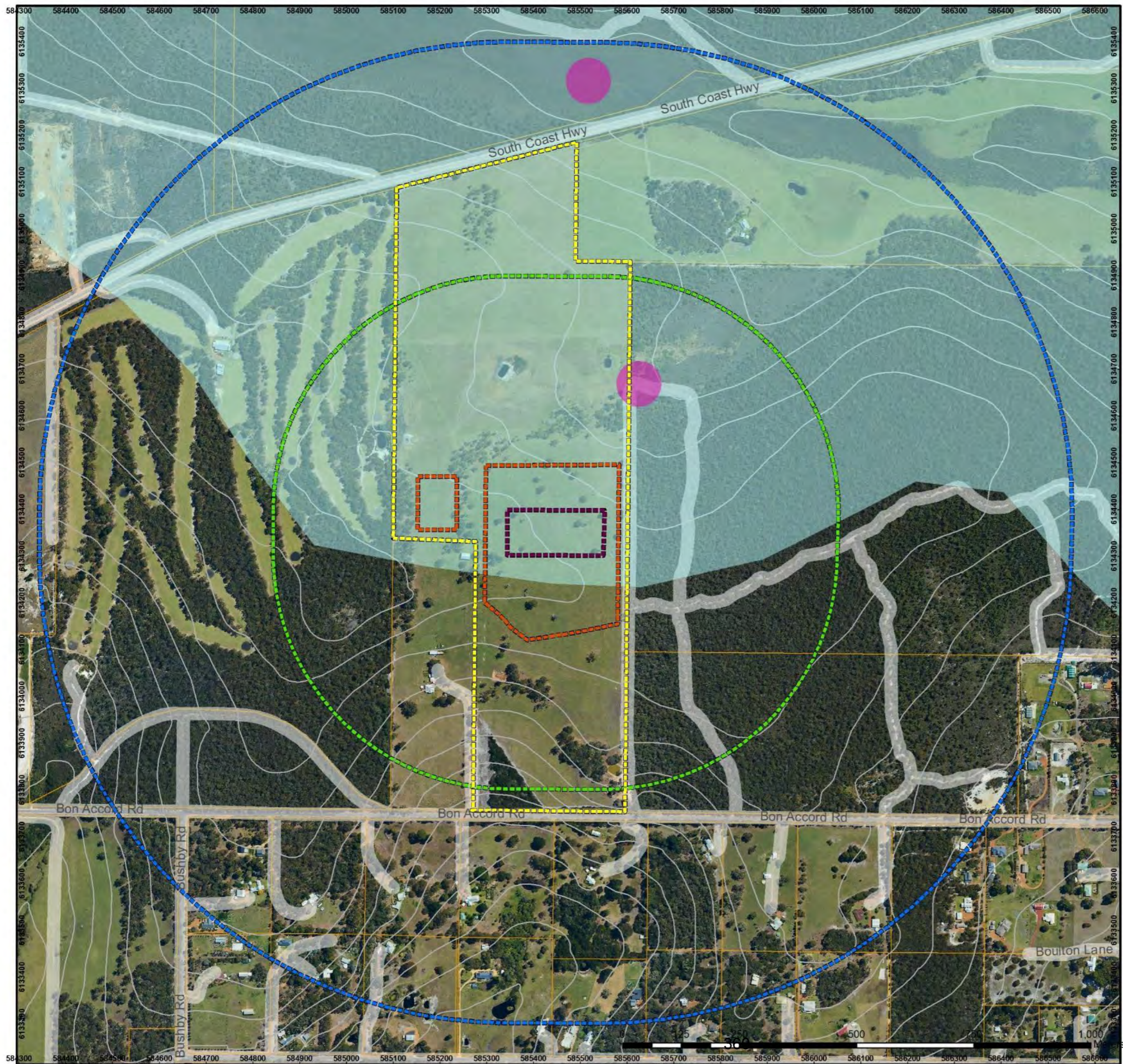


<b>Legend</b> 	Scale: 1:5000@ A3		<b>BIO DIVERSE SOLUTIONS</b>	<b>CLIENT</b> Gary Howie Lot 56 Bon Accord Road Lower King, WA 6330		
	0 2550 100 150 200 Meters			<b>Surface Water &amp; Groundwater</b>		
				STATUS FINAL	FILE HSH0011	DATE 24/08/2011



Appendix C

Significant Wetlands and Environmentally Sensitive Areas



REPORT ITEM DIS 046 REFERS



29 Hercules Crescent  
Albany, WA 6330  
Australia  
Tel: 08 9842 1575  
Fax: 08 9842 1575



Overview Map Scale 1:100,000

Legend

- Lot 5241
- Subject Site
- Crusting & Screening Extents
- 100m Buffer
- 500m Buffer
- Cadastre
- 5m Contours
- Environmentally Sensitive Area



Scale  
1:8,000 @ A3  
GDA MGA 94 Zone 50

Data Sources  
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CLIENT

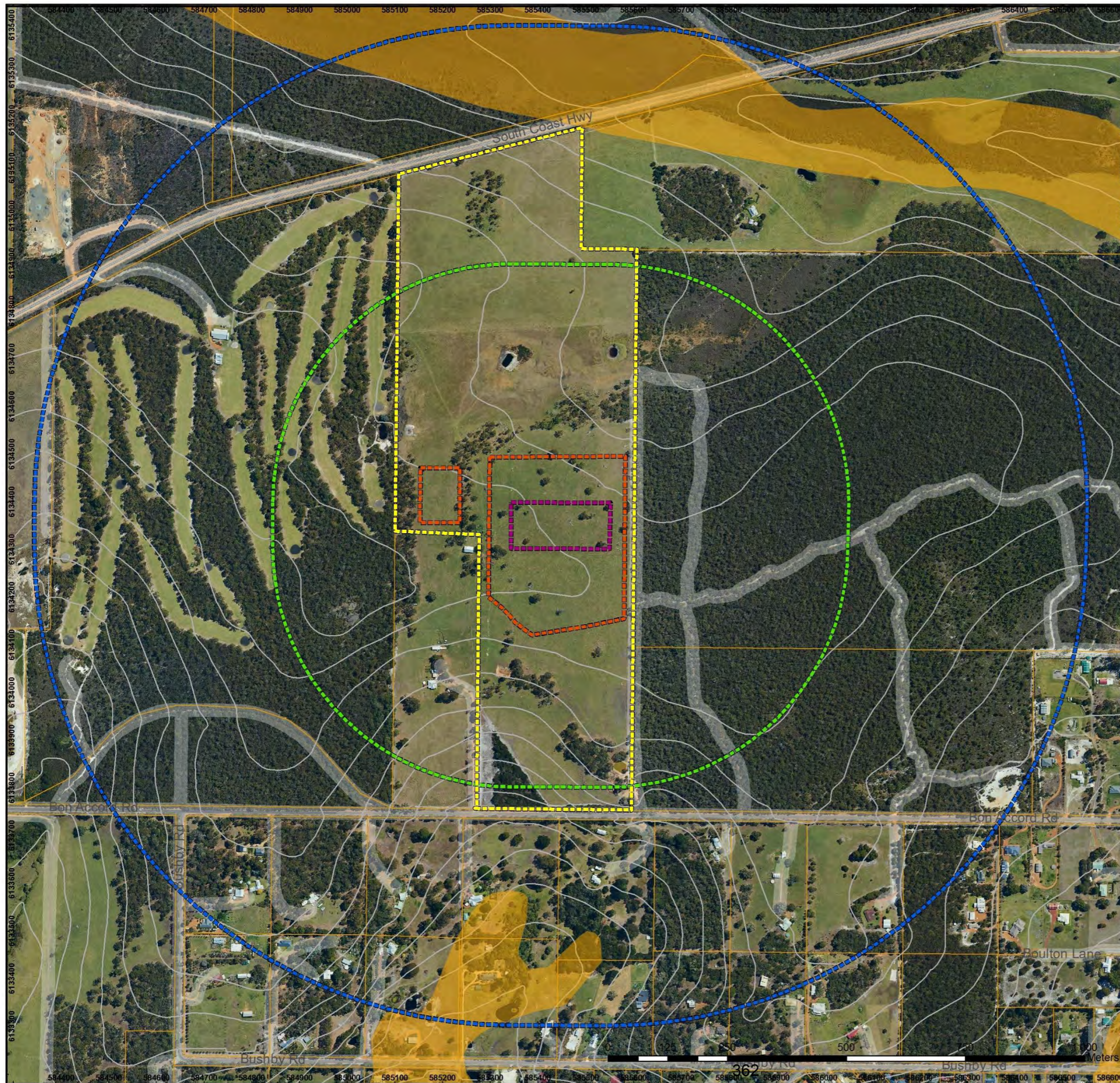
Gary Howie  
Lot 56 Bon Accord Road  
Lower King, WA 6330

Significant Wetlands and Environmentally Sensitive Areas

STATUS	FILE	DATE
FINAL	MSC0143	15/08/2017

Appendix D

Acid Sulphate Soil Mapping



REPORT ITEM DIS 046 REFERS



29 Hercules Crescent  
Albany, WA 6330  
Australia  
Tel: 08 9842 1575  
Fax: 08 9842 1575



Overview Map Scale 1:100,000

**Legend**

- Lot 5241
- Subject Site
- Crushing & Screening Extents

**Buffers**

- 1000m
- 500m
- Cadastre
- 5m Contours

**Acid Sulphate Soil Risk Map - Albany-Torbay**

- High to moderate risk
- Moderate to low risk



Scale  
1:8,000 @ A3  
GDA MGA 94 Zone 50

**Data Sources**  
Aerial Imagery: SLIP Virtual Mosaic WMS Service, Landgate 2016  
Cadastre and Contours: Landgate 2016  
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**CLIENT**

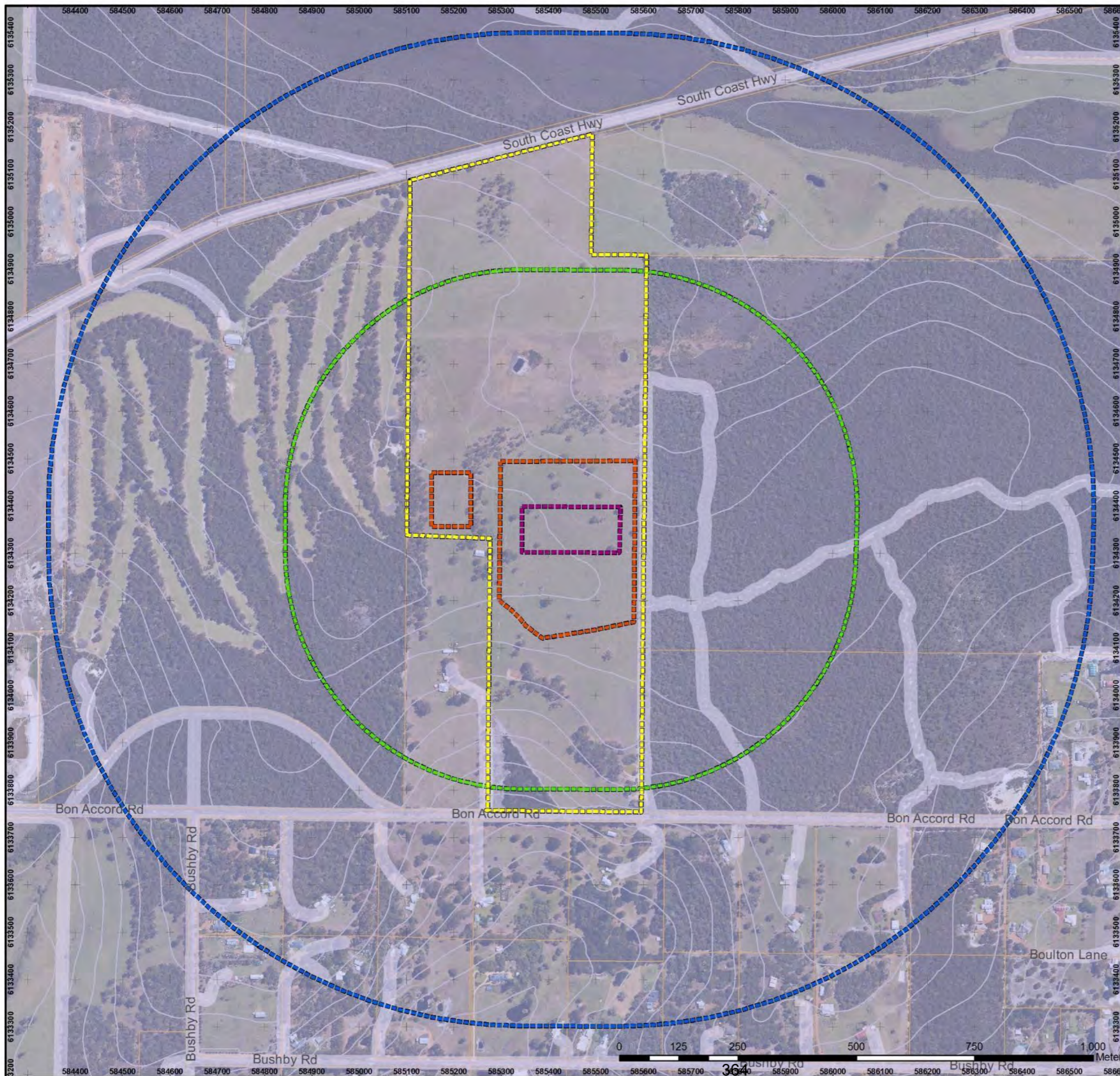
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Lower King, WA 6330

**Acid Sulphate Soils Mapping**

STATUS	FILE	DATE
FINAL	MSC0143	15/08/2017

Appendix E

IBRA and Pre-European Vegetation Mapping



REPORT ITEM DIS 046 REFERS



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Albany, WA 6330  
Australia  
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Fax: 08 9842 1575



Overview Map Scale 1:100,000

**Legend**

- Lot 5241
- Subject Site
- Crushing & Screening Extents

**Buffers**

- 1000m
- 500m
- Cadastre
- 5m Contours

**IBRA 6.1**

- Jarrah Forest, JF, 61



Scale  
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GDA MGA 94 Zone 50

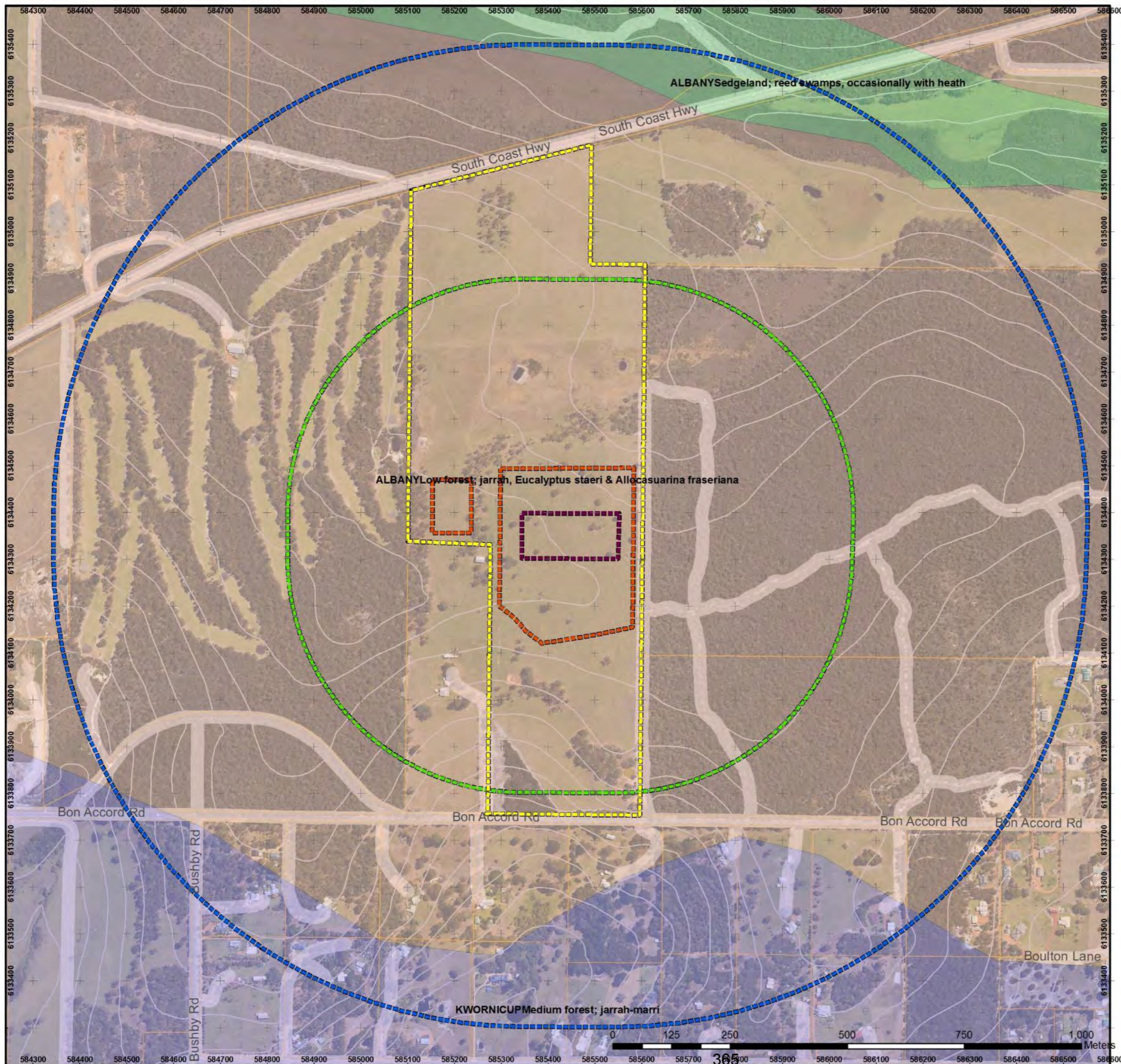
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Cadastre and Contours: Landgate 2016  
Overview Map: World Topographic map service, ESRI 2012

**CLIENT**

Gary Howie  
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Lower King, WA 6330

**IBRA 6.1 Vegetation Mapping**

STATUS	FILE	DATE
FINAL	MSC0143	15/08/2017



REPORT ITEM DIS 046 REFERS



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Australia  
Tel: 08 9842 1575  
Fax: 08 9842 1575



Overview Map Scale 1:100,000

Legend

- Lot 5241
- Subject Site
- Crushing & Screening Extents

Buffers

- 1000m
- 500m
- Cadastre
- 5m Contours

South Coast Pre European Vegetation

- 3, KWORNICUP\_3
- 51, ALBANY\_51
- 978, ALBANY\_978



Scale  
1:8,000 @ A3  
GDA MGA 94 Zone 50

Data Sources  
Aerial Imagery: SLIP Virtual Mosaic WMS Service, Landgate 2016  
Cadastre and Contours: Landgate 2016  
Overview Map: World Topographic map service, ESRI 2012

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Gary Howie  
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Lower King, WA 6330

Pre-European Vegetation

STATUS	FILE	DATE
FINAL	MSC0143	15/08/2017

Appendix F

Database Searches





Australian Government  
Department of the Environment and Energy

## EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

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[Summary](#)

[Details](#)

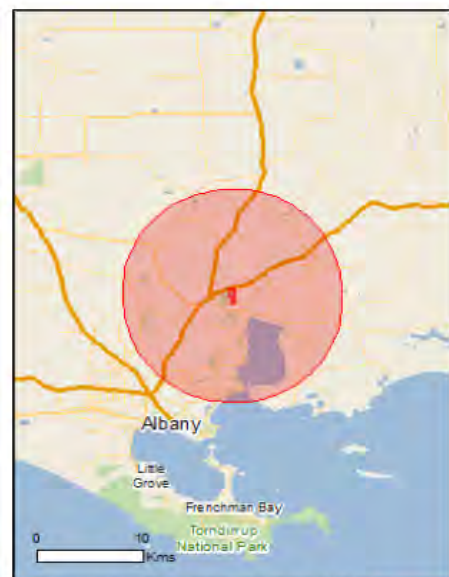
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[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

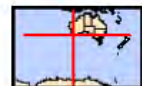
[Acknowledgements](#)



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[Coordinates](#)

Buffer: 10.0Km



## Summary

### Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Importance:</a>	None
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	None
<a href="#">Listed Threatened Ecological Communities:</a>	2
<a href="#">Listed Threatened Species:</a>	61
<a href="#">Listed Migratory Species:</a>	52

### Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <http://www.environment.gov.au/heritage>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

<a href="#">Commonwealth Land:</a>	1
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	85
<a href="#">Whales and Other Cetaceans:</a>	12
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Commonwealth Reserves Marine:</a>	None

### Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

<a href="#">State and Territory Reserves:</a>	9
<a href="#">Regional Forest Agreements:</a>	None
<a href="#">Invasive Species:</a>	26
<a href="#">Nationally Important Wetlands:</a>	1
<a href="#">Key Ecological Features (Marine)</a>	None

## Details

### Matters of National Environmental Significance

#### Listed Threatened Ecological Communities [ Resource Information ]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Name	Status	Type of Presence
<a href="#">Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia</a>	Endangered	Community may occur within area
<a href="#">Subtropical and Temperate Coastal Saltmarsh</a>	Vulnerable	Community likely to occur within area

#### Listed Threatened Species [ Resource Information ]

Name	Status	Type of Presence
<b>Birds</b>		
<a href="#">Botaurus poiciloptilus</a> Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Calidris tenuirostris</a> Great Knot [862]	Critically Endangered	Roosting known to occur within area
<a href="#">Calyptorhynchus banksii naso</a> Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Calyptorhynchus baudinii</a> Baudin's Cockatoo, Long-billed Black-Cockatoo [769]	Vulnerable	Breeding known to occur within area
<a href="#">Calyptorhynchus latirostris</a> Carnaby's Cockatoo, Short-billed Black-Cockatoo [59523]	Endangered	Species or species habitat known to occur within area
<a href="#">Cereopsis novaehollandiae grisea</a> Cape Barren Goose (south-western), Recherche Cape Barren Goose [25978]	Vulnerable	Species or species habitat may occur within area
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Roosting known to occur within area
<a href="#">Charadrius mongolus</a> Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
<a href="#">Dasyornis longirostris</a> Western Bristlebird [515]	Vulnerable	Species or species habitat likely to occur within area

REPORT ITEM DIS 046 REFERS

Name	Status	Type of Presence
<a href="#">Diomedea antipodensis</a> Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Diomedea dabbenena</a> Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area
<a href="#">Diomedea epomophora</a> Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Diomedea exulans</a> Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Diomedea sanfordi</a> Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Halobaena caerulea</a> Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
<a href="#">Limosa lapponica baueri</a> Bar-tailed Godwit (baueri), Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat may occur within area
<a href="#">Limosa lapponica menzbieri</a> Northern Siberian Bar-tailed Godwit, Bar-tailed Godwit (menzbieri) [86432]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Macronectes halli</a> Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Pachyptila turtur subantarctica</a> Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Psophodes nigrogularis nigrogularis</a> Western Heath Western Whipbird [64449]	Endangered	Species or species habitat may occur within area
<a href="#">Pterodroma mollis</a> Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
<a href="#">Sternula nereis nereis</a> Australian Fairy Tern [82950]	Vulnerable	Breeding likely to occur within area
<a href="#">Thalassarche carteri</a> Indian Yellow-nosed Albatross [64464]	Vulnerable	Foraging, feeding or related behaviour may occur within area
<a href="#">Thalassarche cauta cauta</a> Shy Albatross, Tasmanian Shy Albatross [82345]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Thalassarche cauta steadi</a> White-capped Albatross [82344]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Thalassarche impavida</a> Campbell Albatross, Campbell Black-browed	Vulnerable	Species or species

Name	Status	Type of Presence
Albatross [64459]		habitat may occur within area
<a href="#">Thalassarche melanophris</a> Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
<b>Fish</b>		
<a href="#">Galaxias truttaceus hesperius</a> Spotted Galaxias (western subspecies), Western Spotted Galaxias, Western Trout Galaxias [81282]	Critically Endangered	Species or species habitat may occur within area
<b>Mammals</b>		
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
<a href="#">Dasyurus geoffroi</a> Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Eubalaena australis</a> Southern Right Whale [40]	Endangered	Breeding known to occur within area
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Neophoca cinerea</a> Australian Sea-lion, Australian Sea Lion [22]	Vulnerable	Species or species habitat may occur within area
<a href="#">Parantechinus apicalis</a> Dibbler [313]	Endangered	Species or species habitat likely to occur within area
<a href="#">Pseudocheirus occidentalis</a> Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Vulnerable	Species or species habitat known to occur within area
<b>Plants</b>		
<a href="#">Banksia brownii</a> Brown's Banksia, Feather-leaved Banksia [8277]	Endangered	Species or species habitat known to occur within area
<a href="#">Banksia goodii</a> Good's Banksia [16727]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Banksia verticillata</a> Granite Banksia, Albany Banksia, River Banksia [8333]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Caladenia harringtoniae</a> Harrington's Spider-orchid, Pink Spider-orchid [56786]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Caladenia winfieldii</a> Majestic Spider-orchid [64504]	Endangered	Species or species habitat may occur within area
<a href="#">Chordifex abortivus</a> Manypeaks Rush [64868]	Endangered	Species or species habitat known to occur within area
<a href="#">Conostylis misera</a> Grass Conostylis [21320]	Endangered	Species or species habitat likely to occur within area
<a href="#">Darwinia collina</a> Yellow Mountain Bell [17296]	Endangered	Species or species habitat may occur within area

Name	Status	Type of Presence
<a href="#">Darwinia oxylepis</a> Gillam's Bell [13188]	Endangered	Species or species habitat may occur within area
<a href="#">Diuris drummondii</a> Tall Donkey Orchid [4365]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Drakaea micrantha</a> Dwarf Hammer-orchid [56755]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Isopogon uncinatus</a> Albany Cone Bush, Hook-leaf Isopogon [20871]	Endangered	Species or species habitat known to occur within area
<a href="#">Kennedia glabrata</a> Northcliffe Kennedia [16452]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Microtis globula</a> South-Coast Mignonette Orchid [6780]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Sphenotoma drummondii</a> Mountain Paper-heath [21160]	Endangered	Species or species habitat likely to occur within area
<a href="#">Verticordia fimbriolepis subsp. australis</a> Southern Shy Featherflower [24630]	Vulnerable	Species or species habitat known to occur within area

**Reptiles**

<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Breeding likely to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area

**Sharks**

<a href="#">Carcharias taurus (west coast population)</a> Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Carcharodon carcharias</a> White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area

**Listed Migratory Species**

[ Resource Information ]

\* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
<b>Migratory Marine Birds</b>		
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<a href="#">Diomedea epomophora</a> Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Diomedea exulans</a> Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Name	Threatened	Type of Presence
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Macronectes halli</a> Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
<a href="#">Puffinus carneipes</a> Flesh-footed Shearwater, Fleshy-footed Shearwater [1043]		Foraging, feeding or related behaviour likely to occur within area
<a href="#">Sterna caspia</a> Caspian Tern [59467]		Breeding known to occur within area
<a href="#">Thalassarche cauta</a> Tasmanian Shy Albatross [89224]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Thalassarche melanophris</a> Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
<b>Migratory Marine Species</b>		
<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat may occur within area
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
<a href="#">Caperea marginata</a> Pygmy Right Whale [39]		Species or species habitat may occur within area
<a href="#">Carcharodon carcharias</a> White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Breeding likely to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
<a href="#">Eubalaena australis</a> Southern Right Whale [40]	Endangered	Breeding known to occur within area
<a href="#">Lagenorhynchus obscurus</a> Dusky Dolphin [43]		Species or species habitat may occur within area
<a href="#">Lamna nasus</a> Porbeagle, Mackerel Shark [83288]		Species or species habitat may occur within area
<a href="#">Manta alfredi</a> Reef Manta Ray, Coastal Manta Ray, Inshore Manta Ray, Prince Alfred's Ray, Resident Manta Ray [84994]		Species or species habitat known to occur within area
<a href="#">Manta birostris</a> Giant Manta Ray, Chevron Manta Ray, Pacific Manta Ray, Pelagic Manta Ray, Oceanic Manta Ray [84995]		Species or species habitat known to occur within area
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]	Vulnerable	Species or species habitat likely to occur within area

Name	Threatened	Type of Presence
<a href="#">Orcinus orca</a> Killer Whale, Orca [46]		Species or species habitat may occur within area
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
<b>Migratory Terrestrial Species</b>		
<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area
<b>Migratory Wetlands Species</b>		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat known to occur within area
<a href="#">Arenaria interpres</a> Ruddy Turnstone [872]		Roosting known to occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Roosting known to occur within area
<a href="#">Calidris alba</a> Sanderling [875]		Roosting known to occur within area
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat known to occur within area
<a href="#">Calidris ruficollis</a> Red-necked Stint [860]		Roosting known to occur within area
<a href="#">Calidris tenuirostris</a> Great Knot [862]	Critically Endangered	Roosting known to occur within area
<a href="#">Charadrius bicinctus</a> Double-banded Plover [895]		Roosting known to occur within area
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Roosting known to occur within area
<a href="#">Charadrius mongolus</a> Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
<a href="#">Gallinago megala</a> Swinhoe's Snipe [864]		Roosting likely to occur within area
<a href="#">Gallinago stenura</a> Pin-tailed Snipe [841]		Roosting likely to occur within area
<a href="#">Heteroscelus brevipes</a> Grey-tailed Tattler [59311]		Roosting known to occur within area
<a href="#">Limnodromus semipalmatus</a> Asian Dowitcher [843]		Roosting known to occur within area
<a href="#">Limosa lapponica</a> Bar-tailed Godwit [844]		Species or species habitat known to occur within area
<a href="#">Limosa limosa</a> Black-tailed Godwit [845]		Roosting known to occur



Name	Threatened	Type of Presence
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Numenius minutus</a> Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area
<a href="#">Numenius phaeopus</a> Whimbrel [849]		Roosting known to occur within area
<a href="#">Pandion haliaetus</a> Osprey [952]		Breeding known to occur within area
<a href="#">Pluvialis fulva</a> Pacific Golden Plover [25545]		Roosting known to occur within area
<a href="#">Pluvialis squatarola</a> Grey Plover [865]		Roosting known to occur within area
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
<a href="#">Tringa stagnatilis</a> Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area
<a href="#">Xenus cinereus</a> Terek Sandpiper [59300]		Roosting known to occur within area

Other Matters Protected by the EPBC Act

**Commonwealth Land** [\[ Resource Information \]](#)

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

**Name**  
Commonwealth Land -

**Listed Marine Species** [\[ Resource Information \]](#)

\* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
<b>Birds</b>		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat known to occur within area
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<a href="#">Ardea alba</a> Great Egret, White Egret [59541]		Species or species habitat known to occur within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]		Species or species habitat may occur within area
<a href="#">Arenaria interpres</a> Ruddy Turnstone [872]		Roosting known to occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Roosting known to occur within area
<a href="#">Calidris alba</a> Sanderling [875]		Roosting known to occur

REPORT ITEM DIS 046 REFERS

Name	Threatened	Type of Presence
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	within area Species or species habitat known to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat known to occur within area
<a href="#">Calidris ruficollis</a> Red-necked Stint [860]		Roosting known to occur within area
<a href="#">Calidris tenuirostris</a> Great Knot [862]	Critically Endangered	Roosting known to occur within area
<a href="#">Catharacta skua</a> Great Skua [59472]		Species or species habitat may occur within area
<a href="#">Cereopsis novaehollandiae grisea</a> Cape Barren Goose (south-western), Recherche Cape Barren Goose [25978]	Vulnerable	Species or species habitat may occur within area
<a href="#">Charadrius bicinctus</a> Double-banded Plover [895]		Roosting known to occur within area
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Roosting known to occur within area
<a href="#">Charadrius mongolus</a> Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
<a href="#">Charadrius ruficapillus</a> Red-capped Plover [881]		Roosting known to occur within area
<a href="#">Diomedea antipodensis</a> Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Diomedea dabbenena</a> Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area
<a href="#">Diomedea epomophora</a> Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Diomedea exulans</a> Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Diomedea sanfordi</a> Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Gallinago megala</a> Swinhoe's Snipe [864]		Roosting likely to occur within area
<a href="#">Gallinago stenura</a> Pin-tailed Snipe [841]		Roosting likely to occur within area
<a href="#">Haliaeetus leucogaster</a> White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
<a href="#">Halobaena caerulea</a> Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area

REPORT ITEM DIS 046 REFERS

Name	Threatened	Type of Presence
<a href="#">Heteroscelus brevipes</a> Grey-tailed Tattler [59311]		Roosting known to occur within area
<a href="#">Himantopus himantopus</a> Black-winged Stilt [870]		Roosting known to occur within area
<a href="#">Larus novaehollandiae</a> Silver Gull [810]		Breeding known to occur within area
<a href="#">Larus pacificus</a> Pacific Gull [811]		Foraging, feeding or related behaviour known to occur within area
<a href="#">Limnodromus semipalmatus</a> Asian Dowitcher [843]		Roosting known to occur within area
<a href="#">Limosa lapponica</a> Bar-tailed Godwit [844]		Species or species habitat known to occur within area
<a href="#">Limosa limosa</a> Black-tailed Godwit [845]		Roosting known to occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Macronectes halli</a> Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area
<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Numenius minutus</a> Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area
<a href="#">Numenius phaeopus</a> Whimbrel [849]		Roosting known to occur within area
<a href="#">Pachyptila turtur</a> Fairy Prion [1066]		Species or species habitat likely to occur within area
<a href="#">Pandion haliaetus</a> Osprey [952]		Breeding known to occur within area
<a href="#">Pluvialis fulva</a> Pacific Golden Plover [25545]		Roosting known to occur within area
<a href="#">Pluvialis squatarola</a> Grey Plover [865]		Roosting known to occur within area
<a href="#">Pterodroma mollis</a> Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
<a href="#">Puffinus carneipes</a> Flesh-footed Shearwater, Fleshy-footed Shearwater [1043]		Foraging, feeding or related behaviour likely to occur within area
<a href="#">Recurvirostra novaehollandiae</a> Red-necked Avocet [871]		Roosting known to occur within area

Name	Threatened	Type of Presence
<a href="#">Sterna caspia</a> Caspian Tern [59467]		Breeding known to occur within area
<a href="#">Thalassarche carteri</a> Indian Yellow-nosed Albatross [64464]	Vulnerable	Foraging, feeding or related behaviour may occur within area
<a href="#">Thalassarche cauta</a> Tasmanian Shy Albatross [89224]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Thalassarche impavida</a> Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche melanophris</a> Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche steadi</a> White-capped Albatross [64462]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Thinornis rubricollis</a> Hooded Plover [59510]		Species or species habitat known to occur within area
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
<a href="#">Tringa stagnatilis</a> Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area
<a href="#">Xenus cinereus</a> Terek Sandpiper [59300]		Roosting known to occur within area
<b>Fish</b>		
<a href="#">Acentronura australe</a> Southern Pygmy Pipehorse [66185]		Species or species habitat may occur within area
<a href="#">Campichthys galei</a> Gale's Pipefish [66191]		Species or species habitat may occur within area
<a href="#">Heraldia nocturna</a> Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
<a href="#">Hippocampus breviceps</a> Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
<a href="#">Histiogamphelus cristatus</a> Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area
<a href="#">Leptoichthys fistularius</a> Brushtail Pipefish [66248]		Species or species habitat may occur within area
<a href="#">Lissocampus caudalis</a> Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area
<a href="#">Lissocampus runa</a> Javelin Pipefish [66251]		Species or species habitat may occur within area
<a href="#">Maroubra perserrata</a> Sawtooth Pipefish [66252]		Species or species habitat may occur within

Name	Threatened	Type of Presence area
<a href="#">Nannocampus subosseus</a> Bonyhead Pipefish, Bony-headed Pipefish [66264]		Species or species habitat may occur within area
<a href="#">Notiocampus ruber</a> Red Pipefish [66265]		Species or species habitat may occur within area
<a href="#">Phycodurus eques</a> Leafy Seadragon [66267]		Species or species habitat may occur within area
<a href="#">Phyllopteryx taeniolatus</a> Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
<a href="#">Pugnaso curtirostris</a> Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
<a href="#">Solegnathus lettiensis</a> Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area
<a href="#">Stigmatopora argus</a> Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
<a href="#">Stigmatopora nigra</a> Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
<a href="#">Stigmatopora olivacea</a> a pipefish [74966]		Species or species habitat may occur within area
<a href="#">Urocampus carinirostris</a> Hairy Pipefish [66282]		Species or species habitat may occur within area
<a href="#">Vanacampus margaritifer</a> Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
<a href="#">Vanacampus phillipi</a> Port Phillip Pipefish [66284]		Species or species habitat may occur within area
<a href="#">Vanacampus poecilolaemus</a> Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
<b>Mammals</b>		
<a href="#">Arctocephalus forsteri</a> Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat likely to occur within area
<a href="#">Neophoca cinerea</a> Australian Sea-lion, Australian Sea Lion [22]	Vulnerable	Species or species habitat may occur within area
<b>Reptiles</b>		
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Breeding likely to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area

Whales and other Cetaceans		[ Resource Information ]
Name	Status	Type of Presence
<b>Mammals</b>		
<a href="#">Balaenoptera acutorostrata</a> Minke Whale [33]		Species or species habitat may occur within area
<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat may occur within area
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
<a href="#">Caperea marginata</a> Pygmy Right Whale [39]		Species or species habitat may occur within area
<a href="#">Delphinus delphis</a> Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
<a href="#">Eubalaena australis</a> Southern Right Whale [40]	Endangered	Breeding known to occur within area
<a href="#">Grampus griseus</a> Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
<a href="#">Lagenorhynchus obscurus</a> Dusky Dolphin [43]		Species or species habitat may occur within area
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Orcinus orca</a> Killer Whale, Orca [46]		Species or species habitat may occur within area
<a href="#">Tursiops aduncus</a> Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
<a href="#">Tursiops truncatus s. str.</a> Bottlenose Dolphin [68417]		Species or species habitat may occur within area

Extra Information

State and Territory Reserves		[ Resource Information ]
Name	State	
Bakers Junction	WA	
Bon Accord Road	WA	
Green Island	WA	
Gull Rock	WA	
Mill Brook	WA	
Mount Mason	WA	
Unnamed WA23923	WA	
Unnamed WA30791	WA	
West Mount Mason	WA	

**Invasive Species** **[ Resource Information ]**

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resources Audit, 2001.

Name	Status	Type of Presence
<b>Birds</b>		
Anas platyrhynchos Mallard [974]		Species or species habitat likely to occur within area
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Streptopelia senegalensis Laughing Turtle-dove, Laughing Dove [781]		Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
<b>Mammals</b>		
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Feral deer Feral deer species in Australia [85733]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Sus scrofa Pig [6]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
<b>Plants</b>		
Asparagus aethiopicus Asparagus Fern, Ground Asparagus, Basket Fern, Sprengi's Fern, Bushy Asparagus, Emerald Asparagus [62425]		Species or species habitat likely to occur within area
Asparagus asparagoides Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area
Asparagus declinatus Bridal Veil, Bridal Veil Creeper, Pale Berry Asparagus Fern, Asparagus Fern, South African Creeper [66908]		Species or species habitat likely to occur within area
Asparagus scandens Asparagus Fern, Climbing Asparagus Fern [23255]		Species or species habitat likely to occur within area
Chrysanthemoides monilifera subsp. monilifera Boneseed [16905]		Species or species habitat likely to occur

Name	Status	Type of Presence
Genista monspessulana Montpellier Broom, Cape Broom, Canary Broom, Common Broom, French Broom, Soft Broom [20126]		within area  Species or species habitat likely to occur within area
Genista sp. X Genista monspessulana Broom [67538]		Species or species habitat may occur within area
Lantana camara Lantana, Common Lantana, Kamara Lantana, Large- leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892] Lycium ferocissimum African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area  Species or species habitat likely to occur within area
Pinus radiata Radiata Pine Monterey Pine, Insignis Pine, Wilding Pine [20780]		Species or species habitat may occur within area
Protasparagus densiflorus Asparagus Fern, Plume Asparagus [5015]		Species or species habitat likely to occur within area
Rubus fruticosus aggregate Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Sagittaria platyphylla Delta Arrowhead, Arrowhead, Slender Arrowhead [68483]		Species or species habitat likely to occur within area
Salix spp. except S.babylonica, S.x calodendron & S.x reichardtii Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
Ulex europaeus Gorse, Furze [7693]		Species or species habitat likely to occur within area

**Nationally Important Wetlands**

**[ Resource Information ]**

Name	State
<a href="#">Oyster Harbour</a>	WA



## Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species distributions have been derived through a variety of methods. Where distributions are well known and if time permits, maps are derived using either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc) together with point locations and described habitat; or environmental modelling (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where very little information is available for species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc). In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

## Coordinates

-34.923031 117.932119,-34.922222 117.935982,-34.924509 117.935982,-34.924509 117.937226,-34.935134 117.937269,-34.935064 117.933707,-34.929892 117.933664,-34.929892 117.931819,-34.923137 117.931819,-34.923031 117.932162,-34.923031 117.932119

## Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- [Office of Environment and Heritage, New South Wales](#)
- [Department of Environment and Primary Industries, Victoria](#)
- [Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [Department of Environment, Water and Natural Resources, South Australia](#)
- [Department of Land and Resource Management, Northern Territory](#)
- [Department of Environmental and Heritage Protection, Queensland](#)
- [Department of Parks and Wildlife, Western Australia](#)
- [Environment and Planning Directorate, ACT](#)
- [Birdlife Australia](#)
- [Australian Bird and Bat Banding Scheme](#)
- [Australian National Wildlife Collection](#)
- Natural history museums of Australia
- [Museum Victoria](#)
- [Australian Museum](#)
- [South Australian Museum](#)
- [Queensland Museum](#)
- [Online Zoological Collections of Australian Museums](#)
- [Queensland Herbarium](#)
- [National Herbarium of NSW](#)
- [Royal Botanic Gardens and National Herbarium of Victoria](#)
- [Tasmanian Herbarium](#)
- [State Herbarium of South Australia](#)
- [Northern Territory Herbarium](#)
- [Western Australian Herbarium](#)
- [Australian National Herbarium, Canberra](#)
- [University of New England](#)
- [Ocean Biogeographic Information System](#)
- [Australian Government, Department of Defence Forestry Corporation, NSW](#)
- [Geoscience Australia](#)
- [CSIRO](#)
- [Australian Tropical Herbarium, Cairns](#)
- [eBird Australia](#)
- [Australian Government – Australian Antarctic Data Centre](#)
- [Museum and Art Gallery of the Northern Territory](#)
- [Australian Government National Environmental Science Program](#)
- [Australian Institute of Marine Science](#)
- [Reef Life Survey Australia](#)
- [American Museum of Natural History](#)
- [Queen Victoria Museum and Art Gallery, Inveresk, Tasmania](#)
- [Tasmanian Museum and Art Gallery, Hobart, Tasmania](#)
- Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the [Contact Us](#) page.

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# NatureMap Species Report

Created By Guest user on 08/05/2017

Kingdom	Animalia
Conservation Status	Conservation Taxon (T, X, IA, S, P1-P5)
Current Names Only	Yes
Core Datasets Only	Yes
Method	By Line <sup>1</sup>
Vertices	34° 55' 22" S, 117° 55' 55" E 34° 55' 18" S, 117° 56' 10" E 34° 50' 07" S, 117° 56' 10" E 34° 50' 07" S, 117° 56' 00" E 34° 55' 52" S, 117° 56' 01" E 34° 55' 52" S, 117° 55' 55" E 34° 55' 22" S, 117° 55' 55" E
Group By	Family

Family	Species	Records
Accipitridae	1	2
Anatidae	1	131
Apodidae	1	1
Ardeidae	3	04
Atrichornithidae	1	3
Balaenopteridae	1	1
Charadriidae	4	105
Cheloniidae	1	4
Cinelocomatidae	1	1
Dasyornithidae	1	1
Dasyuridae	1	2
Dermochelyidae	1	1
Diomedelidae	2	2
Elapidae	1	1
Falconidae	2	5
Geotriidae	1	4
Lamnidae	1	1
Laridae	1	2
Macropodidae	2	4
Megapodiidae	1	1
Meropidae	1	7
Muridae	1	0
Odontaspidae	1	1
Otaridae	2	5
Peramelidae	2	40
Phaethonidae	1	1
Phycetidae	1	3
Procellariidae	3	7
Pseudocheiridae	1	00
Psittacidae	3	308
Scolopacidae	17	337
Thylacomyidae	1	1
Tytonidae	1	1
<b>TOTAL</b>	<b>63</b>	<b>1131</b>

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
<b>Accipitridae</b>				
1.	24200 <i>Falco haliaeetus subsp. cristatus</i> (Osprey)		IA	
<b>Anatidae</b>				
2.	24328 <i>Oxyura australis</i> (Blue-billed Duck)		P4	
<b>Apodidae</b>				
3.	25554 <i>Apus pacificus</i> (Fork-tailed Swift, Pacific Swift)		IA	
<b>Ardeidae</b>				
4.	25558 <i>Ardea ibis</i> (Cattle Egret)		IA	
5.	41324 <i>Ardea modesta</i> (Eastern Great Egret)		IA	
6.	24345 <i>Botaurus poiciloptilus</i> (Australasian Bittern)		T	
<b>Atrichornithidae</b>				
7.	24358 <i>Atrichornis clamosus</i> (Noisy Scrub-bird)		T	
<b>Balaenopteridae</b>				
8.	24048 <i>Balaenoptera musculus subsp. brevicauda</i> (Pygmy Blue Whale)		T	
<b>Charadriidae</b>				
9.	25575 <i>Charadrius leschenaultii</i> (Greater Sand Plover)		IA	
10.	25570 <i>Charadrius mongolus</i> (Lesser Sand Plover)		T	

NatureMap is a collaborative project of the Department of Parks and Wildlife and the Western Australian Museum.



Department of Parks and Wildlife



Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
11.	24382 <i>Pluvialis fulva</i> (Pacific Golden Plover)		IA	
12.	24383 <i>Pluvialis squatarola</i> (Grey Plover)		IA	
<b>Cheloniidae</b>				
13.	25335 <i>Caretta caretta</i> (Loggerhead Turtle)		T	
<b>Cinclosomatidae</b>				
14.	24388 <i>Psophodes nigrogularis</i> subsp. <i>nigrogularis</i> (Western Whipbird (western heath))		T	
<b>Dasyornithidae</b>				
15.	24440 <i>Dasyornis longirostris</i> (Western Bristlebird)		T	
<b>Dasyuridae</b>				
16.	24002 <i>Dasyurus geoffroii</i> (Chuditch, Western Quoll)		T	
<b>Dermochelyidae</b>				
17.	25340 <i>Dermochelys coriacea</i> (Leatherback Turtle)		T	
<b>Diomedeidae</b>				
18.	30830 <i>Diomedea exulans</i> subsp. <i>exulans</i> (Snowy Albatross)		T	
19.	44007 <i>Thalassarche melanophris</i> (Black-browed Albatross)		T	
<b>Elapidae</b>				
20.	25200 <i>Elapognathus minor</i> (Short-nosed Snake)		P2	
<b>Falconidae</b>				
21.	25024 <i>Falco peregrinus</i> (Peregrine Falcon)		S	
22.	24475 <i>Falco peregrinus</i> subsp. <i>macropus</i> (Australian Peregrine Falcon)		S	
<b>Geotriidae</b>				
23.	34030 <i>Geotria australis</i> (Fouched Lamprey)		P1	
<b>Lamnidae</b>				
24.	34031 <i>Carcharodon carcharias</i> (Great White Shark)		T	
<b>Laridae</b>				
25.	24523 <i>Sterna caspia</i> (Caspian Tern)		IA	
<b>Macropodidae</b>				
26.	24133 <i>Macropus irma</i> (Western Brush Wallaby)		P4	
27.	24145 <i>Setonix brachyurus</i> (Quokka)		T	
<b>Megapodiidae</b>				
28.	24557 <i>Leipoa ocellata</i> (Malleefowl)		T	
<b>Meropidae</b>				
29.	24508 <i>Merops ornatus</i> (Rainbow Bee-eater)		IA	
<b>Muridae</b>				
30.	24215 <i>Hydromys chrysogaster</i> (Water-rat, Rakali)		P4	
<b>Odontaspidae</b>				
31.	34034 <i>Carcharias taurus</i> (Grey Nurse Shark)		T	
<b>Otariidae</b>				
32.	24208 <i>Arctocephalus forsteri</i> (New Zealand fur-seal, long-nosed fur-seal)		S	
33.	24210 <i>Neophoca cinerea</i> (Australian Sea-lion)		T	
<b>Peramelidae</b>				
34.	25478 <i>Isodon obesulus</i> (Southern Brown Bandicoot)		P4	
35.	24153 <i>Isodon obesulus</i> subsp. <i>fusciventer</i> (Quenda, Southern Brown Bandicoot)		P4	
<b>Phaethontidae</b>				
36.	24003 <i>Phaethon rubricauda</i> (Red-tailed Tropicbird)		P4	
<b>Physeteridae</b>				
37.	24073 <i>Physeter macrocephalus</i> (Sperm Whale)		T	
<b>Procellariidae</b>				
38.	24000 <i>Macronectes giganteus</i> (Southern Giant Petrel)		IA	
39.	24712 <i>Puffinus carneipes</i> (flesh-footed shearwater, fleshy-footed shearwater)		T	
40.	24715 <i>Puffinus huttoni</i> (Hutton's Shearwater)		T	
<b>Pseudocheiridae</b>				
41.	24100 <i>Pseudocheirus occidentalis</i> (Western Ringtail Possum)		T	
<b>Psittacidae</b>				
42.	24731 <i>Calyptorhynchus banksii</i> subsp. <i>naso</i> (Forest Red-tailed Black-Cockatoo)		T	
43.	24733 <i>Calyptorhynchus baudinii</i> (Baudin's Cockatoo (long-billed black-cockatoo), Baudin's Cockatoo)		T	
44.	24734 <i>Calyptorhynchus latirostris</i> (Garnaby's Cockatoo (short-billed black-cockatoo), Garnaby's Cockatoo)		T	



Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
<b>Scolopacidae</b>				
45.	41323 <i>Actitis hypoleucos</i> (Common Sandpiper)		IA	
46.	25730 <i>Arenaria interpres</i> (Ruddy Turnstone)		IA	
47.	24770 <i>Calidris acuminata</i> (Sharp-tailed Sandpiper)		IA	
48.	24780 <i>Calidris alba</i> (Sanderling)		IA	
49.	25738 <i>Calidris canutus</i> (Red Knot)		IA	
50.	24784 <i>Calidris ferruginea</i> (Curlew Sandpiper)		T	
51.	24788 <i>Calidris ruticoilis</i> (Red-necked Stint)		IA	
52.	24780 <i>Calidris subminuta</i> (Long-toed Stint)		IA	
53.	24700 <i>Calidris tenuirostris</i> (Great Knot)		T	
54.	30032 <i>Limosa lapponica</i> (Bar-tailed Godwit)		IA	
55.	24708 <i>Numenius madagascariensis</i> (Eastern Curlew)		T	
56.	25742 <i>Numenius phaeopus</i> (Whimbrel)		IA	
57.	24802 <i>Philiomachus pugnax</i> (Ruff)		IA	
58.	24803 <i>Tringa brevipes</i> (Grey-tailed Tattler)		P4	
59.	24800 <i>Tringa glareola</i> (Wood Sandpiper)		IA	
60.	24808 <i>Tringa nebularia</i> (Common Greenshank)		IA	
61.	24800 <i>Tringa stagnatilis</i> (Marsh Sandpiper)		IA	
<b>Thylacomyidae</b>				
62.	24108 <i>Macrotis lagotis</i> (Bilby, Dalgyle)		T	
<b>Tytonidae</b>				
63.	24855 <i>Tyto novaehollandiae</i> subsp. <i>novaehollandiae</i> (Masked Owl (southern subsp.))		P3	

Conservation Codes  
 T - Rare or likely to become extinct  
 X - Presumed extinct  
 IA - Protected under international agreement  
 S - Other specially protected fauna  
 1 - Priority 1  
 2 - Priority 2  
 3 - Priority 3  
 4 - Priority 4  
 5 - Priority 5

<sup>1</sup> For NatureMap's purposes, species flagged as endemic are those whose records are wholly contained within the search area. Note that only those records complying with the search criterion are included in the calculation. For example, if you limit records to those from a specific datasource, only records from that datasource are used to determine if a species is restricted to the query area.

# NatureMap Species Report

Created By Guest user on 08/05/2017

Kingdom	Plantae
Conservation Status	Conservation Taxon (T, X, IA, S, P1-P5)
Current Names Only	Yes
Core Datasets Only	Yes
Method	By Line
Vertices	34° 55' 23" S, 117° 55' 55" E 34° 55' 23" S, 117° 55' 54" E 34° 55' 18" S, 117° 50' 10" E 34° 50' 00" S, 117° 50' 15" E 34° 50' 07" S, 117° 50' 00" E 34° 55' 52" S, 117° 50' 01" E 34° 55' 52" S, 117° 55' 55" E 34° 55' 23" S, 117° 55' 54" E
Group By	Family

Family	Species	Records
Asparagaceae	3	37
Droseraceae	1	0
Ericaceae	8	22
Fabaceae	3	3
Goodeniaceae	1	2
Haloragaceae	2	2
Juncaceae	1	1
Malvaceae	1	2
Myrtaceae	5	7
Orchidaceae	5	22
Pleurophacaceae	1	0
Poaceae	2	5
Proteaceae	11	44
Recitonaceae	1	0
Rhamnaceae	2	3
Rutaceae	1	8
Stylidiaceae	1	2
<b>TOTAL</b>	<b>49</b>	<b>178</b>

Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
<b>Asparagaceae</b>				
1.	1302 <i>Laxmannia jamesii</i> (James' Paperbilly)		P4	
2.	1332 <i>Thysanotus gageoides</i>		P3	
3.	1330 <i>Thysanotus isantherus</i>		P4	
<b>Droseraceae</b>				
4.	3000 <i>Drosera fimbriata</i> (Manypeaks Sundew)		P4	
<b>Ericaceae</b>				
5.	0301 <i>Andersonia auriculata</i>		P3	
6.	0310 <i>Andersonia grandiflora</i> (Red Andersonia)		P4	
7.	0310 <i>Andersonia setifolia</i>		P3	
8.	41737 <i>Andersonia</i> sp. <i>Jamesii</i> (J. Liddelow 84)		P4	
9.	0355 <i>Leucopogon alternifolius</i>		P3	
10.	33370 <i>Leucopogon altissimus</i>		P3	
11.	0384 <i>Leucopogon cymbiformis</i>		P2	
12.	0400 <i>Lysinema lasianthum</i>		P4	
<b>Fabaceae</b>				
13.	3407 <i>Acacia prismifolia</i>		X	
14.	3700 <i>Bossiaea divaricata</i>		P4	
15.	13113 <i>Chorizema carinatum</i>		P3	
<b>Goodeniaceae</b>				
16.	10050 <i>Goodenia</i> sp. <i>South Coast</i> (A.R. Annelis ARA1840)		P3	
<b>Haloragaceae</b>				
17.	0102 <i>Gonocarpus pusillus</i>		P4	
18.	0100 <i>Gonocarpus simplex</i>		P4	
<b>Juncaceae</b>				
19.	14031 <i>Juncus meianthus</i>		P2	
<b>Malvaceae</b>				

	Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
	20.	5100			P4
		<i>Thomasia solanacea</i>			
<b>Myrtaceae</b>					
	21.	42620			P2
		<i>Acartea transversa</i>			
	22.	5710			P3
		<i>Eucalyptus newbeyi</i> (Beaufort Inlet Mallee)			
	23.	12424			T
		<i>Verticordia fimbriolepis</i> subsp. <i>australis</i>			
	24.	0085			P4
		<i>Verticordia harveyi</i> (Autumn Featherflower)			
	25.	12431			P3
		<i>Verticordia huegelii</i> var. <i>tridens</i>			
<b>Orchidaceae</b>					
	26.	12035			P3
		<i>Corybas abditus</i>			
	27.	12040			P4
		<i>Corybas limpidus</i>			
	28.	13035			T
		<i>Drakaea micrantha</i>			
	29.	1050			T
		<i>Microtis globula</i> (South-coast Mignonette Orchid)			
	30.	1717			P2
		<i>Thelymitra variegata</i> (Queen of Sheba)			
<b>Pleurophascaceae</b>					
	31.	10002			P4
		<i>Pleurophascum occidentale</i>			
<b>Poaceae</b>					
	32.	25863			P3
		<i>Lachnagrostis billardierei</i> subsp. <i>billardierei</i>			
	33.	35300			P3
		<i>Foa billardierei</i>			
<b>Proteaceae</b>					
	34.	10670			P4
		<i>Adenanthos x cunninghamii</i>			
	35.	32170			P4
		<i>Banksia acuminata</i>			
	36.	1800			T
		<i>Banksia brownii</i> (Feather-leaved Banksia)			
	37.	1818			T
		<i>Banksia goodii</i> (Good's Banksia)			
	38.	32085			P4
		<i>Banksia seneciifolia</i>			
	39.	32084			P4
		<i>Banksia serra</i> (Gerrate-leaved Dryandra)			
	40.	12220			P3
		<i>Hakea lasiocarpa</i>			
	41.	2100			P3
		<i>Hakea oldfieldii</i>			
	42.	12008			P2
		<i>Isopogon buxifolius</i> var. <i>buxifolius</i>			
	43.	2242			T
		<i>Isopogon uncinatus</i>			
	44.	2327			P3
		<i>Synaphea preissii</i>			
<b>Restionaceae</b>					
	45.	17705			T
		<i>Chordifex abortivus</i>			
<b>Rhamnaceae</b>					
	46.	4833			P4
		<i>Spyridium spadicum</i>			
	47.	10704			P2
		<i>Stenanthemum cubilneare</i>			
<b>Rutaceae</b>					
	48.	4412			P3
		<i>Boronia craspedes</i>			
<b>Stylidiaceae</b>					
	49.	7080			P2
		<i>Stylidium articulatum</i> (Stout Triggerplant)			

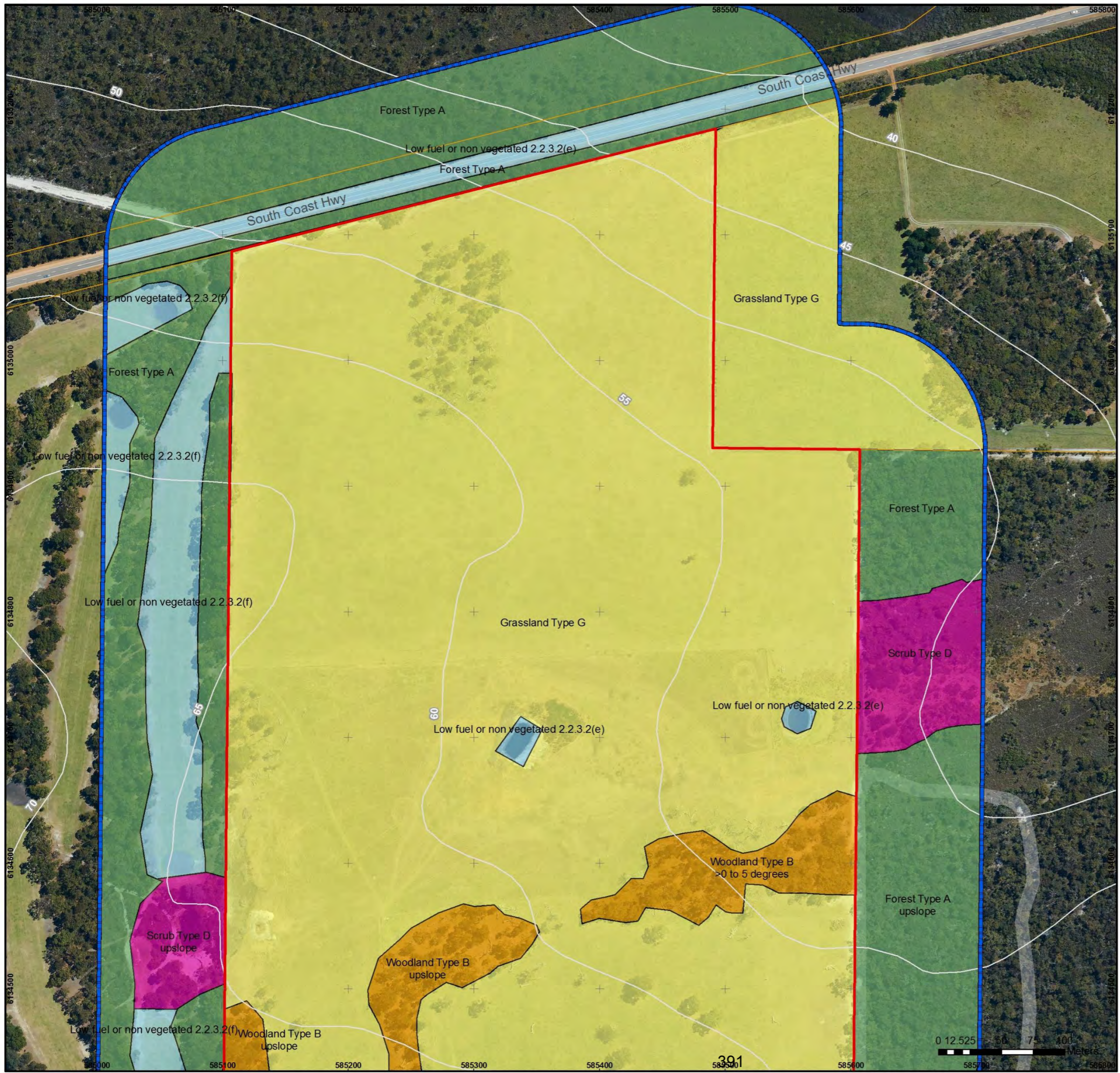
Conservation Codes  
 T - Rare or likely to become extinct  
 X - Presumed extinct  
 I1 - Protected under international agreement  
 S - Other specially protected fauna  
 1 - Priority 1  
 2 - Priority 2  
 3 - Priority 3  
 4 - Priority 4  
 5 - Priority 5

<sup>1</sup> For NatureMap's purposes, species flagged as endemic are those whose records are wholly contained within the search area. Note that only those records complying with the search criterion are included in the calculation. For example, if you limit records to those from a specific datasource, only records from that datasource are used to determine if a species is restricted to the query area.

Appendix G

Bushfire Mapping





**REPORT ITEM DIS 046 REFERS**  
 This BAL Plan was prepared by:  
 Kathryn Kinnear, Bio Diverse Solutions  
 Accreditation No: BPAD30794  
 Jurisdiction: Level 2 - WA

**BPAD**  
 Bushfire Planning & Design  
 Accredited Practitioner Level 2

**BIO DIVERSE SOLUTIONS**

29 Hercules Crescent  
 Albany, WA 6330  
 Australia  
 Tel: 08 9842 1575  
 Fax: 08 9842 1575



Overview Map Scale 1:100,000

**Legend**

- Subject Site
  - 100m Assessment Boundary
  - Crushing & Screening Extents
  - Cadastre
  - 5m Contours
- Vegetation
- Forest Type A
  - Woodland Type B
  - Shrubland Type C
  - Scrub Type D
  - Grassland Type G
  - Low fuel or non vegetated 2.2.3.2

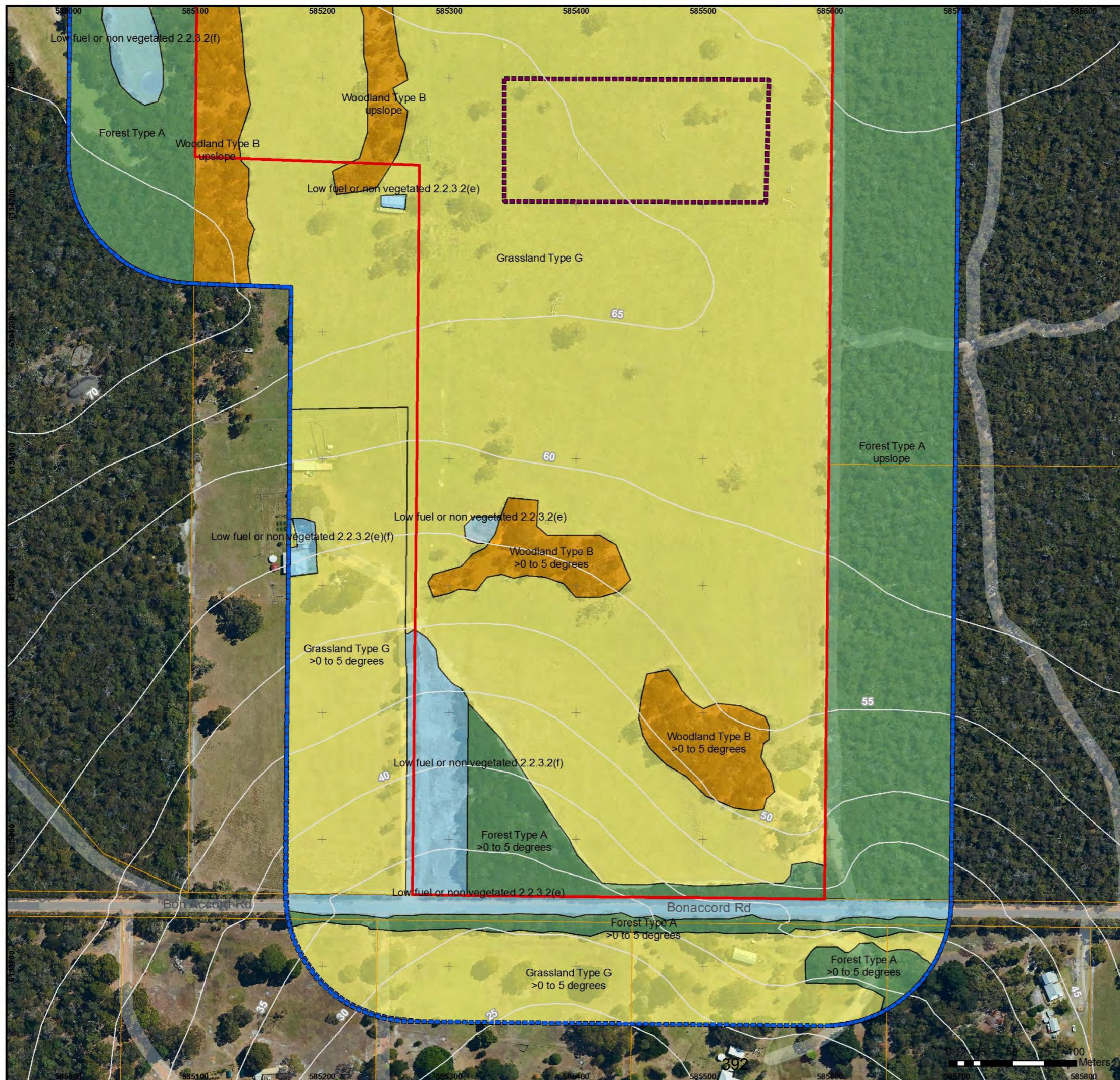
Scale  
 1:3,000 @ A3  
 GDA MGA 94 Zone 50

**Data Sources**  
 Aerial Imagery: SLIP Virtual Mosaic WMS Service, Landgate 2017  
 Cadastre, Relief Contours and Roads: Landgate 2017  
 IRIS Road Network: Main Roads Western Australia 2017  
 Overview Map: World Topographic map service, ESRI 2012

**CLIENT**

Gary Howie  
 Lot 56 Bon Accord Road  
 Lower King, WA 6330

<b>Vegetation Classes - North</b>		
BAL Assessor <b>KK</b>	QA Check <b>KK</b>	Drawn by <b>BT</b>
STATUS <b>FINAL</b>	FILE <b>MSC0143</b>	DATE <b>15/08/2017</b>



**REPORT ITEM DIS 046 REFERS**

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 Kathryn Kinnear, Bio Diverse Solutions  
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Overview Map Scale 1:100,000

**Legend**

- Subject Site
  - 100m Assessment Boundary
  - Crushing & Screening Extents
  - Cadastre
  - 5m Contours
- Vegetation**
- Forest Type A
  - Woodland Type B
  - Shrubland Type C
  - Scrub Type D
  - Grassland Type G
  - Low fuel or non vegetated 2.2.3.2



Scale  
 1:3,000 @ A3  
 GDA MGA 94 Zone 50

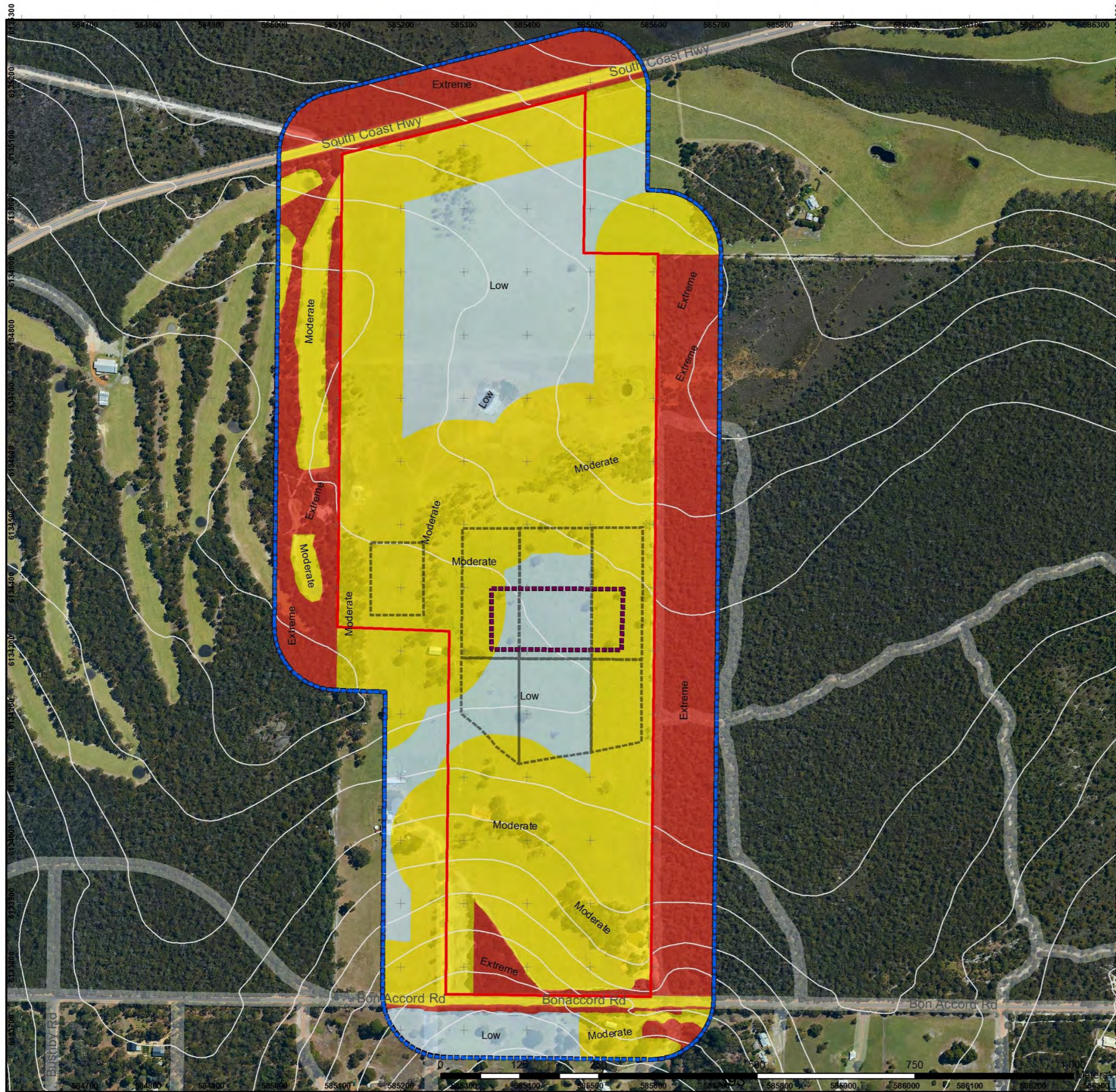
**Data Sources**  
 Aerial Imagery: SLIP Virtual Mosaic WMS Service, Landgate 2017  
 Cadastre, Relief Contours and Roads: Landgate 2017  
 IRIS Road Network: Main Roads Western Australia 2017  
 Overview Map: World Topographic map service, ESRI 2012

**CLIENT**

Gary Howie  
 Lot 56 Bon Accord Road  
 Lower King, WA 6330

**Vegetation Classes - South**

BAL Assessor <b>KK</b>	QA Check <b>KK</b>	Drawn by <b>BT</b>
STATUS <b>FINAL</b>	FILE <b>MSC0143</b>	DATE <b>15/08/2017</b>



**REPORT ITEM DIS 046 REFERS**  
 This BAL Plan was prepared by:  
 Kathryn Kinnear, Bio Diverse Solutions  
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**BPAD**  
 Bushfire  
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 Accredited Practitioner  
 Level 2

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 Albany, WA 6330  
 Australia  
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Overview Map Scale 1:100,000

**Legend**

- Subject Site
- 100m Assessment Boundary
- Crushing & Screening Extents
- Development Area
- 5m Contours

- BHL**
- Extreme
  - Moderate
  - Low

Scale  
 1:6,000 @ A3  
 GDA MGA 94 Zone 50

**Data Sources**  
 Aerial Imagery: SLIP Virtual Mosaic WMS Service, Landgate 2017  
 Cadastre, Relief Contours and Roads: Landgate 2017  
 IRIS Road Network: Main Roads Western Australia 2017  
 Overview Map: World Topographic map service, ESRI 2012

**CLIENT**  
 Gary Howie  
 Lot 56 Bon Accord Road  
 Lower King, WA 6330

**BHL Mapping**

BAL Assessor <b>KK</b>	QA Check <b>KK</b>	Drawn by <b>BT</b>
STATUS <b>FINAL</b>	FILE <b>MSC0143</b>	DATE <b>15/08/2017</b>

## CITY OF ALBANY LOCAL PLANNING SCHEME No. 1

Industry – Extractive (Gravel) – Lot 56 Bon Accord Road, Kalgan

## SCHEDULE OF SUBMISSIONS AND MODIFICATIONS

*Note: This is a broad summary of the submissions only. A copy of the submissions in full have been provided to the Councillors as a separate document.*

No.	Summary of submission.	Officer Comment
1.	<p><b>Supports the proposal</b></p>	<p>No objections on the basis that those opposing it will be the first to complain when gravel is needed to fix roads.</p> <p>The rehabilitation on the present pit is absolutely great. Has made good useless rocky ground into serviceable land for agriculture.</p>
2.	<p><b>Adjoining landowner has no objections to the proposal being approximately 90 metres from their dwelling, which is on the adjacent site.</b></p>	<p>The City of Albany's Extractive Industry Policy requires that there is a 200 metre setback from dwellings not on the subject site. Although the adjoining owner has no objections to the decreased buffer, staff recommend that the setback is increased to 200 metres and the applicant has since agreed.</p>
3	<p><b>Safety of road users due to the increase in vehicle movements combined with the existing road conditions of Bon Accord / Prideaux Roads as detailed below:</b></p> <p><b>a) <u>Current conditions of Bon Accord and Prideaux Road</u></b></p> <ul style="list-style-type: none"> <li>• Too narrow to accommodate additional heavy traffic</li> <li>• Two trucks/cars cannot pass at the same time</li> <li>• Trucks will take up the whole road width to turn into the subject lot</li> <li>• Proximity of proposed access to residential access points</li> <li>• Blind crest at the intersection of Bushby Road and Bon Accord Road.</li> </ul>	<p>Bon Accord Road was initially proposed as the haulage route due to a restrictive covenant preventing vehicular access directly onto South Coast Highway. The City has met with Main Roads WA who have since revised their initial advice and have now agreed to grant temporary access directly onto South Coast Highway subject to the following conditions.</p> <ul style="list-style-type: none"> <li>• A Memorandum of Understanding is signed between the landowner and Main Roads with</li> </ul>

Industry – Extractive (Gravel) – Lot 56 Bon Accord Road, Kalgan

SCHEDULE OF SUBMISSIONS AND MODIFICATIONS

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No.	Summary of submission.	Officer Comment
	<ul style="list-style-type: none"> <li>• Vehicular access onto Lower King Road is already busy</li> <li>• Blind bend to the west of Bon Accord Road – poor visibility</li> <li>• Location of proposed access is dangerous</li> <li>• Bon Accord constructed to residential standards not industrial</li> <li>• The applicant should have to widen and maintain the road at their cost.</li> <li>• Access should be via South Coast Highway</li> </ul> <p><b>b) <u>Safety concerns due increased traffic</u></b></p> <ul style="list-style-type: none"> <li>• Concerns with the increased number of heavy vehicle movements in addition to the existing current mix of trucks, tourist vehicles, private vehicles and school bus.</li> <li>• Safety of non-vehicular traffic (i.e. children walking to bus stop, bike riders, horse riders etc)</li> <li>• Spillage from trucks causing slippage</li> <li>• Truck numbers are not monitored or enforced.</li> <li>• Trucks speeding</li> <li>• Wear and tear of road.</li> </ul> <p><b>c) <u>School bus route / children walking to and from bus stop / route used as part of commute to Grammar School.</u></b></p> <ul style="list-style-type: none"> <li>• Requests that the City of Albany place a curfew on truck movements while the school bus is running</li> </ul>	<p>respect to length of time of use and, the volume and type of trucking entering and leaving the site.</p> <ul style="list-style-type: none"> <li>• A suitable bond is posted by the land owner to cover the future cost of the removal of the driveway and the reinstatement of the road reserve.</li> <li>• A maintenance agreement to prevent transport of clay, gravel or sand onto the road surface of South Coast Highway is signed by the land owner</li> <li>• The design and location of the access crossover, including gate set back and gate type is approved by Main Roads</li> <li>• All other vehicular access to Lot 56, excluding trucks employed in extraction of gravel, shall utilise the existing access on Bon Accord Road.</li> </ul> <p>It is considered that direct access onto South Coast Highway mitigates all concerns raised in relation to Bon Accord Road being the primary access. Therefore, officers recommend that a condition be applied to any approval which restricts vehicles associated with the extractive operation having direct access from the site onto Bon Accord Road.</p>

Industry – Extractive (Gravel) – Lot 56 Bon Accord Road, Kalgan

SCHEDULE OF SUBMISSIONS AND MODIFICATIONS

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No.	Summary of submission.	Officer Comment
4	<p><b>General amenity of the area and lifestyle of residents being impacted by noise, dust, vibrations and other emissions from trucks and on-site operations. Proximity to residential area and visual amenity.</b></p> <p><b>a) Noise, dust and vibrations (on-site and truck movements) and proximity to a residential area</b></p> <ul style="list-style-type: none"> <li>• Peace and quiet will be destroyed</li> <li>• Location of screening/crushing area on top of the hill will amplify the noise</li> <li>• Location of access and the incline will result in further noise</li> <li>• Use not compatible with the adjacent Special Rural zone.</li> <li>• Residential not industrial area</li> <li>• Residential use is a sensitive land use</li> <li>• Not meeting the EPA buffers</li> <li>• Proposed buffers not adequate</li> </ul> <p><b>b) Visual amenity – will be visually obtrusive</b></p> <ul style="list-style-type: none"> <li>• Existing pit has scarred the landscape</li> <li>• Reflects badly on the City of Albany</li> <li>• Can be viewed from Whale World</li> </ul>	<p>a) The subject site is zoned General Agriculture and under the Local Planning Scheme No. 1, an extractive industry is a use that can be considered within this zone. An extractive industry is a common use on Priority and General Agriculture zoned land.</p> <p>The <i>Extractive Industry and Mining Policy</i> requires that buffer distances are to be in accordance with the setbacks outlined within the Environmental Protection Authority requirements. The Environmental Protection Authority’s Separation Distances between Industrial and Sensitive Land Uses guidelines do not set out a specific buffer for this type of extraction, however the policy states 200 metres should be achieved between dwellings not on the subject property.</p> <p>In response to the concerns raised, the proponent has since agreed to increase the setbacks. A revised plan has been received.</p> <p>In relation to the nominated extraction areas, the closest dwelling to the west is 200 metres and the closest dwelling to the south is 500 metres.</p> <p>In relation to the nominated screening and crushing area, the closest dwelling to the west is 313 metres and closest dwelling to the south is 648 metres. It should be noted The Department of Environment Regulation is the responsible</p>

**CITY OF ALBANY LOCAL PLANNING SCHEME No. 1 REPORT ITEM DIS 046 REFERS**

**Industry – Extractive (Gravel) – Lot 56 Bon Accord Road, Kalgan**

**SCHEDULE OF SUBMISSIONS AND MODIFICATIONS**

*Note: This is a broad summary of the submissions only. A copy of the submissions in full have been provided to the Councillors as a separate document.*

<b>No.</b>	<b>Summary of submission.</b>	<b>Officer Comment</b>
		<p>body for the assessment of the emissions and buffers for screening and crushing plants. The applicant is responsible for ensuring that they have the required licences from DER prior to undertaking this activity onsite.</p> <p>It is considered that the Dust and Noise Management Plan, in conjunction with the increased setbacks from dwellings and revised access onto South Coast Highway mitigate any potential amenity issues raised during the submission period.</p> <p>b) The subject site is suitably screened with vegetation. In addition to this, earth bunds will be erected to act as a screen on the edges of each stage.</p>
5	<p><b>Health and safety concerns due to dust, ongoing noise, vibrations and other emissions, drinking water being contaminated and mental health.</b></p> <p>a) <b>Ongoing dust, noise, fumes, gaseous, odour, vibrations will impact health of residents, including mental health and pre-existing respiratory conditions.</b></p> <p>b) <b>Drinking water being contaminated</b></p>	<p>a) The proposed operation times would be 7.00am to 6.00pm (Monday to Friday), which is less than the permitted operation times for Extractive Industries.</p> <p>A dust and noise management plan have been submitted.</p> <p>A water truck is available when dust suppression is required.</p> <p>As a further dust mitigation measure, the applicant proposes to extract during the months of July to October when the ground is moist/damp.</p>

**CITY OF ALBANY LOCAL PLANNING SCHEME No. 1 REPORT ITEM DIS 046 REFERS**

**Industry – Extractive (Gravel) – Lot 56 Bon Accord Road, Kalgan**

**SCHEDULE OF SUBMISSIONS AND MODIFICATIONS**

*Note: This is a broad summary of the submissions only. A copy of the submissions in full have been provided to the Councillors as a separate document.*

<b>No.</b>	<b>Summary of submission.</b>	<b>Officer Comment</b>
		<p>The pit area is screened by a significant amount of vegetation. In addition to this, topsoil will create earth bunds screening the pit from Bon Accord Road.</p> <p>The <i>Extractive Industry and Mining Policy</i> requires that buffer distances are to be in accordance with the setbacks outlined within the Environmental Protection Authority requirements. The Environmental Protection Authority's Separation Distances between Industrial and Sensitive Land Uses guidelines do not set out a specific buffer for this type of extraction, however the policy states 200 metres should be achieved between dwellings not on the subject property.</p> <p>In response to the concerns raised, the proponent has since agreed to increase the setbacks. A revised plan has been received.</p> <p>In relation to the nominated extraction areas, the closest dwelling to the west is 200 metres and the closest dwelling to the south is 500 metres.</p> <p>In relation to the nominated screening and crushing area, the closest dwelling to the west is 313 metres and closest dwelling to the south is 648 metres. It should be noted The Department of Environment Regulation is the responsible body for the assessment of the emissions and</p>



**CITY OF ALBANY LOCAL PLANNING SCHEME No. 1 REPORT ITEM DIS 046 REFERS**

**Industry – Extractive (Gravel) – Lot 56 Bon Accord Road, Kalgan**

**SCHEDULE OF SUBMISSIONS AND MODIFICATIONS**

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<b>No.</b>	<b>Summary of submission.</b>	<b>Officer Comment</b>
		<p>buffers for screening and crushing plants. The applicant is responsible for ensuring that they have the required licences from DER prior to undertaking this activity onsite.</p> <p>It is considered that the measures with the Dust and Noise Management Plan, in conjunction with the increased setbacks from dwellings and revised access onto South Coast Highway mitigate any potential amenity issues raised during the submission period.</p> <p>b) The Department of Health state that unless adequately treated, rainwater is not reliably safe to drink, it is almost impossible to completely protect rainwater from contamination. However, our advice is that installing screens, filters and first flush devices will reduce contamination if people are using rainwater for this purpose.</p>
6	<p><b>Environmental concerns in relation to proximity and impact on adjoining reserves (dieback, weeds, threatened flora and fauna), water run-off and impact on water ways (acid sulphate soils) clearing of vegetation and mosquito spread.</b></p> <p><b>a) Proximity to adjoining reserve</b></p> <ul style="list-style-type: none"> <li>• Impact on flora and fauna – threatened species (Green Pitcher Orchid, Red Tail cockatoos)</li> <li>• Spread of dieback</li> <li>• Spread of weeds – Sydney Golden Wattle</li> </ul>	<p>a) The proponents have submitted a Dieback, Weed, Surface Water and Drainage Management Plans.</p> <p>The proposal and specific concerns raised were referred to the relevant departments.</p> <p>Advice from the City of Albany's Reserve team was that the spread of dieback and impact on the flora and fauna was minimal. They have</p>

Industry – Extractive (Gravel) – Lot 56 Bon Accord Road, Kalgan

SCHEDULE OF SUBMISSIONS AND MODIFICATIONS

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No.	Summary of submission.	Officer Comment
	<p><b>b) Water contamination</b></p> <ul style="list-style-type: none"> <li>• Contamination of drinking water – residents rely on rainwater</li> <li>• Contamination of waterways</li> <li>• Surface water will impact adjoining neighbours</li> <li>• Acid Sulphate soils are present and will impact the waterways</li> </ul> <p><b>c) Mosquito breeding</b></p> <p><b>d) Clearing of vegetation</b></p>	<p>recommended the following condition be applied to the approval, should it be granted:</p> <p><i>Control (spray) or remove all weed infestations from around the extraction pit and ensure vehicles are brushed/washed down prior to entering the pit if they have been at a site affected by weeds, to avoid introducing weeds to the pit area.</i></p> <p>The proposal was referred to the Department of Biodiversity, Conservation and Attractions (formerly DPAW) who have stated that they have no objections to the proposal as it presents no direct impact on biodiversity conservation values as the area under the application is pasture and no native vegetation will be impacted. They recommend that as the gravel cannot be considered as dieback free that the following advice be applied:</p> <p><i>The basic raw material source from this pit may contain Phytophthora dieback disease and should be used with due caution in areas where susceptible plant species and vegetation occur, in particular, locations where threatened flora are known to occur and roads that area promoted as “flora roads”.</i></p>

**CITY OF ALBANY LOCAL PLANNING SCHEME No. 1 REPORT ITEM DIS 046 REFERS**

**Industry – Extractive (Gravel) – Lot 56 Bon Accord Road, Kalgan**

**SCHEDULE OF SUBMISSIONS AND MODIFICATIONS**

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<b>No.</b>	<b>Summary of submission.</b>	<b>Officer Comment</b>
		<p>b) The setback from the waterway is approximately 176 metres, which meets the required 50 metres under the Extractive Industry and Mining Local Planning Policy.</p> <p>The proposal was referred to the Department of Water who is the responsible body for assessing the risk to the waterways. They have no objections to the proposal and were satisfied that the surface water management issues were satisfactorily addressed within the Environmental Assessment Report and that there are no ground water issues on the site.</p> <p>Should the proposal be supported, it is recommended that it is conditioned that cut-off drains are constructed surrounding the pit to ensure all run-off is contained on-site.</p> <p>The Department of Health state that unless adequately treated, rainwater is not reliably safe to drink, it is almost impossible to completely protect rainwater from contamination. However, our advice is that installing screens, filters and first flush devices will reduce contamination if people are using rainwater for this purpose.</p> <p>c) The proposal was referred to the City of Albany's Environmental Health Department who have provided the following advice:</p>

**CITY OF ALBANY LOCAL PLANNING SCHEME No. 1 REPORT ITEM DIS 046 REFERS**

**Industry – Extractive (Gravel) – Lot 56 Bon Accord Road, Kalgan**

**SCHEDULE OF SUBMISSIONS AND MODIFICATIONS**

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<b>No.</b>	<b>Summary of submission.</b>	<b>Officer Comment</b>
		<p><i>The subject land is in a region that experiences significant problems with nuisance and disease carrying mosquitoes. The design, construction and maintenance of this development are to be completed so as to ensure that no additional mosquito breeding sites are produced.</i></p> <p>d) The subject site is currently under pasture. No vegetation is proposed to be cleared as part of the proposal.</p> <p>It is considered that the Dust, Dieback, Weed and Surface Water Management Plans, in conjunction with cut-off drains will mitigate any concerns in relation to environmental concerns.</p>
7	<p><b>Impact on surrounding land uses – Golf club, Reserve, Art Gallery, Holiday Accommodation, families and peoples enjoyment of the reserve. Does not meet the intent of the zone</b></p>	<p>The proposal was referred to the City of Albany’s Reserves team who have advised that it is unlikely that the proposal will have any impact on the reserve.</p> <p>The closest nominated extraction area is approximately 510 metres from the golf club house and approximately 80 metres to the nearest fairway. It is believed that there is sufficient vegetation screening the site from the adjoining use.</p>

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<b>No.</b>	<b>Summary of submission.</b>	<b>Officer Comment</b>
		<p>The closest registered holiday accommodation is located in excess of 1000 metres to the south east.</p> <p>Given the change in access and setbacks, the operation is unlikely to have a detrimental impact on any current or future art galleries or other tourism related uses within the vicinity of the proposal.</p> <p>Overall officers believe the proposed setbacks in conjunction with the existing vegetation sufficiently mitigate any concerns raised in relation to the proximity to the golf club.</p> <p>The subject site is zoned 'General Agriculture' and the objectives of the zone are as follows:</p> <ul style="list-style-type: none"> <li>• <i>Provide for the sustainable use of land for agricultural and rural activities;</i></li> <li>• <i>Support complementary land uses where those land uses do not detract from adjoining agricultural and rural activities and are compatible with the character and amenity of the area;</i></li> <li>• <i>Prevent land uses and development within the zone that may adversely impact on the continued use of the zone for agricultural and rural purposes;</i></li> </ul>

**CITY OF ALBANY LOCAL PLANNING SCHEME No. 1 REPORT ITEM DIS 046 REFERS**

**Industry – Extractive (Gravel) – Lot 56 Bon Accord Road, Kalgan**

**SCHEDULE OF SUBMISSIONS AND MODIFICATIONS**

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<b>No.</b>	<b>Summary of submission.</b>	<b>Officer Comment</b>
		<ul style="list-style-type: none"> <li>• <i>Provide for value-adding opportunities to agricultural and rural products on-site; and</i></li> <li>• <i>Provide for tourism experiences where those developments do not impact upon adjoining agricultural and rural land uses.</i></li> </ul> <p>The subject site is zoned General Agriculture and under the Local Planning Scheme No. 1, an extractive industry is a use that can be considered within this zone. An extractive industry is a common use on Priority and General Agriculture zoned land.</p>
8	<b>Future agricultural uses will be impacted with the removal of subsoil</b>	<p>The applicant is removing the gravel layer so that the land can be better used for pasture and planting.</p>
9	<b>Impact on property value</b>	<p>Property value is not a valid planning concern.</p>
10	<b>Compliance – concerns that the existing pits are non-compliant and conditions of approval are not enforced by the City of Albany.</b>	<p>All extractive industries are subject to an annual inspection, prior to their renewal of the license. This ensures that the operation is being undertaken in accordance with the planning</p>

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<b>No.</b>	<b>Summary of submission.</b>	<b>Officer Comment</b>
		<p>approval and license. If the operator is not operating in accordance with their license, it is</p> <p>withheld until such a time that they do. It is an offence to operate without a current license.</p> <p>The City of Albany also requires a bond to be paid per hectare, to ensure that rehabilitation is undertaken to satisfaction of the City of Albany.</p> <p>It should be noted that the lack of compliance, if any, is not a relevant planning matter for consideration, each application must be considered on its own merit in good faith.</p>
11	<b>Aboriginal / European Heritage</b>	<p>This site is currently not listed with the Department of Aboriginal Affairs as a place of Aboriginal heritage significance. The proposal was however referred to the department of Aboriginal Affairs who have provided the following advice:</p> <p><i>No objections however the DAA recommends that developers within the area of the proposal take into consideration the DAA's Aboriginal Heritage Due Diligence Guidelines when</i></p>

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		<p><i>planning specific developments associated with the proposal.</i></p> <p>Due to a number of specific concerns raised during the submission period in relation to Aboriginal heritage, the proposal was re-referred to the Department of Aboriginal Affairs. The Department of Aboriginal Affairs stated that although it is recommended that the proponent <i>takes into consideration the DAA's Aboriginal Heritage Due Diligence Guidelines when planning specific developments associated with the proposal</i> provides, requested that the proponent sought local knowledge in regards to the specific concerns raised.</p> <p>Staff met with local Noongar representatives on-site to discuss the specific issues raised during the submission period. A consensus was made on-site that there were no Aboriginal Heritage matters and therefore the proposed development was considered acceptable. The applicant did request that the representatives had an input in relation to the location of the access leg due to the wetlands.</p> <p>A concern was raised that the application made no mention of the adjacent farmhouse which is nearly 100 years old. There are no heritage listed properties within the immediate vicinity.</p>



Industry – Extractive (Gravel) – Lot 56 Bon Accord Road, Kalgan

SCHEDULE OF SUBMISSIONS AND MODIFICATIONS

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No.	Summary of submission.	Officer Comment
12	<p><b>Life of pit and extent of resource is being underestimated resulting in extra truck movements</b></p> <ul style="list-style-type: none"> <li>• Lifespan will exceed the proposed 5 years due to the amount of resource onsite.</li> <li>• Estimated volume of resource is inaccurate, which therefore increases the truck movements</li> <li>• Depth of extraction will exceed the 700mm</li> </ul>	<p>The proposal is for a period of 5 years, and should the proposal be supported then the temporary approval would reflect this time. Should the resource not be exhausted within this time, the applicant would be required to reapply. The proposal would be readvertised and would be required to meet the relevant legislation at that time.</p> <p>The in ground volume (Bank Cubic Metres) is the bulk volume of the material which is naturally compacted in the ground. Once aerated the material expands and the volume is essentially increased (referred to as LCM - Loose Cubic Metres).</p> <p>The proposed volume of resource to be extracted per year is anticipated to be 10,000 (BCM) tonnes, however this could increase to 15,000 (BCM) tonnes in times of high demand. It should be noted that these are estimates only.</p> <p>Based on the revised area (10.94ha), the following calculation has been used to work out to the estimated truck movements:</p> <ul style="list-style-type: none"> <li>• 110,000m<sup>2</sup> (area) x 500mm depth (average) = 77,000 LCM</li> </ul>

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		<ul style="list-style-type: none"> <li>• 77,000 LCM / 12.5m<sup>3</sup> (m<sup>3</sup> that a Semi Tipper carries)</li> <li>• Total number of trips via a semi tipper over the 5 year period = 6,160 trips</li> <li>• 6,160 / 15 (loads per day) = 411 days @ 15 loads per day to remove entire LCM estimated resource.</li> <li>• 411 days / 5 years = 82 days per year where 15 truckloads will be removed off-site.</li> </ul> <p>Based on the calculation above, it is considered that the estimated 15 loads (30 movements per day) is accurate.</p> <p>The depth of the resource the proponent intends to extract within the nominated extraction areas varies from 0mm to 700mm. The estimated proposed maximum depth of extraction is 700mm. Class two extractive industries can be considered with a depth of extraction of up to 3 metres, therefore the proposed depth is considered acceptable.</p>
13	<p><b>Inaccurate information within application and fact sheet supplied was misleading</b></p> <ul style="list-style-type: none"> <li>• Communication with residents was not adequate – a 30 x 30cm sign is not sufficient</li> <li>• Fact sheet misleading</li> </ul>	<p>The full application lodged contained two key parts. The proposal (which is what we seek public comment on) and then also a full Environmental Assessment Report with associated maps (soils,</p>

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<b>No.</b>	<b>Summary of submission.</b>	<b>Officer Comment</b>
	<ul style="list-style-type: none"> <li>• Full application was not readily made available</li> <li>• Property address is wrong</li> <li>• Environmental report bias and highly flawed – number of overlays incorrect</li> <li>• Impact on further subdivision</li> <li>• Common Law of Nuisance and Negligence can be applied both to the persons causing such nuisance and possible to the persons approving the application having knowledge of such nuisance and therefore acting with negligence. The COA owes residents a Duty of Care and breached that duty of care resulting in lost capital and right to use and quiet enjoyment of their land.</li> </ul>	<p>bushfire, hydrology, wetlands, vegetation, database searches etc).</p> <p>In accordance with Schedule 2, clause 64 (3) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i>, the City of Albany advertised the proposal for 21 days. Advertising involved referral to approximately 130 nearby lots and agencies, a sign on-site and a notice on the City of Albany website.</p> <p>The fact sheet was an additional attachment to the proposal prepared by the City and was accompanied by a dated cover letter. The intent of the fact sheet was to summarise the proposal briefly and answer frequently asked questions only. Fact sheets have been found to be an effective tool in informing residents on proposals of this nature.</p> <p>All stakeholders that were consulted (approximately 130 lots) received a covering letter, fact sheet, a copy of the proposed development/site plan and all the associated management plans. The stakeholders who were believed to be impacted the most received the full 77 page proposal with Environmental Report. Although the Environmental Report was not sent to all stakeholders, it was made clear that it was available on the City of Albany’s website or also at the City of Albany offices.</p>

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<b>No.</b>	<b>Summary of submission.</b>	<b>Officer Comment</b>
		<p>The City and relevant departments are satisfied with the accuracy of the information. It should be noted that a details such as volume and truck movements are estimated only.</p>
14	<p><b><u>Non-compliant with the City of Albany’s Community Strategic Plan and Albany’s Transport Network Strategy (2003)</u></b></p> <ul style="list-style-type: none"> <li>• Specifically the objectives in relation to:</li> <li>• Protect and enhance our natural environment</li> <li>• To advocate for and support “green initiatives” within our region</li> <li>• We will listen our community and deliver outcomes that reflect their needs and expectations</li> <li>• Engage effectively with our community</li> </ul>	<p>In the case of a land use proposal, the City of Albany <i>Local Planning Scheme No 1</i> is the relevant statutory document to determine the appropriateness of a proposal.</p> <p>The subject site is zoned General Agriculture and under the <i>Local Planning Scheme No. 1</i>, an extractive industry is a use that can be considered within this zone. An extractive industry is a common use on Priority and General Agriculture zoned land.</p> <p>The proposal was advertised for public comment for a period of 21 days, in accordance with clause 9.4 – <i>Advertising of Applications of Local Planning Scheme No. 1</i>.</p>
15	<p><b><u>Common Law – nuisance and negligence</u></b></p>	<p>In conjunction with the access being off South Coast Highway, staff are satisfied that the concerns raised within the submissions can be mitigated through appropriate planning conditions or through the appropriate buffers.</p>

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<b>No.</b>	<b>Summary of submission.</b>	<b>Officer Comment</b>
16	<p><b>Department of Water – No objections</b></p> <p><i>The gravel extraction area is situated over a ridgeline on the property, which is a catchment divide. Surface water from stages 1-3 will shed overland to the south of the property in the King River catchment, where there is no defined waterway. Stages 4-7 are located in the Johnson Creek catchment. Surface water will drain to the north, to a minor swale, which forms a minor tributary in the reserve to the east of the property. Surface water management issues are satisfactorily addressed in the Environmental Assessment Report. There are no ground water issues on the site.</i></p> <p><i>The DOW is satisfied that the water resources will be managed appropriately during the gravel extraction process and thus has no objections to the proposal.</i></p> <p>Note: A number of concerns were raised in relation to environmental impacts. These concerns were re-referred to the Department of Water. The Department had no further comment in relation to these concerns and were satisfied with their previous advice.</p>	<p>This advice will form a planning condition should the proposal be supported.</p>
17	<p><b>Main Roads WA: Revised advice in relation to access being off South Coast Highway</b></p> <p><i>No objections subject to the following conditions:</i></p> <ul style="list-style-type: none"> <li>• <i>A Memorandum of Understanding is signed between the landowner and Main Roads with respect to length of time of use and, the volume and type of trucking entering and leaving the site.</i></li> <li>• <i>A suitable bond is posted by the land owner to cover the future cost of the removal of the driveway and the reinstatement of the road reserve.</i></li> </ul>	<p>This advice will form a planning condition should the proposal be supported.</p>

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No.	Summary of submission.	Officer Comment
	<ul style="list-style-type: none"> <li>• <i>A maintenance agreement to prevent transport of clay, gravel or sand onto the road surface of South Coast Highway is signed by the land owner</i></li> <li>• <i>The design and location of the access crossover, including gate set back and gate type is approved by Main Roads</i></li> <li>• <i>All other vehicular access to Lot 56, excluding trucks employed in extraction of gravel, shall utilise the existing access on Bon Accord Road.</i></li> </ul>	
18	<p><b>Department of Agriculture and Food:</b></p> <p><i>Advises that the land on and surrounding Lot 56 is identified under the Lower Great Southern Strategy as Priority Agricultural Land (PAL). Land Capability mapping, available for view on NR-Info (<a href="http://maps.agric.wa.gov.au/nrm-info/">http://maps.agric.wa.gov.au/nrm-info/</a>) also identifies the land area, at a regional scale assessment, as having a moderate to high capability for Annual and Perennial Horticulture.</i></p> <p><i>In considering the application to extract gravel from Lot 56 Bon Accord Road, DPIRD has no objection, on the basis that:</i></p> <ul style="list-style-type: none"> <li>• <i>The staged extraction plan presented will be followed.</i></li> <li>• <i>Dust and noise control measures included in the plan will be adhered to.</i></li> <li>• <i>Control measures for water use / movement are included to prevent erosion on or off-site.</i></li> <li>• <i>Site rehabilitation proposed after extraction activity will be completed and monitoring of rehabilitation is maintained to ensure success and prevention of erosion hazard.</i></li> <li>• <i>The Weed Management Plan satisfies DPIRD guidelines.</i></li> </ul>	Noted
19	<p><b>Department of Parks and Wildlife</b></p> <p><i>No objections –</i></p> <ul style="list-style-type: none"> <li>• <i>Presents no direct impact on biodiversity conservation values as the area under the application is pasture and no native vegetation will be impacted. It must be noted</i></li> </ul>	This advice will form a planning condition should the proposal be supported.

Industry – Extractive (Gravel) – Lot 56 Bon Accord Road, Kalgan

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No.	Summary of submission.	Officer Comment
	<p><i>however that the gravel extracted from the pit cannot be considered dieback free as there are no indicator species present to be able to assess the dieback status of the gravel.</i></p> <ul style="list-style-type: none"> <li><i>It is recommended that a condition or notification be placed on the licence that clearly states that basic raw material source from this pit may contain Phytophthora dieback disease and should be used with due caution in areas where susceptible plant species and vegetation occur, in particular, locations where threatened flora are known to occur and roads that area promoted as "flora roads".</i></li> </ul>	
20	<p><b>Department of Mines and Petroleum:</b></p> <p>No objections -</p> <ul style="list-style-type: none"> <li>A continuing supply of low-cost basic raw materials is an important part of maintaining the lifestyle and infrastructure that all Western Australians enjoy.</li> </ul>	Noted
21	<p><b>Department of Environment Regulation:</b></p> <p><i>No objections however provides the following advice:</i></p> <ul style="list-style-type: none"> <li><i>A works approval is to be obtained before constructing the prescribed premises</i></li> <li><i>The purpose of the works approval is to allow DWER to assess the environmental acceptability of a proposal's potential to cause emissions and discharges against standards and policies. Any works approval or licence issued under Part V of the EP Act will only regulate emissions associated with the crushing and screening operation (such as dust, noise and contaminated stormwater). It does not extend to the environmental impacts of extracting the material from the ground or transport off-site.</i></li> </ul>	
22	<p><b>Department of Aboriginal Affairs –</b></p>	<p>Staff met with local Noongar representatives on-site to discuss the specific issues raised during the submission period. A consensus was made on-site</p>

Industry – Extractive (Gravel) – Lot 56 Bon Accord Road, Kalgan

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No.	Summary of submission.	Officer Comment
	<p><i>No objections however the DAA recommends that developers within the area of the proposal take into consideration the DAA's Aboriginal Heritage Due Diligence Guidelines when planning specific developments associated with the proposal. These guidelines have been developed to assist proponents to identify any risks to Aboriginal Heritage and to mitigate risk where heritage sites may be present. These guidelines are available at: <a href="https://www.daa.wa.gov.au/heritage/land-use/">https://www.daa.wa.gov.au/heritage/land-use/</a></i></p> <p>The proposal was re-referred after specific concerns were raised in relation to Aboriginal heritage. The DAA provided the following advice:</p> <p>There are currently no reported Aboriginal heritage places identified within the proposal area of Lot 56 Bon Accord Road, Kalgan. Based on the information held by the AHD currently, no approvals under the <i>Aboriginal Heritage Act 1972</i> (AHA) are required.</p> <p>The AHD is aware of two Aboriginal heritage surveys which intersect portions of this area.</p> <p>Goode, B. 2005. Kinjarling, the Place of the Rain: The City of Albany and Department of Indigenous Affairs Aboriginal heritage Survey.                      Ferguson, W. 1985. A Mid-Holocene Depopulation of the Australian Southwest. Vol. 1 (PhD Thesis).</p> <p>No specific Aboriginal heritage places were identified within the area of the proposal as a result of these surveys. However, it should be noted that both these surveys were for areas larger than the area of the proposal and are not specifically focussing on the proposal area.</p> <p>The Aboriginal Heritage Directorate (AHD) of the Department of Planning Lands and Heritage advises developers to undertake due diligence using the Aboriginal Heritage Due Diligence Guidelines to assess the risk of the proposal in regards to Aboriginal heritage.</p>	<p>that there were no Aboriginal Heritage matters and therefore the proposed development was considered acceptable. The applicant did request that the representatives had an input in relation to the location of the access leg due to the wetlands.</p> <p>Staff recommend the following conditions be applied should the proposal be supported:</p> <ul style="list-style-type: none"> <li>• The Aboriginal Heritage Directorate (AHD) of the Department of Planning Lands and Heritage advises developers to undertake due diligence using the Aboriginal Heritage Due Diligence Guidelines to assess the risk of the proposal in regards to Aboriginal heritage.</li> <li>• The proponent shall liaise with Main Roads and the Noongar community in regards to the exact details of internal access.</li> </ul>



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<b>No.</b>	<b>Summary of submission.</b>	<b>Officer Comment</b>
	The proponent is recommend providing the South West Aboriginal Land and Sea Council notification of the proposal and to seek their comment.	
23	<b>Public Transport Authority –</b> No objections – Any truck movements in this area will have minimal impact on our services.	Noted
24	<p><b>City of Albany Reserves –</b></p> <p>Surface water contours fall away from stage 5 and 6 towards the adjacent City reserve R18779 to the east. The reserve is dieback free/protectable. It is reasonable to assume that dieback may be present in the soil on the subject lot and therefore, all attempts should be made to ensure that all surface water and soil is contained on the subject lot and not have the potential to infect adjacent healthy bushland.</p> <p>It is also worth noting that there are three patches of the protected <i>Banksia coccinea</i> populations in the reserve R18779 to the east. There are also two historical recordings of threatened flora <i>Chordifex abortivus</i>. It is unlikely that any negative impacts will occur to these populations as a direct result of the extractive industry, as long as any potential cross boundary dieback spread is controlled.</p> <p>Recommends the following condition be applied: Control (spray) or remove all weed infestations (including Gorse) from around the extraction pit and ensure vehicles are brushed/washed down prior to entering the pit if they have been at a site affected by weeds, to avoid introducing weeds to the pit area.</p>	<p><i>Noted. The following conditions will be applied:</i></p> <ul style="list-style-type: none"> <li>• <i>Surface water to remain on-site</i></li> <li>• <i>Minimum setback of 20 metres from reserve</i></li> <li>• <i>Control (spray) or remove all weed infestations (including Gorse) from around the extraction pit and ensure vehicles are brushed/washed down prior to entering the pit if they have been at a site affected by weeds, to avoid introducing weeds to the pit area.</i></li> </ul>

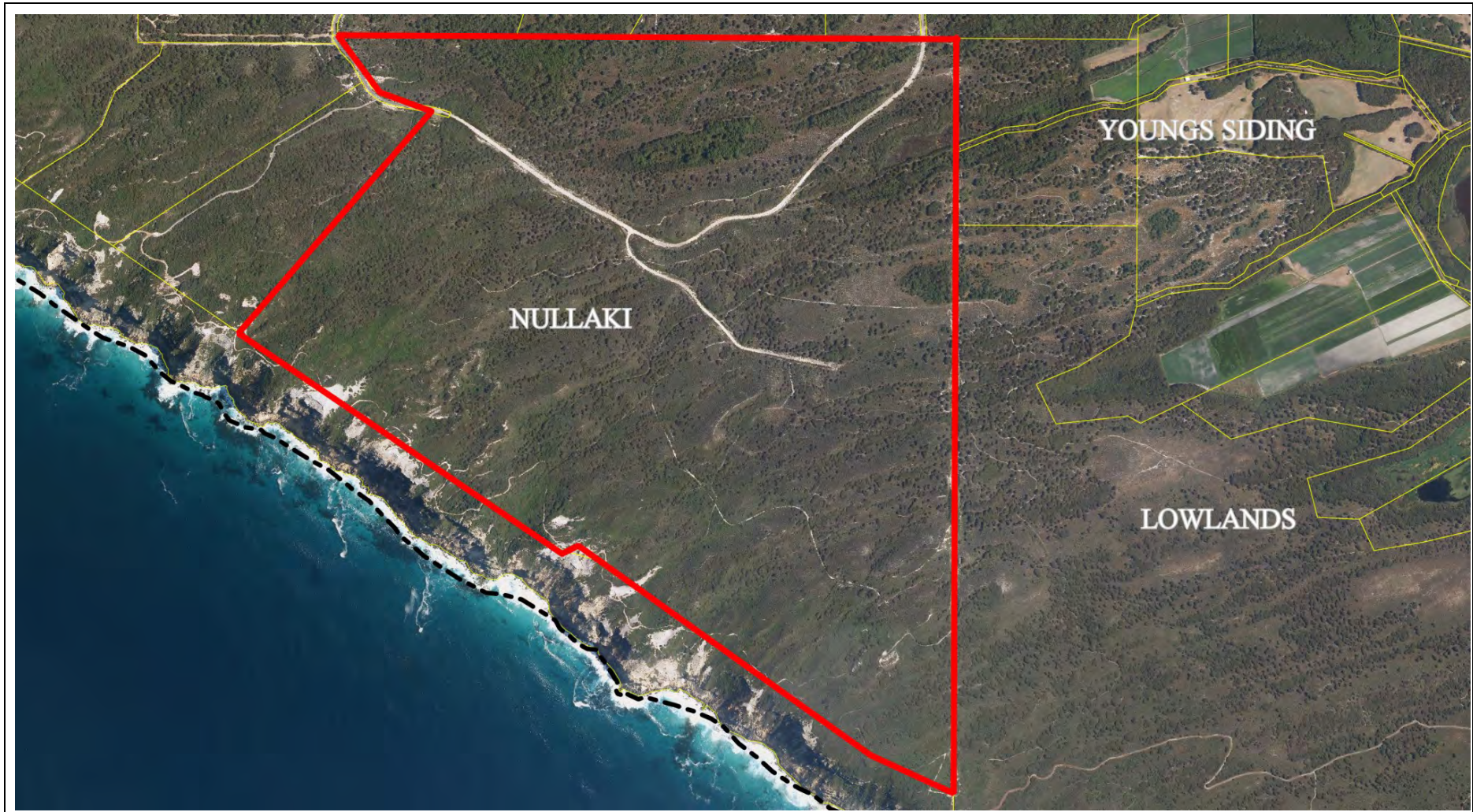


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Area Plan

1:40000





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Site Plan

1:20000



**Development Application for an Extractive  
Industries Licence (Lime Pit)**



**Lot 9005 Rock Cliff Circle, Nullaki**

**Table of Contents**

1 Preliminary ..... 3

    1.1 Introduction ..... 3

    1.2 Background ..... 3

        1.2.1 Nullaki Wilderness Association ..... 3

        1.2.2 Subdivision Application ..... 4

2 Site details ..... 5

    2.1 Legal description ..... 5

    2.2 Regional Context ..... 5

    2.3 Local Context ..... 5

    2.4 Land use and topography ..... 6

3.0 Proposed Development ..... 8

4.0 Environmental Consideration ..... 9

5.0 Planning framework ..... 9

    5.1 City of Albany Local Planning Scheme No.1 ..... 9

    5.2 Strategic Planning Context ..... 13

        5.2.1 State Government – Strategic Policies and Guidelines ..... 13

        5.2.2 Local Government – Strategic Policies and Guidelines ..... 16

6.0 Conclusion ..... 17

## 1 Preliminary

### 1.1 Introduction

This report has been prepared by Sam Williams on behalf of Mr Graeme Robertson the proponent of the proposed development on a portion of Lot 9005 Rock Cliff Circle, Nullaki Peninsula, Albany (**the site**). Sam Williams has prepared this following report in support of an Application for Approval to Commence Development for an Industry Extractive Use (Extractive Industry- Lime Pit) and Extractive Industry Licence on the site for the extraction of limestone. The limestone will be crushed on site and carted for the application of crushed lime for agricultural purposes.

This report will discuss various elements pertinent to the proposal, including:

- Site Details.
- Proposed Development.
- Statutory Planning Framework.
- Strategic Framework.
- Relevant Supporting Documentation.

### 1.2 Background

A significantly small portion of the site contains a rehabilitated lime pit, which was previously used by the proponent for limestone extraction during the development of the Nullaki Peninsula for road construction purposes.

The site comprises the balance parent title of the original Nullaki Peninsula development, which represents a land area of 432ha, of which the proposed lime pit comprises 7.5ha or 1.7% of the site.

#### 1.2.1 Nullaki Wilderness Association

In developing the Nullaki Peninsula the proponent/developer created the Nullaki Wilderness Association. This was established as a pseudo body corporate, in which the owners of lots on the Nullaki provided funds that provided for the environmental upkeep of the Nullaki. This included the maintenance of a vermin proof fence and gates on the Nullaki Peninsula, trapping and baiting programmes for feral animals and general maintenance of tracks and fire access ways.

Whilst successful in generating the environmental objectives of the Nullaki Conservation zoning, the provision of funds to the Nullaki Wilderness Association has diminished, as

3

landowners on the developed and sold lots are no longer willing to make funds available for the required environmental works on the Nullaki Peninsula. The required environmental works to maintain the environmental attributes of the Nullaki Peninsula are being undertaken completely at the cost and good will of the proponent of this Development Application, who also developed the Nullaki Peninsula. Currently, whilst the developer/proponent is willing to provide the required funds there is no guarantee this will be continued in perpetuity.

#### 1.2.2 Subdivision Application

The site is currently subject to a proposed subdivision application, which seeks to create 11 additional conservation lots. A copy of the proposed *Plan of Subdivision* is included as **Appendix 1**.

All proposed lots, with the exception of proposed Lots 4 and 6, are subject to strict environmental controls by way of a conservation covenant recently applied to the parent title Lot 9005. Lots 4 and 6 will comprise circa 90ha and are located at the eastern end of the proposed subdivision area. All lots will also be subject to the existing conservation provisions of the LPS1, which provide specific future development requirements within the conservation zone.

The subdivision application is currently with the Western Australian Planning Commission (WAPC) for assessment and determination, noting this proposed Development Application for Extractive Industry has been prepared on the basis the subdivision application will be supported. Irrespective, the area identified for the lime pit constitutes a small portion of area within proposed Lots 4 and 6 and can be developed independently if required in the unlikely event the subdivision proposal is delayed or refused.

## 2 Site details

### 2.1 Legal description

**Table 1** provides a description of the land subject to the proposed development.

*Table 1: Existing title particulars:*

Lot Description	Volume	Folio	Area
Lot 9005 on Plan52008	2653	12	432ha

Refer **Appendix 2** for a copy of the Certificate of Title.

### 2.2 Regional Context

The site is located within the municipality of the City of Albany (The City), on the Nullaki Peninsula. It is approximately 10 km south east from Denmark town site on the Nullaki Peninsula. Refer to **Figure 1-** Regional Context Plan.

### 2.3 Local Context

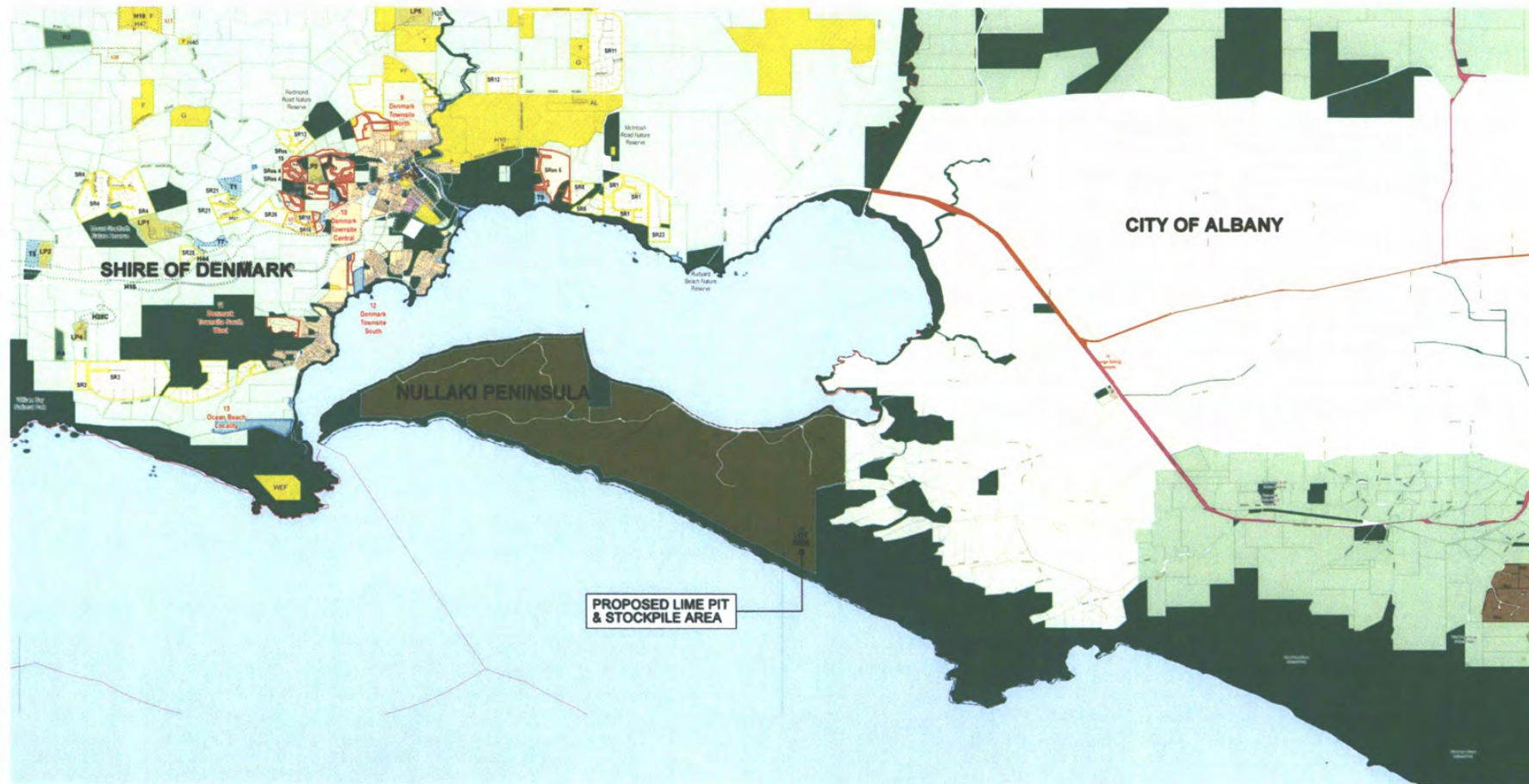
The proposed lime pit is situated in the south eastern corner of Lot 9005. To the south of the lime pit are sheer cliffs adjacent to the Southern Ocean. To the east, separated by the vermin proof fence is Reserve 17464 vested in the City of Albany and associated with the Nullaki campsite and Lake Sadie.

A portion of the Bibbulmun Track traverses Reserve 17464 to the east of the proposed lime pit. Given the significant undulation of the land, the small scale of the proposed lime pit operation, the remnant vegetation and the distance of the lime pit from the Bibbulmun Track there is no possibility of the lime pit being visible from the Bibbulmun track (refer **Figure 2-** surrounding land use)

To the north and west are vegetated blocks that form part of the Rock Cliff Circle subdivision. These lots address Eden Road and Rock Cliff Circle.

Currently the closest dwelling to the proposed Lime Pit is 2.3km, with the next closest being 2.8km. In placing this in context, the recently closed lime pit at the Shire of Denmark is 1km away from tourist accommodation and residential dwellings in a density far exceeding the development of the Nullaki Peninsula.





**FIGURE 1 - REGIONAL CONTEXT PLAN**  
LOT 9005 NULLAKI PENINSULA, NULLAKI ALBANY

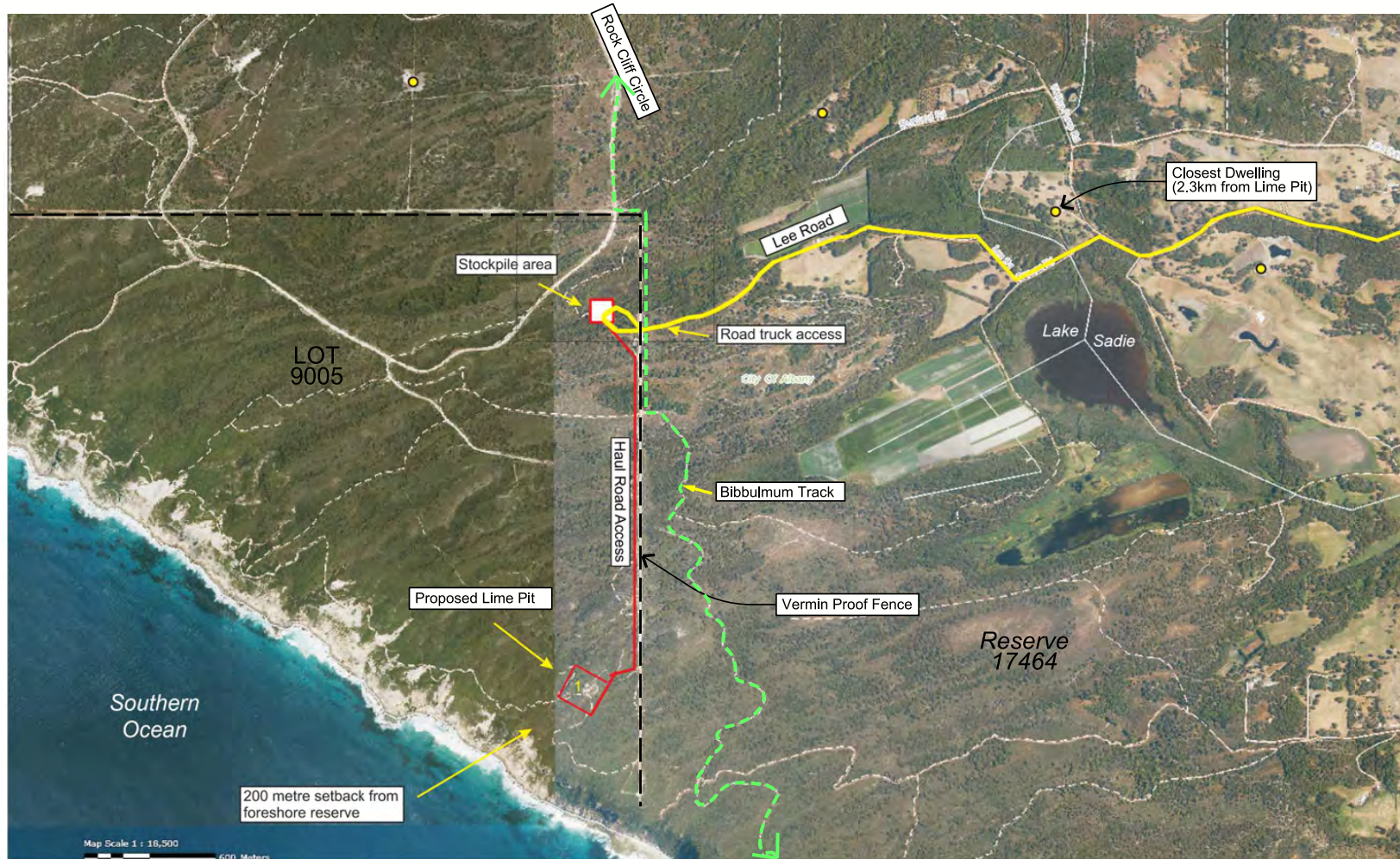
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SAM WILLIAMS | TOWN PLANNER  
ph: 0418 116216 | email: samwilliams@westnet.com.au

date - 15 DEC 2016  
plan no. 16-003-001A

ALL AREAS, DIMENSIONS & CONTOUR LEVELS  
DISPLAYED ARE SUBJECT TO DETAIL SURVEY





**FIGURE 2 - SURROUNDING LANDUSE**  
 LOT 9005 NULLAKI PENINSULA, NULLAKI ALBANY



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 ph: 0418 116216 | email: samwilliams@westnet.com.au

date - 8 MARCH 2017  
 plan no.16-003-002D



2.4 Land use and topography

The site is currently vacant and comprises remnant vegetation.

The site is undulating with the lime pit located on a high point, not visible from the surrounding locality. Pictures 1 and 2 below illustrate the immediate location of the lime pit. Furthermore, as the lime pit will be extracted any visibility will be significantly lessened. Picture 3 illustrates the gradient separation from the eastern boundary of the site (the limestone track) to the adjoining Reserve 17464.



**Picture 1- Location of proposed lime pit looking towards the North East. Note the ridge line, which will provide a visual barrier to the lime pit.**



**Picture 2- Location of the proposed lime pit looking towards the South East to the Southern Ocean.**



**Picture 3- The Eastern boundary of Lot 9005 as defined by the Vermin Proof Fence looking towards the north at Wilson Inlet. Note the high point of the site in relation to the Reserve 17464 to the east.**

*Development Application for Extractive Industries Licence -Lime Pit  
Lot 9005 Rock Cliff Circle, Nullaki*

7

### 3.0 Proposed Development

The lime pit will enable high quality lime for agricultural use to be extracted from a small 7.5ha portion of the site on proposed Lot 6 and subsequently stockpiled within a designated 2ha storage area on proposed Lot 4 (refer **Figure 3-** Development Layout Plan). The extracted material will be carted from the extraction site to the stockpile via a limestone base constructed road located on the eastern boundary of Lot 9005 (refer Picture 2). Extraction is anticipated to commence at around 20,000 tonnes per year rising to 50,000 tonnes per year. Refer **Appendix 3** *Excavation and Rehabilitation Management Plan*, prepared by Landform Research, which details the excavation process of the proposed lime pit.

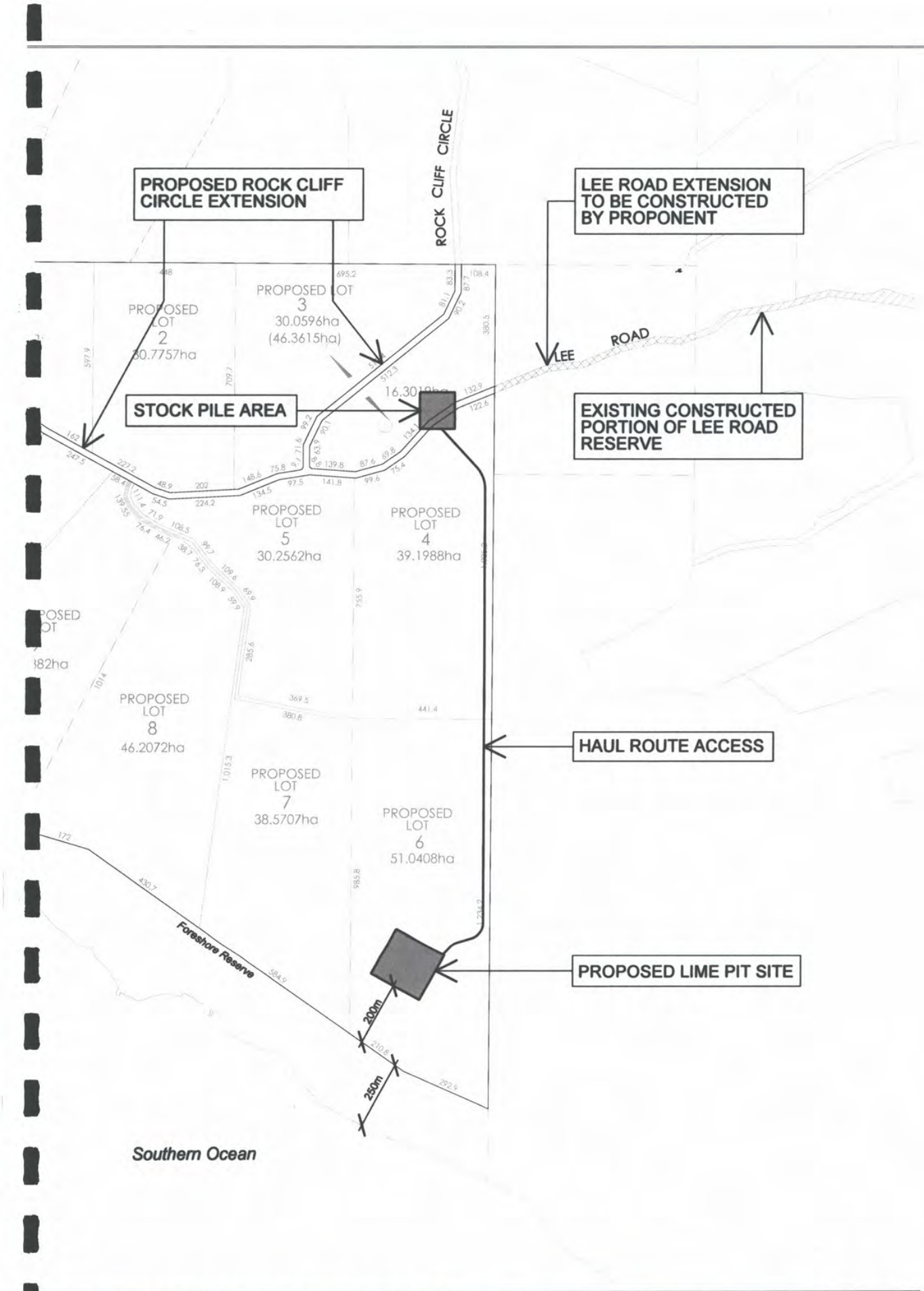
Extracted crushed lime will be carted from the site via Lee Road. Whilst the Gazetted Lee Road Reserve currently extends to the eastern boundary of the site, it is only constructed to a gravel finish approximately 1.25km east of the site. As part of the development of the lime pit the proponent, at his cost, will construct Lee Road to a finished gravel standard. Furthermore, subject to the continual operation of the lime pit, the proponent will undertake to upgrade Lee Road at a rate of 500m a year.

To date minor exploration work has been completed for the proposed lime pit including the preparation of access tracks and drill platforms. In time, and following completion of all extraction, the site will be rehabilitated in accordance with the direction afforded under the *Excavation and Rehabilitation Management Plan (Appendix 3)* which details within Part 5.9 the rehabilitation measures proposed.

It is expected the lime pit will have a 20-year lifetime, ceasing operation in approximately 2037. The lime pit will also be required to operate in accordance with the conditions of any Extractive Industry Licence issued by the City under the City's *Extractive Industries Local Law 2009*.

The proposal has been supported, in principal, by the Department of Agriculture & Food, acknowledging the short supply of quality lime sources within the region (refer **Appendix 4**). The limestone on Lot 9005 is highly suitable for agriculture use as it neutralises the acidity of soils, and in addition it can also be used in the construction of road base.

Operations are intended to be undertaken in accordance with the recommendations of the supporting technical reports, included as Appendices within this application



**FIGURE 3 - DEVELOPMENT LAYOUT PLAN**  
 LOT 9005 NULLAKI PENINSULA, NULLAKI ALBANY

**A N**

SAM WILLIAMS | TOWN PLANNER  
 pt: 0418 116216 | email: samwilliams@westnet.com.au

scale - 1:10 000 @ A3 | date - 15 DEC 2018  
 plan no. 16-003-003

0m 250m

ALL AREAS, DIMENSIONS & COORDINATES  
 ON PLANS ARE SUBJECT TO FINAL SURVEY

## 4.0 Environmental Consideration

The site will comprise a significantly small footprint on the Nullaki Peninsula (1.7% of Lot 9005 and 0.33% of the total Peninsula) and will have minimal environmental impact. Furthermore, the proponent will be contributing the lesser of 5% of revenue from the lime pit operation or \$30,000 per financial year to the Nullaki Wilderness Association. This money will be used to maintain and protect the environmental attributes of the Nullaki Peninsula for the duration of the lime pit.

With respect to the Environmental consideration for the proposed lime pit, Martin Bowman-Environmental Scientist, has prepared an environmental assessment of the site and undertaken discussion with the Environmental Protection Authority (EPA). The findings from this report and outcomes of discussion with the EPA will be presented as a separate addendum to this report. At the time of preparing this report, Martin Bowman was able to confirm there will be minimal to no environmental impacts resultant from the lime pit and the EPA did not raise any specific objection to the proposal.

## 5.0 Planning framework

The following documents outline the strategic planning framework applicable to the subject site.

### 5.1 City of Albany Local Planning Scheme No.1

Under the City of Albany Local Planning No.1 (LPS1), the site is zoned CZ1 – “Nullaki Peninsula Conservation Zone”.

LPS1 currently allows limited land uses activities to occur on site, with all of these requiring planning approval from the City of Albany. Various other development controls, relating to Land Use, Fire Safety, Roads and Access, and Coastal and Foreshore Management also apply to the zone.

“Industry Extractive” is a use class not listed in accordance with the zoning of the site. However, Clause 5.2 of LPS1 is noted below, which states:

#### *5.2 Variations to Site and Development Standards and Requirements*

*5.2.1 Except for development in respect of which the Residential Design Codes apply, if a development is the subject of an application for planning approval and does not comply with a standard or requirement prescribed under the Scheme,*

9

*Development Application for Extractive Industries Licence -Lime Pit  
Lot 9005 Rock Cliff Circle, Nullaki*

*the Local Government may, despite that non-compliance, approve the application unconditionally or subject to such conditions as the Local Government thinks fit.*

*5.2.2 In considering an application for planning approval under this clause, where, in the opinion of the Local Government, the variation is likely to affect any owners or occupiers in the general locality or adjoining the site which is the subject of consideration for the variation, the Local Government is to—*

*(a) Consult the affected parties by following one or more of the provisions for advertising uses pursuant to clause 9.4; and*

*(b) Have regard to any expressed views prior to making its determination to grant the variation.*

*5.2.3 The power conferred by this clause may only be exercised if the Local Government is satisfied that—*

*(a) Approval of the proposed development would be appropriate having regard to the criteria set out in clause 10.2; and*

*(b) The non-compliance will not have an adverse effect upon the occupiers or users of the development, the inhabitants of the locality or the likely future development of the locality.*

The criteria in Clause 10.2 state as follows:

**10.2 MATTERS TO BE CONSIDERED BY THE LOCAL GOVERNMENT**

*The Local Government in considering an application for planning approval is to have due regard to such of the following matters as are in the opinion of the Local Government relevant to the use or development the subject of the application:*

*(a) The aims and provisions of the Scheme and any other relevant town planning schemes operating within the Scheme area;*

*(b) The requirements of orderly and proper planning including any relevant proposed new town planning scheme or amendment, or region scheme or amendment, which has been granted consent for public submissions to be sought;...*

*(i) The compatibility of a use or development with its setting;...*



*(l) The likely effect of the proposal on the natural environment and any means that are proposed to protect or to mitigate impacts on the natural environment;...*

*(o) The relationship of the proposal to development on adjoining land or on other land in the locality including but not limited to the likely effect of the height, bulk, scale, orientation and appearance of the proposal;...*

*(v) Whether adequate provision has been made for the landscaping of the land to which the application relates and whether any trees or other vegetation on the land should be preserved;...*

*(aa) Any other planning consideration the Local Government considers relevant."*

In considering this, the general objective of the Conservation Zoning, and in particular the Nullaki Peninsula (CZ1) as prescribed in LPS1 is as follows:

**4.2.18 Conservation Zone**

*(a) Provide for residential uses upon large lots adjoining significant environmentally sensitive areas such as coastal or conservation areas where there is a demonstrated commitment to protecting, enhancing and rehabilitating the flora, fauna and landscape qualities of the particular site; and*

*(b) Require innovative subdivision design and development controls to:*

*(i) Minimise visual impacts from subdivisional infrastructure, particularly roads;*  
*(ii) Restrict access to any sensitive areas such as beaches, conservation areas or National Parks that adjoin the zone;*

*(iii) Prevent land uses and development that would adversely impact on the ecological values of the site for conservation purposes; and*

*(iv) Provide for the safety of future residents from the threat of wild fire.*

**2. Objectives of Conservation Zone 1**

**2.1 The purpose of CZ1 is to:**

*(a) Protect, enhance and rehabilitate the flora, fauna and landscape qualities of the Nullaki Peninsula;*

*(b) Provide for controlled public access to the Peninsula, the Wilson Inlet Foreshore and Anvil Beach; and*

*(c) Provide for limited wilderness retreat subdivision and development in a manner that is compatible with the conservation values of the Nullaki Peninsula.*

Based on this, the following is established:

- LPS1 provides the ability for Council to determine a Development Application for a proposed development identified as a "Use Class Not Listed".
- In considering a Development Application for a "Use Class Not Listed", Council make a determination on the ability to deal with an Application in accordance with the intent of the underlying zoning of a landholding as prescribed under LPS1.
- For the site, the aim and provision under the CZ1 is to protect the environmental attributes of the Nullaki and provide for controlled development that is compatible with the conservation values of the Nullaki.

Given the above, should Council receive a Development Application that complements the Conservation zoning of the Nullaki, under their LPS1 they have the ability to deal with the application.

Whilst "Industry Extractive" is not a use class normally associated with Conservation zoned land, in the instance of the subject Development Application on the site an exception can be considered. As part of the approval of this Development Application for an Extractive Industry Licence request, the proponent's undertaking to contribute the lesser of 5% of the royalties from the extractive industry or \$30,000 per financial year, will facilitate in the protection of the environmental attributes of the Nullaki.

Currently there is no mechanism in place that guarantees funding for the Nullaki Wilderness Fund and hence the environmental attributes of the Nullaki. The Lime Pit will guarantee these funds and hence protect the environmental attributes of the Nullaki.

## 5.2 Strategic Planning Context

### 5.2.1 State Government – Strategic Policies and Guidelines

The WAPC policies and guidelines relevant to this amendment proposal are listed below.

#### 5.2.1.1 Lower Great Southern Strategy 2016

The *Lower Great Southern Strategy* (LGSS) specifically supports the identification and staged use of basic raw materials and minerals within Section 2.9 Mineral Resources and Basic Raw Materials.

The issues of agricultural lime are specifically mentioned the LGSS in relation to the existing limestone quarry at Denmark being in an environmentally sensitive A Class Reserve and the need for a new resource. It is further noted the recently closed Denmark Quarry will be exhausted in 10 years. In this regard the following section is relevant:

#### *2.9.2 Securing access to prospective mineral and basic raw material deposits*

*Limestone and lime sand are located along the coastal dunes, predominantly to the west of Albany, but access to extract from those areas is increasingly becoming constrained by other land uses. For example, extensions to the Ocean Beach limestone quarry at Denmark could provide long-term supplies of agricultural lime, but this is impeded by its location adjacent to a local government conservation reserve. Although there are other known deposits to the west, these are on private land and scope for mining is regarded as low by the Department of Mines and Petroleum. Geological interpretation and exploration may locate further sites for agricultural lime extraction similar in geological setting to the Ocean Beach deposit. Given the need for agricultural lime in the agricultural industry, funding of a strategic assessment of the prospect under the auspices of the State lime supply strategy is warranted.*

This proposal has the potential to supply agricultural lime for the future and in line with the intentions of the LGSS.

### 5.2.1.2 State Planning Policy 2.0 – Environment and Natural Resources Policy

This policy provides for the protection of all natural resources under a number of sections. In addition to recognising the importance of protecting air quality, soil and land quality, water and wetlands and landscapes, the importance of Basic Raw Materials to the community is identified with reference to *SPP 2.4 Basic Raw Materials* (see below), *State Gravel Strategy 1998* and *State Lime Strategy 2001*.

Section 5.7 of SPP 2.0, deals with Minerals, Petroleum and Basic Raw Materials. Part of Section 5.7 states:

*Basic raw materials include sand, clay, hard rock, limestone and gravel together with other construction and road building requirements. A ready supply of basic raw materials close to development areas is required in order to keep down the cost of land development and the price of housing.*

*Planning strategies, schemes and decision making should:*

- ii. *Identify and protect important basic raw materials and provide for their extraction and use in accordance with State Planning Policy No 10 (2.4); Basic Raw Materials.*
- iii. *Support sequencing of uses where appropriate to maximise options and resultant benefits to community and the environment.*

The other factors of the natural environment are provided with the best protection possible, within the *Excavation and Rehabilitation Management Plan*, by selection of the site, operational staging and footprint and rehabilitation, bearing in mind the constraints of excavating and processing the resource.

### 5.2.1.3 State Planning Policy 2.4 – Basic Raw Materials (2000)

*State Planning Policy 2.4 – Basic Raw Materials* makes many statements on the intent and actions, which local authorities should use to protect and manage basic raw materials. It is restricted to the Perth and Peel Region but is the leading document with respect to guidance on the protection and staged use of basic raw materials including limestone.

Section 3.4 is very specific in explaining that basic raw materials need identification and protection because of increased urban expansion and conservation measures. Sections

3.4.5 and 3.4.6 recognise that environmental and amenity matters need to be considered.

There are specific provisions in Section 6.2 Local Planning Scheme Provisions, such as:

- *No support for the prohibition of extractive industries in zones that permit broad rural land uses.*
- *Not precluding the extraction of basic raw materials on land which is not identified as a Priority Resource Location, Key Extraction Area or Extraction Area (6.4.2).*

The proposal is consistent with SPP 2.4 in that it provides an opportunity to provide a product of a high quality in an area that is agriculturally based, and which will support the sustainable and economic opportunities associated with agricultural activities.

#### 5.2.1.4 State Planning Policy 2.5 – Agricultural and Rural Land Use Planning

*State Planning Policy No 2.5, Agricultural and Rural Land Use Planning (SPP2.5), makes provision for the extraction of basic raw materials.*

*SPP 2.5 states “sensitive land uses such as rural residential estates may limit or sterilise extraction of basic raw materials due to ongoing amenity concerns”*

State Planning Policies are required to be considered under the Local Planning Schemes as is the “identification and protection” for staged use, of basic raw materials. The site is located in a remote and access restricted part of Albany, which provides few residential dwellings, and as such the location of the lime pit is consistent with the expectations of SPP 2.5.

Furthermore, the requirements for Basic Raw Material Extraction as stated in SPP2.5 have been adequately addressed in **Appendix 3- Excavation and Rehabilitation Management Plan.**

#### 5.2.1.5 State Planning Policy 4.1 – State Industrial Buffer Policy

*State Planning Policy 4.1 – State Industrial Buffer Policy discusses the need to consider adjoining land uses when locating buffers but does not prescribe set buffers for operations such as this. The development and processing of the resource has been designed to maintain maximum buffer distances. In situations where the buffers are less, actions such as the provision of perimeter bunding to provide visual and noise*

management, tree planting and operational procedures, are used to mitigate and reduce impacts.

#### Surrounding Land Uses and Buffers

The site is remote and protected by a vermin proof fence along the eastern boundary of Lot 9005, which includes controlled gates. A number of Government Policies relate to buffer distances and the protection of basic raw materials. SPP 4.1 discusses the need to consider adjoining land uses when locating buffers but does not prescribe set buffers for operations such as this.

Generic buffer requirements were developed by the Victorian Government and used by the Environmental Protection Authority (EPA) as the basis for a draft guideline on recommended buffer distances. These formed the basis of the EPA's *Guidance Statement Number 3, Separation Distance between Industrial and Sensitive Land Uses, June 2005* (the "EPA Guidance Statement No. 3").

The Environmental Protection Authority of South Australia recommends a 300 metre separation for a Quarry – Non-Blasting.

The EPA lists the generic buffers for sand and limestone pits as 300 – 500 metres depending on the extent of processing. A generic buffer relates to the distance at which there are unlikely to be any problems without some further investigations and does not mean that smaller buffers are not acceptable. The *EPA Guidance Statement No. 3* provides for a case by case separation, based on the potential impacts.

For limestone extraction a generic buffer is suggested of 300 – 500 metres with case by case assessment where grinding and milling are used. SPP 4.1 recommends that all land uses within 1,000 metres be considered. The design of the footprint and the operation have been designed to minimise any impacts outside the disturbance areas. As established, there are no dwellings within 1,000 metres of the proposed lime pit and stockpile area. The excavation of limestone from the site complies with these policies.

### **5.2.2 Local Government – Strategic Policies and Guidelines**

#### **5.2.2.1 Local Planning Strategy**

The City's *Local Planning Strategy (LPS)* provides the vision to guide the future growth of the Albany and surrounding areas across a range of different disciplines and interests. One of the key planning objectives of the LPS as it relates to extractive industries is as follows:

*Development Application for Extractive Industries Licence -Lime Pit  
Lot 9005 Rock Cliff Circle, Nullaki*

*Mineral Resources and Basic Raw Materials – maximise opportunities to enable mineral and raw material exploration and extraction in accordance with accepted environmental standards.*

Key actions to be undertaken include:

- *Establish appropriate planning controls in the LPS1 to protect significant mining and basic raw material resources from encroachment by incompatible uses*
- *Require preparation and implementation of management plans (including clean up and rehabilitation measures) for new mining and basic raw materials proposals.*

The proposal is consistent with the intentions of the LPS, as there are significant separation distances between the proposed lime pit and surrounding sensitive uses, and in addition the operation of the lime pit will require both Planning Approval and an Extractive Industry Licence to be issued by the City. As part of this proposal a *Rehabilitation Management Plan* will be required. Noting that one has been prepared (refer to **Appendix 3** the *Excavation and Rehabilitation Management Plan*, prepared by Landform Research), along with the proponents' previous successful rehabilitation of the original lime pit, support for the proposal on the basis that the environmental effects can be minimised and effectively mitigated, should be provided.

## 6.0 Conclusion

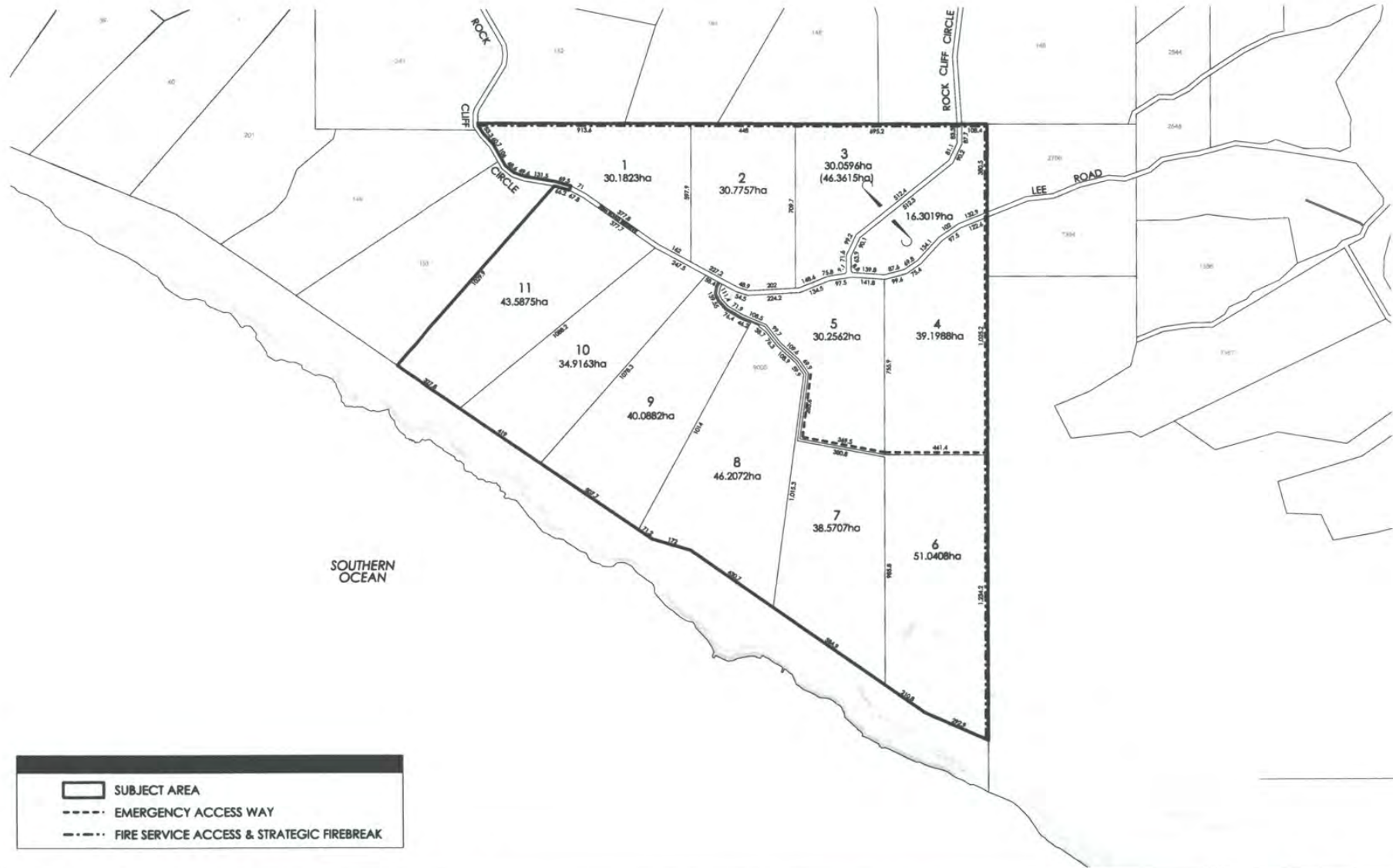
This Development Application for Extractive Industry Licence applies over a very small portion of the site, which has been identified as containing high quality limestone which is much needed for agricultural and road construction purposes. The proposal is supported in principle by the Department of Agriculture and Food and there is no preliminary objection from the EPA.

The proposal represents a small scale and a logical development opportunity for the City and one that will generate many direct and indirect benefits to the City and surrounding regions. Subject to appropriate management plans and best practice extraction methods being employed, as detailed within the *Excavation and Rehabilitation Management Plan*, it is expected there will be minimal long terms effects as a result of this proposal on the immediate and wider environment.

It has been established through the mechanism in LPS1 and the proposal for the provision of royalties towards environmental management that Council has the ability to deal with and approve this development application.

Appendix 1- Subdivision Application





**AMENDED PLAN OF SUBDIVISION**  
 LOT 9005 ROCK CLIFF CIRCLE, NULLAKI  
 WAPC REF: 152952

**N** SAM WILLIAMS | TOWN PLANNER  
 ph: 0418 116216 | email: samwilliams@westnet.com.au  
 scale - 1:15 000 @ A3 | date - 17 Nov 2016  
 plan no.15-008-004



Appendix 2- Certificate of Title

*Development Application for Extractive Industries Licence -Lime Pit  
Lot 9005 Rock Cliff Circle, Nullaki*

WESTERN



AUSTRALIA

REGISTER NUMBER <b>9005/DP52008</b>	
DUPLICATE EDITION <b>1</b>	DATE DUPLICATE ISSUED <b>16/5/2007</b>

**RECORD OF CERTIFICATE OF TITLE**  
UNDER THE TRANSFER OF LAND ACT 1893

VOLUME **2653** FOLIO **12**

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

  
REGISTRAR OF TITLES



**LAND DESCRIPTION:**

LOT 9005 ON DEPOSITED PLAN 52008

**REGISTERED PROPRIETOR:**  
(FIRST SCHEDULE)

GRAEME JAMES ROBERTSON OF POST OFFICE BOX 140, CLAREMONT  
(AF K188013 ) REGISTERED 11 MAY 2007

**LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:**  
(SECOND SCHEDULE)

1. \*K205056 MORTGAGE TO BANK OF WESTERN AUSTRALIA LTD REGISTERED 25.5.2007.
2. \*N360087 RESTRICTIVE COVENANT TO CONSERVATION AND LAND MANAGEMENT EXECUTIVE BODY AS TO PORTION ONLY - SEE DEPOSITED PLAN 406935. REGISTERED 21.6.2016.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.  
\* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.  
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

**STATEMENTS:**

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: DP52008.  
PREVIOUS TITLE: 2183-729.  
PROPERTY STREET ADDRESS: NO STREET ADDRESS INFORMATION AVAILABLE.  
LOCAL GOVERNMENT AREA: CITY OF ALBANY.

- NOTE 1: DUPLICATE CERTIFICATE OF TITLE NOT ISSUED AS REQUESTED BY DEALING K205056  
NOTE 2: N358926 DEPOSITED PLAN (INTEREST ONLY) 406935 LODGED.

**Appendix 3- Excavation and Rehabilitation Management Plan**

Excavation and Rehabilitation  
Management Plan

PROPOSED AGRICULTURAL  
LIME QUARRY

Lot 9005  
Nullaki Peninsula  
City of Albany

Proponent  
Graeme Robertson  
PO Box 114  
Denmark WA 6333

May 2016

Excavation and Rehabilitation Management Plan,  
Proposed Agricultural Lime Quarry

Lot 9005  
Nullaki Peninsula  
Denmark



Prepared by Landform Research

## SUMMARY

Graeme Robertson proposes to open an agricultural lime quarry on 10 hectares of a limestone ridge on Lot 9005, Nullaki Peninsula Denmark.

The limestone on Lot 9005 is highly suitable for lime for agriculture and neutralisation of acidity in addition to some road bases. Drilling has been completed and testing of the lime neutralising value carried out.

The proposed excavation lies in the south eastern corner of Lot 9005, set back from the coastal cliffs and Foreshore Reserve (30883) which covers the cliffed slope. It is approximately 10 km south east from Denmark townsite on the Nullaki Peninsula.

To the east lies Reserve 17464, vested in the City of Albany and associated with Lake Sadie. The Bibulum Track runs through the reserve.

Lot 9005 is covered by remnant coastal vegetation. The proposed quarry site has previously been used for a small limestone quarry to provide limestone for road construction on the subdivided part of the Nullaki Peninsula. The pit had been revegetated.

Minor exploration work has been completed for the existing proposal including the preparation of access tracks and drill platforms.

A predator proof fence runs across the Peninsula on the eastern side of Lot 9005.

The limestone will be used to prevent soil acidification, which is a well recognised major environmental issue, highlighted in the various State of Environment Reports on Western Australia, where it is estimated that 55% of the agricultural land in Western Australia is susceptible to the problem. Soil acidification also causes stock toxicity from some metals (eg aluminium) which move into solution in acidic or low pH conditions.

The only mechanism to counteract the increasing acidity is the application of calcium carbonate. The sources of calcium carbonate are limesand and Tamala Coastal Limestone.

The proposal seeks to provide a continued resource of strategically located limestone, suited to a variety of end products. The majority of the lime from this pit will be used in the agricultural industry with lime being transported as far as Hyden in the east through the Great Southern Region. Currently existing supplies are running out and farmers are sourcing material from Lancelin or Redgate at a significant transport cost advantage.

The Lower Great Southern Strategy in Section 2.9 Mineral Resources and Basic Raw Materials supports the identification and staged use of basic raw materials and minerals.

The issues of agricultural lime are specifically mentioned the Lower Great Southern Strategy in relation to the existing limestone quarry at Albany being in an environmentally sensitive area and the need for a new resource. This proposal has the potential to supply agricultural lime for the future and in line with the Strategy.

This proposal seeks Development Approval and an Extractive Industries Licence for an staged extraction area of 10 hectares combined with a stockpile area of 2 hectares on the eastern portion of Lot 9005.

At any one time it is anticipated that only 2.0 hectares of pit will be open. Excavation is anticipated to extend to 8 metres in depth leaving an undulating land surface replicating other parts of the Nullaki Peninsula. An application for 20 years is made.

End Use will be a return to Conservation in compliance with the Town Planning Scheme Zoning.

There are no dwellings within 1 km of the site and the proposed operation has been designed to minimise or eliminate any dust, noise or visual impact.

The site has an old limestone pit on the proposed disturbance footprint in addition to some drill pads and access roads. The old pit has been very successfully rehabilitated demonstrating that the proposed methods of rehabilitation are proven.

It is anticipated that the life of the pit will be over 20 years. Extraction is anticipated to commence at around 20 000 tonnes per year rising to 50 000 tonnes per year and perhaps 100 000 tonnes per year in the longer term. At 50 000 tonnes that would equate to 10 laden truck movements per day on average (six days per week).

Transport will be along Lees Road to Lake Saide Road to Lower Denmark Road. Discussions are to be held with the City of Albany to determine a satisfactory transport route.

The Excavation and Rehabilitation Management Plan addresses;

- Groundwater quality and quantity protection;
- Land surface stabilisation and interim rehabilitation, including erosion mitigation and topsoil management
- Waste management
- Dust management
- Dieback management
- Contours and final ground surface levels;
- Fire management;
- Site security

Environmental issues including dust, noise and traffic can be managed in such a way to minimise or eliminate any significant impact both on site and offsite. Dust and noise can be contained by the methods of extraction to be used and the control measures which will be put into place. Measures to protect the site and minimise the influence of dieback are addressed under Environmental Management.



**Project Summary**

<b>ASPECT</b>	<b>PROPOSAL CHARACTERISTIC</b>
<b>EXCAVATION</b>	
Area of proposed new excavation	Proposed Pit – 10.0 hectares in four stages of about 2.5 hectares.
Limestone extraction	Initially 20 000 tonnes per year rising to potentially 50 000 tonnes and perhaps 100 000 per year
Total estimated resource	Limestone - approximately 1 000 000 tonnes.
Life of project	20 years
Area cleared per year	Initially about 2.5 hectares to provide an operational area and then 0.5 hectares – per year depending on the elevation of the ridge.
Total area to be cleared	10.0 hectares in proposed pit progressively Stockpile area and turning circle of 1 - 2 hectares
Area mined per year	0.5 hectares approx.
Dewatering requirements	None
Maximum depth of excavations	8 metres
<b>PROCESSING</b>	
Limestone	Same as the amount extracted.
Water requirements	Only required for dust suppression in excessively dusty situations on site transport and processing. The limestone will be moist when extracted and will not need dust suppression. Water will often clog the processing plant
Water supply source	Local sump on Lot 9005.
<b>INFRASTRUCTURE</b>	
Total area of plant and stock	Mobile plant will be used, located within excavation footprint.
Area of settling ponds	Not required
Fuel storage	Not required, mobile tankers will be used
<b>TRANSPORT</b>	
Truck movements	Variable but approximately 10 laden trucks per day maximum depending on the volumes of limestone extracted. Based on a 40 tonne load and 50 000 tonnes per year.
Access	
<b>WORKFORCE</b>	
Construction	2 - 3
Operation	2 - 3
Hours of operation	Monday - Saturday 6.30 am to 5.00 pm excluding public holidays.

An Environmental Risk Assessment has been completed and follows.

ENVIRONMENTAL RISK ASSESSMENT MATRIX AGRICULTURE LIMESTONE MINING LOT 9005 NULLAKI PENINSULA

Environmental Factor	Environmental Objective	Identified Issues and Commitments	Proposed Management	References	Environment Risk	
					Innate Risk - Unmanaged	Risk when Managed
<b>LAND</b>						
<b>FLORA and VEGETATION</b>	To maintain representation, diversity, viability and ecological function at the species, population and community level.	Vegetation communities and/or biodiversity may be significantly impacted by clearing, and degradation by weeds and dieback.	This proposal seeks Development Approval and an Extractive Industries Licence for an staged extraction area of 10 hectares combined with a stockpile area of 2 hectares on the eastern portion of Lot 9005. At any one time it is anticipated that only 2.0 hectares of pit will be open. Excavation is anticipated to extend to 8 metres in depth leaving an undulating land surface replicating other parts of the Nullaki Peninsula. An application for 20 years is made. The nearby vegetation of similar communities in excellent condition totals over 6 500 hectares. The 4 hectares open at any one time represents just 0.06%.	2.5 Flora Attached Flora and Vegetation Report.	Low	Low
		Threatened Communities may be impacted by inadvertent impacts.	Nil		NA	
		Priority species may be affected by clearing, disturbance, weeds, dieback and other impacts.	Considered unlikely. None were recorded in the vegetation assessment. <i>Banksia sessilis</i> var <i>cordata</i> (P4) grows on coastal limestone and may be present. <i>Sphaerolobium calcicola</i> (P3) as occurring within 10 km and may occur in sand over limestone.		NA	
		Threatened Species may be impacted by inadvertent impacts.	Unlikely		NA	
		Weeds may become established and impact on the local and on site biodiversity	A weed management program is in place. The site is largely weed free	Weed Management Plan in 5.6.6	Low	Low
		Dieback disease may be present and impact on the local and onsite vegetation.	Dieback management procedures are in place. No dieback is recorded.	Dieback Management Plan in 5.6.5	Low	Low
		The developments may fragment communities, biodiversity and ecological	Little fragmentation will occur. Natural regrowth is rapid as proved by past revegetation. See also above.	Figures 8 to 10	Nil	

ENVIRONMENTAL RISK ASSESSMENT MATRIX AGRICULTURE LIMESTONE MINING LOT 9005 NULLAKI PENINSULA

<b>Landforms</b>	To maintain the variety, integrity, ecological functions and environmental values of landforms and soils.	linkages.				
		The local landform may be altered to a form that is not compatible with the surrounding geomorphology.	The excavated area will resemble natural deflated dune or undulating surface lowered by some 8 metres.	Figures	Low	Low
		The final land surface should be fit for its required end use.	The excavated area will resemble natural deflated dune headland and will have natural functions.	Sections Figures	Low to Moderate	Low
		The development and final landform will not lead to significant visual impacts,	The excavated area will resemble natural deflated dune headland of the Nullaki Peninsula.	Figures 8 to 10	Low	Low
		The final landform and soils may be subject to erosion by wind, water or other processes.	The sand and limestone is highly porous and not subject to water erosion. Limestone readily crusts and does not blow. Limesand will have been removed wind erosion risk and movement will reduce. No evidence of past erosion.	Attached Water Management Plan Figure 9	Low	Low
	The project has been assessed for karst features and has been designed to mitigate impacts on known and features that may potentially be present.	There is no known karst. Excavation will have a base some 20 or 140 metres above the water table.		Low	Low	
<b>Subterranean Fauna</b>	To maintain representation, diversity, viability and ecological function at the species, population and assemblage level.	The development may have an impact on an isolated population of subterranean fauna.	There are no known subterranean features.		Low	Low
		The development may fragment subterranean communities.	See above		NA	
		The diversity of subterranean fauna may be reduced at a population or assemblage level.	See above		NA	
		The final formed structures may not support continued subterranean fauna and their ecological functions.	There will be similar regolith to the pre-excavation environment.		NA	
<b>Terrestrial Environment Quality</b>	To maintain the quality of land and soils so that the environment values, both ecological and social, are	At the end of excavation the created soils should be deep enough or of sufficient quality to be sustainable to	The final rehabilitation will be to simulate natural deflated dunes and headland of the Nullaki Peninsula. Natural regrowth is rapid as proved by past	Sections Figures	Low	Low

ENVIRONMENTAL RISK ASSESSMENT MATRIX AGRICULTURE LIMESTONE MINING LOT 9005 NULLAKI PENINSULA

	protected.	meet the long term end use or ecological values.	revegetation. See also above.			
		The area of potential impacts will not impact on essential or desirable land uses.	Then end use will be the same as the pre-excavation land use. End Use is to conservation, the Zoning of the site.	5.9 Rehabilitation	Low	Low
		The development will not adversely impact an area identified as having high agricultural or community values.	The area is private land but has high natural beauty that is not available to the public because of security predator proof fences.		NA	
		Acid soils are not exposed or are managed to ensure that there are no long term adverse effects.	There is no evidence of acid sulfate conditions. The site is elevated in oxidised soils with no prospect of sulfides in the soils. Soils are limesand on a limestone base.	Attached Water Management Plan	NA	
<b>Terrestrial Fauna</b>	To maintain representation, diversity, viability and ecological function at the species, population and assemblage level.	Communities and fauna and/or biodiversity may be significantly impacted by clearing, and degradation by weeds and dieback.	This proposal seeks Development Approval and an Extractive Industries Licence for an staged extraction area of 10 hectares combined with a stockpile are of 2 hectares on the eastern portion of Lot 9005. At any one time it is anticipated that only 2.0 hectares of pit will be open. Excavation is anticipated to extend to 8 metres in depth leaving an undulating land surface replicating other parts of the Nullaki Peninsula. An application for 20 years is made. The nearby vegetation of similar communities in excellent condition totals over 6 500 hectares. The 4 hectares open at any one time represents just 0.06%. A predator proof fence is in place.	Mine Closure Plan	Low	Low
		Threatened Faunal Communities may be impacted by inadvertent impacts.	Unlikely		Low	Low
		Priority Fauna species may be affected by clearing, disturbance, weeds	Unlikely		Low	Low
		Threatened Fauna Species may be impacted by inadvertent impacts.	Unlikely		Low	Low

ENVIRONMENTAL RISK ASSESSMENT MATRIX AGRICULTURE LIMESTONE MINING LOT 9005 NULLAKI PENINSULA

WATER						
<b>Hydrological Processes</b>	To maintain the hydrological regimes of groundwater and surface water so that existing and potential uses, including ecosystem maintenance, are protected.	The ecological functions of watercourses are to be maintained.	There are no watercourses	Attached Water Management Plan	Moderate	Low
		Groundwater may be impacted by changes to recharge, over-pumping, alterations to flow paths or lead to significant evaporation and water loss.	No adverse impacts on water are likely based on excavations of limesand in other areas.	Attached Water Management	Low to moderate	Low
		Wetlands may be altered by draining or flooding, potentially changing their ecological functions and biodiversity.	There are no wetlands on site.	NA		
<b>Inland Waters Environmental Quality</b>	To maintain the quality of groundwater and surface water, sediment and biota so that the environmental values, both ecological and social, are protected.	Hydrocarbons, fuels and other chemicals are stored in a manner that they pose no risk to the environment.	Extensive fuel and hydrocarbon management programs are proposed. A Waste inventory found no potentially adverse materials. There are no proposed changes to the methods of operation. See above	Attached Water Management Plan	Low to moderate	Low
		Runoff from operations is contained and all water is either retained or treated to removed sediment and any deleterious materials.	All water is retained on site in the base of the pit and soak into the porous ground.	Attached Water Management Plan.	Low to moderate	Low
		Water quality during and after development and operations is not adversely affected or altered.	Excavation will have a base some 20 and 140 metres above the water table, replicating natural deflated dunes.	Attached Water Management Plan.	Low	Low
AIR						
<b>Air Quality</b>	To maintain air quality for the protection of the environment and human health and amenity.	Dust emissions are minimised or controlled to ensure that the local amenity is protected.	A Dust Management Plan is provided. A DER Licence will be required for crushing and screening if used. The closest sensitive premises are 1 to 2 km away. The access road is similar to any non sealed road and limestone does crust when moist.	Dust Management in attached Offsite Impacts Management Plan	Low	Low
		Dust emissions will not significantly impact on local and on site personnel health or quality of life.	Quarrying must comply with the <i>Mines Safety and Inspection Act</i> for Health and Safety. Officers from the DMP will regularly inspect the site and the site must be registered under the	5.4 Dust Management Plan	Moderate to high for worker impact.	Low

ENVIRONMENTAL RISK ASSESSMENT MATRIX AGRICULTURE LIMESTONE MINING LOT 9005 NULLAKI PENINSULA

			DMP SRS system.		Low for local amenity impact.	
		Noise levels will comply with the <i>Environmental Protection (Noise) Regulations 1997</i> .	Noise levels will comply with <i>Environmental Protection (Noise) Regulations 1997</i> . The operations are designed to minimise on site noise and the potential for offsite noise. The closest sensitive premises are 1 to 2 km away.	5.3 Noise Management	Low	Low
		Noise levels and operational procedures will be used to protect on site personnel health and safety.	Excavation must comply with the <i>Mines Safety and Inspection Act</i> for Health and Safety. Officers from the DMP will regularly inspect the site and the site must be registered under the DMP SRS system. With such small operations and the distance to sensitive premises of 1 to 2 km compliance will be readily achieved.	5.3 Noise Management	Low	Low
		Emissions gases and other materials potentially adverse to human health will not be used or will be managed.	There are no gaseous or other potential harmful emissions from the operations.		Low	Low
		Potential impacts from blasting will comply with the <i>Environmental Protection (Noise) Regulations 1997</i> and guidelines for ground vibration.	Blasting is not required	NA		
		Employ procedures and design the operations to minimise the risk of excessive greenhouse emissions.	The operations are designed to minimise fuel use and transport routes. There are no proposed changes to transport routes or operations from past activity.		Low	Low
<b>Heritage</b>	To ensure that historical and cultural associations are not adversely affected.	Known aboriginal heritage sites will be protected.	There are no known aboriginal sites on the DAA database on the extraction area. A commitment is made to stop and assess any site if uncovered. Heritage sites uncovered during operations will be independently assessed and managed through communication with the community, Government and traditional owners.	6.5 Heritage	Low	Low
		Sites of European heritage will be protected.	None known apart from the access road which runs along the alignment of the old rail access and will be retained.		Low	Low

ENVIRONMENTAL RISK ASSESSMENT MATRIX AGRICULTURE LIMESTONE MINING LOT 9005 NULLAKI PENINSULA

<b>Human Health Amenity</b>	To ensure that human health is not adversely affected.	Human health is protected from adverse impacts of dust, noise, other emissions and chemicals.	Limestone excavation must comply with the <i>Mines Safety and Inspection Act</i> for Health and Safety. Officers from the DMP will regularly inspect the site and the site must be registered under the DMP SRS system.		Moderate to high for worker impact.	Low
	Transport routes and operations are designed to minimise local impacts	Transport may impact on local, and regional roads or school bus routes.	The proponent has liaised City of Albany.	4.9 Transport Corridors	Low	Low
	Local Amenity – Visual Impact	The operations have been designed to provide sufficient buffers and visual protection.	The operations comply with the EPA Buffer Guidelines and Indian Ocean Drive Planning Guideline The closest dwelling is 1000 - 2000 metres away The operations are designed to minimise visual impact.	5.2 Aesthetics	Low	Low
<b>INTEGRATING FACTORS</b>						
<b>Offsets</b>	To counterbalance any significant residual environmental impacts or uncertainty through the application of offsets	Offsets are provided as necessary to reduce or mitigate the impacts on the development and operation of the project.	The proposed operations are small. The site will be returned to copy natural deflation areas. At any one time it is anticipated that only 2.0 hectares of pit will be open. Excavation is anticipated to extend to 8 metres in depth leaving an undulating land surface replicating other parts of the Nullaki Peninsula. An application for 20 years is made. The nearby vegetation of similar communities in excellent condition totals over 6 500 hectares. The 4 hectares open at any one time represents just 0.06%.	Not required	NA	
		Offsets are used to enhance the local environment, habitats, biodiversity and other identified factors.	See above No offsets are required.	Not required	NA	
<b>Rehabilitation and Closure</b>	To ensure that premises are closed, decommissioned and rehabilitated in an ecologically sustainable manner, consistent with agreed outcomes and land uses, and without unacceptable liability to the	All infrastructure, roads, hardstand, non natural materials are to be removed from site progressively when not required and all removed at the end of the project.	This is proposed	5.9 Rehabilitation	Low	Low
		No materials are to be left on site that may cause long term detrimental outcomes in	The proponent will remove all materials, equipment and plant associated with their operations at the end of excavation.	5.9 Rehabilitation	Low	Low

ENVIRONMENTAL RISK ASSESSMENT MATRIX AGRICULTURE LIMESTONE MINING LOT 9005 NULLAKI PENINSULA

	State	terms of impacts to soils, water, heritage, vegetation health or other factors.				
		All contaminated materials are to be removed from site prior to closure.	There are no contaminating materials apart from fuel and lubricants. Commitments are made to do this. Contingencies are in place. Extensive fuel and hydrocarbon management programs are proposed. A Waste inventory found no potentially adverse materials. There are no proposed changes to the methods of operation.	Attached Water Management Plan.	Low to moderate	Low
		Landforms and other geomorphological features are to be compatible with the local area and end use and be sustainable in the long term.	The excavated area will resemble natural deflated dune headland of the Nullaki Peninsula.	Figures 8 to 10	Low - moderate	Low
		Soils are reconstructed to be able to sustain an ecological sustainable vegetation or other cover consistent with the end use and long term proposal for the site.	The open operations are small. The excavated area will resemble natural deflated dune headland of the Nullaki Peninsula.	Figures 8 to 10	Low	Low
		Weed levels are not to cause significant impacts on vegetation.	Managed during excavation and rehabilitation.	5.6.6 Weed Management Plan	Low	Low
		Ongoing monitoring of the rehabilitation will be conducted to ensure that any areas not meeting completion criteria are added to or replaced as necessary to enable the relevant criteria to be met.	This is proposed	5.9 Rehabilitation	Low - moderate	Low
<b>OTHER FACTORS</b>						
<b>Resource Requirements</b>	Basic Raw Materials are required for continued use by the community and for future developments.	There is significant basic raw material on site that is suitable for community resources.	The limestone will be used to prevent soil acidification, which is a well recognised major environmental issue, highlighted in the various State of Environment Reports on Western Australia, where it is estimated that 55% of the	1.8 Planning Policies and Zonings	Low	Low



ENVIRONMENTAL RISK ASSESSMENT MATRIX AGRICULTURE LIMESTONE MINING LOT 9005 NULLAKI PENINSULA

			<p>agricultural land in Western Australia is susceptible to the problem. Soil acidification also causes stock toxicity from some metals (eg aluminium) which move into solution in acidic or low pH conditions.</p> <p>The only mechanism to counteract the increasing acidity is the application of calcium carbonate. The sources of calcium carbonate are limesand and Tamala Coastal Limestone.</p> <p>The proposal seeks to provide a continued resource of strategically located limestone, suited to a variety of end products. The majority of the lime from this pit will be used in the agricultural industry with lime being transported as far as Hyden in the east through the Great Southern Region. Currently existing supplies are running out and farmers are sourcing material from Lancelin or Redgate at a significant transport cost advantage.</p> <p>The Lower Great Southern Strategy in Section 2.9 Mineral Resources and Basic Raw Materials supports the identification and staged use of basic raw materials and minerals.</p>			
<b>Planning Compliance</b>	To comply with Government Policy, planning zones and procedures.	The project is designed to comply with State and Local Planning requirements.	The issues of agricultural lime are specifically mentioned the Lower Great Southern Strategy in relation to the existing limestone quarry at Albany being in an environmentally sensitive area and the need for a new resource. This proposal has the potential to supply agricultural lime for the future and in line with the Strategy.	Lower Great Southern Strategy	Low	Low
<b>Community Consultation</b>	To provide a community consultation process commensurate with the size nature and time line of the project.	Community consultation will be handled by community input within the application and assessment phases, as through direct community consultation as required and contact numbers being displayed at the entrance. An "Open Door Policy" is used to enable ongoing	There has been consultation with the City of Albany and the key residents along the transport route.		Low	Low

ENVIRONMENTAL RISK ASSESSMENT MATRIX AGRICULTURE LIMESTONE MINING LOT 9005 NULLAKI PENINSULA

		dialogue between the operator and the community.				
		An effective complaints procedure is provided, combined with effective remedial procedures.	A complaints procedure is proposed.	5.4.9 Complaints Procedure	Low	Low
<b>Safety</b>	To ensure that the project provides high levels of safety to on site personnel and the community	Ensure that the project provides high levels of safety to on site personnel.	Limestone excavation must comply with the <i>Mines Safety and Inspection Act</i> for Health and Safety. Officers from the DMP will regularly inspect the site and the site must be registered under the DMP SRS system. The operations are required to be registered under the DMP SRS system. The proponent proposes extensive fire and safety management systems under the Project Management Plan.		Low	Low
		Ensure that potential impacts are retained on site and do not cause significant risk of safety to the local and wider community.	The operations are designed to comply with this.		Low	Low
		Have in place a transport policy to ensure that transport along public roads is conducted in a safe manner.	Transport has been considered and will be formulated with the City of Albany.	4.9 Transport Corridors	Low	Low
<b>Geotechnical Integrity</b>	To ensure that all ground and geological materials is safe commensurate with the operations and final land surface.	The operational and final land surfaces will be made safe and not subject to subsidence, slippage or other adverse conditions.	The operations are designed to comply and operate to the <i>Mines Safety and Inspection Act 1994</i> . Excavation simply takes limestone from the dune leaving the natural angles of repose of dunes.	Demonstrated by past excavations. Figure 9.	Low	Low
		The quarry and operations will comply with the <i>Mines Safety and Inspection Act 1994</i> .	Mineral Sand Mining and Development is committed to complying with the relevant Acts and Regulations. The pit is regularly inspected by officers from the DMP Safety Division.		Low	Low
		The operational and final surfaces and features are designed to be not affected by extreme climate events.	No impact from extreme weather events result on the pit or to the pit or rehabilitated surface. The final surface will replicate the natural deflation surface under the dunes.		Low	Low

**CONTENTS**

SUMMARY

ENVIRONMENTAL RISK

1.0	INTRODUCTION	1
1.1	Background and Proposal	1
1.2	Importance and Rationale	1
1.3	Proponent	4
1.4	Landholding	4
1.5	Description of the Resource	4
1.6	Aims of the Proposal	6
2.0	EXISTING ENVIRONMENT	7
2.1	Climate	7
2.2	Geology and Geomorphology	7
2.3	Soils	7
2.4	Hydrogeology	9
2.5	Flora	10
2.6	Fauna	13
2.7	Wetlands	14
3.0	PLANNING ISSUES	14
3.1	Current Land Use	14
3.2	Land Zonings and Policies	14
3.3	End Use	19
3.4	Responsible Authorities	19
3.5	Social Impacts	20
4.0	QUARRYING OPERATIONS	22
4.1	Limestone Extraction	23
4.2	Staging and Timing	24
4.3	Hours of Operation	25
4.4	Access, Transport and Security	25
4.5	Equipment	25
4.6	Final Contours	25
4.7	Workforce	26
4.8	Water Usage	26
4.9	Transport Corridors	26
4.9	Safety	27

5.0	ENVIRONMENTAL IMPACTS ND MANAGEMENT	30
5.1	Surrounding Landuse and Buffers	30
5.2	Aesthetics	31
5.3	Noise	33
5.4	Dust	36
5.5	Water Quality	42
5.6	Biodiversity Management	44
5.6.1	Vegetation and Flora	44
5.6.2	Vegetation Clearing	45
5.6.3	Fauna	46
5.6.4	Wetlands	46
5.6.5	Dieback Management Plan	47
5.5.6	Weed Management Plan	49
5.7	Fire Protection	50
5.8	Aboriginal Sites	51
5.9	Rehabilitation	51
5.9.1	Background	51
5.9.2	Rehabilitation Procedures	53
	REFERENCES	60
	FIGURES	
Figure 1	Limestone Resource	5
Figure 2	Limestone Resource	5
Figure 3	View west across the proposed quarry	8
Figure 4	View north from the proposed excavation area	9
Figure 5	Typical vegetation of the resource area	11
Figure 6	Typical vegetation of the resource area	11
Figure 7	Rehabilitation that has been cleared for new testing/limestone	54
Figure 8	Rehabilitation of a steep slope on the access road to the pit	54
Figure 9	Rehabilitation on coastal limestone at Lancelin	55
Figure 10	Location	
Figure 11	Surrounding Land Uses	
Figure 12	Aerial photograph – layout	
Figure 13	Aerial Photograph – Oblique View	
Figure 14	Concept Excavation	
Figure 15	Typical Excavation Equipment	
Figure 16	Broad Scale Contour Plan	
	APPENDICIES	
Appendix 1	Flora and Vegetation Assessment – Bio Diverse Solutions	
Appendix 2	Water Management Plan	

## 1.0 INTRODUCTION

### 1.1 Background and Proposal

Graeme Robertson proposes to open an agricultural lime quarry on 10 hectares of a limestone ridge on Lot 9005, Nullaki Peninsula Denmark.

The limestone on Lot 9005 is highly suitable for lime for agriculture and neutralisation of acidity in addition to some road bases. Drilling has been completed and testing of the lime neutralising value carried out.

#### Location

The proposed excavation lies in the south eastern corner of Lot 9005, set back from the coastal cliffs and Foreshore Reserve (30883) which covers the cliffed slope. It is approximately 10 km south east from Denmark townsite on the Nullaki Peninsula.

To the east lies Reserve 17464, vested in the City of Albany and associated with Lake Sadie. The Bibulum Track runs through the reserve.

#### Current Land Use

Lot 9005 is covered by remnant coastal vegetation. The proposed quarry site has previously been used for a small limestone quarry to provide limestone for road construction on the subdivided part of the Nullaki Peninsula. The pit had revegetated.

Minor exploration work has been completed for the existing proposal including the preparation of access tracks and drill platforms.

A predator proof fence runs across the Peninsula on the eastern side of Lot 9005.

#### Existing Approvals

There are no current approvals.

#### Proposal

This proposal seeks Development Approval and an Extractive Industries Licence for Agricultural Lime limestone from Lot 9005.

An applicaiotn for a 20 year approval is requested.

### 1.2 Importance and Rationale

#### Need for Lime for Mitigating Soil Acidity

The importance of the local lime is recognised in the *Department of Agriculture and Food Bulletin 4660, Survey of Western Australia agricultural lime sources*.

Crushed limestone and limesand is an essential resource to the State, for correcting soil acidity caused during normal farming operations through the use of nitrogenous fertiliser and legume crops. The need for crushed limestone for use as agricultural lime is recognised by the *Department of Agriculture and Food (Bulletin 4784)*.

Acidification of soils is seen as one of the major impediments to continued viable farming in Western Australia. The *State Of the Environment Report Western Australia 2007* shows that about two thirds of the South West agricultural soils are at risk of acidification. When the acidity builds up essential nutrients become unavailable to plants, and the crops reduce in vigour and eventually fail. In addition some other elements such as aluminium become soluble and lead to toxicity in stock and plants.

The normal method of treatment of soil acidity is to add agricultural limesand and crushed limestone as explained in *Department of Agriculture and Food Bulletin 4784 Soil Acidity, A guide for WA farmers and consultants*.

Abeyasinghe, P B, 1998, *Limestone and Limesand Resources of Western Australia, Geological Survey of Western Australia, Mineral Resources Bulletin 18*, also summarises the uses for limestone and lime and the deposits, but does not list the limestone in this locality.

The need to mitigate soil acidity is also reiterated by the EPA. Acidification of soils is cited by the Environmental Protection Authority (EPA) in Section 3.3 of its *State of the Environment Report* as a serious threat to the sustainability of WA soils and agriculture. The report calls for the increased use of lime sand to combat soil acidification and to arrest the menace of sub-soil acidification and its effects on crops, water quality and native vegetation (EPA 2007).

The limestone is essential to the local agricultural industry, but is restricted in distribution and grade south of Perth and the South West. Whilst limestone is more common a significant part lies within the Conservation Estate. Much of the limestone and calcareous dunes are located within coastal Crown land and Reserves.

Department of Agriculture and Food have conducted various studies with respect to the need for lime for agriculture and Tim Overheu has provided a letter of support from the Department. The southern agricultural areas currently source their lime from a small pit near Denmark that is located in an A Class Reserve and which is nearing extension. Alternatively limesand has to be sourced from Lancelin. This is explained in the Lower Great Southern Strategy 2016

To be most effective limestone has to be of the highest grade and, whilst coastal calcareous dunes and limestone do contain calcium carbonate the grades are often too low for efficient and economic use. For example using limestone at half the calcium carbonate content will require double the amount to be excavated, leading to additional land clearing, excavation and transport for no greater gain.

The material on site will be crushed and will form smaller particles of lime than limesand and therefore provide quicker and more efficient sources of  $\text{CaCO}_3$  than non crushed limesand.

Therefore whilst the grade of the limestone and neutralising value is up to 80% it averages around 75% and with blending it offers substantial savings to the southern agricultural regions because of reduced transport costs.

Lime is also required for remediation of acid sulphate conditions which occur on the coastal sands in the Albany Walpole area which have been subject to low lying coastal or estuarine processes. Lime is also required for some industrial processes.

The draft *State Lime Supply Strategy (2008)* advocates the use of known lime resources especially from those sites which have minimal impact on the conservation values of native vegetation and are well-positioned in terms of existing infrastructure to serve the farming and rural communities (DMP 2008).

The resource has been identified by the Geological Survey of Western Australia has studied the Limesand and Limestone Resources of Southern Western Australia in Record 2015/7. They did not test the limestone at this location but tested material to the east and at other locations.

The general geology and deposits have been reviewed by the Western Australian Geological Survey and summarised in Abeysinghe 1998.

Some consideration of the use of limestone for agricultural lime and other purposes is shown in the following documents which examine the resources in each area including the availability. The most relevant documents are listed first.

See;

- Geological Survey of Western Australia, 2015, *Limesand and Limestone Resources of Southern Western Australia*.
- Abeysinghe P B, 1998, *Limestone and Limesand Resources of Western Australia*, Geological Survey of Western Australia, Mineral Resources Bulletin 18.
- *Department of Agriculture and Food Bulletin 4660, Survey of Western Australia agricultural lime sources*
- *Department of Agriculture and Food Bulletin 4784 Soil Acidity, A guide for WA farmers and consultants.*
- Geological Survey of Western Australia, 1989, *1 : 50 000 Environmental Geology Series Torbay*.
- Muhling P C and A T Brakel, 1985, *1 : 250 000 Geological Series*, Geological Survey of Western Australia.
- Gozzard J R, 1987, *Limesand and Limestone Resources between Lancelin and Bunbury*, Geol Surv WA, Record 1987/5
- Western Australia, Western Australian Planning Commission, *Statement of Planning Policy 2.4, Basic Raw Materials*.
- Chamber of Commerce and Industry, 1995 and 1996, *Managing the Basic Raw Materials of Perth and the Outer Metropolitan Region*, Parts 1 and 2.
- Chamber of Commerce and Industry, 2008, *Basic Raw Materials Access and Availability*.
- Fetherston J M, 2007, *Dimension Stone in Western Australia*, Volume 1, Department of Mines and Petroleum, Mineral Resources Bulletin 23.
- WAPC 2012, *Basic Raw Materials Demand and Supply Study for the Bunbury - Busselton Region*,

The community need for agricultural lime is indicated by the need for resources to be extracted.

If there no community demand for limestone as a building product and for agricultural use it would be unlikely that this natural resource would ever be utilised for any other purpose and would have no economic significance.

The resource is strategically located and has the potential to provide raw materials for the lime for 20 plus years.

If the resource is not taken from this site it will have to be taken from another site where similar or more land clearing is required. The depth of sand on this site also minimises the area of farm land or vegetation that is likely to have to be cleared on an alternative site.

**1.3 Proponent**

The proponent is Graeme Robertson

Contact is

Graeme Robertson  
PO Box 114  
Denmark WA 6333

**1.4 Landholding**

Lot	LOT 9005 Nullaki Peninsula, City of Albany
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**1.5 Description of the Resource**

The site covers part of the Nullaki Peninsula on the ocean side of Wilson's Inlet.

A ridge of limestone to 168 metres in elevation occurs on the peninsula with the ocean side eroded to a steep and cliffed coast. Figures 3 and 5

The limestone consists of interbedded limestone varying from calcarenite, a sandy limestone through to limestone. Figures 1 and 2.

There is also some recalcified capstone development on the current and older buried soil horizons.

The limestone ranges up to 80% CaCO<sub>3</sub> but ranges lower in some beds and with selection and blending is capable of averaging 75% CaCO<sub>3</sub>. Due to dissolution of the calcium carbonate the CaCO<sub>3</sub> drops inland so that some few hundred metres from the coast the grade is typically 60%, hence the resource is located so close to the coast.

The limestone can be crushed for agricultural lime with the harder material being used for road base. The existing subdivisions on the Nullaki Peninsula are constructed from limestone taken from the site.

The limestone on site changes rapidly laterally and vertically through changes in the original dune morphology as does the degree of lithification (hardness). These changes determine the use to which each type of limestone can be put.





Figure 1 Limestone resource



Figure 2 Limestone resource

Although the resource extends to depth, extraction is likely to be initially limited to 8 metres AHD metres to provide an undulating and consistent final landform and to be consistent with the lower elevations available on site.

An estimated 20 plus years' limestone resources are present, although this depends on the rate of community demand.

### 1.6 Aims of the Proposal

A major and increasing environmental issue within Western Australian agriculture is the gradual, widespread and increasing levels of acidic soils, created through the use of nitrogenous fertiliser and the growth of leguminous crops. The agricultural industry of Western Australia is one of the most important to our economy through direct value, value added and employment.

Soil Acidification is a well recognised major environmental issue and is highlighted in the various State of Environment Reports on Western Australia, where it is estimated that 55% of the agricultural land in Western Australia is susceptible to the problem. Soil acidification also causes stock toxicity from some metals (eg aluminium) which move into solution in acidic or low pH conditions.

The trend towards acidification of the soils is unavoidable, because legume rotations are best practise farming, and nitrogen is essential for crop growth.

The only mechanism to counteract the increasing acidity is the application of calcium carbonate. The sources of calcium carbonate are limesand, Tamala Coastal Limestone, or other imported limestones, that have to be treated, or dredged lime/shell sand.

Most coastal areas of coastal Limestone are covered by remnant vegetation or are in areas where they are sterilised by increasing numbers of residents.

The aims of the proposal are to;

- Provide reserves of strategically located limestone, suited to a variety of end products.
- Supply lime to the agricultural industry.
- Provide additional limestone materials for a stable long term supply of limestone products in the Great Southern.
- Comply with State Planning Policy No 2.5 which requires that basic raw materials should be taken prior to sterilisation of the area by development.
- Comply with the Lower Great Southern Strategy 2016.

## 2.0 EXISTING ENVIRONMENT

### 2.1 Climate

The climate of the area is classified as Mediterranean with warm summers and cool wet winters.

Temperatures closest to Denmark Research Station, where the maximum temperatures in the summer months are 23.2 to 25.9 degrees Celsius. In winter the maxima are 16 to 17 degrees Celsius with the minima dropping to around 7 degrees C in July.

Rainfall for the area is approximately 1000 mm with more than most rain falling during the winter months April to October inclusive.

The wind direction is predominantly from the south.

### 2.2 Geology and Geomorphology

The site is an eroded high ridge of interbedded sequences of coastal dunes, of limestone 120 to 140 metres, rising to over 160 metres AHD on the highest peaks overlying an undulating Proterozoic granitic basement that outcrops of granite hills in the Denmark - Wilson Inlet area.

The limestone is a calc-arenite made from beach sand containing predominantly shell fragments with minor and variable quartz. The limestone has been lithified and recrystallised on the ridge tops to lift the percentage of calcium carbonate to over 70%. The limestone sequences also include buried soil horizons and recalcified limestone overtopped by younger dunes.

The geology is summarised in;

- Geological Survey of Western Australia, 1989, 1 : 50 000 *Environmental Geology Series Torbay*.
- Muhling P C and A T Brakel, 1985, 1 : 250 000 *Geological Series*, Geological Survey of Western Australia.
- Smith R A 1993, 1 : 250 000 *Hydrogeological Series Mt Barker – Alban*, Department of Minerals and Energy.

The degree of lithification (hardness) changes over the property, and determines the use to which each type of limestone can be put.

The limestone is of Quaternary Age formed during changes to sea level during the Pleistocene.

Bores drilled on site and exposure in the cliffs show variable depths of limestone of over 150 metres thickness.

### 2.3 Soils

Soils on the site consist predominantly of grey organic sands in the swales over limestone with white to cream limey sands on the youngest dunes and surfaces.

The soils have been mapped at a very broad scale by CSIRO who categorise them with leached sands, but that is not locally correct.

The soil profile can be seen in the site photographs. Figures 1 and 2.



Figure 3 View west across the proposed quarry in the foreground

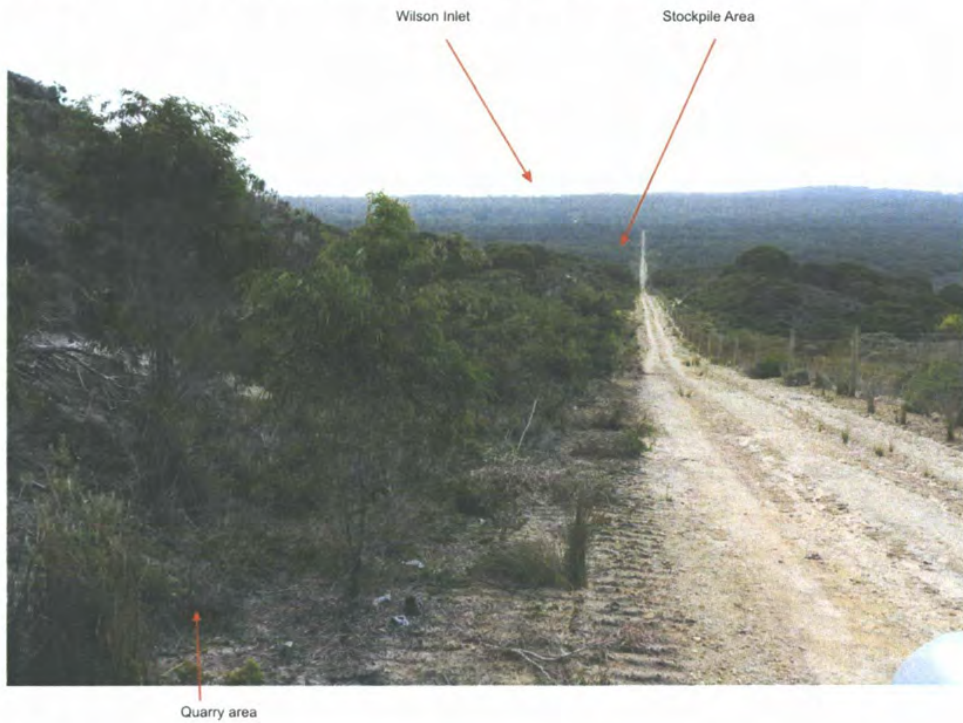


Figure 4 View north from the proposed excavation area



Figure 5 View east along the coast onto Reserve 30883

## 2.4 Hydrogeology

The site lies in the Albany Drainage District.

There is no surface drainage due to the porosity and permeability of the limestone, with precipitation draining to the water table.

The limestone coastal ridge is 120 to 140 metres, rising to over 160 metres AHD on the peak ridges. The proposed limestone quarry is located on the higher ground.

Smith R A 1993, *1 : 250 000 Hydrogeological Series Mt Barker – Albany*, Department of Minerals and Energy does not show the direction of groundwater movement.

Being so close to the ocean the groundwater elevation will be around zero, rising slightly under Nullaki Peninsula and then dropping down again to the north at Wilson Inlet.

The groundwater under the excavation area can be expected to be 0 – 1 metre AHD in elevation. Groundwater flow from under the pit will be towards the ocean to the south.

That means that the separation to groundwater from excavation activities will be over 140 metres.

The stockpile area will be located at an elevation of 20 metres AHD some 18 metres above the groundwater. Groundwater under the stockpile area is likely near the gentle peak of the water table divide but is still likely to flow south to the ocean based on groundwater movement principles under permeable ridges such as this. It is possible that the drains to Lake Saide locally lower the groundwater and the stockpile area lies just over the divide flowing laterally to the drains or north to Wilson Inlet.

It has been estimated that perhaps <10 - 20 % of the rainfall will reach the water table at the processing area with slightly less at the ridge based on the separation to the water table.

**2.5 Flora**

A detailed Flora and Vegetation Study has been completed by Bio Diverse Solutions specifically covering the proposed excavation area. Kathryn Kinear completed the survey to map the vegetation communities, weeds and dieback to a Level 1 Flora Survey.

Bio Diverse Solutions, 2016, *Vegetation Communities Survey, Lot 9005, Rock Cliff Circle, Denmark.*

A copy of the Vegetation Survey is attached.

The site is within the Southwest Botanical Province and lies on the eastern part of the Warren Interim Bio-geographic Regional Area (IBRA) which extends east and west along the coast.

**Limestone Ridge Vegetation**

The limestone ridge vegetation is classified as Open Heath which on the excavation area consists of generally low Scrub without the taller species that grow in more sheltered locations.

Lifeform	Species
Trees <10m	<i>Agonis flexuosa</i>
Shrubs >2m	<i>Agonis flexuosa</i> , <i>Agonis theiformis</i> , <i>Acacia cyclops</i> , <i>Spyridium globulosum</i> and <i>Hakea varia</i> .
Shrubs 1-2m	<i>Allocasuarina humilis</i> , <i>Pteridium esculentum</i> , <i>Jacksonia horrida</i> , <i>Pultenaea reticulata</i> and <i>Xanthorrhoea preissii</i>
Shrubs 0.5-1m	<i>Hibbertia cuneiformis</i> , <i>Hibbertia racemosa</i> , <i>Leucopogon obovatus</i> , <i>Leucopogon parviflorus</i> , <i>Leucopogon propinquus</i> , <i>Lysinema ciliatum</i> , <i>Pimelea clavata</i> , <i>Pimelea rosea subsp. rosea</i> , <i>Anigozanthos flavidus</i> , <i>Hakea prostrata</i> , <i>Adenanthos cuneatus</i> and <i>Xanthorrhoea gracilis</i>
Shrubs <0.5m	<i>Rhagodia baccata subsp. baccata</i> , <i>Andersonia caerulea</i> , <i>Gompholobium confertum</i> , <i>Boronia crenulata</i> and <i>Synaphea sp.</i>
Sedges and rushes	<i>Lyginia imberbis</i> , <i>Lyginia barbata</i> , <i>Lepidosperma squamatum</i> , <i>Tetraria octandra</i> , <i>Desmodcladus flexuosus</i> and <i>Hypolaena exsulca</i>
Herbs and grasses	<i>Carpobrotus sp.</i> , <i>Platysace compressa</i> , <i>Trachymene pilosa</i> , <i>Chamaescilla corymbosa</i> , <i>Drosera erythrogynae</i> , and <i>Opercularia hispidula</i>

Bio Diverse Solutions



Figure 6 Typical vegetation of the resource area



Figure 7 Typical vegetation of the resource area

- **Species**

During the flora and vegetation survey a total of 112 species were observed. A species list is provided in the attached flora and vegetation report.

- **Vegetation Communities**

Bio Diverse Solutions broadly mapped the vegetation across the excavation area as Open Heath in Pristine Condition.

- **Vegetation Condition**

Because of the previous excavation, and earthworks associated with exploration for the limestone the vegetation is better shown as partially degraded being degraded where cleared and pristine in uncleared areas.

Very few weed species were recorded and none were noticed on the proposed quarry site by Landform Research in May 2016.

Bio Diverse Solutions did not find any evidence of plant diseases.

- **Threatened and Priority Species**

A search of NatureMap and the EPBC database was completed by Landform Research and is attached with the Flora and Vegetation Survey.

No Threatened taxa were recorded by Bio Diverse Solutions. Two Priority species were recorded across the whole study area, by Bio Diverse Solutions *Billardiera drummondii* and *Banksia sessilis* var *cordata*.

*Billardiera drummondii* grows in Eucalypt Woodland and is less likely on the quarry footprint. The taxa currently has no priority listing on Florabase 2016-06-08.

*Banksia sessilis* var *cordata* (P4) grows on coastal limestone and may be present.

NatureMap lists *Gahnia sclerioides* (P4) as occurring within 10 km growing on moist sandy soils which are less likely on the disturbance areas.

*Sphaerolobium calcicola* (P3) as occurring within 10 km and may occur in sand over limestone.

*Isopogon buxifolius* var *buxifolius* is listed as occurring within 10 km but is unlikely to be present as it occurs in swampy areas.

- **Threatened and Priority Communities**

No Threatened or Priority Ecological Community was recorded.

### **Vegetation Representation**

EPA Position Statement No 2, December 2000, *Environmental Protection of Native Vegetation in Western Australia*, specifically targets the retention of native vegetation in the Agricultural Areas in 4.1, Clearing in the agricultural areas for agricultural purposes. In 4.3, Clearing in other areas of Western Australia, it is unclear what "other areas" refers to, but may refer to retention of a 30% threshold in non agricultural areas.



Section 4.3 Clearing in other areas of Western Australia, (*EPA Position Statement No 2*, December 2000) expects that clearing will not take vegetation types below the 30% of the pre-clearing vegetation as recommended by ANZECC, 1999, *National Framework for the Management and Monitoring of Australia's Native Vegetation*. The National Objectives and Targets for Biodiversity Conservation 2001 - 2005 (Commonwealth of Australia 2001) also recognise 30% as the trigger value.

The small area of ground open at any one time is very small compared to the large expanse of similar coastal along the Nullaki Peninsula and nearby coast, most of which is protected in Reserves 1764 and 26177.

The nearby vegetation of similar communities in excellent condition totals over 6 500 hectares. The 4 hectares open at any one time represents just 0.06%.

At the end of excavation the site will be rehabilitated as shown by rehabilitation of other limestone pits including the old road base pit on site. Where rehabilitation was effective with no weeds or disease.

## 2.6 Fauna

A fauna study was not conducted because the resource area represents a very small area within a large area of remnant vegetation with a small area only open at any one time.

A search of NatureMap and the EPBC database was completed by Landform Research and includes the fauna listed within the City of Albany and recorded within 10 km and is attached with the Flora and Vegetation Survey.

The small area of proposed disturbances and the large connectivity remaining in place will not cause any isolation of short range fauna.

The Nullaki Peninsula is protected by a predator proof fence to keep out cats and foxes in particular. The exclusion of these predators forms a significant protection measure for fauna which are advantaged by living within the protected zone. The protection fence is to remain in place.

### Stygofauna and Troglifauna

The potential presence of cavities within the limestone has been considered by Lindsay Stephens of Landform Research during the site inspection.

EPA Guidance 54, concentrates on Stygofauna, which occur in caves and "are aquatic subterranean animals, found in a variety of groundwater systems". Environmental Protection Authority, 2013, *Consideration of subterranean fauna in environmental impact assessment in Western Australia* relates to the level of survey. On the limestone ridge a reconnaissance survey was completed by Lindsay Stephens of Landform Research during the site inspection.

The limestone ridge is not an isolated habitat, but is a very small portion of a long stretch of similar limestone based coasting extending to the east and west. The limestone is Quaternary and therefore young in age with little to no calcrete development. The limestone is also likely to be too young to form significant cavities at the water table.

"Troglifauna occur in air chambers in underground caves or smaller voids".

The issues of these organisms is best addressed on a risks basis, because the water table is not proposed to be impacted, on with the base of the pit being approximately 140 metres above the water table. The stockpile area is approximately 15 metres above the water table.

Root mat communities are not known from this area and are unlikely to be present because the local geology, regolith and vegetation do not meet the criteria for their occurrence.

## 2.7 Wetlands

There are no nearby wetlands. Lake Saide lies to the north east – east surrounded by farmland. The access route will travel on local roads but not near the lake where the transport could impact on the wetland buffer.

## 3.0 PLANNING ISSUES

### 3.1 Current Land use

Lot 9005 is covered by remnant coastal vegetation. The proposed quarry site has previously been used for a small limestone quarry to provide limestone for road construction on the subdivided part of the Nullaki Peninsula. The pit had revegetated.

Minor exploration work has been completed for the existing proposal including the preparation of access tracks and drill platforms.

A predator proof fence runs across the Peninsula on the eastern side of Lot 9005. facilities.

### 3.2 Land Zonings and Policies

#### *State Planning Policies*

The State Planning Policy Framework provides for the implementation of a planning framework through the recognition and implementation of Regional Planning Policies above Local Planning Schemes and Policies.

Within each layer of planning, there are a number of key policies and strategies to provide guidance to planning and development to enable sustainable communities to develop, expand and prosper without compromising the environment and future generations.

Planning is governed under the *Planning and Development Act 2005*. This Act enables Government to introduce State and Regional Planning Schemes, Policies and Strategies to provide direction for future planning. The State and Regional Schemes sit above Town Planning Schemes and Strategies introduced by Local Government.

Strategies and Policies provide guidance on how planning is to be undertaken and how proposed developments are to be considered. These Strategies and Policies are at the State, Regional and Local levels.

Schemes are gazetted documents that provide for consideration and approval of proposed developments. These are normally at the Regional and Local Level.

In addition to the documents produced under the *Planning and Development Act 2005*, the *Local Government Act 1995* provides Local Governments with a mechanism to prepare Local Laws to manage issues of local significance.

Some policies do have relevance such as the State Industrial Buffer Policy and Basic Raw Materials Policy.

With respect to the supply of sand and limestone, the overarching document is the;

- State Planning Policy 1.0 State Planning Framework.

Complementing this are a number of Relevant State Policies;

- State Planning Policy 2.0, Environment and Natural Resources Policy
- State Planning Policy 2.4, Basic Raw Materials
- State Planning Policy 4.1, State Industrial Buffer Policy

• **State Planning Policy 2.0, Environment and Natural Resources Policy**

This policy provides for the protection of all natural resources under a number of sections;

- 5.1 General Measures
- 5.2 Water Quality including stormwater and wetlands
- 5.3 Air Quality
- 5.4 Soil and Land Quality
- 5.5 Biodiversity
- 5.6 Agricultural Land and Rangelands
- 5.7 Minerals Petroleum and Basic Raw Materials
- 5.8 Marine Resources and Aquaculture
- 5.9 Landscape
- 5.10 Greenhouse Gas Emissions and Energy Efficiency.

In addition to recognising the importance of protecting air quality, soil and land quality, water and wetlands and landscapes, the importance of Basic Raw Materials to the community is identified with reference to *SPP 2.4 Basic Raw Materials*, *State Gravel Strategy 1998* and *State Lime Strategy 2001*.

Section 5.7 of SPP 2.0, deals with Minerals, Petroleum and Basic Raw Materials.

Part of Section 5.7 states;

*Basic raw materials include sand, clay, hard rock, limestone and gravel together with other construction and road building requirements. A ready supply of basic raw materials close to development areas is required in order to keep down the cost of land development and the price of housing.*

*Planning strategies, schemes and decision making should:*

- ii. *Identify and protect important basic raw materials and provide for their extraction and use in accordance with State Planning Policy No 10 (2.4); Basic Raw Materials.*
- iii. *Support sequencing of uses where appropriate to maximise options and resultant benefits to community and the environment.*

The other factors of the natural environment are provided with the best protection possible, by this management plan, by selection of the site, operational staging and footprint and rehabilitation, bearing in mind the constraints of excavating and processing the resource.

- **State Planning Policy 2.4, Basic Raw Materials, 2000**

This policy makes many statements on the intent and actions which local authorities should use to protect and manage basic raw materials. It is restricted to the Perth and Peel Region but is the leading document with respect to guidance on the protection and staged use of basic raw materials including limestone.

Section 3.4 is very specific in explaining that basic raw materials need identification and protection because of increased urban expansion and conservation measures, (3.4.1), (3.4.2) and (3.4.4). Sections 3.4.5 and 3.4.6 recognise that environmental and amenity matters need to be considered.

There are specific provisions in Section 6.2 Local Planning Scheme Provisions, such as;

*No support for the prohibition of extractive industries in zones that permit broad rural land uses.*

*Providing an appropriate P, D or A use.*

*Not precluding the extraction of basic raw materials on land which is not identified as a Priority Resource Location, Key Extraction Area or Extraction Area (6.4.2).*

- **SPP 2.5 – Agricultural and Rural Land Use Planning**

State Planning Policy No 2.5, *Agricultural and Rural Land Use Planning*, makes provision for the extraction of basic raw materials. This document is under revision with the draft document providing even greater protection and consideration for basic raw materials in line with SPP 2.4.

SPP 2.5 in Point 9 states that "The location of rural residential and rural small holdings should avoid unacceptable impacts on, or sterilisation, of natural primary resources including prospective areas for mineralisation and basic raw materials .....".

State Planning Policies are required to be considered under the Local Authority Town Planning Schemes as is the "identification and protection" for staged use, of basic raw materials.

- **State Planning Policy No 4.1, State Industrial Buffer Policy**

SPP 4.1 discusses the need to consider adjoining land uses when locating buffers but does not prescribe set buffers for operations such as this. The development and processing of the resource has been designed to maintain maximum buffer distances. In situations where the buffers are less, actions such as the provision of perimeter bunding to provide visual and noise management, tree planting and operational procedures, are used to mitigate and reduce impacts.

This is discussed further in Section 2.8.1 Surrounding Landuses and 3.10 Buffers of this document.

- **State Planning Strategy, 1997**

The Western Australian Planning Commission (WAPC) released the *State Planning Strategy in 1997*. It comprises a range of strategies, actions, policies and plans to guide the planning and development of regional and local areas in Western Australia and assists in achieving a coordinated response to the planning challenges and issues of the future by State and Local Governments.

The State Planning Strategy contains the following five key principles. These are:

- Environment & resources: to protect and enhance the key natural and cultural assets of the State and to deliver to all Western Australians a high quality of life which is based on sound environmentally sustainable principles.
- Community: to respond to social changes and facilitate the creation of vibrant, accessible, safe and self-reliant communities.
- Economy: to actively assist in the creation of regional wealth, support the development of new industries and encourage economic activity in accordance with sustainable development principles.
- Infrastructure: to facilitate strategic development of regional Western Australia by taking account of the special assets and accommodating the individual requirements of each region.
- Regional Development: to assist the development of regional Western Australia by taking account of the special assets and accommodating the individual requirements of each region.

- **Lower Great Southern Strategy 2016**

The Lower Great Southern Strategy in Section 2.9 Mineral Resources and Basic Raw Materials supports the identification and staged use of basic raw materials and minerals.

The issues of agricultural lime are specifically mentioned in the Strategy, in relation to the existing limestone quarry at Denmark, being in an environmentally sensitive area and the need for a new resource.

This proposal has the potential to supply agricultural lime for the future.

**2.9.2 Securing access to prospective mineral and basic raw material deposits**

Limestone and lime sand are located along the coastal dunes, predominantly to the west of Albany, but access to extract from those areas is increasingly becoming constrained by other land uses. For example, extensions to the Ocean Beach limestone quarry at Denmark could provide long-term supplies of agricultural lime, but this is impeded by its location adjacent to a local government conservation reserve. Although there are other known deposits to the west, these are on private land and scope for mining is regarded as low by the Department of Mines and Petroleum.

Geological interpretation and exploration may locate further sites for agricultural lime extraction similar in geological setting to the Ocean Beach deposit. Given the need for agricultural lime in the agricultural industry, funding of a strategic assessment of the prospect under the auspices of the State lime supply strategy is warranted.

Objectives and Actions for Mineral Resources and Basic Raw Materials			
Objective	Actions	Timeframe	Responsibility
Maximise opportunities to enable mineral exploration and extraction in accordance with acceptable environmental and amenity standards	Review and update the Albany Regional Basic Raw Materials Study (1996)	Medium term	DMP DoP/WAPC
	Ascertain the implications of the Walpole Wilderness Area for the future mining and extraction of gravel, under the auspices of the State gravel supply strategy	Medium term	DMP DPaW
	Fund a strategic assessment of the prospect for limestone in the Lower Great Southern, under the auspices of the State lime strategy	Medium term	DMP
	Identify existing and potential sites for basic raw material and agricultural mineral extraction in local planning strategies and protect them in local planning schemes, including consideration of neighbouring land uses, visual impact issues and buffer areas where necessary	Short term (completed or partially completed in some LGA's)	LG DMP DoP/WAPC
	Retain areas of high prospective geology as general rural zoning to allow for exploration or extraction	Ongoing	LG DoP/WAPC

• **Western Australian Geological Survey**

The Western Australian Geological Survey has produced new mapping identifying Strategically Important Basic Raw Materials across private land and State Forest.

This mapping is being extended to the Great Southern Region.

**Local Government Planning Documents**

• **City of Albany Local Planning Scheme No 1**

The site is zoned Rural Conservation under the City of Albany Local Planning Scheme. However the past excavation and success of rehabilitation has demonstrated that the limestone can be extracted and the land returned to conservation.

The Objectives of the zone do not mention extraction or basic raw materials and do not prohibit development as long as it is completed in a ecological sensitive manner.

The proposed quarry is selected and designed to minimise impacts with the past excavation and rehabilitation demonstrating that excavated land can be returned to high quality native vegetation that preserves the conservation values.

Extractive Industries are a use "Not Listed" in the Zoning Table, thereby providing the City with potential to approve the development. Any developments are to conform with Section 5.5.14 of the Town Planning Scheme.

Again Section 5.5.14 does not address Extractive Industries but does carry a number of requirements for developments. The proposed operations are consistent with the intent and provisions of Section 5.5.14.

• **City of Albany Policy Extractive Industries and Mining**

The City of Albany Extractive Industries and Mining Policy prescribes the information required for applications for extractive industries.

This management plan complies with the Policy.

A survey can be completed as a condition of approval when the land can be accurately surveyed and pegs installed to ensure that the approved footprints are complied with.

**3.3 End Use**

The planned end use of the site is to restore a natural soil and return the ridge to native vegetation and conservation.

**3.4 Responsible Authorities**

A number of state and local government authorities are responsible for overseeing the safety and management of the proposed quarry. Other authorities have an interest in the proposal but may not hold any responsibility.

**City of Albany**

- Provides Planning Consent.
- Issues the Extractives Industries Licence for the quarry.
- Regulates land zonings in conjunction with the Western Australian Planning Commission.
- Has control over local roads.

**Main Roads**

- Has an interest in the transport routes and controls major roads.

**Department of Water**

- Issues guidelines for water quality management for extractive industries.
- Oversees protection of groundwater and water courses.

**Department of Environment Regulation**

- Oversees all aspects of environmental impact and management.
- Issues licences for crushing and screening plants.
- Has an interest in the flora and fauna of the area.
- Provides Approval for clearing under the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*.

**Western Australian Planning Commission**

- Responsible for structure plans.
- Responsible for State Planning Policies.
- Responsible with the Shire for land zoning.
- Responsible for State Planning Policy No 2.5, Agriculture and Rural Land Use Planning.

**Environmental Protection Authority**

- Oversees the potential for significant environmental impacts on environmental matters.

**Department of Mines and Petroleum**

- Controls the safety and methods of excavation through the *Mines Safety and Inspection Act 1994*.
- Responsible for overseeing the health and safety of the operations and the administration of the *Mines Safety and Inspection Act 1994 and Regulations 1995*.

**Department of Aboriginal Affairs**

- Oversees the *Native Title Amendment Act* and the *Aboriginal Heritage Act 1972 - 1980*.

**Commonwealth of Australia**

- Oversees the potential for impacts on matters listed under the *EPBC Act 1999*.
- No matters of significance under the *EPBC Act 1999* were identified.

**3.5 Social Impacts**

The main potential social impacts are to perceived local recreation values and the need for lime for agriculture.

The Bibulbum walking track runs from Albany in the east before swinging north prior to the eastern boundary of Lot 9005. The track is located some 400 metres from the limestone pit.

The track lies in heathland that is often higher than a person making the excavation area difficult to see. The excavation area is designed to be excavated from the west to the east and to the north, working behind the vegetated eastern and northern faces which will assist in minimising or eliminating any visual impact of the pit from the Bibulbum Track.

The Bibulbum Track moves slightly closer to the stockpile area, but this is located in flat ground set back behind vegetation to provide visual screening.



The Bibulum Track will cross the access road. Signs and warning barriers will be used at the crossing point in a similar to other road crossings.

There is no access from the reserve land to the east, because of the private ownership of Lot 9005 and the tall separating predator proof fence.

**4.0 QUARRYING OPERATIONS**

The proposed methods of excavation will be the same as those used on the existing limestone pits used for agriculture lime.

The site was previously used for limestone extraction for road base and a small rehabilitated pit is located on site. Access roads, exploration holes and drill pads are on site.

Limestone will predominantly be used for agriculture, although road base and minor other products will be produced as the higher grade material becomes exhausted. The taking of road base is more likely to be a second phase of excavation by another operator after all the limestone suitable for agriculture has been taken.

Quarry operations will be carried out under the *Mines Safety and Inspection Act 1994 and Regulations 1995*.

Environmental issues including dust, noise and traffic can be managed in such a way to minimise or eliminate any significant impact both on site and offsite. Dust and noise can be contained by the methods of extraction to be used and the control measures which will be put into place. Measures to protect the site and minimise the influence of dieback are addressed under Environmental Management.

Overall the proposed pit is well isolated from any sensitive premises with none within 1 km.

**Project Summary**

ASPECT	PROPOSAL CHARACTERISTIC
<b>EXCAVATION</b>	
Area of proposed new excavation	Proposed Pit – 10.0 hectares in four stages of about 2.5 hectares.
Limestone extraction	Initially 20 000 tonnes per year rising to potentially 50 000 tonnes and perhaps 100 000 per year
Total estimated resource	Limestone - approximately 1 000 000 tonnes.
Life of project	20 years
Area cleared per year	Initially about 2.5 hectares to provide an operational area and then 0.5 hectares – per year depending on the elevation of the ridge.
Total area to be cleared	10.0 hectares in proposed pit progressively Stockpile area and turning circle of 1 - 2 hectares
Area mined per year	0.5 hectares approx.
Dewatering requirements	None
Maximum depth of excavations	8 metres
<b>PROCESSING</b>	
Limestone	Same as the amount extracted.
Water requirements	Only required for dust suppression in excessively dusty situations on site transport and processing. The limestone will be moist when extracted and will not need dust suppression. Water will often clog the processing plant
Water supply source	Local sump on Lot 9005.
<b>INFRASTRUCTURE</b>	
Total area of plant and stock	Mobile plant will be used, located within excavation footprint.
Area of settling ponds	Not required
Fuel storage	Not required, mobile tankers will be used
<b>TRANSPORT</b>	
Truck movements	Variable but approximately 10 laden trucks per day maximum depending on the volumes of limestone extracted. Based on a 40 tonne load

	and 50 000 tonnes per year.
Access	
<b>WORKFORCE</b>	
Construction	2 - 3
Operation	2 - 3
Hours of operation	Monday - Saturday 6.30 am to 5.00 pm excluding public holidays.

**4.1 Limestone Extraction**

1. Vegetation cleared will be utilised for rehabilitation of the completed pit. See Section 5.9 Rehabilitation.
2. An Application for Clearing will be required with this application to cover the remnant vegetation on site. A Clearing Permit will be applied for to cover the clearing of the proposal area.
3. The excavation footprint has been determined from Landgate contour mapping, field mapping, drilling and sampling, combined with detailed aerial photography
4. Remove the vegetation cover by pushing it into windrows for use on the batters and rehabilitation areas, to minimise soil erosion and assist spreading on the final land surface as part of the final rehabilitation.
5. Where practicable vegetation will be directly transferred to an area being rehabilitated. Smaller indigenous shrub material will be used in the rehabilitation process when available and suitable; for example on batter slopes of completed areas.
6. If direct transfer is not possible the vegetation will be stored in dumps, mulched or swapped with a nearby operator to try and ensure that the material is not wasted.
7. All topsoil will be removed for spreading directly onto areas to be revegetated and screening or perimeter bunds. If direct spreading is not possible the top soil will be stored in low dumps, for spreading at a later date. See 5.9.2 Rehabilitation Procedures.
8. Soil and overburden, as dark grey to black sand sand and low grade limestone, will then be removed and either directly transferred to a rehabilitation area or stored in low dumps for later rehabilitation use. Where this is not used overburden will be stored in dumps for future use in rehabilitation or the creation of bunds.
9. Limestone interburden, if encountered, will be incorporated into the overburden dumps for later use in re-contouring the land surface at the conclusion of excavation.
10. The limestone is relatively soft and can be removed with an excavator or loader without the need for a bulldozer or blasting. On occasions it may be safer for a bulldozer to be used.
11. A bulldozer may be used to rip and push the limestone down the excavation face and track roll the limestone in the process if the limestone becomes hard or to increase levels of safety.
12. The preliminary crushed limestone will then be picked up by a rubber tyred loader and fed to the mobile crusher.
13. Excavation will commence on the western ridge, working on the floor of the pit behind the faces to prevent visual impact.

14. Upon completion of each section of quarry the excavated section will be reformed and back filled, where subgrade material is available, to achieve the proposed final contours which will replicate an undulating pre-mined Landform.
15. It is not anticipated that blasting will be required.
16. At the end of excavation the floor of the quarry will be deep ripped, covered by overburden and top soil, and rehabilitated to a constructed soil. Details of the Rehabilitation are listed under 5.9 Rehabilitation.

### Processing

All screening and crushing equipment is portable and brought to the site as needed. The necessary Licences for the equipment will be obtained from the Department of Environment Regulation for all plant used on site as required.

A mobile crushing and screening plant will be used to break down the limestone to small fragments to increase the surface area and make the material more readily soluble when applied to agricultural land.

All static and other equipment, such as crushers and screens (where used), will be located on the floor of the quarry to provide visual and acoustic screening.

## 4.2 Staging and Timing

The excavation footprint has been determined from Landgate contour mapping and detailed aerial photography. A staging plan is attached and shows indicative staging and the direction of excavation being from the south to the north to provide visual protection from Denmark and nearby properties.

At this stage it is difficult to predict the speed of excavation because the amount of material extracted depends on market conditions.

20 000 tonnes of limestone is initially anticipated to be extracted in a year rising to 50 000 and potentially 100 000 tonnes at some future time.

Limestone extraction will generally only be during the summer and autumn months for agricultural lime. Actual quantities will depend on the type and size of contracts won, and sales. It may be more efficient to provide a year round operation, making road bases in the off season for agricultural lime.

This proposal seeks Development Approval and an Extractive Industries Licence for an staged extraction area of 10 hectares combined with a stockpile area of 2 hectares on the eastern portion of Lot 9005. At any one time it is anticipated that only 2.0 hectares of pit will be open.

However it is expected that the quarry will progress by up to 0.5 hectare per year. Over twenty years of resource is anticipated to be available on site.

Depth is anticipated to be 8 metres, but higher grade limestone may extend to depth in places.

The active area needs to be large to enable a range of limestone products to be available at all times, and to provide sufficient area for processing/screening and for stockpiles.

Wherever possible all completed ground will be rehabilitated as soon as possible to ensure that the amount of ground that is open at any one time is minimised. The nature of the excavation means that it will be difficult to commence rehabilitation of the floor of the quarry until the underlying limestone has been removed.

**4.3 Hours of Operation**

Hours of operation will be 6.30 am to 5.00 pm Monday to Saturday inclusive, excluding public holidays. See below.

Transporting material on Saturday is requested to enable farmers to access lime in the autumn period prior to sowing their crops.

**4.4 Access and Security**

Access to the site will be from Lower Denmark Road and Lees Road to Saide Lake Road and then along road reserves to Lot 9005.

The existing perimeter predator proof fences and gates will be maintained. Warning signs will be maintained as required by the Department of Mines and Petroleum and the City of Albany.

The proponent will liaise with the City of Albany with respect to the access and road transport.

**4.5 Equipment**

All static and operational equipment will work on the quarry floor to provide maximum sound and visual screening.

Site office	A mobile or transportable office may be required at the stockpile area.
Toilet system	Portable serviced system will be used.
Bulldozer	Removal of limestone rubble and road base, track crushing of limestone as required and pushing down the resource on steeper slopes and where it is more efficient or the limestone is harder.
Excavator	Will normally be used to remove limestone.
Crushing and Screening plant	Preparation of road base and agricultural lime using mobile crushing and screening plant.
Water tanker	Used for dust suppression on the access roads and working floors as necessary. Not likely to be required for most of the year or at all.
Loader	Loading and handling materials from the stockpiles.
Fuel Storage	Refuelling will either be undertaken using mobile tankers from Albany or Denmark.

**4.6 Final Contours**

The slope of the final contours of the proposed pit is an undulating surface at around 8 metres below the existing land surface

Slopes of the batters at the end of excavation will be retained at between 1 : 2 to 1 : 4 vertical to horizontal which has been demonstrated by past excavation to be stable and able to be rehabilitated.

#### 4.7 Workforce

The workforce will vary, depending on the level of operation and market demands, but usually 2 to 3 persons can be expected to be working on site.

#### 4.8 Water Usage

Water is unlikely to be required for dust suppression, apart from dry summer times of active areas such as the stockpile area.

The limestone will stay moist when excavated and crushed and screened.

It is not anticipated that water will be required for dust suppression because of the location and climate with rainfall through all months.

However a contingency remains for excavation and processing which will be carried out as required during drier weather. A water tanker will be used to water the access road, stockpile area and the pit floor whenever necessary to minimise dust generation from transport and during crushing. Normally only small volumes of water will be used for a quarry of this type. A quarry could be expected to require less than 5 000 kL per year.

Water will be drawn from a sump located on the Nullaki Peninsula. A licence from Department of Water will be applied for to enable the taking of up to 5 000 kL water per year for dust suppression if required.

Potable water will be brought to the site as required.

#### 4.9 Transport Corridors

Lime products are to be transported from this site through summer and autumn (January to April).

Access to the site will be from Lower Denmark Road and Road to Lake Saide Road and Lees Road and then along road reserves to Lot 9005.

Lake Saide Road is sealed to Thompson Road and then unsealed. There are few dwellings and those that do occur are set well back from the road.

There appear to be two dwellings near the sealed section of Lake Saide Road, with a further two to three dwellings along the gravel section of the road network with only one close to the road.

Traffic volumes along the access road is anticipated to be around ten laden truck movements per day for 50 000 tonnes of material. Normally the trucks transport agricultural lime first thing in the morning with a smaller number around lunchtime depending on the transport distance.

If the volumes extracted and sold increase so will the number of truck movements, but still they will normally have a peak around start time and a smaller peak at lunch time with few to none at other times.

When transporting road base to local areas there may be more movements at the non peak times.

That means in general there is little potential to conflict with traffic for schools.

Transport from the site is likely to be via a variety of trucks depending on the contractor and the type of product carried; such as semi-trailers or rigid (8) wheeler trucks to a 5 axle dog trailer.. At times when road making materials are being transported from the site the number of truck movements may be greater.

However for the most efficient long distance transport pocket road trains are used by most cartage contractors. Their use will depend on road conditions.

The destination of the lime is normally in the Wheatbelt and Great Southern Regions and any truck will normally only access the site once on any day.

The access and internal roads will be limestone based and watered as needed in the drier months to suppress dust.

The access roads may have to be upgraded and will be maintained by the proponent.

Discussions will be held the proponent and the City of Albany.

This will mean that;

- The road network will be upgraded to take the required truck traffic.
- Upgraded intersection work and signage if required.
- Trimming of road vegetation to increase sightlines.
- Grading of the road/s.
- Additional signage.
- The road will become safer for all users including local residents and any visitor traffic.

In addition

- Carting will normally be in summer months.
- During transport, a water cart will be provided on site to ensure the road is treated for dust if required.
- Speed restrictions will be placed on the unsealed sections of the road, particularly for truck traffic; 60 kp[h] is suggested but is subject to negotiations.

These measures will benefit all road users.

#### 4.10 Safety

Excavation will be conducted to *Mines Safety and Inspection Act 1994 and Regulations 1995*. Excavation practices, and operations procedures will be in compliance with the Act. Health and safety issues are overseen by the Department of Mines and Petroleum.

Regular inspections and audits will be carried out by officers of the Department of Mines and Petroleum to inspect safety, operational procedures and workplace health such as dust and noise.

The proponents will have procedures in place to manage safety, health, environmental impact, site completion and rehabilitation. All workers are required to wear full protective safety and high visibility gear when on site.

These will include Safety Management Plans and a site specific Emergency Response Plan to cover operational procedures, which include workforce induction and training to ensure that all employees involved are made aware of the environmental and safety implications associated with all stages of the mining activities.

Workers and staff on all sites are to be trained in the use of the procedures and all employees provided with site induction and training as necessary prior to commencing work on the site.

All vehicles and trucks will be equipped with two way radio capability.

No light vehicles will be permitted on site without registering with mobile plant on site. Full personal protection is required for all persons on site at all times.

The site is to be registered under the Department of Mines and Petroleum SRS reporting system for minesites and quarries.

It is anticipated that the deepest excavation will be a maximum of approximately 8 metres below natural ground level.

At all times excavation will be in compliance with the *Mines Safety and Inspection Act 1994 and Regulations 1995*.

Fencing, locked gates and warning signs will be maintained.

The batter slopes of the pit will be dozed or pulled down at between 1 : 1 and 1 : 2 which will prevent any fall situations during excavation.

Even though the site is remote and on private property, fence will be constructed around the top of any face, installed with warning signs. The fence will be approximately 1.2 metres high and of wire farm type construction.

### **Emergency**

The site is within mobile phone contact and all vehicles will be equipped with two way radios. Safety management and operating procedures will be in place.

### **Fire**

Fire risk is less than the risk from general farming. The open area of excavation will form a natural firebreak and will be used for the emergency muster area.

Fire Safety is incorporated into safety management for the site.

The site is within mobile telephone range which will assist in fire safety.

Earth moving vehicles, and the water tanker when on site during excavation, will be available for fire fighting if required. Operators are trained in the use of fire extinguishers for all types of fire.



Perimeter fire breaks will be maintained, with the existing access road along the eastern fence of Lot 9005 forming a fire access break.

Final contours of the batter slopes will be 1: 2 to 1 : 4 vertical to horizontal with the floor of the excavation left as gently undulating around 8 metres below the existing land surface

SAFETY			
Potential Impact	Management	Outcome Commitments	Action Required
Operational Safety	<p><i>Mines Safety and Inspection Act 1994 and Regulations 1995.</i></p> <ul style="list-style-type: none"> <li>▪ The site is within mobile and landline telephone contact.</li> <li>▪ Safety Management procedures will be implemented prior to commencement.</li> <li>▪ All workers will be provided with site induction and necessary training prior to entering the site.</li> </ul>	The proponent is committed to maintaining a safe working environment and have standard Safety Management Plans for their operations.	<p>Compliance with <i>Mines Safety and Inspection Act 1994 and Regulations 1995.</i></p> <p>Ongoing</p>
Adjoining properties	<p><i>Mines Safety and Inspection Act 1994 and Regulations 1995.</i></p> <ul style="list-style-type: none"> <li>• Warning signs are erected around the operating area.</li> <li>• Locked gates and fences will be maintained on site.</li> </ul>	The proponent is committed to maintaining a safe working environment and have standard Safety Management Plans for their operations.	<p>Compliance with <i>Mines Safety and Inspection Act 1994 and Regulations 1995</i></p> <p>Compliance operating conditions</p>

## 5.0 ENVIRONMENTAL IMPACTS AND MANAGEMENT

### 5.1 Surrounding Landuses and Buffers

The site is remote and protected by high predator fence along the eastern boundary of Lot 9005 which includes controlled gates.

A number of Government Policies relate to buffer distances and the protection of basic raw materials. State Planning Policy No 4.1, State Industrial Buffer Policy, (draft July 2004) discusses the need to consider adjoining land uses when locating buffers but does not prescribe set buffers for operations such as this.

Generic buffer requirements were developed by the Victorian Government and used by the Environmental Protection Authority as the basis for a Draft guideline on recommended buffer distances. These formed the basis of EPA Guidance Statement Number 3, Separation Distance between Industrial and Sensitive Land Uses, June 2005.

The Environmental Protection Authority of South Australia recommends a 300 metre separation for a Quarry - Non Blasting.

EPA guidance "Separation Distances between Industrial and Sensitive Land Uses", June 2005 lists the generic buffers for sand and limestone pits as 300 - 500 metres depending on the extent of processing. A generic buffer relates to the distance at which there are unlikely to be any problems without some further investigations and does not mean that smaller buffers are not acceptable. EPA Guidance for the Assessment of Environmental Factors 3 June 2005 provides for a case by case separation, based on the potential impacts.

For limestone extraction a generic buffer is suggested of 300 to 500 metres with case by case assessment where grinding and milling are used.

State Planning Policy No 4.1, State Industrial Buffer Policy recommends that all land uses within 1000 metres be considered.

The design of the footprint and the operation have been designed to minimise any impacts outside the disturbance areas.

These are generic buffers and can be varied on the basis of environmental and management studies.

The same type of quarrying therefore has very different generic buffers developed by State Environmental Protection Authorities, illustrating the need to consider separations on on-site environmental impact and not theoretical or generic buffers.

The main issues are the potential generation of dust and noise, which are addressed later.

As far as is known there are no dwellings within 1000 metres of the proposed excavation and stockpile area. The excavation of limestone from the site complies with these policies.

**5.2 Aesthetics**

Visual impact can occur in a number of circumstances, by the operation being set too high in the landscape, by being too close to neighbours and by insufficient visual protection.

The limestone resource of the highest grade is closest to the coast on the highest ground at an elevation of around 140 to 160 metres AHD. However excavation and all activities can be conducted in a manner that prevents the makes it most unlikely that the operations will be seen from public areas, roads or dwellings.

The limestone ridge can be seen at a long distance on a clear day from the higher parts of Denmark for example. Such as dwellings being visible on the Nullaki Peninsula.

The most relevant visual management guideline is WAPC 2007, *Visual Landscape Planning in Western Australia* which has been viewed and the project considered against that document. The relevant section is Part Three, pages 144 to 152 of the Guideline.

That document recommends a visual impact assessment, which has been completed using contours and sections, in addition to site observations and aerial photography. The context of the visual impact has been reviewed to try and maintain the natural countryside and minimise visual impact.

Section 5.2.5 of the Guideline provides for "extractive industries and utilities". The main directions are;

- the location of facilities to provide maximum screening
- entry points that are not at significant view points
- signage is visible but minimal
- visual management assessment may be required.

By excavating from the south the operations in the pit will not be visible. The stockpile area will be located at an elevation of around 20 metres AHD where it can be screened by the design of the access road and the intervening vegetation.

The limestone will be extracted from a ridge and will result in the ends of the two dunes being reshaped down to the elevation of the intervening swale. The main ridge line will not be effectively be modified in an un-natural way with the excavated land surface being similar to other parts of the Nullaki Peninsula.

There are a number of management actions that can be taken in quarries to minimise visual impact and these will be used wherever possible.

The general management actions are summarised below together with the visual impact issues that relate to this site. The actions will be used where applicable and as the opportunity presents to minimise visual impact.

It is felt that the operations are unlikely to be seen from any public location because of the way the pit and stockpile area are designed.

Below is a list of ideal visual management activities with a simple compliance audit for the operations.

IDEAL OPERATIONAL PROCEDURES	COMMITMENTS ON ACTIVITIES CONDUCTED ON SITE
<ul style="list-style-type: none"> <li>• Locate exposed features behind natural barriers and landform.</li> </ul>	<ul style="list-style-type: none"> <li>• The quarry and processing facilities are to be worked from the south and west behind the ridge of material being excavated.</li> <li>• The limit of the pit is set back from the eastern</li> </ul>

	boundary of Lot 9005 and the coastal Reserve 30883.
<ul style="list-style-type: none"> <li>Operate from the floor of the pit below natural ground level.</li> </ul>	<ul style="list-style-type: none"> <li>The pit is to be worked from the inside out, below natural ground level via an internal haul road to the stockpile area.</li> <li>The processing area is to be located on the floor of the pit in the most efficient, safest location that provides the best visual management.</li> <li>Over time as the pit progresses the mobile processing plant will be moved around and across the floor of the pit.</li> </ul>
<ul style="list-style-type: none"> <li>Avoid breaks in the skyline due to workings and haul roads.</li> </ul>	<ul style="list-style-type: none"> <li>Excavation will come from the south and west. The main ridge will not be altered and the skyline will not appear to change although it will be lowered slightly in a localised area replicating other parts of the Nullaki Peninsula.</li> <li>There are no sensitive premises or locations from which people are likely to see the pit.</li> <li>At all times the pit and stockpile area will be operated behind a face of natural vegetation.</li> </ul>
<ul style="list-style-type: none"> <li>Push overburden and interburden dumps into positions where they will not be seen or can form screening barriers.</li> </ul>	<ul style="list-style-type: none"> <li>Perimeter bunds of overburden and natural face are to be used when material becomes available, just ahead of excavation to increase the potential screening.</li> </ul>
<ul style="list-style-type: none"> <li>Construct screening bunds and plant tree and shrub screens to reduce visual impact.</li> </ul>	<ul style="list-style-type: none"> <li>Some screening bunds and natural vegetation are already in place around the perimeter.</li> <li>The bunds will be used as overburden becomes available.</li> <li>The quarry will not be able to be seen from the Bibbulum Track or from a distance within Reserve 17464 which remnant vegetation, vested in the City of Albany and associated with Lake Sadie, based on the design and operation of the activities.</li> </ul>
<ul style="list-style-type: none"> <li>Stage workings and progressive rehabilitation to provide visual protection of later activities.</li> </ul>	<ul style="list-style-type: none"> <li>The staging of the pit footprint is designed to minimise visual impact with special attention concentrating on the eastern sightlines.</li> <li>The pit will be excavated from south and west to east and north.</li> </ul>
<ul style="list-style-type: none"> <li>Cover barriers and landscaping with forms, colours and textures compatible with the natural environment.</li> </ul>	<ul style="list-style-type: none"> <li>Natural vegetation will be retained around the perimeter.</li> </ul>
<ul style="list-style-type: none"> <li>Adopt good house cleaning practices such as orderly storage and removal of disused equipment or waste.</li> </ul>	<ul style="list-style-type: none"> <li>The proponent will maintain a tidy work environment at all their sites. Waste is regularly removed off site to an approved waste facility.</li> <li>Where possible usable materials will be recycled which is part of normal operational procedures.</li> </ul>
<ul style="list-style-type: none"> <li>Provide progressive rehabilitation of all completed or disturbed areas.</li> </ul>	<ul style="list-style-type: none"> <li>This has always been used at pits and is proposed.</li> <li>Such rehabilitation is in place at the old excavations and cut slopes that demonstrate that rehabilitation can be effective with good topsoil and vegetation management.</li> <li>Areas not required will be revegetated when each part of the site has reached its final form.</li> </ul>
<ul style="list-style-type: none"> <li>Minimise the amount of ground used at any one time.</li> </ul>	<ul style="list-style-type: none"> <li>The amount of ground used will be minimised to that needed for current and future operations and fluctuations.</li> </ul>

**Light Overspill**

No night activities are proposed.

<p><b>Visual Management - Applicable Legislation / Policies</b></p> <ul style="list-style-type: none"> <li>• None applicable</li> </ul>
<p><b>Commitments to Visual Management</b></p> <ul style="list-style-type: none"> <li>• The proponent is committed to management of visual impact and will implement the measures outlined.</li> <li>• Every effort will be made to minimise the visual impact using appropriate methods from those listed above.</li> </ul>

**5.3 Noise**

Offsite noise is governed by the *Environmental Protection (Noise) Regulations 1997*.

The *Environmental Protection (Noise) Regulations 1997*, require that sensitive premises including dwellings in non industrial and rural areas, are not subjected to general noise levels (excluding blasting), during the hours 7.00 am to 7.00 pm Monday to Saturday that exceed 45 dBA. Allowable noise to 55 dBA is permitted for up to 10% of the time and to 65 dBA for 1% of the time. Noise levels are not to exceed 65 dBA during normal working hours.

Between 9.00 am and 7.00 pm on Sundays and Public Holidays and between 7.00 pm and 10.00 pm on all days the base level is 40 dBA.

At night, between 10.00 pm and 7.00 am Monday to Saturday, and before 9.00 am on Sundays and Public Holidays, the permitted level drops to 35 dBA.

The 10% and 1% "time above" allowances apply at night and on Sundays and Public Holidays as well.

There are penalties for tonality of 5 dB, modulation 5 dB and 10 dB for impulsiveness, that are added to the permitted levels. That is, if the noise is tonal or modulated the permitted levels drop by 5 dB. Impulsiveness is not likely to be relevant for the quarry under normal circumstances.

Influencing factors of external noise and nearby land uses such as busy roads, and industrial properties are not applicable to this site.

At a distance greater than 15 metres from the sensitive premises (eg dwelling), and commercial premises a base level of 60 dBA applies at all times with the 10% time permitted to be up to 75 dBA and the 1% permitted to be up to 80 dBA. For Industrial premises the base level is 65 dBA at all times with the 10% time permitted to be up to 80 dBA and the 1% permitted to be up to 90 dBA.

Gazetted and public roads are exempt from the Noise Regulations.

Noise can originate from a number of operations and may impact on onsite workers, or travel offsite and impact on external sensitive premises. Both potential noise impacts are addressed by reducing the noise generated from the quarrying and processing operations.

There are a number of management actions that can be taken in quarries to minimise noise generation or travel.

These actions are routinely used in quarries where applicable and as the opportunity presents to minimise noise on site.

The proponent will comply with the *Environmental Protection (Noise) Regulations 1997*.

There are no known sensitive premises within 1 km.

**Occupational Noise**

Occupational noise associated with the quarrying processes falls under the *Mines Safety and Inspection Act 1994 and Regulations 1995*.

The management of occupational noise is normally handled by providing all necessary hearing protection, as well as conducting worker inductions and educational programs for all staff. Regular site audits of quarry and mining operations are normally conducted by the Department of Mines and Petroleum.

As part of its commitments, the proponent will be pro-active with its worker safety awareness;

- by providing all necessary safety equipment such as ear protection,
- identifying sections of the plant where hearing protection is required, as well as,
- conducting induction and educational programs for its staff.

The operating noise levels around the site are regularly monitored by independent consultants in accordance with the *Mines Safety and Inspection Act 1994*, and the results communicated to the Department of Mines and Petroleum (DMP). All staff are provided with comprehensive ongoing training on noise protection as part of the commitment to occupational health and safety.

The DMP conducts Occupational Noise Audits of the Operations, on all operations.

Warning signs are to be used to identify areas of potential noise for workers.

All static and processing equipment will be located to provide maximum noise screening, behind bunds if sufficient overburden is available. Excavation will be staged from the west and south, behind the ridge which to provide continuous noise screening.

Not all equipment operates at the same time. Similarly not all resources will be worked at the same time.

Warning signs are to be used to identify areas of potential noise.

IDEAL OPERATIONAL PROCEDURES	COMMITMENTS ON ACTIVITIES CONDUCTED ON SITE
<ul style="list-style-type: none"> <li>• Comply with the <i>Environmental Protection (Noise) Regulations 1997</i>.</li> </ul>	<ul style="list-style-type: none"> <li>• The proposed operations are so far from any dwelling, &gt; 1 km and screened by the eastern and northern faces, that they will comply with the Regulations.</li> </ul>
<ul style="list-style-type: none"> <li>• Comply with the provisions of the <i>Mines Safety and Inspection Act 1994 and Regulations 1995</i>.</li> </ul>	<ul style="list-style-type: none"> <li>• Like any quarry, the operations will be regularly inspected by officers of the DMP.</li> </ul>
<ul style="list-style-type: none"> <li>• Maintain adequate buffers to sensitive premises.</li> </ul>	<ul style="list-style-type: none"> <li>• The quarry complies with the Generic EPA Buffer Guidelines.</li> <li>• There are no dwellings within 1000 metres.</li> </ul>
<ul style="list-style-type: none"> <li>• Locate exposed features behind natural barriers and landform.</li> </ul>	<ul style="list-style-type: none"> <li>• The eastern and northern faces of the pit will provide hard screening of the operations which will be located on the floor of the pit.</li> </ul>
<ul style="list-style-type: none"> <li>• Operate from the floor of the pit below natural ground level.</li> </ul>	<ul style="list-style-type: none"> <li>• This will be used.</li> </ul>

<ul style="list-style-type: none"> <li>• Push overburden and interburden dumps into positions where they can form screening barriers.</li> </ul>	<ul style="list-style-type: none"> <li>• Perimeter faces, overburden dumps and natural vegetation are proposed where possible.</li> </ul>
<ul style="list-style-type: none"> <li>• Design site operations to maximise the separation and protection from sensitive premises.</li> </ul>	<ul style="list-style-type: none"> <li>• The shape of the pit, setbacks and method of operation have been designed to ensure landform protection is to be maximised.</li> </ul>
<ul style="list-style-type: none"> <li>• Maintain all plant in good condition with efficient mufflers and noise shielding.</li> </ul>	<ul style="list-style-type: none"> <li>• Efficient equipment that is maintained in good condition and replaced from time to time will be used.</li> </ul>
<ul style="list-style-type: none"> <li>• Maintain haul road and hardstand surfaces in good condition (free of potholes, rills and product spillages) and with suitable grades.</li> </ul>	<ul style="list-style-type: none"> <li>• The access road will be maintained in good condition in conjunction with the landholder's access road.</li> </ul>
<ul style="list-style-type: none"> <li>• Implement a site code outlining requirements for operators and drivers.</li> </ul>	<ul style="list-style-type: none"> <li>• A site induction and training program for all personnel is to be implemented and maintained.</li> </ul>
<ul style="list-style-type: none"> <li>• Shut down equipment when not in use.</li> </ul>	<ul style="list-style-type: none"> <li>• This is normal policy.</li> </ul>
<ul style="list-style-type: none"> <li>• Scheduling activities to minimise the likelihood of noise nuisance.</li> </ul>	<ul style="list-style-type: none"> <li>• Activities are proposed to minimise impacts on the local community.</li> </ul>
<ul style="list-style-type: none"> <li>• Fit warning lights, rather than audible sirens or beepers, on mobile equipment wherever possible.</li> </ul>	<ul style="list-style-type: none"> <li>• Lights or low frequency beepers are to be used rather than beepers.</li> <li>• The design and shape of the pit will maximise noise screening.</li> </ul>
<ul style="list-style-type: none"> <li>• Use transport routes that minimise community disruption.</li> </ul>	<ul style="list-style-type: none"> <li>• There is only one road to access the site, so trucks will be specifically instructed not to interrupt the local community as little as possible.</li> <li>• Gazetted roads are exempt from the Noise Regulations.</li> </ul>
<ul style="list-style-type: none"> <li>• Avoid the use of engine braking on product delivery trucks in built up areas.</li> </ul>	<ul style="list-style-type: none"> <li>• The surrounding area along the transport route is generally flat with reduced gradients.</li> <li>• Air brakes are unlikely to be required. Drivers are to be instructed not to use air brakes under normal situations when exiting along the access road.</li> </ul>
<ul style="list-style-type: none"> <li>• Minimise and conduct at the least disruptive times, non day to day activities such as vegetation, topsoil or overburden stripping on exposed ridgelines.</li> </ul>	<ul style="list-style-type: none"> <li>• The hours proposed are designed to minimise impact.</li> </ul>
<ul style="list-style-type: none"> <li>• Provide a complaints recording, investigation, action and reporting procedure.</li> </ul>	<ul style="list-style-type: none"> <li>• A complaints recording procedure is proposed to cover all site activities.</li> </ul>
<ul style="list-style-type: none"> <li>• Conduct training programs on noise minimisation practices.</li> </ul>	<ul style="list-style-type: none"> <li>• Site induction and training to all personnel is proposed.</li> </ul>
<ul style="list-style-type: none"> <li>• Provide all workers with efficient noise protection equipment.</li> </ul>	<ul style="list-style-type: none"> <li>• All noise protection personal equipment will be provided to staff.</li> </ul>

<ul style="list-style-type: none"> <li>• <b>Noise Management - Applicable Legislation / Policies</b></li> <li>• <i>Environmental Protection (Noise) Regulations 1997.</i></li> <li>• <i>Mines Safety and Inspection Act 1994 and Regulations 1995.</i></li> <li>• <i>Australian Standard AS 2187.</i></li> </ul>
<p><b>Commitments to Noise Management</b></p> <ul style="list-style-type: none"> <li>• The proponent is committed to minimising noise emissions and will implement the measures outlined above.</li> <li>• The proponent will comply with the <i>Environmental Protection (Noise) Regulations 1997.</i></li> </ul>

## 5.4 Dust

### 5.4.1 Environmental Dust

#### **Background**

Excessive dust has the potential to impact on both the workers and the adjoining land. However the potential generation of dust must be taken in context.

There are a number of key aspects to dust impacts;

- What is the source of particles?
- What is the potential for the particles to be disturbed?
- What is the nature of the particles and how are they likely to behave?
- What types of impacts are the particles likely to have if they move?
- What management actions can be used to mitigate or reduce dust impacts?

The most common form of disturbance is by mobile plant and vehicle impacts. In this local area dusty roads have the most potential to produce dust, such as the access road and depending on the substrate, traffic on the pit floor.

In many situations the fine particles are stabilised by vegetation, soil microbial materials and reactions and interactions between particles, particularly limestone of the access road which crusts after being wet but breaks up when trafficked producing dust.

Once disturbed however dust can be generated and may continue to be a problem until the fine particles are wetted down or return to a relatively stable condition. With effective treatment of dust by water, which is proposed, the risks of onsite, and consequently offsite, dust are minimised.

Excessive dust has the potential to impact on both the workers and the adjoining land. However if occupational dust is managed environmental dust will also be managed.

Occupational dust associated with the quarrying processes falls under the *Mines Safety and Inspection Act 1994 and Regulations 1995* overseen by the Department of Mines and Petroleum who will regularly inspect the site.

### 5.4.2 Assessment of Dust Risk

#### **Dust Guidelines**

Dust emissions fall under the *Guidance for the Assessment of Environmental Factors, EPA, March 2000*. Assessments of the potential dust risk are normally made using the Land development sites and impacts on air quality, *Department of Environmental Protection and Conservation Guidelines, November 1996*. These are still in place but are incorporated into the *DEC (DER) 2011 Guideline for Managing the Impacts of Dust and Associated Contaminants from Land Development Sites, Contaminated Sites Remediation and other Related Activities*.

The *DEC (DER) in 2008* released a *draft Guideline for the Development and Implementation of a Dust Management Plan*.

The setbacks provide effective dust management and comply with the EPA generic buffer guidelines and Department of Health Guidelines.



**Onsite Risks**

There are no offsite risks impacting on sensitive premises as these are too far away.

There is a risk of dust generation from the access road and from dust being dragged onto Indian Ocean Drive. These risk are similar to the risks from any unsealed road.

Limesand is calcium carbonate based and is not known to carry any significant health risks to workers based on other operations and recreational use of limesand dunes. Being Aeolian in origin the grainsize is greater than the particulate sizes that impact on occupational health.

The key Objectives for the operations are;

- Manage the potential for the generation of dust.
- Visually monitor dust levels and take steps to reduce the potential impact of dust on occupational and environmental aspects of the operation and local area.

**5.4.3 Buffers**

The setbacks to sensitive premises comply with the EPA generic buffer Guidelines for all operations as noted in Section 6.2 Surrounding land Use in the Mining Proposal.

EPA guidance "Separation Distances between Industrial and Sensitive Land Uses", June 2005 lists the generic buffers for sand and limestone pits as 300 - 500 metres depending on the extent of processing. As there is no processing on site the minimum generic buffer would apply; that is 300 metres. The minimum separation distances are 2 km for the northern portion of the resource and 1 km for the southern edge well in excess of the EPA generic buffer.

Dust particles are readily stopped by tree belts and distance, with which the site complies. Tree belts slow the wind and allow the dust to settle. See *Planning Guidelines Separating Agricultural and Residential Land Uses, Department of Natural Resources Queensland 1997( Pages 65 – 111) and Department of Health WA, 2012, Guidelines for Separation of Agricultural and Residential Land Uses which uses the same criteria (Pages 112 – 118).*

The Queensland Guidelines predominantly relate to agricultural spray drift, but based on particle size also relate to dust. They are based on field studies and demonstrate the effectiveness of tree belts and distance in providing screening against particulate travel.

The Guidelines provide for a buffer of 300 metres for open agricultural land, dropping down to 40 metres where an effective tree belt is in place. The Western Australian Department of Health also uses the same guidelines.

Whilst there are no tree belts the distances involved ensure that the operations comply with the Department of Health buffer recommendations.

**5.4.4 Occupational Dust**

The proponent will provide induction and protective equipment for all persons on site.

The DMP require personal dust monitoring to ensure dust levels comply with health risk guidelines.

The dust management procedures used on site comply with these guidelines.

### 5.5.5 Actions and Management

Dust management therefore applies to the access road which is no different to any non sealed road.

There are a number of management actions that can be taken in quarries to minimise dust generation or travel and these are used wherever possible. The general management actions are summarised in the tables below, together with the potential dust issues that relate to this site. The actions are used where applicable and as the opportunity presents to minimise dust on this site.

Loads on trucks that have the potential to generate dust are required to be covered.

#### DESIGN AND SITE

1. Minimising the amount of ground open.
2. Minimising the amount of ground being subject to traffic.
3. Locating access roads away from sensitive premises.
4. Design of the pit to reduce wind speed and potential dust lift off.
5. Maintaining effective setbacks.
6. Constructing perimeter bunds to reduce wind speed.
7. Providing wind break fencing generally and on top of bunds as required.
8. Maintaining a secure, fenced site, to prevent illegal access.
9. Rehabilitate and stabilise all completed areas as soon as practicable.

#### OPERATIONS

10. Locate active areas away from windy locations.
11. Working on the floor of the pit.
12. Operate some parts of the pit only when conditions are suitable.
13. Locating mobile plant and stockpiles in sheltered areas.
14. Design staging to minimise dust risk.
15. Conduct higher dust risk operations such as topsoil clearing and placement during more favourable conditions.
16. Shut down equipment that is not required.

#### ACCESS AND HARDSTAND

17. Constructing the access roads from hard materials that resist dust generation.
18. Using a sealant such as a polymer, chemical or emulsified oil or bitumen on the access road to reduce water use.

#### STOCKPILES

19. Minimise the number of stockpiles.
20. Maintain stockpiles in sheltered areas.
21. Reduce the elevation of stockpiles.
22. Limit the drop height to stockpiles and loading.

#### TRANSPORT

23. Cover all loads.
24. Ensure all trucks are dust free and not carrying particles and other materials outside the tray.
25. Choose the best transport routes.
26. Wet down or sweep the cross over and access roads.

HEALTH AND COMMUNITY

27. Maintain air conditioned cabins on all vehicles.
28. Provide a readily auditable trigger of no visible dust to cross the property boundary in line with DER Licence and best practice in WA.
29. Provide a comprehensive visual monitoring program.
30. Conduct effective site induction and awareness training for all staff.
31. Training should include observation and mitigation where possible of all dust emissions.
32. Providing a complaints investigation, mitigation and recording procedure.
33. Liaising with Main Roads City of Albany when required.
34. Ceasing operations when conditions are not favourable or when visible dust is crossing the boundary.
35. Obtain the latest weather conditions to increase the awareness of dust risk.
36. Cease operations during adverse weather conditions.

5.4.6 Dust Management Actions - Risk

ACTIVITY	POSSIBLE RISK SEVERITY and FREQUENCY	OPERATIONAL PROCEDURES AND COMMITMENTS	RISK AFTER MANAGEMENT
<b>GENERAL</b>			
Legislation	----	<ul style="list-style-type: none"> <li>• The proponent will comply with the provisions of the <i>Mines Safety and Inspection Act 1994 and Regulations 1995</i>.</li> </ul>	----
Buffers	----	<ul style="list-style-type: none"> <li>• Large buffers of 1 to 2 km are provided are provided</li> </ul>	----
Landform	----	<ul style="list-style-type: none"> <li>• Activities are designed and located behind the natural ridges, where possible by excavating from the base of the pit.</li> <li>• The separation distances mitigate the dust risk to the residences from excavation and processing.</li> <li>• Transport dust risks pose the greatest offsite risk.</li> </ul>	----
	----	<ul style="list-style-type: none"> <li>• The pit is worked from the floor where possible to reduce wind on the floor and to enable the face to provide barriers to dust lift off and carry.</li> </ul>	----
Vegetation	----	<ul style="list-style-type: none"> <li>• Vegetated buffers of 1000 metres are in place.</li> </ul>	----
Pit Design and Staging	----	<ul style="list-style-type: none"> <li>• Design and staging have been selected to maximise dust management.</li> </ul>	----
Screening	----	<ul style="list-style-type: none"> <li>• The buffer distance are large enough for tree belts not to be required for quarrying and processing.</li> <li>• Operating on the floor of the pit reduces wind speed and lessens the risk of dust lift off.</li> </ul>	----
<b>MANAGEMENT</b>			
Occupation	----	<ul style="list-style-type: none"> <li>• Air conditioning and enclosed cabs used for on site operational mobile plant.</li> </ul>	----
Monitoring	----	<ul style="list-style-type: none"> <li>• A monitoring system is in place. See Trigger Conditions below.</li> </ul>	----
Trigger conditions	----	<ul style="list-style-type: none"> <li>• Most dust is generated from vehicle movements and uncontrolled crushing.</li> <li>• The trigger for dust management is the generation of visual dust.</li> <li>• The site supervisor is normally the loader driver who is in the best position to assess dust generation and to direct remediation.</li> <li>• On site operators are instructed to visually monitor dust, report and treat any visible dust.</li> </ul>	----
Adverse weather	Moderate - Uncommon in winter, more common in summer.	<ul style="list-style-type: none"> <li>• When winds are sufficiently strong, or other weather conditions are unacceptable to negate the effects of dust management, operations will cease until conditions improve and compliance can be achieved.</li> </ul>	Low
Equipment	Low to	<ul style="list-style-type: none"> <li>• Machines and site activities are shut down in the event of</li> </ul>	Low

failure	moderate - Uncommon	breakdowns that prevent adequate dust management.	
Training	----	<ul style="list-style-type: none"> <li>The proponent will use on site induction and training to all personnel at all operations.</li> </ul>	----
Complaints	----	<ul style="list-style-type: none"> <li>A record of all dust complaints is to be maintained together with the mitigation measures to be used to reduce the dust impacts.</li> <li>All complaints relating to dust are to be investigated immediately on receipt of a complaint.</li> <li>As far as is known there have been no complaints within the past ten years</li> </ul>	----
<b>EARTHWORKS</b>			
Land Clearing	Moderate - Once per year	<ul style="list-style-type: none"> <li>The only significant clearing will be for the access road.</li> </ul>	Low
Overburden removal	Moderate - Once per year	<ul style="list-style-type: none"> <li>There is no overburden.</li> <li>Subgrade material will not be excavated or disturbed were possible.</li> </ul>	Low
Land restoration	Moderate - Once or twice per year	<ul style="list-style-type: none"> <li>Land restoration will progressively follow excavation and will mainly consist of the floor being left in an undulating excavated state ready for planting.</li> </ul>	Low
<b>EXCAVATION - PROCESSING</b>			
Excavation	High - Frequent	<ul style="list-style-type: none"> <li>A loader or excavator will extract material from the face and load directly to road trucks.</li> <li>A bulldozer may be used from time to time.</li> <li>A small crusher and screen may be required for calcified and lithified materials.</li> </ul>	Low
Processing	High - Frequent	<ul style="list-style-type: none"> <li>Maintain hardstand surfaces in good condition (free of potholes, rills and product spillages) and with suitable grades.</li> <li>Treatment hardstand where possible.</li> <li>Plant location, and approach with respect to wind directions, will be used to minimise impact on operators.</li> <li>Any mobile crushing and screening plant will be located on the pit floor below natural ground level to reduce wind speed and reduce dust lift off. Any crushing or screening plant will be licensed through the DER.</li> </ul>	Low
Stockpiles	Moderate - Moderate	<ul style="list-style-type: none"> <li>Stockpiles will only be required where crushing and or screening is use and will be located on the floor of the pit at generally low elevations.</li> <li>It is the vehicle movements during dry conditions that generate the greatest dust risk.</li> </ul>	Low
		<ul style="list-style-type: none"> <li>Plant location, and approach with respect to wind directions, will be used to minimise impact on operators.</li> <li>The internal roads are graded as required to minimise dust.</li> </ul>	Low
<b>TRANSPORT</b>			
Access Road	Moderate to High - Frequent	<ul style="list-style-type: none"> <li>The access road is no different to any other local unsealed road and is used only to service the pit.</li> <li>The access road is to be maintained in good condition (free of potholes, rills and product spillages).</li> <li>Water or soil stabiliser will be used to wet down the access road as required.</li> </ul>	Low
Loading and Road Transport	Moderate to High - Frequent	<ul style="list-style-type: none"> <li>Trucks are required to install tarpaulins or cover prior to exiting the quarry.</li> <li>Transport and operations are anticipated to be intermittent through the year rather than continuous.</li> <li>A site code and induction system is used for the quarry.</li> </ul>	Low

		<ul style="list-style-type: none"> <li>• Road trucks are required to be maintained in a clean condition. Loader drivers are instructed on the best means of loading to minimise overflow and spillage.</li> <li>• Trucks are inspected prior to leaving the site and brushed down as necessary.</li> <li>• A policy of instructing drivers to report and clean up spillages will be provided.</li> </ul>	
		<ul style="list-style-type: none"> <li>• This forms part of Italia Stone Group normal operational procedures.</li> <li>• Loader drivers are instructed on the best means of loading to minimise overflow and spillage.</li> <li>• Trucks are inspected prior to leaving the site and brushed down as necessary.</li> </ul>	

**5.4.7 Dust Monitoring**

The most effective dust monitoring is the sighting of visible dust. Dust can be detected as soon as it leaves the wheels of vehicles and detection is not reliant on dust travelling to a machine monitor located near the boundary.

When trigger conditions are detected and/or alerted, relevant action is taken. This can include additional water suppression, modification of procedure, delay until more favourable conditions are present, use of alternative equipment etc.

Human monitoring can detect potential dust risks prior, and take action prior, to significant dust being generated. They notice dust immediately such as from tyres, whereas machine monitoring has to rely on significant dust being generated, travelling to the boundaries of the premises and triggering an alarm. The operators would be negligent if they let the dust get to that level of impact prior to taking action.

The auditable condition is visible dust crossing the boundary of the premises; the lot boundary. This is the condition used on Department of Environment Regulation Licences and all other quarries such as sand, limestone and hard rock quarries in Western Australia and has worked well in the past.

It is also the method used by the Department of Mines and Petroleum to rapidly assess occupational dust on site.

Most dust generated from processing and vehicle movements has a very large visible component. Lesser risks emanate from excavation and land clearing. As invisible dust can be generated with the visible dust, recognising and dealing with visible dust is a very effective instantaneous method of recognising excessive dust.

The quarry manager and leading hand are ultimately responsible for site supervision of dust. They will travel around the operations and pit frequently and are in two way radio contact with all mobile plant.

All operators on site are to be instructed to be vigilant to dust generation and management and report any excessive dust or potential dust management issues.

Visual monitoring is even more effective when complemented by an extensive reporting and complaints process and this is used and this is proposed.

**5.4.8 Greenhouse Gas**

Over the years trucks have become more efficient with respect to greenhouse gas emissions, particularly with the use of truck and trailer and road train configurations.

The proponent will seek ways to reduce the amount of fossil fuels used, and has obtained more efficient mobile plant and equipment when this has become economically available.

The internal design of the operations will minimise the haulage route to save energy use and potential impacts.

The location of this pit means that it is closer to some parts of the Wheatbelt which provides for savings in fuel to get the limesand to the agricultural areas.

**5.4.9 Complaints Procedure**

Visual monitoring is more effective when complemented by an extensive reporting and complaints process.

An effective complaints mechanism is an essential part of the dust identification and management and is proposed.

A complaints book that lists the items below will be used. The book will be available as requested.

- The complaint,
- Nature of the complaint, time and date,
- Source of the complaint,
- Investigations of the complaint,
- Results of the investigation,
- If the complaint is valid, any mitigation actions that result,
- Any communication with the complainant.

<p><b>Dust Management - Applicable Legislation / Policies</b></p> <ul style="list-style-type: none"> <li>• <i>Guidance for the Assessment of Environmental Factors, EPA, March 2000.</i></li> <li>• <i>Land development sites and impacts on air quality, DEP, 1996.</i></li> <li>• <i>Department of Environmental Protection Guidelines, November 1996 and DEC 2008, A guideline for the development and implementation of a dust management plan</i></li> </ul>
<p><b>Commitments to Dust Management</b></p> <ul style="list-style-type: none"> <li>• The proponent will take the necessary steps to manage and contain dust by implementing and maintaining the Dust Management Plan.</li> </ul>

**5.5 Water Quality**

Limestone excavation is a clean operation similar to sand excavation in the nature of the risk to groundwater. No chemicals are used apart from normal lubricants, which is similar to sand excavation, and sand excavation is one of the few industries that are permitted to operate in a Priority 1 Public Drinking Water Source Area, indicating the clean nature of the activity. See Department of Water *Land Use Compatibility in Public Drinking Water Source Areas*.

Limestone excavation does not affect the quality of water in the shallow ground water system because the only chemicals used are normal fuels and lubricants; a fact that is recognised by the Department of Environment Regulation who permit extractive industries in Priority Groundwater areas such as Lake Gngara where sand excavation occurs within 3 metres of the water table.

The protection of water, whether groundwater or surface water, is an important part of the management of quarries.

The main Environmental Objective relating to water management is;

- Minimise the impact on surface and ground water quality.

The limestone pit site lies on a ridge that is well elevated and set 2 km away from the edge of Lake Saide.

Groundwater flow is deep and to the ocean under the pit and interpreted to be most likely also to the south to the ocean under the stockpile.

A sump on Nullaki Peninsula will be used for any water requirements which are anticipated to be low.

The base of the excavation will be over 140 metres to the water table.

Potable water will be brought in from scheme supply.

The management actions are considered in the attached Water Management Plan.

The proposal is consistent with all Government Policies for extraction of limestone and sand and complies with the same requirements for extracting in Priority Drinking Water Source Protection Area.

<p><b>Water Management - Applicable Legislation / Policies</b></p> <p><i>DOW – DMP Water Quality Protection Guidelines for Mining and Mineral Processing</i></p> <ul style="list-style-type: none"> <li>• Overview</li> <li>• Minesite water quality monitoring</li> <li>• Minesite stormwater</li> <li>• Mechanical servicing and workshop facilities</li> <li>• Mine dewatering</li> <li>• Health Act 1911</li> </ul>
<p><b>Commitments to Water Management</b></p> <ul style="list-style-type: none"> <li>• The site complies with Department of Water Guidelines for separation to groundwater.</li> <li>• The nature of the operation and the depth to groundwater will minimise any risk to groundwater systems and Lake Pollard.</li> <li>• Management procedures outlined above are committed to, to protect water quality.</li> <li>• There will be no alteration to surface water flows or groundwater levels.</li> <li>• The proponent will have in place a site code outlining requirements for operators and drivers.</li> <li>• The proponent will conduct training programs on pollution minimisation practices.</li> </ul>

**5.6 Biodiversity Management**

**5.6.1 Vegetation and Flora**

A detailed Flora and Vegetation Study has been completed by Bio Diverse Solutions specifically covering the proposed excavation area. Kathryn Kinear completed the survey to map the vegetation communities, weeds and dieback to a Level 1 Flora Survey.

Bio Diverse Solutions, 2016, *Vegetation Communities Survey, Lot 9005, Rock Cliff Circle, Denmark.*

A copy of the Vegetation Survey is attached.

The site is within the Southwest Botanical Province and lies on the eastern part of the Warren Interim Bio-geographic Regional Area (IBRA) which extends east and west along the coast.

• **Vegetation Communities - Limestone Ridge Vegetation**

The limestone ridge vegetation is classified as Open Heath which on the excavation area consists of generally low Scrub without the taller species that grow in more sheltered location.

Lifeform	Species
Trees <10m	<i>Agonis flexuosa</i>
Shrubs >2m	<i>Agonis flexuosa</i> , <i>Agonis theiformis</i> , <i>Acacia cyclops</i> , <i>Spyridium globulosum</i> and <i>Hakea varia</i> .
Shrubs 1-2m	<i>Allocasuarina humilis</i> , <i>Pteridium esculentum</i> , <i>Jacksonia horrida</i> , <i>Pultenaea reticulata</i> and <i>Xanthorrhoea preissii</i>
Shrubs 0.5-1m	<i>Hibbertia cuneiformis</i> , <i>Hibbertia racemosa</i> , <i>Leucopogon obovatus</i> , <i>Leucopogon parviflorus</i> , <i>Leucopogon propinquus</i> , <i>Lysinema ciliatum</i> , <i>Pimelea clavata</i> , <i>Pimelea rosea subsp. rosea</i> , <i>Anigozanthos flavidus</i> , <i>Hakea prostrata</i> , <i>Adenanthos cuneatus</i> and <i>Xanthorrhoea gracilis</i>
Shrubs <0.5m	<i>Rhagodia baccata subsp. baccata</i> , <i>Andersonia caerulea</i> , <i>Gompholobium confertum</i> , <i>Boronia crenulata</i> and <i>Synaphea sp.</i>
Sedges and rushes	<i>Lyginia imberbis</i> , <i>Lyginia barbata</i> , <i>Lepidosperma squamatum</i> , <i>Tetraria octandra</i> , <i>Desmocladus flexuosus</i> and <i>Hypolaena exsulca</i>
Herbs and grasses	<i>Carpobrotus sp.</i> , <i>Platysace compressa</i> , <i>Trachymene pilosa</i> , <i>Chamaescilla corymbosa</i> , <i>Drosera erythroyne</i> , and <i>Opercularia hispidula</i>

No Threatened or Priority Ecological Community were recorded.

Bio Diverse Solutions broadly mapped the vegetation across the excavation area as Open Heath in Pristine Condition. However because of the previous excavation, and earthworks associated with exploration for the limestone the vegetation is better shown as partially degraded being degraded where cleared and pristine in uncleared areas.

Very few weed species were recorded and none were noticed on the proposed quarry site by Landform Research in May 2016.

Bio Diverse Solutions did not find any evidence of plant diseases.



During the flora and vegetation survey a total of 112 species were observed. A species list is provided in the attached flora and vegetation report.

No Threatened taxa were recorded by Bio Diverse Solutions.

The following Priority taxa are listed within 10 km or were detected by Bio Diverse Solutions.

- *Billardiera drummondii* grows in Eucalypt Woodland and is less likely on the quarry footprint. The taxa currently has no priority listing on Florabase 2016-06-08.
- *Banksia sessilis* var *cordata* (P4) grows on coastal limestone and may be present.
- NatureMap lists *Gahnia sclerioides* (P4) as occurring within 10 km growing on moist sandy soils which are less likely on the disturbance areas.
- *Sphaerolobium calcicola* (P3) as occurring within 10 km and may occur in sand over limestone.
- *Isopogon buxifolius* var *buxifolius* is listed as occurring within 10 km but is unlikely to be present as it occurs in swampy areas.

Based on the small area to be cleared out of many hectares of similar vegetation along the Nullaki Peninsula and nearby coast, most of which is protected in Reserves 1764 and 26177 the temporary impact of excavation will be very small.

The nearby vegetation of similar communities in excellent condition totals over 6 500 hectares and the 4 hectares open at any one time represents just 0.06% which is not regarded as significant.

At the end of excavation the site will be rehabilitated as shown by rehabilitation of other limestone pits including the old road base pit on site. Where rehabilitation was effective with no weeds or disease.

**5.6.2 Vegetation Clearing**

Clearing is controlled under the **Environmental Protection (Clearing of Native Vegetation) Regulations 2004**. These regulations provide for a number of principles against which clearing is assessed.

	<b>CLEARING PRINCIPLE</b> (Schedule 5 Environmental Protection Amendment Act, 1986)
1a	High Level of diversity
1b	Significant fauna habitat
1c	Necessary to existence of Rare flora
1d	Threatened Ecological Community
1e	Significant area of vegetation in an area that has been extensively cleared
1f	Wetland or watercourse
1g	Land degradation
1h	Impact on adjacent or nearby conservation areas
1i	Deterioration of underground water
1j	Increase flooding

Although the Clearing Principles consider Biodiversity and other conservation issues, they do not specifically address the issues of the metropolitan area or resource needs. Therefore some additional principles need to be added when considering the need for Basic Raw Materials.

The *Environmental Protection Act 1986 Section 51O* states that the "CEO may take into account other matters that the "CEO considers relevant" (*EP Act 1986 Section 51O*). Therefore Section 51O of the *Environmental Protection Act 1986* allows the CEO to take planning matters into account when making clearing decisions, such as a State Planning Policy and community need.

A separate Flora and Vegetation Assessment and Report is prepared for the site by Bio Diverse Solutions and is attached.

The procedures used for vegetation clearing are documented in 5.9.2 Rehabilitation. These were used and are included here in case a small area of additional clearing is applied for to the immediate north of the existing permitted area.

Topsoil and overburden treatment is covered in 5.9 Rehabilitation. All suitable materials will be retained for rehabilitation and directly transferred where possible.

### 5.6.3 Fauna

A fauna study was not conducted because the resource area represents a very small area within a large area of remnant vegetation with a small area only open at any one time; 0.06% of the nearby vegetation.

A search of NatureMap and the EPBC database was completed by Landform Research and includes the fauna listed within the City of Albany and recorded within 10 km and is attached with the Flora and Vegetation Survey.

The Nullaki Peninsula is protected by a predator proof fence to keep out cats and foxes in particular. The exclusion of these predators forms a significant protection measure for fauna which are advantaged by living within the protected zone. The protection fence is to remain in place.

The nearby vegetation of similar communities in excellent condition totals over 6 500 hectares. The 4 hectares open at any one time represents just 0.25%. The small area of proposed disturbances and the large connectivity remaining in place will not cause any isolation of short range fauna.

With the small area proposed to be open at any one time, a return to local native habitat, the proven rehabilitation methods and the benefits of the predator proof fence, the impacts on fauna are not considered significant.

- No matters of significance under the *EPBC Act 1999* were identified. The potential feeding habitat of Black Cockatoos impacted is small because the only food source *Dryandra sessilis* is limited. With the staging and small footprints the proposed activities will not trigger referral to the Commonwealth.

### 5.6.4 Wetlands

The only nearby wetland is Lake Saide which is 2 km from the operational site.

#### Bibulbum Walking Trail

The Bibulbum walking track runs from Albany in the east before swinging north prior to the eastern boundary of Lot 9005. The track is located some 400 metres from the limestone pit.

The track lies in heathland that is often higher than a person making the excavation area difficult to see. The excavation area is designed to be excavated from the west to the east and to the north, working behind the vegetated eastern and northern faces which will assist in minimising or eliminating any visual impact of the pit from the Bibulmum Track.

The Bibulmum Track moves slightly closer to the stockpile area, but this is located in flat ground set back behind vegetation to provide visual screening.

The Bibulmum Track will cross the access road. Signs and warning barriers will be used at the crossing point in a similar to other road crossings.

<p><b>Biodiversity - Applicable Legislation / Policies</b></p> <ul style="list-style-type: none"> <li>• None applicable – Likely to be conditioned</li> </ul>
<p><b>Commitments to Biodiversity Management</b></p> <ul style="list-style-type: none"> <li>• The excavation areas are selected and the operations designed to minimise impacts on Biodiversity.</li> <li>• Biodiversity impacts will be very small and temporary as the land excavation will be staged and rehabilitated as soon as possible.</li> </ul>

**5.6.5 Dieback Management Plan**

Dieback of vegetation is often attributed to *Phytophthora cinamomi* even though there are other *Phytophthora* species and other diseases such as *Armillaria* that can cause dieback like symptoms. Microscopic soil-borne fungi of the genus *Phytophthora* kill a wide range of native plants and can cause severe damage to many vegetation types, particularly those from the families Proteaceae, Epacridaceae, Xanthorrhoeaceae and Myrtaceae.

In most cases dieback is caused by a pathogen which infests the plant and causes it to lose vigour, with leaves dying, and overtime may kill the plant. As such the management of Dieback is essentially related to plant hygiene when coming onto a site and within a site.

Bio Diverse Solutions did not find any evidence of dieback or other plant disease infestations and neither did Landform Research during their site inspection.

There are several guides to the management of Dieback.

- Department of Environment and Conservation (DPaW) Dieback Hygiene Manual 1992 is a practical guide to Dieback management.
- Department of Environment and Conservation (DPaW) Best Practice Guidelines for the Management of *Phytophthora cinamomi*, draft 2004.
- Dieback Working Group 2005, Management of Phytophthora Dieback in Extractive Industries.

The Department of Environment Regulation generally recognises that Dieback is less likely to impact on vegetation on limestone and Spearwood/Cottesloe Land Systems, Podger F D and K R Vear, 1998, *Management of Phytophthora and disease caused by it, IN Phytophthora cinnamomi and the disease caused by it - protocol for identifying protectable areas and their priority for management*, EPA 2000. The same is noted in DEC 2009.

Dieback is only likely to be an issue when equipment is brought to the site from a dieback affected area either through vehicles or plant and soil materials, therefore the following general principles are applied to Dieback management.

Even there is no evidence of infestations strict hygiene measures will be used.

Not all potential impacts will apply to all parts of the proposed quarry operations. E

- Excavation will be undertaken using practices recommended by DEC. See *CALM Dieback Hygiene Manual 1992* which is more practical and *CALM Best Practice Guidelines for the Management of *Phytophthora cinamomi*, draft 2004*. See also *Dieback Working Group 2005, Management of *Phytophthora Dieback* in Extractive Industries*.
- Dieback diseases are more likely to be transported under moist soil conditions.
- All vehicles and equipment to be used during land clearing or land reinstatement, should be clean and free from soil or plant material when arriving at site.
- The site will effectively be a spit system with road traffic restricted to the stockpile loading area.
- Washdown of vehicles and equipment should be prior to arriving on site and to the procedures in CALM Guidelines for Dieback Management.
- No soil and vegetation should be brought to the site apart from that to be used in rehabilitation.
- Plants to be used in rehabilitation should be from dieback free sources.
- Vegetated areas ahead of excavation should be quarantined to onsite access
- Unwanted access to vegetated areas is to be discouraged through a lack of tracks and external fencing.
- Excavation vehicles will be restricted to the excavation area apart from clearing land.
- Rehabilitated surfaces are to be free draining and not contain wet or waterlogged conditions.
- Illegally dumped rubbish is to be removed promptly.
- No contaminated or suspect soil or plant material is to be brought onto the site.
- When clearing land or firebreaks vehicles are to work from dieback free areas towards dieback areas; or, in situations where dieback interpretation is not possible, from areas of higher quality vegetation to areas of lower quality vegetation.
- Roads should be free draining and hard surfaced.
- A hygienic site is to be maintained by not bringing any soil or plant material onto the site except for rehabilitation purposes or from known dieback free areas.
- All plants, seeds and other materials used in rehabilitation will be sourced from dieback free areas.
- The predator proof fence and gate system will be maintained.
- Compliance with the Weed Management Policy.

Dieback principles will be followed even though there is a reduced risk of spread on calcareous soils such as this. (Podger F D and K R Vear, 1998).

The proposed access road will be limestone road.

The aim of dieback management during excavation is to minimise the risk of entry of dieback into the site. The calcareous soils of the remnant vegetation are unlikely to allow *Phytophthora* to spread but there may be other pathogens such as *Armillaria*.

In many ways the management of the site for dieback is similar to that for the management of weeds, and the two management practices should be considered together.

The other management is to ensure that all excavation equipment and road transport vehicles are clean and free from soil and vegetable matter prior to entering the operations.

Vehicles are to be prohibited from entering vegetation ahead of excavation, apart from normal travel along made firebreaks and roads for normal security and farm maintenance activities.

Topsoil will be cleared according to 5.9.2 Rehabilitation Procedures.

**Dieback - Applicable Legislation / Policies**

- DEC (DPaW) *Dieback Hygiene Manual 1992*.
- DEC (DPaW) *Best Practice Guidelines for the Management of Phytophthora cinamomi, draft 2004*.
- Dieback Working Group 2005, *Management of Phytophthora Dieback in Extractive Industries*.

**Commitments to Dieback Management**

- The proponent will not impact on the adjoining remnant vegetation by the proposed excavation.
- The proponent maintain the Dieback Management Policy to reduce the spread of Plant Pathogens.

**5.6.6 Weed Management Plan**

The management of weeds is essentially similar to that for plant diseases. The impact of weeds is really the impact within the local area and the more they are controlled the better. It is desirable that the site does not become a haven for environmental weeds and therefore a management and control program is warranted at all sites.

Weeds can be declared under the *Agriculture and Related Resources Protection Act 1976* which requires that Declared Weeds are eradicated. Other weeds are not Declared but may be classified as Environmental Weeds because they are well known for impacting on vegetation.

Generally if the actions taken for Dieback are applied they will also control weeds.

Minimal weeds were observed by Bio Diverse Solutions over the whole of Lot 9005, and none were observed on the excavation area by Landform Research in May 2016.

Even so weed management practices will be used.

- All vehicles and equipment to be used during land clearing or land reinstatement, will be clean and free from soil or plant material when arriving at site.
- No soil and vegetation will be brought to the site apart from that to be used in rehabilitation.
- Plants to be used in rehabilitation will be free from weeds.
- Vegetated areas ahead of excavation will be quarantined to excavation vehicles until required.
- Unwanted access to vegetated areas is to be discouraged through a lack of tracks and external fencing.
- Weed affected top soils may need to be taken offsite, used in weed affected areas, buried by 500 mm soil/overburden or taken offsite or sprayed to minimise the weed impact.
- Illegally dumped rubbish is the major source of weeds and is to be removed promptly.
- No weed contaminated or suspect soil or plant material is to be brought onto the site.
- When clearing land or firebreaks vehicles are to work in conjunction with dieback principles and push from areas of better vegetation towards areas of lower quality vegetation.
- Weeds should be sprayed with broad spectrum spray prior to planting or seeding in weed affected soils.

- Unwanted grasses should be sprayed with grass selective spray prior to seeding or rehabilitation.
- Weed management should work from least affected areas to most affected.
- Declared weeds should be treated promptly by digging out or spraying.
- Weeds will be treated promptly no matter how few there are.
- The predator proof fence and gate system will be maintained.
- Ongoing monitoring of weeds should be undertaken at least annually in autumn, prior to winter rains.

The Dieback Management actions will also be used to assist weed management.

Inspections should be conducted to monitor the presence and introduction of weeds on an annual or more frequent basis. On identification, introduced weeds will either be removed, buried, or sprayed with a herbicide.

**Weed - Applicable Legislation / Policies**

- *Agriculture and Related Resources Protection Act 1976.*

**Commitments to Weed Management**

- The proponent will use the weed policy to try and prevent the introduction of Declared, Environmental or other weeds to the site.

**5.7 Fire Protection**

Fire risk is normally controlled through the *Bush Fires Act 1954* and local authority bylaws.

The excavation area will form a natural firebreak; the access road will also assist. Water available on site can be used for fire fighting.

Normal eastern and other strategic firebreaks will be maintained, based on the existing track and access network.

The safety of workers is managed through a Safety Management Plan developed through *the Mines Safety and Inspection Act 1994 and Regulations 1995*.

There are a number of management actions that can be taken in quarries to minimise fire risk and these will be used wherever possible. The general management actions are summarised below, together with the potential issues that relate to this site. The actions will be used where applicable and as the opportunity presents to minimise fire risk.

- Restrict vehicles to the operational area, particularly on high fire risk days.
- Use diesel rather than petrol powered vehicles.
- Maintain perimeter fire breaks as required.
- Ensure fire risk is addressed and maintained through the site Safety Management Procedures.
- Provide an emergency muster area, communications and worker induction and training.
- Establish on site water supplies for potential use in extinguishing fire.
- Secure the site from unauthorised access.
- Maintain normal farm fire breaks and fire prevention procedures.

There is less potential fire risk from quarries than other land uses because quarries clear land, and vehicles are restricted to cleared access roads, the pit floor, processing and stockpile areas.

These cleared areas form a natural firebreak. The main risk comes from an external fire in the surrounding vegetation, impacting on the quarry. As such the fire risk is no greater than a rural property.

If there is a fire the site will be evacuated. If vehicles or plant are left on site, they will be parked in the centre of the pit in line with normal minsite actions and

<p><b>Fire Management - Applicable Legislation / Policies</b></p> <ul style="list-style-type: none"> <li>• <i>Bush Fires Act 1954.</i></li> <li>• <i>City of Albany Bylaws.</i></li> </ul>
<p><b>Commitments to Fire Management</b></p> <ul style="list-style-type: none"> <li>• The proponent will ensure the quarry operates to the standards in the <i>Mines Safety and Inspection Act 1994 and Regulations 1995.</i></li> <li>• The proponent will ensure the quarry complies with the local fire safety requirements and operates in compliance with normal rural fire practise and restrictions.</li> </ul>

**5.8 Aboriginal Heritage**

A search of the Department of Aboriginal Affairs database reveals that there are no recorded sites on the Nullaki Peninsula. An ethnographic survey of the Nullaki Peninsula has been completed.

<p><b>Aboriginal Sites</b></p> <ul style="list-style-type: none"> <li>• <i>Aboriginal Heritage Act 1972-1980</i></li> </ul>
<p><b>Commitments to Aboriginal Heritage Management</b></p> <ul style="list-style-type: none"> <li>• Should any evidence of early aboriginal occupation be uncovered during the operation of the quarry, development will be stopped pending an assessment by a recognised consultant.</li> <li>• If the site is confirmed as a site under the provisions of Section 15 of the Aboriginal Heritage Act 1972-1980 and Amendments, the proponent will comply with the provisions of the Act, relating to development in areas of recognised aboriginal sites.</li> </ul>

**5.9 Rehabilitation**

**5.9.1 Background**

The area is currently remnant coastal heathland vegetation partially disturbed by tracks, a previous small excavation that has been rehabilitated, drill pads and soil test holes.

The old limestone pit that has been rehabilitated demonstrate that the retention and direct spread of topsoil can provide fast and good rehabilitaiton of local native species and communities.

It also demonstrates that excavation can be completed with reduce impacts as there is an absence of weeds and dieback diseases in the previoulsy excavated and disturbed areas.

The best means of revegetation is to use;

- Vegetation and topsoil recovered from clearing.
- Brush cut from adjoining vegetation.

The use of additional seed collection and seeding remains a contingency, but based on other rehabilitation is not considered necessary.

• **End Use**

The extraction of limestone is seen as an interim use of the land prior to utilisation of the area by the current land holder.

The final contours are anticipated to be undulating around 8 metres below the existing land surface replicating other portions of the limestone ridge.

The end use will be Conservation in line with the land zoning.

• **Mine Closure Considerations**

Rehabilitation will be directed towards the final end land use of Conservation, and is to be aimed at the highest level of rehabilitation,

Rehabilitation will contain Dieback and Weed Management in addition to monitoring and replanting failed areas.

Appropriate vegetation clearing and reuse combined with topsoil management is seen to be an important element in achieving successful rehabilitation and plant re-establishment on the restored surface.

The following procedures have been selected from observation of the existing operations and experience in the rehabilitation of the old limestone pit and other limestone quarries by worked on by Landform Research.

• **Rehabilitation Objectives**

There are a number of management actions that can be taken in quarries to maximise rehabilitation effort and these will be used wherever possible. The general management actions are summarised below and will be used where applicable and as the opportunity presents.

• **Completion criteria – Interim Final Landuse**

- Stable post-mining landscape, and the minimisation of wind or water erosion.
- Provide for the protection of the local groundwater resource in terms of both quality and quantity.
- Control or eliminate weed species so that they are not likely to threaten the revegetation or local vegetation communities.
- Keep the local vegetation as dieback free.

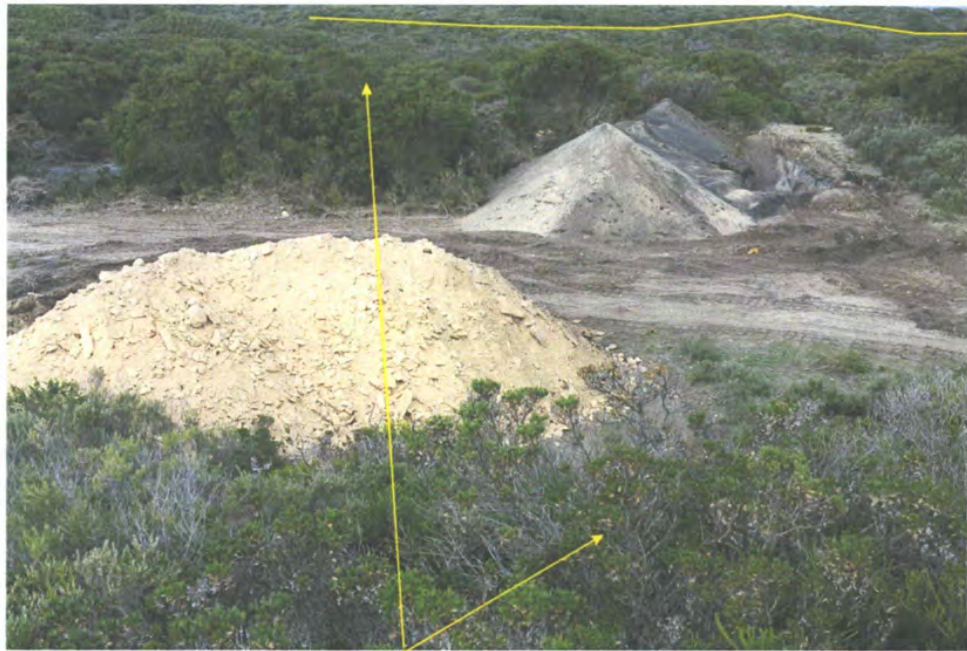


- Provide a self sustaining cover of local native plants at a minimum of 1200 native plant stems per hectare at 3 years

#### 5.9.2 Rehabilitation Procedures

- **Vegetation Clearing – Recovery**

1. A Clearing Permit will be required for areas of native vegetation to be cleared under *Section 46 of the Environmental Protection Act 1984*.
2. Dieback and weed management will be undertaken as outlined in the attached Dieback and Weed Management Plans.
3. Essentially all topsoil, vegetation fragments and any overburden will be recovered from cleared areas and retained for use in rehabilitation. The vegetation will be stored with the topsoil in low dumps <1 metre high around the perimeter of the pit.
4. Topsoil clearing will be progressive and minimised to that required for each stage of excavation.
5. Smaller vegetation will be track crushed and directly transferred to areas under rehabilitation to assist soil and habitat generation. The vegetation contains a significant seed source, because of the contained seed on many species, it is also a source of microbial material for soil formation, adds to habitat and assists in managing wind erosion.
6. The vegetation will also be used on the batters to minimise soil erosion and spreading on the final land surface as part of the final rehabilitation.
7. If direct transfer is not possible the vegetation will be stored in low dumps to 1 metre high or swapped with a nearby operator to try and ensure that the material is not wasted.
8. Topsoil will be pushed to one side and formed into low storage dumps for later use for rehabilitation using either a loader or bulldozer.
9. Overburden, as yellow and brown sand and low grade limestone, will then be pushed to the perimeters, normally by bulldozer, to form bunding around the active area.



Rehabilitation at the old limestone pit

Figure 8 Rehabilitation that has been cleared for new testing of limestone



Figure 9 Rehabilitation of a steep slope on the access road to the pit



Rehabilitation of limestone - limesand pit at Lancelin

Figure 10 Rehabilitation on coastal limestone at Lancelin

• **Landform Reconstruction and Contouring**

1. At any one time it is anticipated that around 2.0 hectares of pit ground plus 2.0 hectares of stockpile area will require rehabilitation. Progressive rehabilitation of completed land will be used.
2. Land restoration and rehabilitation of any completed areas will be conducted prior to the site being vacated following the yearly excavation campaign at the end of autumn which is an appropriate time for rehabilitation.
3. All buildings, plant and any other foreign materials will be removed from site.
4. All inert materials associated with processing will either be buried or removed from site. All non inert materials will be removed.
5. Limestone roadbase and hard stand will either be removed from site to an approved disposal situation or buried by 0.5 metres plus of limestone overburden and soil.
6. Any hardstand and roadbase areas will be deep ripped using a tyne attached to a loader, grader or bulldozer.
7. The onsite waste disposal system (septic system) will be removed from site.
8. The land surface will be formed to be geotechnically stable to the requirements of the *Mines Safety and Inspection Act 1994 and Regulations 1995* as a final land surface.

9. The final land surface will be smoothed to be compatible with the existing natural landform of the area with some slopes left potentially at the angle of natural repose for limesand to replicate the natural dune system.
  10. As the limestone is porous there will be no need for upslope contour or diversion banks to prevent water entering the void. Similarly there will be no need for drainage works on the floor of the void. The floor will be formed to drain to low points to manage storm events.
  11. Where possible any disturbed areas that are no longer required will be rehabilitated using the methods described above within 12 months of becoming available.
  12. The final landform will be formed to the interim final concept plan.
  13. The land surface will be a gently undulating floor with sloping batters at less than 1 : 4 vertical to horizontal and some at 1 : 2 to replicate the pre-excavation limestone ridge.
  14. Limestone floor will be deep ripped in two directions. The width between rip lines will be 1 metre intervals.
  15. A minimum of 300 mm of overburden will be spread over the surface where available to provide a substrate for revegetation.
- **Pre - Vegetation Establishment**
    1. Pre-seeding weed control is only likely to be required where topsoils are used that contain weed species.
    2. If required this is normally only conducted after overburden and topsoil have been spread and any seeds have been allowed to germinate. Broadscale weed treatment can be detrimental to the germination and growth of native and some pasture species but may be required if the weed load is to be reduced.
    3. Any weeds likely to significantly impact on the rehabilitation will be sprayed with Roundup or similar herbicide or grubbed out, depending on the species involved. Weed affected topsoil and overburden will be buried. The Weed Management Plan will form the basis of weed treatment. Depending on the nature of the planting substrate, a broad spectrum spraying program may be used. In areas where grass only is a potential problem grass specific sprays will be used. In some areas where topsoil from cleared native vegetation is available no spraying may be required.
  - **Revegetation**
    1. Topsoil will be re-distributed in rehabilitated areas to depths of 50 mm where available.
    2. Topsoil provides a useful source of seed for rehabilitation of Limestone Heathlands, when the correct handling of the topsoil is used; stripped and replaced dry (autumn direct return). Maximum depth of 50 mm can be used to optimise revegetation of species-rich plant communities. However this needs to be balanced against the weed load as described under Weed Management.

3. Native vegetation, plus leaf, root and organic matter collected from the land clearing procedures will be spread across the topsoil. This will increase the total organic carbon fraction, improving soil properties such as resistance to water and wind erosion and moisture retention. The difference in properties between existing topsoil and subsoils is not considered a major impediment to rehabilitation of native species in the area.
4. Studies have shown that topsoil stripping and placement is best undertaken in summer for maximum germination, but this raises the potential for additional dust generation from the fine humus particles.
5. Topsoil will be spread directly from an area being cleared where possible, otherwise reclaimed from a topsoil dump.
6. Topsoil will be spread at depths of 50 mm and should be spread during summer, preferably by the end of February.
7. Rehabilitation will take place during the first winter months following the restoration earth works of each particular section of quarry. Leaving the completed earth works for one season will reduce the success of rehabilitation by at least 50%, due to compaction effects.
8. If insufficient revegetation is achieved, local provenance seed will be collected from the site or purchased from commercial seed collectors.
9. Rehabilitation will consist of
  - topsoil spreading
  - seed spreading (if necessary)
  - tube plants (if necessary)

A species list is attached in the Bio Diverse Solutions Report.

10. A combination of the three methods is always preferred by Landform Research and has proven to be the most versatile and successful.
11. Seeding conducted in summer will use scarified leguminous seeds that have been "dry smoked". Seeding conducted in July to August will have the leguminous seeds heat treated and all seeds will be smoke treated by soaking in "smoke water" for 24 hours prior to seeding.
12. Seed spreading will be achieved either using mechanical seed dispersal equipment or using manual methods. Bulking with a spreading agent such as sawdust, vermiculite or sand is desirable.
13. Rehabilitation will progressively follow mining with completed areas of the excavation being revegetated as soon as practicable.

- **Irrigation**

1. Experience with the previous regeneration on site and by Landform Research in rehabilitation of quarries in limestone has shown that when completed well there is no need for irrigation of the rehabilitation.

- **Erosion Control**
  2. Soil erosion occurs when soil is exposed and disturbed by wind or water. Erosion involves soil particles being detached from areas not adequately protected by vegetation, and moved down-slope. This is not normally a significant problem in limestone, which crusts after the first winter. See Figure 9.
  3. The limestone soils are very permeable but readily crust during rainfall making them stable. Runoff is normally minimal unless surface materials become non-wetting. Even so experience with limestone extraction shows that there is minimal non wetting and surface particle movement under such conditions.
  4. Water erosion on the batter slopes can be avoided by the permeability of the materials and by leaving the surface soft, rough and undulating, with the undulations running along contour. The final machinery run should be along contour and not down slope.
  5. Wind erosion will be controlled by rehabilitating the disturbed ground as soon as practicable.
  6. For rehabilitation areas, revegetation will take place as soon as possible following landform and soil reconstruction.
  
- **Monitoring**
  1. During late summer an assessment of the success of the rehabilitation will be made to determine the rehabilitation requirements for the following winter.
  2. Monitoring includes visual assessments and, where necessary, counts to determine the success of the soil stabilisation.
  3. Native vegetation cover and soil stability will be assessed and corrected if found to be non compliant.
  4. As necessary steps will be taken to correct any deficiencies in the vegetation.
  5. Rehabilitation of each stage will be monitored for a period of three years to ensure that the revegetation meets the completion criteria of providing self sustaining vegetation cover.
  6. In areas of rehabilitation that do not meet the completion criteria measures are to be taken to increase the stem density to achieve the completion criteria. This could include but not be limited to additional seeding or planting.

**Temporary Closure**

1. If for any reason the site is closed on a temporary basis for any period of time the following will be implemented.
2. The faces will be made safe or protected by bunds and/or fencing with signs in compliance with the *Mines Safety and Inspection Act 1994*.
3. All fluids, liquids and other materials that could leak over time, change or potentially impact on the environment will be removed from site, or stored in a manner that will not permit any environmental impact.

4. Mobile and other plant will be made safe or removed from site in compliance with the *Mines Safety and Inspection Act 1994*.
5. Fencing will be maintained to make the pit safe.
6. Perimeter signage will be maintained.
7. The site will be monitored for weeds and interim rehabilitation success twice per year.
8. Regular site inspections will be made to ensure compliance with the *Mines Safety and Inspection Act 1994*, and any other actions that are required to make the site compliant or environmentally sound will be made as the need arises.

<p><b>Rehabilitation - Applicable Legislation / Policies</b></p> <ul style="list-style-type: none"> <li>▪ <i>EPA, Guidance 6, Rehabilitation of Terrestrial Ecosystems</i></li> </ul>
<p><b>Commitments to Rehabilitation</b></p> <ul style="list-style-type: none"> <li>▪ The proponent will ensure the completed land surface is formed to the standards in the <i>Mines Safety and Inspection Act 1994 and Regulations 1995</i>.</li> <li>▪ The proponent will rehabilitate the surface as outlined above and monitor the revegetation as described above.</li> </ul>

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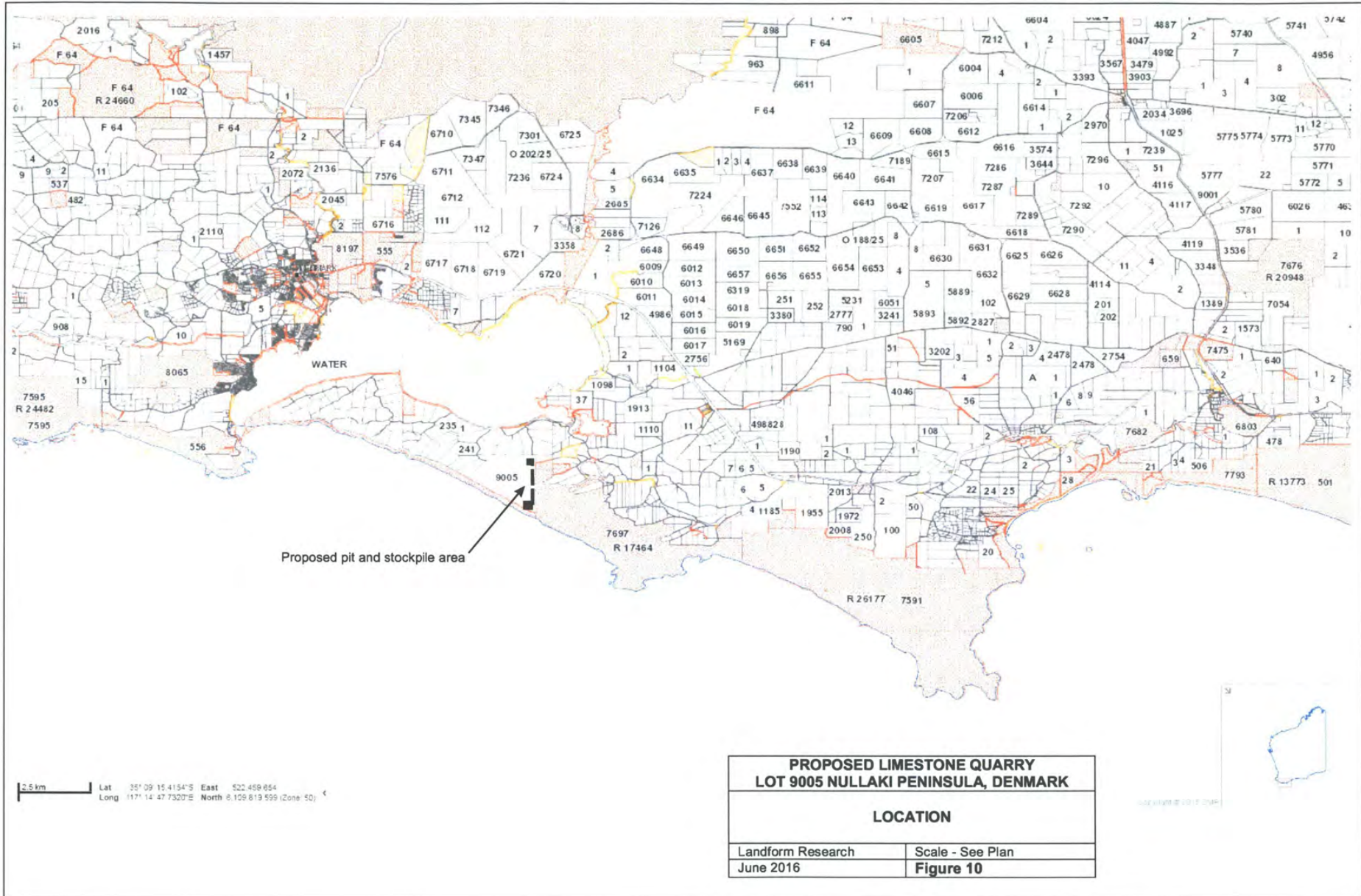
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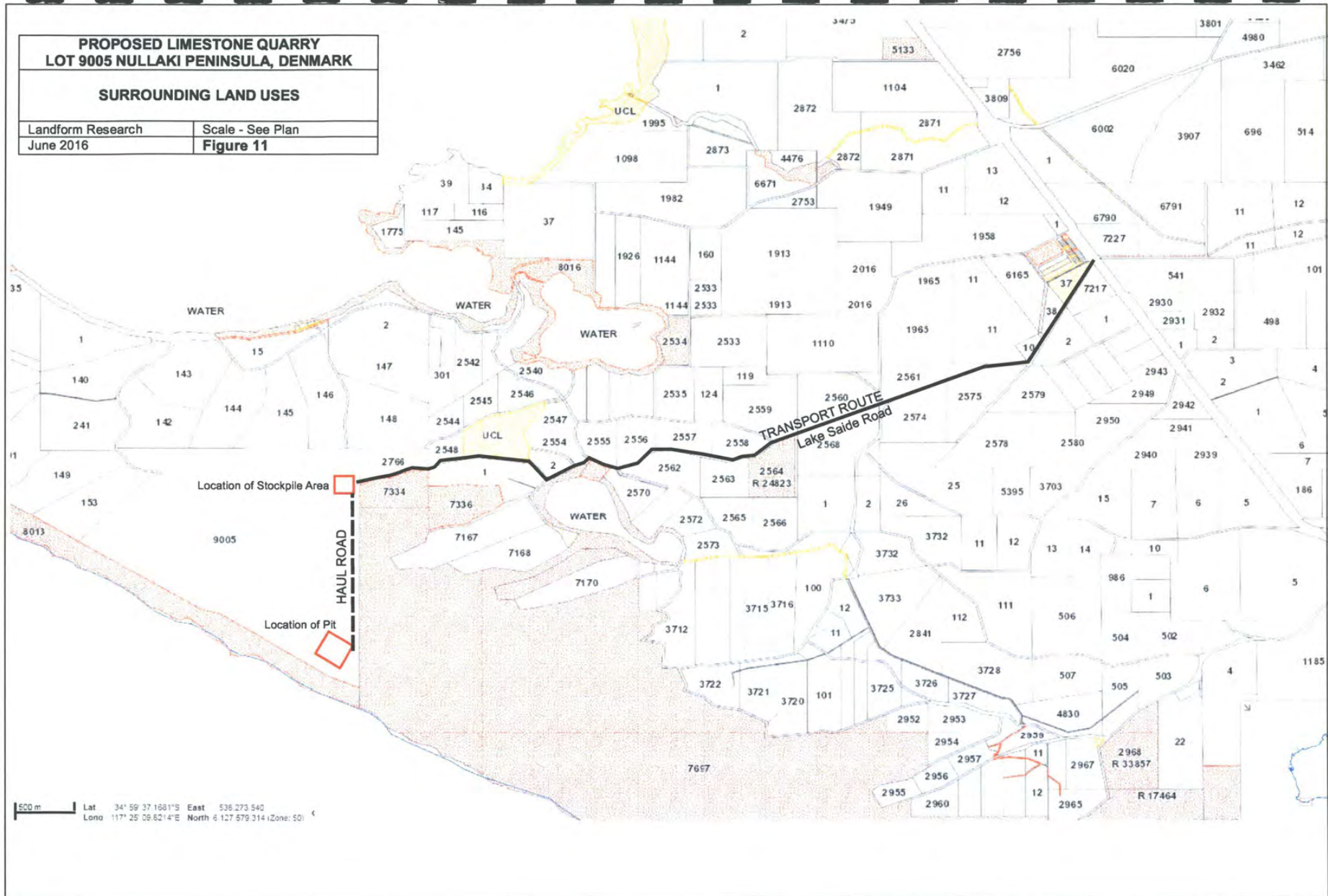
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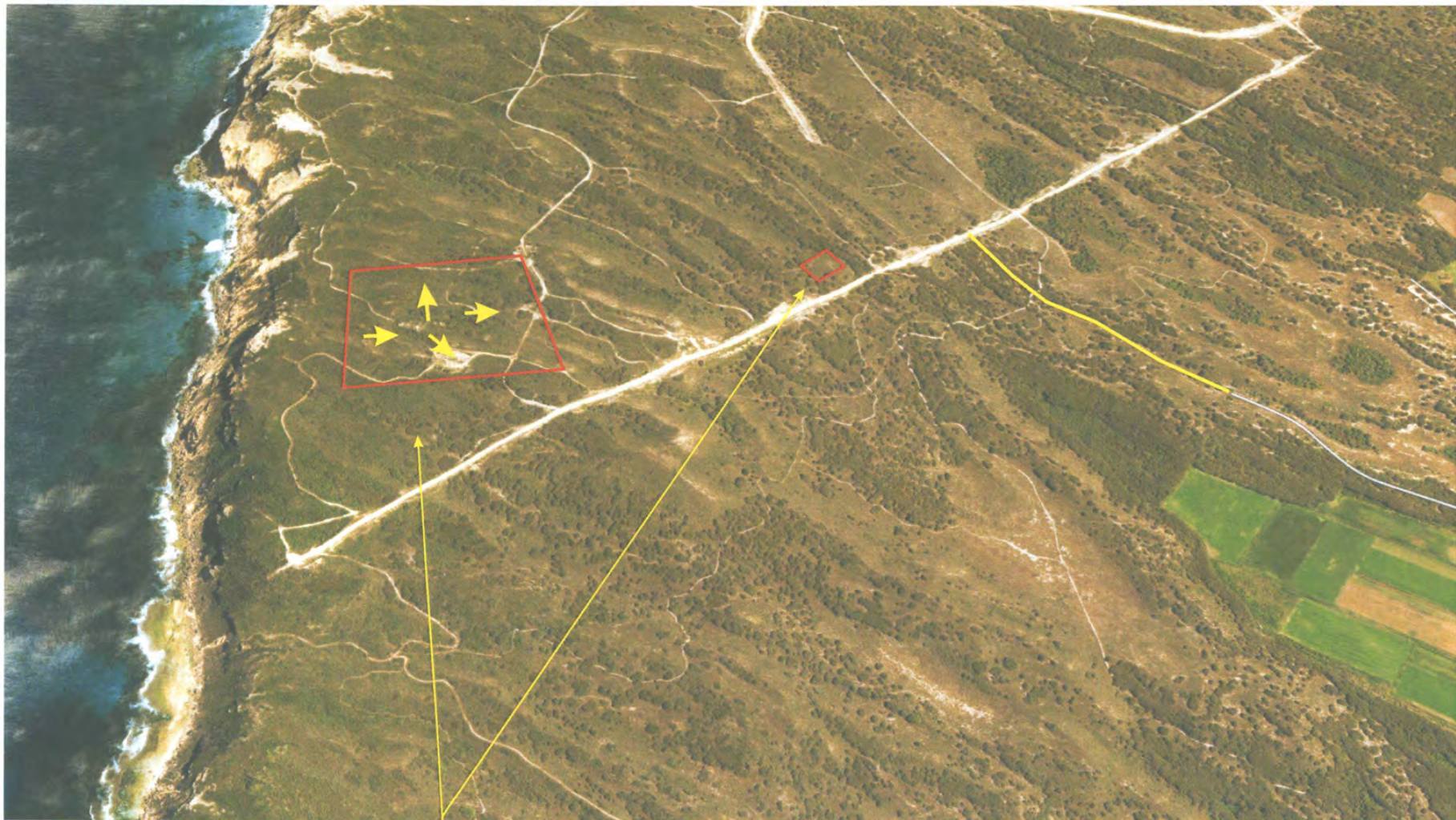
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PROPOSED LIMESTONE QUARRY LOT 9005 NULLAKI PENINSULA, DENMARK	
LOCATION	
Landform Research June 2016	Scale - See Plan Figure 10



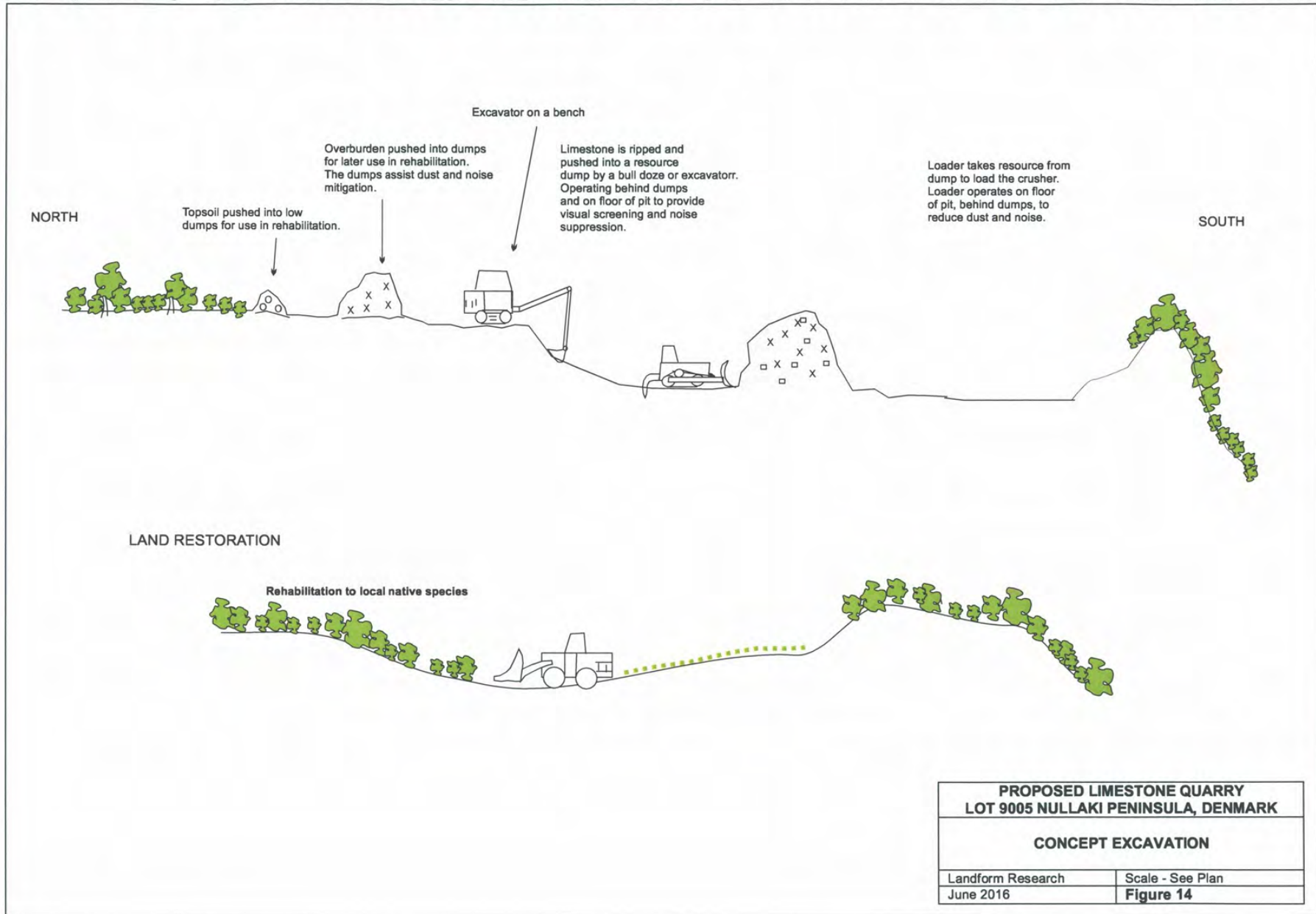




Aerial - Oblique view from the east showing the pit location and stockpile area

The arrows show the direction of excavation, behind the active face providing visual protection.  
See also Figure 14.

<b>PROPOSED LIMESTONE QUARRY LOT 9005 NULLAKI PENINSULA, DENMARK</b>	
<b>AERIAL PHOTOGRAPH - OBLIQUE VIEW</b>	
Landform Research	Scale - See Plan
June 2016	<b>Figure 13</b>





Bulldozer ripping and crushing limestone



Loader feeding a small mobile crusher



Loader, loading limestone



Loading a road truck

<b>PROPOSED LIMESTONE QUARRY LOT 9005 NULLAKI PENINSULA, DENMARK</b>	
<b>TYPICAL EXCAVATION EQUIPMENT</b>	
Landform Research June 2016	Scale - See Plan <b>Figure 15</b>





Appendix 1

LOT 9005 ROCK CLIFF  
CIRCLE, DENMARK

## Vegetation Communities Survey



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Bio Diverse Solutions  
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TABLE OF CONTENTS

<b>1</b>	<b>INTRODUCTION .....</b>	<b>4</b>
1.1	SITE LOCATION.....	4
1.2	SCOPE OF WORK .....	4
1.3	GEOLOGY, GEOMORPHOLOGY AND SOILS .....	5
1.4	REGIONAL CONTEXT .....	5
<b>2</b>	<b>VEGETATION AND FLORA .....</b>	<b>6</b>
2.1	SURVEY METHODS .....	6
2.2	FLORA SURVEY OUTCOMES.....	7
2.3	VEGETATION UNITS .....	10
2.3.1	<i>Agonis Woodland</i> .....	10
2.3.2	<i>Banksia Woodland</i> .....	11
2.3.3	<i>Bullich-Yate Woodland</i> .....	12
2.3.4	<i>Coastal Scrub</i> .....	13
2.3.5	<i>Karri Forest</i> .....	14
2.3.6	<i>Open Heath</i> .....	15
2.3.7	<i>Sedgeland</i> .....	16
2.3.8	<i>Sessilis Thicket</i> .....	17
2.3.9	<i>Taxandria Woodland</i> .....	18
2.3.10	<i>Tree Mallee</i> .....	19
2.3.11	<i>Vegetation Mapping</i> .....	20
2.4	VEGETATION CONDITION .....	22
2.5	WEEDS .....	23
2.5	DISEASE .....	24
<b>3</b>	<b>SUMMARY .....</b>	<b>25</b>
<b>4</b>	<b>REFERENCES .....</b>	<b>26</b>
<b>5</b>	<b>APPENDICES .....</b>	<b>27</b>
APPENDIX A:	FLORA AND FAUNA SPECIES IDENTIFIED WITHIN 5 KM OF SURVEY AREA THROUGH NATURE MAP .....	27
APPENDIX B:	DEFINITIONS OF CONSERVATION CODES.....	48
APPENDIX C:	STRUCTURAL CLASSIFICATION USED FOR VEGETATION MAPPING (KEIGHERY 1994) .....	49
APPENDIX D:	CRITERIA USED IN THE ENVIRONMENTAL WEED STRATEGY FOR WESTERN AUSTRALIA.....	50

### 1.3 Geology, geomorphology and soils

The topography of most of the survey area is dominated by a gently undulating plain sloping to the coast with numerous small drainage lines. The coastal fringe is dominated by coastal dune systems, limestone headlands and cliffs (Churchward *et al.* 1988).

Geologically the area is underlain by Proterozoic rocks including granites and metamorphic gneiss of the Albany Fraser Province which are exposed as hills to 360 meters high along the coastal and near coastal fringe (Muhling and Brakei 1985). Along the coastal fringe the Quaternary sediments of the Tamala Limestone may be present and are overlain by dunes systems.

### 1.4 Regional context

The survey area lies within the Southwest Botanical Province and forms part of the Southwest Australian Biodiversity Hotspot, one of 34 internationally recognised biodiversity hotspots (Myers *et al.* 2000). It occurs in the eastern portion of the Warren Interim Bio-geographic Regional Area (IBRA), which runs along the coast from just south of Yallingup to south of the Princess Royal Harbour near Albany (IBRA 2012).

The Warren bioregion is described as a combination of hills, plateaux and plains and features four main soil types including loamy soils supporting karri forest; red laterites supporting jarrah-marri forests; leached sandy soils in depressions and as plains supporting low jarrah woodlands and paperbark/sedge swamps, and; holocene marine dunes supporting *Agonis flexuosa* thickets, *Banksia* woodlands and heaths (McKenzie *et al.* 2002).

Notable values of this bioregion include tall forests (karri, jarrah and tingle), which provide a refuge for relictual invertebrates; barren limestone areas with underground drainage systems (karst regions) that support an endemic invertebrate fauna; peat or organic wetland systems that support relictual populations of aquatic invertebrates; mound-forming microbial associations in the west of the region; and a highly endemic flora and fauna, especially in plant groups such as Myrtaceae, Rutaceae, Proteaceae, Papilionaceae, Restionaceae, Stylidiaceae and Sterculiaceae (McKenzie *et al.* 2002).

Gondwanan invertebrate fauna include: the Tingle *Bertmainius* trapdoor spider and Torndirrup's *Austrarchaea mainae* spider, *Dardarus sp.* millipede, *Cynotelopus notabilis* pill millipede and velvet worms. A number of notable critical weight range mammals also persist in the region, including the quokka, southern brown bandicoot, chuditch and brush-tailed phascogale.

The eastern limit of the bio region marks the transition zone from the more mesic forested south west of Western Australia to the drier interior and eastern coastal areas that are vegetated by mallee, woodland and shrubland associations.

## 2.2 Flora survey outcomes

During the field survey 112 species, consisting of 39 families and 70 genera were found. The most common families were Fabaceae, Cyperaceae, Proteaceae, Myrtaceae and Ericaceae. This list includes 103 native species (Table 1) and nine introduced species (Table 3). Two species of priority flora were found within the survey area including: *Banksia sessilis var cordata* (Priority 2) and *Billardiera drummondii* (Priority 4).

See Appendix B for definitions of the conservation codes.

**Table 1: Native flora species recorded within survey area**

Family	Species	Common Name
Aizoaceae	<i>Carpobrotus sp.</i>	Pigface
Anarthriaceae	<i>Anarthria prolifera</i>	
Anarthriaceae	<i>Lyginia barbata</i>	
Anarthriaceae	<i>Lyginia imberbis</i>	
Apiaceae	<i>Platysace compressa</i>	Tapeworm Plant
Araliaceae	<i>Trachymene pilosa</i>	
Asparagaceae	<i>Chamaescilla corymbosa</i>	Blue Squill
Asparagaceae	<i>Lomandra pauciflora</i>	
Asteraceae	<i>Olearia axillaris</i>	Coastal Daisybush
Asteraceae	<i>Sonchus oleraceus</i>	Common Sowthistle
Casuarinaceae	<i>Allocasuarina humilis</i>	Dwarf Sheoak
Chenopodiaceae	<i>Rhagodia baccata subsp. baccata</i>	Coastal Salt Bush
Colchicaceae	<i>Burchardia multiflora</i>	Dwarf Burchardia
Cyperaceae	<i>Baumea juncea</i>	Bare Twigrush
Cyperaceae	<i>Cyathochaeta avenacea</i>	
Cyperaceae	<i>Cyathochaeta equitans</i>	
Cyperaceae	<i>Ficinia nodosa</i>	Knotted Club Rush
Cyperaceae	<i>Gahnia decomposita</i>	
Cyperaceae	<i>Gahnia trifida</i>	Coast Saw-sedge
Cyperaceae	<i>Lepidosperma effusum</i>	Spreading Sword-sedge)
Cyperaceae	<i>Lepidosperma gladiatum</i>	Coast Sword-sedge
Cyperaceae	<i>Lepidosperma gracile</i>	Slender Sword Sedge
Cyperaceae	<i>Lepidosperma squamatum</i>	
Cyperaceae	<i>Mesomelaena graciliceps</i>	
Cyperaceae	<i>Mesomelaena tetragona</i>	Semaphore Sedge
Cyperaceae	<i>Tetraria octandra</i>	
Dennstaedtiaceae	<i>Pteridium esculentum</i>	Bracken
Dilleniaceae	<i>Hibbertia cuneiformis</i>	Cutleaf Hibbertia
Dilleniaceae	<i>Hibbertia furfuracea</i>	
Dilleniaceae	<i>Hibbertia racemosa</i>	Stalked Guinea Flower
Droseraceae	<i>Drosera erythroglyne</i>	

Table 1 continued: Native flora species recorded within survey area

Family	Species	Common Name
Poaceae	<i>Microlaena stipoides</i>	Weeping Grass
Poaceae	<i>Tetrarrhena laevis</i>	Forrest Ricegrass
Polygalaceae	<i>Comesperma confertum</i>	
Polygonaceae	<i>Muehlenbeckia adpressa</i>	Climbing Lignum
Polygonaceae	<i>Persicaria capitata</i>	
Proteaceae	<i>Adenanthos cuneatus</i>	Coastal Jugflower
Proteaceae	<i>Banksia attenuata</i>	Slender Banksia
Proteaceae	<i>Banksia grandis</i>	Bull Banksia
Proteaceae	<i>Banksia littoralis</i>	Swamp Banksia
Proteaceae	<i>Banksia sessilis var cordata (P2)</i>	Parrot Bush
Proteaceae	<i>Hakea prostrata</i>	Harsh Hakea
Proteaceae	<i>Hakea ruscifolia</i>	Candle-spike Hakea
Proteaceae	<i>Hakea varia</i>	Variable Leaved Hakea
Proteaceae	<i>Synaphea sp</i>	
Ranunculaceae	<i>Clematis pubescens</i>	Common Clematis
Restionaceae	<i>Desmocladius flexuosus</i>	
Restionaceae	<i>Hypolaena exsulca</i>	
Restionaceae	<i>Leptocarpus tenax</i>	Slender Twine Rush
Restionaceae	<i>Loxocarya cinerea</i>	
Rhamnaceae	<i>Spyridium globulosum</i>	Basket Bush
Rhamnaceae	<i>Trymalium odoratissimum</i>	
Rubiaceae	<i>Opercularia hispidula</i>	Hispid Stinkweed
Rubiaceae	<i>Opercularia vaginata</i>	Dog Weed
Rutaceae	<i>Boronia crenulata</i>	Aniseed Boronia
Rutaceae	<i>Crowea angustifolia var. angustifolia</i>	
Santalaceae	<i>Exocarpos sparteus</i>	Broom Ballart
Solanaceae	<i>Anthocercis littorea</i>	Yellow Tailflower
Thymelaeaceae	<i>Pimelea clavata</i>	
Thymelaeaceae	<i>Pimelea rosea subsp. rosea</i>	Coastal Banjine
Xanthorrhoeaceae	<i>Xanthorrhoea gracilis</i>	
Xanthorrhoeaceae	<i>Xanthorrhoea preissii</i>	Grass Tree
Zamiaceae	<i>Macrozamia reidleyi</i>	Zamia

2.3.2 *Banksia Woodland*

Description: Occurs on lower slopes. The overstorey consists of a canopy of large, mature *Banksia littoralis*, with *Banksia attenuata* co-dominant in some areas and occasional *Eucalyptus marginata* subsp. *marginata*. The understorey consists of an open heath over a low shrubland and sedgeland. Common understorey species include *Jacksonia horrida*, *Pultenaea reticulata*, *Adenanthos cuneatus*, *Leucopogon obovatus*, *Acacia pulchella*, *Hibbertia racemosa*, *Anarthria scabra*, *Anarthria prolifera*, *Lyginia barbata*, *Cyathochaeta equitans*, *Lepidosperma squamatum*, *Mesomelaena graciliceps* and *Desmocladius flexuosus*.

Floristic Summary:

Lifeform	Species
Trees <10m	<i>Banksia littoralis</i> , <i>Banksia attenuata</i> and <i>Eucalyptus marginata</i> subsp. <i>marginata</i>
Shrubs 1-2m	<i>Jacksonia horrida</i> , <i>Pultenaea reticulata</i> , <i>Adenanthos cuneatus</i> , <i>Leucopogon obovatus</i> , <i>Leucopogon parviflorus</i> , <i>Acacia pulchella</i> , <i>Hovea elliptica</i> and <i>Spyridium globulosum</i>
Shrubs 0.5-1m	<i>Hibbertia racemosa</i> and <i>Leucopogon propinquus</i>
Sedges and rushes	<i>Anarthria scabra</i> , <i>Anarthria prolifera</i> , <i>Lyginia barbata</i> , <i>Cyathochaeta equitans</i> , <i>Lepidosperma squamatum</i> , <i>Mesomelaena graciliceps</i> , <i>Mesomelaena tetragona</i> , <i>Desmocladius flexuosus</i> and <i>Loxocarya cinerea</i>
Herbs and grasses	<i>Opercularia hispidula</i>





2.3.4 Coastal Scrub

Description: Occurs in the western portion of the survey area and is characterised by dense shrubs and mallees that form a tall (1.5-3m), closed canopy. On the crests the overstorey is dominated by *Eucalyptus angulosa*, and in the more protected swales the overstorey is dominated by *Scaevola nitida* with some *Banksia sessilis* var. *cordata* (P2) in the southern areas. Other common shrubs include *Acacia littoralis*, *Leucopogon parviflorus*, *Spyridium globulosum* and *Agonis flexuosa*. Common sedges and rushes include: *Anarthria prolifera*, *Lepidosperma gladiatum*, *Desmocladius flexuosus* and *Loxocarya cinerea*.

Floristic Summary:

Lifeform	Species
Trees <10m	<i>Eucalyptus angulosa</i>
Shrubs >2m	<i>Scaevola nitida</i> , <i>Banksia sessilis</i> var. <i>cordata</i> (P2), <i>Acacia littoralis</i> , <i>Leucopogon parviflorus</i> , <i>Spyridium globulosum</i> and <i>Agonis flexuosa</i>
Shrubs 1-2m	<i>Exocarpos sparteus</i>
Shrubs 0.5-1m	<i>Olax phyllanthi</i>
Shrubs <0.5m	<i>Lysinema ciliatum</i> and <i>Conostylis aculeata</i> subsp. <i>aculeata</i>
Sedges and rushes	<i>Anarthria prolifera</i> , <i>Lepidosperma gladiatum</i> , <i>Desmocladius flexuosus</i> and <i>Loxocarya cinerea</i>
Herbs and grasses	<i>Clematis pubescens</i> and <i>Opercularia vaginata</i>



2.3.6 Open Heath

Description: Occurs in swales, flats and on crests of dunes. Where overstorey is present, it consists of low and scattered *Agonis flexuosa*, *Acacia cyclops* or *Banksia attenuata* in flats with low thickets of *Agonis flexuosa* on ridgelines and in swales. The southern areas closest to the coast have a complete absence of overstorey. The understorey consists of a diverse mix of species. Those most dominant include: *Hakea varia*, *Allocasuarina humilis*, *Jacksonia horrida*, *Pultenaea reticulata*, *Spyridium globulosum*, *Adenanthos cuneatus* and *Banksia attenuata*. A mix of sedges, herbs and grasses form the basis of the groundcover, some of which include: *Lyginia imberbis*, *Lyginia barbata*, *Lepidosperma squamatum*, *Desmocladius flexuosus*, *Hypolaena exsulca* and *Opercularia hispidula*.

Floristic Summary:

Lifeform	Species
Trees <10m	<i>Agonis flexuosa</i>
Shrubs >2m	<i>Agonis flexuosa</i> , <i>Agonis theiformis</i> , <i>Acacia cyclops</i> , <i>Spyridium globulosum</i> and <i>Hakea varia</i> .
Shrubs 1-2m	<i>Allocasuarina humilis</i> , <i>Pteridium esculentum</i> , <i>Jacksonia horrida</i> , <i>Pultenaea reticulata</i> and <i>Xanthorrhoea preissii</i>
Shrubs 0.5-1m	<i>Hibbertia cuneiformis</i> , <i>Hibbertia racemosa</i> , <i>Leucopogon obovatus</i> , <i>Leucopogon parviflorus</i> , <i>Leucopogon propinquus</i> , <i>Lysinema ciliatum</i> , <i>Pimelea clavata</i> , <i>Pimelea rosea subsp. rosea</i> , <i>Anigozanthos flavidus</i> , <i>Hakea prostrata</i> , <i>Adenanthos cuneatus</i> and <i>Xanthorrhoea gracilis</i>
Shrubs <0.5m	<i>Rhagodia baccata subsp. baccata</i> , <i>Andersonia caerulea</i> , <i>Gompholobium confertum</i> , <i>Boronia crenulata</i> and <i>Synaphea sp.</i>
Sedges and rushes	<i>Lyginia imberbis</i> , <i>Lyginia barbata</i> , <i>Lepidosperma squamatum</i> , <i>Tetraria octandra</i> , <i>Desmocladius flexuosus</i> and <i>Hypolaena exsulca</i>
Herbs and grasses	<i>Carpobrotus sp.</i> , <i>Platysace compressa</i> , <i>Trachymene pilosa</i> , <i>Chamaescilla corymbosa</i> , <i>Drosera erythroyne</i> , and <i>Opercularia hispidula</i>



2.3.8 *Sessilis Thicket*

Description: Occurs on coastal dunes with a southerly aspect in the southern portion of the survey area. Tall shrub layer (2-4m) dominated by *Banksia sessilis* var. *cordata* (P2) over a dense sedge layer dominated by *Lepidosperma gladiatum*.

Floristic Summary:

Lifeform	Species
Shrubs >2m	<i>Olearia axillaris</i> , <i>Scaevola nitida</i> , <i>Spyridium globulosum</i> and <i>Exocarpos sparteus</i>
Sedges and rushes	<i>Lepidosperma gladiatum</i> , <i>Desmocladius flexuosus</i> and <i>Loxocarya cinerea</i>



2.3.10 Tree Mallee

Description: Occurs on slopes and in protected swales within the coastal scrub vegetation in the western portion of the survey area. The mallees form a tall (5-15 m) closed woodland dominated by *Eucalyptus angulosa*. *Banksia sessilis* var. *cordata* (P2) is a common co-dominant or sub-dominant canopy species. The understory is dominated by *Spyridium globulosum*, *Acacia littoralis*, *Lepidosperma gladiatum*, *Desmocladius flexuosus* and *Loxocarya cinerea*.

Floristic Summary:

Lifeform	Species
Trees <10m	<i>Eucalyptus angulosa</i>
Shrubs >2m	<i>Scaevola nitida</i> , <i>Banksia sessilis</i> var. <i>cordata</i> (P2), <i>Acacia littoralis</i> , <i>Leucopogon parviflorus</i> , <i>Spyridium globulosum</i> and <i>Agonis flexuosa</i>
Shrubs 1-2m	<i>Exocarpos sparteus</i>
Shrubs 0.5-1m	<i>Oxalys phyllanthi</i>
Shrubs <0.5m	<i>Lysinema ciliatum</i> and <i>Conostylis aculeata</i> subsp. <i>aculeata</i>
Sedges and rushes	<i>Anarthria prolifera</i> , <i>Lepidosperma gladiatum</i> , <i>Desmocladius flexuosus</i> and <i>Loxocarya cinerea</i>
Herbs and grasses	<i>Clematis pubescens</i> and <i>Opercularia vaginata</i>





Figure 3: Vegetation condition mapped within survey area



## 2.5 Weeds

Of the 112 species recorded within the survey area, nine (<1%) were introduced species (Table 3).

**Table 3: Weed species recorded from the survey area**

Family	Species	Common Name	BAM Rating	EWS Rating
Asteraceae	<i>Conyza bonariensis</i>	Fleabane	None	Low
Asteraceae	<i>Hypochaeris glabra</i>	Smooth Catsear	None	Moderate
Asteraceae	<i>Hypochaeris radicata</i>	Flatweed	None	None
Geraniaceae	<i>Pelargonium capitatum</i>	Rose Pelargonium	None	High
Poaceae	<i>Cynodon dactylon</i>	Couch	None	Moderate
Poaceae	<i>Ehrharta longiflora</i>	Annual Veldt Grass	None	Moderate
Primulaceae	<i>Anagallis arvensis var. arvensis</i>	Scarlett Pimpernel	None	Mild
Solanaceae	<i>Solanum nigrum</i>	Blackberry Nightshade	None	Moderate
Typhaceae	<i>Typha orientalis</i>	Bulrush	None	High

Overall the main weed invaded area was associated a drainage line on the eastern boundary, which has resulted in the movement of aggressively invasive weeds such as *Typha orientalis* into the sedgeland.

Of the weeds recorded, none are declared agricultural weeds under the *Biosecurity and Agriculture Management Act 2007* and two species have been assigned a high priority for control in the Environmental Weeds Strategy for Western Australia (CALM 1999). These species include: *Pelargonium capitatum* (Rose Pelargonium) and *Typha orientalis* (Bulrush). The strategy classifies weeds according to their relative level of threat to conservation (high medium or low) and this rating is based their distribution, relative level of invasiveness and environmental impact (Appendix D).

### 3 SUMMARY

The survey area contains a high diversity of vegetation communities ranging from open heath, coastal scrub and sedgelands through to tree mallees, woodlands and forests with a range of dominant canopy species and a diverse range of shrub, sedge and herbs comprising the understorey. Most vegetation is in pristine condition, with no sign of *Phytophthora*, *Armillaria* or Cankers. The only area with any evidence of degradation is a small sedgeland on the eastern boundary where weeds have invaded as a result of roadwork and drainage from off-site. Targeted threatened flora surveys were not undertaken as a part of the scope of works, however two priority listed flora species were located during the vegetation mapping, including *Billardiera drummondii* (P4) and *Banksia sessilis var cordata* (P2).

## 5 APPENDICES

**APPENDIX A: Flora and Fauna Species Identified within 5 km of Survey area Through Nature Map**  
Generated from Nature Map (DPaW 2016) on 6 April 2016

- 865. 15429 *Acacia alata* var. *alata*
- 866. 3247 *Acacia browniana*
- 867. 11731 *Acacia browniana* var. *browniana*
- 868. 3262 *Acacia cochlearis* (Rigid Wattle)
- 869. 3282 *Acacia cyclops* (Coastal Wattle)
- 870. 3307 *Acacia divergens*
- 871. 3331 *Acacia extensa* (Wiry Wattle)
- 872. 3347 *Acacia gilbertii*
- 873. 3363 *Acacia hastulata*
- 874. 18217 *Acacia iteaphylla* Y
- 875. 3424 *Acacia littorea*
- 876. 3428 *Acacia luteola*
- 877. 3453 *Acacia myrtifolia*
- 878. 3484 *Acacia pentadenia* (Karri Wattle)
- 879. 35624 *Acacia pentadenia* subsp. *pentadenia*
- 880. *Acacia provincialis* Y
- 881. 3502 *Acacia pulchella* (Prickly Moses)
- 882. 15482 *Acacia pulchella* var. *goadbyi*
- 883. 15483 *Acacia pulchella* var. *pulchella*
- 884. 3523 *Acacia robiniae*
- 885. 30036 *Acacia saligna* subsp. *stolonifera*
- 886. 3530 *Acacia scalpelliformis*
- 887. 3576 *Acacia tetragonocarpa*
- 888. 3588 *Acacia uliginosa*
- 889. 3591 *Acacia urophylla*
- 890. 15487 *Acacia varia* var. *varia*
- 891. 3602 *Acacia willdenowiana* (Grass Wattle)
- 892. 3185 *Acaena novae-zelandiae* Y
- 893. 1208 *Acanthocarpus preissii*
- 894. 13146 *Acetabularia peniculus*
- 895. 17774 *Acetosella vulgaris* Y
- 896. 10824 *Acidonia microcarpa*
- 897. 6295 *Acrotriche cordata* (Coast Ground Berry)
- 898. 5315 *Actinodium cunninghamii* (Albany Daisy)
- 899. 6203 *Actinotus glomeratus*
- 900. 6206 *Actinotus omnifertilis*
- 901. 1773 *Adenanthos cuneatus* (Coastal Jugflower)
- 902. 1791 *Adenanthos obovatus* (Basket Flower)
- 903. 5316 *Agonis flexuosa* (Peppermint, Wonil)
- 904. 17202 *Agonis flexuosa* var. *flexuosa*
- 905. 17203 *Agonis flexuosa* var. *latifolia*
- 906. *Agonis* sp.
- 907. 19789 *Agonis theiformis*
- 908. 177 *Agrostis capillaris* Y
- 909. *Agrostis* sp.
- 910. 182 *Agrostis stolonifera* (Creeping Bent) Y
- 911. 23474 *Agrostocrinum hirsutum*



963. 20249 *Astartea leptophylla*  
 964. 45213 *Astartea pulchella*  
 965. 20283 *Astartea scoparia*  
 966. *Astartea* sp.  
 967. *Asterella drummondii*  
 968. 7851 *Asteridea pulverulenta* (Common Bristle Daisy)  
 969. 6325 *Astroloma drummondii*  
 970. *Astroloma* sp.  
 971. 2462 *Atriplex hypoleuca*  
 972. 2471 *Atriplex prostrata* (Hastate Orache) Y  
 973. 17240 *Austrostipa flavescens*  
 974. 17241 *Austrostipa hemipogon*  
 975. 17245 *Austrostipa mollis*  
 976. 17253 *Austrostipa semibarbata*  
 977. 231 *Avellinia michelii* Y  
 978. 233 *Avena barbata* (Bearded Oat) Y  
 979. 20013 *Axonopus fissifolius* Y  
 980. 5364 *Baeckea pygmaea*  
 981. 1800 *Banksia attenuata* (Slender Banksia, Piara)  
 982. 1819 *Banksia grandis* (Bull Banksia, Pulgarla)  
 983. 1822 *Banksia ilicifolia* (Holly-leaved Banksia)  
 984. 1830 *Banksia littoralis* (Swamp Banksia, Pungura)  
 985. 1837 *Banksia occidentalis* (Red Swamp Banksia)  
 986. 1844 *Banksia quercifolia* (Oak-leaved Banksia)  
 987. 1848 *Banksia seminuda* (River Banksia)  
 988. 32084 *Banksia serra* (Serrate-leaved Dryandra) P4  
 989. 32315 *Barbula calycina*  
 990. 739 *Baumea acuta* (Pale Twig-rush)  
 991. 741 *Baumea articulata* (Jointed Rush)  
 992. 743 *Baumea juncea* (Bare Twigrush)  
 993. 744 *Baumea laxa*  
 994. 745 *Baumea preissii*  
 995. 747 *Baumea rubiginosa*  
 996. 5381 *Beaufortia decussata* (Gravel Bottlebrush)  
 997. 5392 *Beaufortia sparsa* (Swamp Bottlebrush)  
 998. 3154 *Billardiera coriacea*  
 999. 25787 *Billardiera drummondii*  
 1000. 3157 *Billardiera floribunda* (White-flowered Billardiera)  
 1001. 25798 *Billardiera fusiformis* (Australian Bluebell)  
 1002. 25796 *Billardiera heterophylla* (Australian Bluebell)  
 1003. 3159 *Billardiera laxiflora*  
 1004. *Billardiera* sp.  
 1005. 3165 *Billardiera variifolia*  
 1006. 749 *Bolboschoenus caldwellii* (Marsh Club-rush)  
 1007. 4403 *Boronia alata* (Winged Boronia)  
 1008. 4413 *Boronia crenulata* (Aniseed Boronia)  
 1009. 11503 *Boronia crenulata* var. *crenulata*  
 1010. 4416 *Boronia denticulata*  
 1011. 4422 *Boronia gracilipes* (Karri Boronia)  
 1012. 4423 *Boronia heterophylla* (Kalgan Boronia)  
 1013. 16631 *Boronia juncea* subsp. *micrantha*

1065. 32338 *Campylopus introflexus* Y  
 1066. 7909 *Carduus pycnocephalus* (Slender Thistle) Y  
 1067. 2956 *Cassytha pomiformis* (Dodder Laurel)  
 1068. 2957 *Cassytha racemosa* (Dodder Laurel)  
 1069. 11799 *Cassytha racemosa* forma *racemosa*  
 1070. 41564 *Cenchrus clandestinus* (Kikuyu Grass) Y  
 1071. 6539 *Centaurium erythraea* (Common Centaury) Y  
 1072. 6542 *Centaurium tenuiflorum* Y  
 1073. 6214 *Centella asiatica*  
 1074. 7367 *Centranthus ruber* (Red Valerian) Y  
 1075. 35322 *Centranthus ruber* subsp. *ruber* Y  
 1076. 1121 *Centrolepis aristata* (Pointed Centrolepis)  
 1077. 1125 *Centrolepis drummondiana*  
 1078. 1133 *Centrolepis pilosa*  
 1079. 1134 *Centrolepis polygyna* (Wiry Centrolepis)  
 1080. 3148 *Cephalotus follicularis* (Albany Pitcher Plant)  
 1081. *Cephaloziella varians*  
 1082. 13119 *Cerastium balearicum* Y  
 1083. 32462 *Ceratodon purpureus* subsp. *convolutus*  
 1084. 17685 *Chaetanthus aristatus*  
 1085. 1065 *Chaetanthus leptocarpoides*  
 1086. 17687 *Chaetanthus tenellus*  
 1087. *Chaetophyllopsis whiteleggei*  
 1088. 1280 *Chamaescilla corymbosa* (Blue Squill)  
 1089. 3169 *Cheiranthera preissiana*  
 1090. 2483 *Chenopodium album* (Fat Hen) Y  
 1091. 2494 *Chenopodium murale* (Nettle-leaf Goosefoot) Y  
 1092. *Chiloscyphus semiteres* var. *semiteres*  
 1093. 17689 *Chordifex laxus*  
 1094. 2335 *Choretrum lateriflorum* (Dwarf Sour Bush)  
 1095. 4448 *Chorilaena quercifolia* (Chorilaena)  
 1096. 763 *Chorizandra enodis* (Black Bristlerush)  
 1097. 13112 *Chorizema aciculare* subsp. *aciculare*  
 1098. 8971 *Chorizema cordatum*  
 1099. 3754 *Chorizema diversifolium*  
 1100. 3758 *Chorizema ilicifolium* (Holly Flame Pea)  
 1101. 3760 *Chorizema reticulatum* (Showy Flame Pea)  
 1102. 13107 *Chorizema retrorsum*  
 1103. 3761 *Chorizema rhombeum*  
 1104. 14586 *Chorizema spathulatum*  
 1105. 7937 *Cirsium vulgare* (Spear Thistle, Scotch Thistle) Y  
 1106. 2929 *Clematis pubescens* (Common Clematis)  
 1107. 4550 *Comesperma calymega* (Blue-spike Milkwort)  
 1108. 4551 *Comesperma ciliatum*  
 1109. 4552 *Comesperma confertum*  
 1110. 4554 *Comesperma flavum*  
 1111. 4557 *Comesperma nudiusculum*  
 1112. *Comesperma* sp.  
 1113. 4564 *Comesperma virgatum* (Milkwort)  
 1114. 40863 *Commersonia corylifolia* (Hazel-leaved Rulingia)  
 1115. 40864 *Commersonia cygnorum*

1167. 10871 *Daucus carota* (Wild Carrot) Y  
 1168. 6218 *Daucus glochidiatus* (Australian Carrot)  
 1169. 3791 *Daviesia alternifolia*  
 1170. 3811 *Daviesia flexuosa*  
 1171. 3817 *Daviesia inflata*  
 1172. 17691 *Desmocladius fasciculatus*  
 1173. 16595 *Desmocladius flexuosus*  
 1174. 299 *Deyeuxia quadriseta* (Reed Bentgrass)  
 1175. 16326 *Dianella brevicaulis*  
 1176. 7487 *Diaspasis filifolia* (Thread-leaved Diaspasis)  
 1177. 306 *Dichelachne crinita* (Longhair Plumegrass)  
 1178. 32344 *Dicranoloma diaphanoneuron*  
 1179. 32346 *Didymodon torquatus*  
 1180. 40865 *Dielsiodoxa lycopodioides*  
 1181. 38261 *Dielsiodoxa tamariscina* P2  
 1182. 320 *Digitaria sanguinalis* (Crab Grass) Y  
 1183. 3011 *Diplotaxis muralis* (Wall Rocket) Y  
 1184. 3867 *Dipogon lignosus* (Dolichos Pea) Y  
 1185. 19649 *Disa bracteata* Y  
 1186. 7962 *Dittrichia viscosa* Y  
 1187. 11049 *Diuris corymbosa*  
 1188. 1638 *Diuris setacea* (Bristly Donkey Orchid)  
 1189. *Diuris* sp.  
 1190. 4765 *Dodonaea humifusa*  
 1191. 1640 *Drakaea glyptodon* (King-in-his-carriage)  
 1192. 1642 *Drakaea thynniphila*  
 1193. 13218 *Drosera erythrogyne*  
 1194. 3110 *Drosera microphylla* (Golden Rainbow)  
 1195. 3112 *Drosera myriantha* (Star Rainbow)  
 1196. 3113 *Drosera neesii* (Jewel Rainbow)  
 1197. 11768 *Drosera neesii* subsp. *neesii*  
 1198. 3118 *Drosera pallida* (Pale Rainbow)  
 1199. 3122 *Drosera platypoda* (Fan-leaved Sundew)  
 1200. 3124 *Drosera pulchella* (Pretty Sundew)  
 1201. 13186 *Drosera roseana*  
 1202. 3131 *Drosera stolonifera* (Leafy Sundew)  
 1203. 8914 *Drosera sulphurea* (Sulphur-flowered Sundew)  
 1204. 33480 *Dysphania pumilio* (Clammy Goosefoot)  
 1205. 32351 *Eccremidium pulchellum*  
 1206. 11105 *Echinochloa crus-galli* Y  
 1207. 6681 *Echium plantagineum* (Paterson's Curse) Y  
 1208. 347 *Ehrharta calycina* (Perennial Veldt Grass) Y  
 1209. 349 *Ehrharta longiflora* (Annual Veldt Grass) Y  
 1210. 1643 *Elythranthera brunonis* (Purple Enamel Orchid)  
 1211. 1644 *Elythranthera emarginata* (Pink Enamel Orchid)  
 1212. 1067 *Empodisma gracillimum*  
 1213. 32353 *Entosthodon apophysatus*  
 1214. 32354 *Entosthodon productus*  
 1215. 1645 *Epiblema grandiflorum* (Babe-in-a-cradle)  
 1216. 11992 *Epilobium billardioreanum* subsp. *intermedium*  
 1217. 373 *Eragrostis brownii* (Brown's Lovegrass)

1269. 10909 *Gompholobium confertum*  
 1270. 3950 *Gompholobium knightianum*  
 1271. 3954 *Gompholobium polymorphum*  
 1272. 11083 *Gompholobium scabrum*  
 1273. 3957 *Gompholobium tomentosum* (Hairy Yellow Pea)  
 1274. 3958 *Gompholobium venustum* (Handsome Wedge-pea)  
 1275. 11115 *Gompholobium villosum*  
 1276. 16746 *Gonocarpus benthamii* subsp. *benthamii*  
 1277. 7505 *Goodenia eatoniana*  
 1278. 7523 *Goodenia leptoclada* (Thin-stemmed Goodenia)  
 1279. 13165 *Goodenia pusilla*  
 1280. 1977 *Grevillea cirsiifolia* (Varied-leaf Grevillea)  
 1281. 13084 *Grevillea fuscolutea* T  
 1282. 2052 *Grevillea occidentalis*  
 1283. 15991 *Grevillea pulchella* subsp. *pulchella*  
 1284. 2080 *Grevillea quercifolia* (Oak-leaf Grevillea)  
 1285. 2112 *Grevillea trifida*  
 1286. 908 *Gymnoschoenus anceps*  
 1287. 32390 *Gymnostomum calcareum*  
 1288. 2787 *Gyrostemon sheathii*  
 1289. 1474 *Haemodorum sparsiflorum*  
 1290. 2137 *Hakea ceratophylla* (Horned Leaf Hakea)  
 1291. 2150 *Hakea cucullata* (Hood Leaved Hakea)  
 1292. 2171 *Hakea laurina* (Pincushion Hakea, Kodjet)  
 1293. 2174 *Hakea linearis*  
 1294. 2191 *Hakea oleifolia* (Dungyn)  
 1295. 2197 *Hakea prostrata* (Harsh Hakea)  
 1296. 2203 *Hakea ruscifolia* (Candle Hakea)  
 1297. *Hakea* sp.  
 1298. 2212 *Hakea sulcata* (Furrowed Hakea)  
 1299. 6183 *Haloragodendron racemosum* (Shrubby Raspwort)  
 1300. 3961 *Hardenbergia comptoniana* (Native Wisteria)  
 1301. 32391 *Hedwigia ciliata*  
 1302. 32392 *Hedwigidium integrifolium*  
 1303. 29594 *Helichrysum luteoalbum* (Jersey Cudweed)  
 1304. 439 *Hemarthria uncinata* (Matgrass)  
 1305. 11451 *Hemarthria uncinata* var. *uncinata*  
 1306. 6839 *Hemiandra pungens* (Snakebush)  
 1307. 6855 *Hemigenia humilis*  
 1308. 6856 *Hemigenia incana* (Silky Hemigenia)  
 1309. 6865 *Hemigenia podalyrina*  
 1310. 5109 *Hibbertia amplexicaulis*  
 1311. 5114 *Hibbertia commutata*  
 1312. 5117 *Hibbertia cuneiformis* (Cutleaf Hibbertia)  
 1313. 5118 *Hibbertia cunninghamii*  
 1314. 5119 *Hibbertia depressa*  
 1315. 5126 *Hibbertia furfuracea*  
 1316. 5132 *Hibbertia grossulariifolia*  
 1317. 5135 *Hibbertia hypericoides* (Yellow Buttercups)  
 1318. 5144 *Hibbertia microphylla*  
 1319. 19687 *Hibbertia notibractea*

1371. 1188 *Juncus pallidus* (Pale Rush)  
 1372. 1190 *Juncus planifolius* (Broadleaf Rush)  
 1373. *Juncus* sp.  
 1374. 1196 *Juncus usitatus* (Common Rush) Y  
 1375. 4036 *Kennedia carinata*  
 1376. 4037 *Kennedia coccinea* (Coral Vine)  
 1377. 1221 *Kingia australis* (Kingia, Pulonok)  
 1378. 5832 *Kunzea ericifolia* (Spearwood, Pandil)  
 1379. 17506 *Kunzea ericifolia* subsp. *ericifolia*  
 1380. 15498 *Kunzea glabrescens* (Spearwood)  
 1381. 5841 *Kunzea recurva*  
 1382. 5844 *Kunzea sulphurea*  
 1383. 20019 *Lachnagrostis filiformis*  
 1384. 2253 *Lambertia uniflora*  
 1385. 5033 *Lasiopetalum floribundum* (Free Flowering Lasiopetalum)  
 1386. 4047 *Lathyrus tingitanus* (Tangier Pea) Y  
 1387. 4048 *Latrobea brunonis*  
 1388. 4049 *Latrobea diosmifolia*  
 1389. 4050 *Latrobea genistoides*  
 1390. 1303 *Laxmannia grandiflora*  
 1391. 1302 *Laxmannia jamesii* (James' Paperlily) P4  
 1392. 7572 *Lechenaultia expansa*  
 1393. 7590 *Lechenaultia tubiflora* (Heath Leschenaultia)  
 1394. *Leionema lamprophyllum* subsp. *lamprophyllum*  
 1395. 8099 *Leontodon saxatilis* (Hairy Hawkbit) Y  
 1396. *Leontodon* sp. Y  
 1397. 3021 *Lepidium bonariense* (Peppercress) Y  
 1398. 19989 *Lepidium didymum* Y  
 1399. 3042 *Lepidium pseudotasmanicum* P4  
 1400. 925 *Lepidosperma angustatum*  
 1401. 932 *Lepidosperma effusum* (Spreading Sword-sedge)  
 1402. 933 *Lepidosperma gladiatum* (Coast Sword-sedge, Kerbin)  
 1403. 934 *Lepidosperma gracile* (Slender Sword Sedge)  
 1404. 937 *Lepidosperma longitudinale* (Pithy Sword-sedge)  
 1405. *Lepidosperma* sp.  
 1406. 945 *Lepidosperma squamatum*  
 1407. 946 *Lepidosperma striatum*  
 1408. 948 *Lepidosperma tetraquetrum*  
 1409. 19833 *Leptocarpus laxus*  
 1410. *Leptocarpus* sp.  
 1411. 1082 *Leptocarpus tenax* (Slender Twine Rush)  
 1412. 17703 *Leptomeria ellytes*  
 1413. 2350 *Leptomeria pauciflora* (Sparse-flowered Currant Bush)  
 1414. 2353 *Leptomeria scrobiculata*  
 1415. 2355 *Leptomeria squarrulosa*  
 1416. 17852 *Leptorhynchos scaber* (Lanky Buttons)  
 1417. 1084 *Lepyrodia drummondiana*  
 1418. 1087 *Lepyrodia hermaphrodita*  
 1419. 1089 *Lepyrodia monoica*  
 1420. 1090 *Lepyrodia muirii*  
 1421. *Lethocolea pansa*

1473. 1244 *Lomandra sonderi*  
 1474. 1246 *Lomandra suaveolens*  
 1475. 4059 *Lotus angustissimus* (Narrowleaf Trefoil) Y  
 1476. 8564 *Lotus subbiflorus* Y  
 1477. 4063 *Lotus uliginosus* (Greater Lotus) Y  
 1478. 1092 *Loxocarya cinerea*  
 1479. 1097 *Lyginia barbata*  
 1480. 18049 *Lyginia imberbis*  
 1481. 1656 *Lyperanthus serratus* (Rattle Beak Orchid)  
 1482. 6456 *Lysinema ciliatum* (Curry Flower)  
 1483. 6457 *Lysinema conspicuum*  
 1484. 34736 *Lysinema pentapetalum*  
 1485. 5281 *Lythrum hyssopifolia* (Lesser Loosestrife) Y  
 1486. 18119 *Macrozamia fraseri*  
 1487. 85 *Macrozamia riedlei* (*Zamia*, Djiridji)  
 1488. 36522 *Malva pseudolavatera* Y  
 1489. 17637 *Marianthus candidus* (White Marianthus)  
 1490. 17636 *Marianthus coeruleopunctatus* (Blue-spotted Marianthus)  
 1491. 25822 *Marianthus sylvaticus*  
 1492. 4072 *Medicago arabica* (Spotted Medic) Y  
 1493. 4076 *Medicago lupulina* (Black Medic) Y  
 1494. 4079 *Medicago polymorpha* (Burr Medic) Y  
 1495. 17679 *Meeboldina coangustata*  
 1496. 1098 *Meeboldina denmarkica*  
 1497. 17694 *Meeboldina scariosa*  
 1498. *Meeboldina* sp.  
 1499. 17693 *Meeboldina thysanantha* P3  
 1500. *Meeboldina thysanantha* MS  
 1501. 34676 *Meionectes brownii* (Swamp Raspwort)  
 1502. 40780 *Melaleuca citrina* Y  
 1503. 5900 *Melaleuca cuticularis* (Saltwater Paperbark)  
 1504. 5902 *Melaleuca densa*  
 1505. 5921 *Melaleuca incana* (Grey Honey Myrtle)  
 1506. 5922 *Melaleuca lanceolata* (Rottnest Teatree, Moonah)  
 1507. 5926 *Melaleuca lateritia* (Robin Redbreast Bush)  
 1508. 5938 *Melaleuca microphylla*  
 1509. 13274 *Melaleuca ordinifolia* P2  
 1510. 5946 *Melaleuca pauciflora*  
 1511. 5952 *Melaleuca preissiana* (Moonah)  
 1512. 5959 *Melaleuca raphiophylla* (Swamp Paperbark)  
 1513. *Melaleuca* sp.  
 1514. 5968 *Melaleuca spathulata*  
 1515. 5980 *Melaleuca thymoides*  
 1516. 37683 *Melaleuca viminalis* P2  
 1517. 5987 *Melaleuca viminea* (Mohan)  
 1518. 4085 *Melilotus indicus* Y  
 1519. 6883 *Mentha pulegium* (Pennyroyal) Y  
 1520. 957 *Mesomelaena tetragona* (Semaphore Sedge)  
 1521. 485 *Microlaena stipoides* (Weeping Grass)  
 1522. 1657 *Microtis alba* (White Mignonette Orchid)  
 1523. 34158 *Microtis albovidis*

1575. 2306 *Petrophile rigida*  
 1576. 17765 *Petrophile squamata* subsp. *squamata*  
 1577. 548 *Phalaris aquatica* (*Phalaris*) Y  
 1578. 20460 *Pheladenia deformis*  
 1579. 18530 *Philotheca nodiflora*  
 1580. 1173 *Philydrella pygmaea* (*Butterfly Flowers*)  
 1581. 16177 *Phyllangium paradoxum*  
 1582. 4140 *Phyllota barbata*  
 1583. 2793 *Phytolacca octandra* (*Red Ink Plant*) Y  
 1584. 5231 *Pimelea angustifolia* (*Narrow-leaved Pimelea*)  
 1585. 5239 *Pimelea clavata*  
 1586. 5242 *Pimelea erecta*  
 1587. 5243 *Pimelea ferruginea*  
 1588. 5249 *Pimelea hispida* (*Bristly Pimelea*)  
 1589. 11402 *Pimelea imbricata* var. *piliger*  
 1590. 5252 *Pimelea lanata*  
 1591. 5255 *Pimelea longiflora*  
 1592. 11639 *Pimelea longiflora* subsp. *longiflora*  
 1593. 5261 *Pimelea rosea* (*Rose Banjine*)  
 1594. 18117 *Pimelea rosea* subsp. *rosea*  
 1595. *Pimelea* sp.  
 1596. 5264 *Pimelea spectabilis* (*Bunjong*)  
 1597. 5266 *Pimelea suaveolens* (*Scented Banjine*)  
 1598. 5269 *Pimelea sylvestris*  
 1599. 5270 *Pimelea tinctoria*  
 1600. 42281 *Pithocarpa cordata*  
 1601. 18352 *Pithocarpa pulchella* var. *melanostigma*  
 1602. 42260 *Pithocarpa ramosa*  
 1603. 7303 *Plantago lanceolata* (*Ribwort Plantain*) Y  
 1604. 6249 *Platysace compressa* (*Tapeworm Plant*)  
 1605. 6253 *Platysace filiformis*  
 1606. 6258 *Platysace pendula*  
 1607. 4524 *Platytheca galioides*  
 1608. 4525 *Platytheca juniperina*  
 1609. 32478 *Pleuridium nervosum* var. *nervosum*  
 1610. 19062 *Pleurophascum occidentale* P4  
 1611. *Plumatichilos turfosa*  
 1612. 573 *Poa drummondiana* (*Knotted Poa*)  
 1613. 577 *Poa poiformis* (*Coastal Poa*)  
 1614. 16098 *Poa poiformis* var. *poiformis*  
 1615. 578 *Poa porphyroclados*  
 1616. *Poa* sp.  
 1617. 86 *Podocarpus drouynianus* (*Wild Plum, Kula*)  
 1618. 8175 *Podolepis gracilis* (*Slender Podolepis*)  
 1619. 8182 *Podotheca angustifolia* (*Sticky Longheads*)  
 1620. 29919 *Polianthion wichurae*  
 1621. 2905 *Polycarpon tetraphyllum* (*Fourleaf Allseed*) Y  
 1622. 4578 *Polygala virgata* Y  
 1623. 2419 *Polygonum aviculare* (*Wireweed*) Y  
 1624. 582 *Polypogon monspeliensis* (*Annual Beardgrass*) Y  
 1625. 4688 *Poranthera drummondii*

1677. 40425 *Rytidosperma caespitosum*  
 1678. 40430 *Rytidosperma pilosum*  
 1679. 40428 *Rytidosperma racemosum*  
 1680. 40427 *Rytidosperma setaceum*  
 1681. 2906 *Sagina apetala* (Annual Pearlwort) Y  
 1682. 79 *Salvinia molesta* (*Salvinia*) Y  
 1683. 6483 *Samolus junceus*  
 1684. 6484 *Samolus repens* (Creeping Brookweed)  
 1685. 3192 *Sanguisorba minor* (Sheep's Burnet) Y  
 1686. 2593 *Sarcocornia quinqueflora* (Beaded Samphire)  
 1687. 7598 *Scaevola auriculata*  
 1688. 7613 *Scaevola glandulifera* (Viscid Hand-flower)  
 1689. 7614 *Scaevola globulifera*  
 1690. 7624 *Scaevola microphylla* (Small-leaved Scaevola)  
 1691. 7626 *Scaevola nitida* (Shining Fanflower)  
 1692. 7634 *Scaevola phlebopetala* (Velvet Fanflower)  
 1693. 7646 *Scaevola striata* (Royal Robe)  
 1694. 13175 *Scaevola striata* var. *striata*  
 1695. 41660 *Schenkia australis*  
 1696. 24 *Schizaea fistulosa* (Narrow Comb Fern)  
 1697. 6263 *Schoenolaena juncea*  
 1698. 970 *Schoenus acuminatus*  
 1699. 983 *Schoenus cruentus*  
 1700. 986 *Schoenus efoliatus*  
 1701. 8312 *Schoenus maschalinus*  
 1702. 1001 *Schoenus multiglumis*  
 1703. 1004 *Schoenus nitens* (Shiny Bog-rush)  
 1704. 1006 *Schoenus odontocarpus*  
 1705. 1017 *Schoenus subbulbosus*  
 1706. 1018 *Schoenus subfascicularis*  
 1707. 1021 *Schoenus sublaxus*  
 1708. 1023 *Schoenus tenellus*  
 1709. 7651 *Selliera radicans* P1  
 1710. 32433 *Sematophyllum homomallum*  
 1711. 32483 *Sematophyllum subhumile* var. *contiguum*  
 1712. 8208 *Senecio hispidulus* (Hispid Fireweed)  
 1713. 20663 *Senecio multicaulis* subsp. *multicaulis*  
 1714. 25884 *Senecio pinnatifolius* var. *latilobus*  
 1715. 8218 *Senecio ramosissimus* (Auricled Groundsel)  
 1716. *Senecio* sp.  
 1717. 19453 *Setaria parviflora* Y  
 1718. 11803 *Silene gallica* var. *quinquevulnera* Y  
 1719. 8225 *Siloxerus humifusus* (Procumbent Siloxerus)  
 1720. *Siloxerus* sp.  
 1721. 7017 *Solanum laciniatum* (Kangaroo Apple) Y  
 1722. 9259 *Solanum nodiflorum* (Glossy Nightshade)  
 1723. 8231 *Sonchus oleraceus* (Common Sowthistle) Y  
 1724. 1312 *Sowerbaea laxiflora* (Purple Tassels)  
 1725. 4200 *Sphaerolobium alatum*  
 1726. 20348 *Sphaerolobium calcicola* P3  
 1727. 17551 *Sphaerolobium drummondii*



1779. 7802 *Stylidium squamosotuberosum* (Fleshy-rhizomed Trigger Plant)  
 1780. 1260 *Stypandra glauca* (Blind Grass)  
 1781. 2322 *Synaphea favosa*  
 1782. 16859 *Synaphea incurva* P1  
 1783. 12911 *Synaphea obtusata*  
 1784. 16864 *Synaphea petiolaris* subsp. *petiolaris*  
 1785. 16863 *Synaphea petiolaris* subsp. *triloba*  
 1786. 2326 *Synaphea polymorpha* (Albany *Synaphea*, Pinda)  
 1787. 2328 *Synaphea reticulata*  
 1788. 32439 *Syntrichia papillosa*  
 1789. 15827 *Taraxis grossa*  
 1790. 20100 *Taxandria angustifolia*  
 1791. 20114 *Taxandria fragrans*  
 1792. 20115 *Taxandria juniperina*  
 1793. 20135 *Taxandria linearifolia*  
 1794. 20134 *Taxandria marginata*  
 1795. 20133 *Taxandria parviceps*  
 1796. 32440 *Tayloria octoblepharum*  
 1797. *Tecticornia* sp.  
 1798. 4256 *Templetonia retusa* (Cockies Tongues)  
 1799. 2823 *Tetragonia implexicoma* (Bower Spinach)  
 1800. 1034 *Tetraria capillaris* (Hair Sedge)  
 1801. 1036 *Tetraria octandra*  
 1802. *Tetraria* sp.  
 1803. 35578 *Tetraria* sp. Blackwood River (A.R. Annel 3043) P3  
 1804. 35579 *Tetraria* sp. Jarrah Forest (R. Davis 7391)  
 1805. 667 *Tetrarrhena laevis* (Forrest Ricegrass)  
 1806. 4526 *Tetralochea affinis*  
 1807. 4536 *Tetralochea hispidissima*  
 1808. 1701 *Thelymitra antennifera* (Vanilla Orchid)  
 1809. 10856 *Thelymitra benthamiana* (Leopard Orchid)  
 1810. 1704 *Thelymitra cornicina* (Lilac Sun Orchid)  
 1811. 1706 *Thelymitra cucullata* (Swamp Sun Orchid)  
 1812. 1707 *Thelymitra flexuosa* (Twisted Sun Orchid)  
 1813. 11053 *Thelymitra macrophylla*  
 1814. 5091 *Thomasia paniculata*  
 1815. 5092 *Thomasia pauciflora* (Few Flowered *Thomasia*)  
 1816. 5094 *Thomasia purpurea*  
 1817. 5096 *Thomasia quercifolia* (Oak Leaved *Thomasia*) P4  
 1818. 5097 *Thomasia rhynchocarpa*  
 1819. 5100 *Thomasia solanacea* P4  
 1820. 33488 *Thomasia* sp. Vasse (C. Wilkins & K. Shepherd CW 581)  
 1821. 32442 *Thuidium sparsum*  
 1822. 1333 *Thysanotus glaucifolius*  
 1823. 1339 *Thysanotus multiflorus* (Many-flowered Fringe Lily)  
 1824. 1351 *Thysanotus sparteus*  
 1825. *Tortula* sp.  
 1826. *Tradescantia* sp.  
 1827. 4547 *Tremandra diffusa*  
 1828. 4548 *Tremandra stelligera*  
 1829. 17684 *Tremulina tremula*

1881. 1149 *Xyris lacera*

1882. 1150 *Xyris lanata*

1883. 32457 *Zygodon intermedius*

**APPENDIX C: Structural Classification used for Vegetation Mapping (Keighery 1994)**

Life form/ height class	Canopy Cover			
	100-70%	70-30%	30-10%	<10%
Trees > 30	Tall Closed Forest	Open Forest	Tall Woodland	Tall Open Woodland
Trees 10-30	Closed Forest	Open Forest	Woodland	Open Woodland
Trees < 10m	Low Closed Forest	Low open Forest	Low Woodland	Low Open Woodland
Tree Mallee	Closed Tree Mallee	Tree Mallee	Open Tree Mallee	Very Open Tree Mallee
Shrub Mallee	Closed Shrub Mallee	Shrub Mallee	Open Shrub Mallee	Very Open Shrub Mallee
Shrubs >2m	Closed Tall Scrub	Tall Open Scrub	Tall Shrubland	Tall Open Shrubland
Shrubs 1-2m	Closed Heath	Open Heath	Shrubland	Open Shrubland
Shrubs <1m	Closed Low Heath	Open Low Heath	Low Shrubland	Low Open Shrubland
Grasses	Closed Grassland	Grassland	Open Grassland	Very Open Grassland
Herbs	Closed Herbland	Herbland	Open Herbland	Very Open Herbland
Sedges	Closed Sedgeland	Sedgeland	Open Sedgeland	Very Open Sedgeland

**Table 9.1 Structural Classification (Keighery 1994)**

Life form / height class	Canopy cover			
	100-70%	70-30%	30-10%	10-2%
Trees over 30 Trees 10-30m Trees under 10 m	Tall Closed Forest Closed Forest Low Closed Forest	Open Forest Open Forest Low Open forest	Tall woodland Woodland Low Woodland	Tall Open Woodland Open Woodland Low Open Woodland
Tree Mallee Shrub Mallee	Closed Tree Mallee Closed Shrub Mallee	Tree mallee Shrub Mallee	Open Tree Mallee Open Shrub Mallee	Very Open Tree Mallee Very Open Shrub Mallee
Shrubs over 2m Shrubs 1-2m Shrubs under 1m	Closed Tall Scrub Closed Heath Closed Low Heath	Tall Open Scrub Open Heath Open Low Heath	Tall Shrubland Shrubland Low Shrubland	Tall Open Shrubland Open Shrubland Low Open Shrubland
Grasses	Closed Grassland	Grassland	Open Grassland	Very Open Grassland
Herbs	Closed Herbland	Herbland	Open Herbland	Very Open Herbland
Sedges	Closed Sedgeland	Sedgeland	Open Sedgeland	Very Open Sedgeland

# NatureMap Species Report

Created By Guest user on 08/06/2016

Current Names Only Yes

Core Datasets Only Yes

Method 'By Circle'

Centre 117° 25' 00" E 35° 05' 00" S

Buffer 10km

Group By Family

Family	Species	Records
Acanthizidae	9	107
Accipitridae	9	46
Anarthriaceae	3	6
Anatidae	10	114
Apiaceae	4	9
Archaeidae	1	1
Ardeidae	6	54
Arthoniaceae	1	1
Asparagaceae	2	2
Asteraceae	11	19
Bitacidae	1	1
Blenniidae	1	7
Bolbitaceae	1	1
Boletaceae	1	1
Buccinidae	3	3
Bulimulidae	1	1
Burhinidae	1	1
Calciaceae	1	1
Campanulaceae	2	2
Campephagidae	1	8
Casuarinaceae	1	4
Centrolepidaceae	2	3
Certhiidae	1	1
Certhiopsidae	2	2
Charadriidae	7	24
Cheloniidae	1	1
Chenopodiaceae	3	3
Chernetidae	1	1
Chironomidae	1	1
Cinclosomatidae	2	2
Cladoniaceae	2	2
Climacteridae	1	1
Clinidae	1	1
Coccocarpiaceae	1	1
Columbellidae	3	3
Columbidae	3	22
Conidae	1	1
Corallanidae	1	1
Corvidae	1	43
Cracticidae	4	51
Crassulaceae	1	1
Creedidae	1	1
Cuculidae	3	7
Cyperaceae	13	19
Dicruridae	2	19
Dilleniaceae	7	16
Diomedidae	1	3
Elaeocarpaceae	2	2
Elapidae	1	1
Epitonidae	1	1
Ericaceae	10	16
Estrilidae	2	8
Euphorbiaceae	1	2
Fabaceae	28	43
Falconidae	4	12
Fasciolaridae	1	1
Galaxiidae	1	1
Gekkonidae	1	10
Gentianaceae	1	1
Geoglossaceae	1	1
Geraniaceae	1	1
Gobiidae	3	18
Goodeniaceae	9	11
Gyrostemonaceae	1	1
Haematopodidae	2	14
Haemodoraceae	2	5
Halcyonidae	2	37
Haloragaceae	3	3
Hemerocallidaceae	2	4
Hemiramphidae	1	1
Heterodontidae	1	1
Hirundinidae	1	16
Hygrophoraceae	2	2
Hylidae	1	1
Iridaceae	1	3
Ischyroceridae	2	2
Juncaceae	2	2

Labridae	2	2
Lamiaceae	1	1
Laridae	5	77
Lecanoraceae	3	3
Loganiaceae	1	3
Lottiidae	1	1
Macropodidae	1	2
Maluridae	5	88
Malvaceae	2	3
Marginellidae	1	1
Meliphagidae	7	103
Menyanthaceae	1	1
Mugilidae	1	1
Muridae	1	3
Myrtaceae	18	23
Nannopercidae	1	1
Neosittidae	1	1
Oiacaceae	1	2
Olividae	1	1
Orchidaceae	16	19
Orobanchaceae	1	1
Otaridae	1	2
Oxalidaceae	1	1
Pachycephalidae	2	45
Paralichthyidae	1	1
Pardalotidae	2	6
Parmeliaceae	5	5
Pelecanidae	1	29
Peronosporaceae	1	3
Petrocidae	1	17
Phalacrocoracidae	5	39
Phasianidae	1	1
Phyllanthaceae	1	1
Physaraceae	1	1
Pitiosporaceae	1	1
Platycephalidae	1	4
Plotosidae	1	2
Poaceae	11	20
Podargidae	1	2
Podicipedidae	3	16
Poeciliidae	1	1
Polygalaceae	2	2
Polygonaceae	2	2
Polyporaceae	1	2
Portulacaceae	2	3
Potamogetonaceae	1	1
Primulaceae	1	1
Procellariidae	1	1
Proteaceae	14	19
Psittacidae	15	104
Rallidae	6	28
Ranellidae	2	2
Recurvirostridae	3	26
Restionaceae	5	8
Rhamnaceae	1	2
Rubiaceae	1	2
Rutaceae	6	11
Santalaceae	2	4
Scincidae	2	2
Scolopacidae	6	28
Scrophulariaceae	1	1
Silquanidae	1	1
Sillaginidae	1	1
Solanaceae	1	2
Sparidae	2	3
Sphaeromatidae	2	2
Strigidae	1	3
Stylidiaceae	8	10
Sulidae	1	7
Sylviidae	4	12
Teloschistaceae	3	3
Terapontidae	1	1
Threskiornithidae	3	49
Thymelaeaceae	7	12
Turnicidae	1	1
Venidae	2	2
Zamiaceae	1	1
Zosteropidae	1	48
<b>TOTAL</b>	<b>453</b>	<b>1781</b>

Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
<b>Acanthizidae</b>				
1	<i>Acanthiza (Acanthiza) apicalis subsp. apicalis</i>			
2	<i>Acanthiza (Geobasileus) chrysorrhoa subsp. chrysorrhoa</i>			
3	<i>Acanthiza (Geobasileus) inornata</i>			
4	24260 <i>Acanthiza apicalis (Broad-tailed Thornbill, Inland Thornbill)</i>			
5	24261 <i>Acanthiza chrysorrhoa (Yellow-rumped Thornbill)</i>			
6	24262 <i>Acanthiza inornata (Western Thornbill)</i>			
7	25530 <i>Gerygone fusca (Western Gerygone)</i>			
8	24271 <i>Gerygone fusca subsp. fusca (Western Gerygone)</i>			
9	25534 <i>Sericornis frontalis (White-browed Scrubwren)</i>			
<b>Accipitridae</b>				
10	<i>Accipiter (Leucospiza) fasciatus subsp. fasciatus</i>			
11	<i>Accipiter (Paraspizias) cirrocephalus subsp. cirrocephalus</i>			
12	25536 <i>Accipiter fasciatus (Brown Goshawk)</i>			
13	24285 <i>Aquila audax (Wedge-tailed Eagle)</i>			
14	24288 <i>Circus approximans (Swamp Harrier)</i>			
15	<i>Elanus axillaris</i>			
16	24293 <i>Haliaeetus leucogaster (White-bellied Sea-Eagle)</i>		IA	
17	24295 <i>Haliastur sphenurus (Whistling Kite)</i>			
18	<i>Pandion cristatus</i>			
<b>Anarthriaceae</b>				
19	1060 <i>Anarthria laevis</i>			
20	1062 <i>Anarthria prolifera</i>			
21	1097 <i>Lyginia barbata</i>			
<b>Anatidae</b>				
22	24310 <i>Anas castanea (Chestnut Teal)</i>			
23	24312 <i>Anas gracilis (Grey Teal)</i>			
24	24315 <i>Anas rhynchotis (Australasian Shoveler)</i>			
25	24316 <i>Anas superciliosa (Pacific Black Duck)</i>			
26	24318 <i>Aythya australis (Hardhead)</i>			
27	24319 <i>Biziura lobata (Musk Duck)</i>			
28	24321 <i>Chenonetta jubata (Australian Wood Duck, Wood Duck)</i>			
29	<i>Cygnus (Chenopsis) atratus</i>			
30	24322 <i>Cygnus atratus (Black Swan)</i>			
31	24331 <i>Tadorna tadornoides (Australian Shelduck, Mountain Duck)</i>			
<b>Apiaceae</b>				
32	6214 <i>Centella asiatica</i>			
33	6249 <i>Platysace compressa (Tapeworm Plant)</i>			
34	6284 <i>Xanthosia candida</i>			
35	6289 <i>Xanthosia huegelii</i>			
<b>Archaedidae</b>				
36	42361 <i>Zephyrarchaea mainae (Western Archaeid Spider)</i>		T	
<b>Ardeidae</b>				
37	25558 <i>Ardea ibis (Cattle Egret)</i>		IA	
38	41324 <i>Ardea modesta (Eastern Great Egret)</i>		IA	
39	<i>Egretta garzetta</i>			
40	<i>Egretta novaehollandiae</i>			
41	24347 <i>Ixobrychus flavicollis subsp. australis (Australian Black Bittern)</i>		P1	
42	25563 <i>Ixobrychus minutus (Little Bittern)</i>		P4	
<b>Arthoniaceae</b>				
43	27584 <i>Arthonia ilicina</i>			
<b>Asparagaceae</b>				
44	1280 <i>Chamaescilla corymbosa (Blue Squill)</i>			
45	1354 <i>Thysanotus tenellus</i>			
<b>Asteraceae</b>				
46	7851 <i>Astendea pulverulenta (Common Bristle Daisy)</i>			
47	8086 <i>Hypochaeris glabra (Smooth Catsear)</i>	Y		
48	8127 <i>Olearia axillaris (Coastal Daisybush)</i>			
49	8143 <i>Olearia paucidentata (Autumn Scrub Daisy)</i>			
50	42281 <i>Pithocarpa cordata</i>			
51	18352 <i>Pithocarpa pulchella var. melanostigma</i>			
52	42260 <i>Pithocarpa ramosa</i>			
53	8175 <i>Podolepis gracilis (Slender Podolepis)</i>			

Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
54	8182 <i>Pododtheca angustifolia</i> (Sticky Longheads)			
55	8195 <i>Quineta urvillei</i>			
56	8225 <i>Siloxerus humifusus</i> (Procumbent Siloxerus)			
<b>Bittacidae</b>				
57	<i>Harpobittacus similis</i>			
<b>Blenniidae</b>				
58	<i>Parablennius tasmanianus</i>			
<b>Bolbitiaceae</b>				
59	38784 <i>Descomyces albus</i>			
<b>Boletaceae</b>				
60	<i>Austroboletus</i> sp.			
<b>Buccinidae</b>				
61	<i>Buccinulum bednalli</i>			
62	<i>Cominella (Cominella) eburnea</i>			
63	<i>Fusus</i> sp.			
<b>Bulimulidae</b>				
64	<i>Bothriembryon (Bothriembryon) kingii</i>			
<b>Burhinidae</b>				
65	<i>Burhinus (Burhinus) grallarius</i>			
<b>Calciaceae</b>				
66	27708 <i>Cyphelium trachyloides</i>			
<b>Campanulaceae</b>				
67	7403 <i>Lobelia heterophylla</i> (Wing-seeded Lobelia)			
68	7408 <i>Lobelia tenuior</i> (Slender Lobelia)			
<b>Campephagidae</b>				
69	25568 <i>Coracina novaehollandiae</i> (Black-faced Cuckoo-shrike)			
<b>Casuarinaceae</b>				
70	1732 <i>Allocasuarina humilis</i> (Dwarf Sheoak)			
<b>Centrolepidaceae</b>				
71	1117 <i>Aphelia cyperoides</i>			
72	1121 <i>Centrolepis aristata</i> (Pointed Centrolepis)			
<b>Cerithiidae</b>				
73	<i>Cacozeliana grananum</i>			
<b>Cerithiopsidae</b>				
74	<i>Ataxocerithium serotinum</i>			
75	<i>Seila magna</i>			
<b>Charadriidae</b>				
76	<i>Charadrius (Charadrius) ruficapillus</i>			
77	24376 <i>Charadrius rubricollis</i> (Hooded Plover)		P4	
78	24377 <i>Charadrius ruficapillus</i> (Red-capped Plover)			
79	<i>Eiseyornis melanops</i>			
80	24382 <i>Pluvialis fulva</i> (Pacific Golden Plover)		IA	
81	24383 <i>Pluvialis squalarola</i> (Grey Plover)		IA	
82	<i>Thinornis rubricollis</i>			
<b>Cheloniidae</b>				
83	25335 <i>Caretta caretta</i> (Loggerhead Turtle)		T	
<b>Chenopodiaceae</b>				
84	2471 <i>Atriplex prostrata</i> (Hastate Orache)	Y		
85	11341 <i>Rhagodia baccata</i> subsp. <i>baccata</i>			
86	<i>Tecticornia</i> sp.			
<b>Chernetidae</b>				
87	<i>Conicochernes crassus</i>			
<b>Chironemidae</b>				
88	<i>Threpterus maculosus</i>			
<b>Cinclosomatidae</b>				
89	25579 <i>Psophodes nigrogularis</i> (Western Whipbird)			
90	24388 <i>Psophodes nigrogularis</i> subsp. <i>nigrogularis</i> (Western Whipbird (western heath))		T	
<b>Cladoniaceae</b>				
91	27672 <i>Cladonia calyciformis</i>			
92	28208 <i>Cladonia cervicornis</i> subsp. <i>verticillata</i>			

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Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
<b>Climacteridae</b>				
93.	24396 <i>Climacteris rufa</i> (Rufous Treecreeper)			
<b>Clinidae</b>				
94.	<i>Heteroclinus eckloniae</i>			
<b>Coccocarpiaceae</b>				
95	28063 <i>Spilonema paradoxum</i>			
<b>Columbellidae</b>				
96.	<i>Mitrella</i> ( <i>Dentimitrella</i> ) <i>austrina</i>			
97	<i>Mitrella</i> ( <i>Dentimitrella</i> ) <i>semiconvexa</i>			
98	<i>Mitrella</i> ( <i>Zemitrella</i> ) <i>menkeana</i>			
<b>Columbidae</b>				
99	24407 <i>Ocyphaps lophotes</i> (Crested Pigeon)			
100.	24409 <i>Phaps chalcoptera</i> (Common Bronzewing)			
101	25587 <i>Phaps elegans</i> (Brush Bronzewing)			
<b>Conidae</b>				
102	<i>Conus anemone</i>			
<b>Corallanidae</b>				
103.	<i>Argathona</i> sp.			Y
<b>Corvidae</b>				
104	25592 <i>Corvus coronoides</i> (Australian Raven)			
<b>Cracticidae</b>				
105	25595 <i>Cracticus tibicen</i> (Australian Magpie)			
106	25596 <i>Cracticus torquatus</i> (Grey Butcherbird)			
107	<i>Strepera</i> ( <i>Neostrepera</i> ) <i>versicolor</i> subsp. <i>plumbea</i>			
108	25597 <i>Strepera versicolor</i> (Grey Currawong)			
<b>Crassulaceae</b>				
109.	3137 <i>Crassula colorata</i> (Dense Stonecrop)			
<b>Creediidae</b>				
110	<i>Limnichthys fasciatus</i>			
<b>Cuculidae</b>				
111	25598 <i>Cacomantis labelliformis</i> (Fan-tailed Cuckoo)			
112	24431 <i>Chrysococcyx basalis</i> (Horsfield's Bronze Cuckoo)			
113.	24432 <i>Chrysococcyx lucidus</i> subsp. <i>plagosus</i> (Shining Bronze Cuckoo)			
<b>Cyperaceae</b>				
114	739 <i>Baumea acuta</i> (Pale Twig-rush)			
115.	743 <i>Baumea juncea</i> (Bare Twigrush)			
116	20216 <i>Ficinia nodosa</i> (Knotted Club Rush)			
117	17744 <i>Gahnia sclenoides</i>			P4
118	917 <i>Isolepis marginata</i> (Coarse Club-rush)			
119	<i>Isolepis</i> sp.			
120	925 <i>Lepidosperma angustatum</i>			
121	932 <i>Lepidosperma effusum</i> (Spreading Sword-sedge)			
122	933 <i>Lepidosperma gladiatum</i> (Coast Sword-sedge, Kerbin)			
123	946 <i>Lepidosperma striatum</i>			
124	986 <i>Schoenus foliatus</i>			
125.	1004 <i>Schoenus nitens</i> (Shiny Bog-rush)			
126	1034 <i>Tetralix capillaris</i> (Hair Sedge)			
<b>Dicruridae</b>				
127	24443 <i>Grallina cyanoleuca</i> (Magpie-lark)			
128.	25614 <i>Rhipidura leucophrys</i> (Willie Wagtail)			
<b>Dilleniaceae</b>				
129.	5109 <i>Hibbertia amplexicaulis</i>			
130	5117 <i>Hibbertia cuneiformis</i> (Cutleaf Hibbertia)			
131	5126 <i>Hibbertia furturacea</i>			
132.	5132 <i>Hibbertia grossularifolia</i>			
133.	5135 <i>Hibbertia hypericoides</i> (Yellow Buttercups)			
134	5155 <i>Hibbertia pilosa</i> (Hairy Guinea Flower)			
135	5162 <i>Hibbertia racemosa</i> (Stalked Guinea Flower)			
<b>Diomedidae</b>				
136	34007 <i>Thalassarche chlororhynchos</i> (Atlantic Yellow-nosed Albatross)			T
<b>Elaeocarpaceae</b>				
137.	4525 <i>Platytheca juniperina</i>			

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Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
138	4536 <i>Tetratheca hispidiissima</i>			
<b>Elapidae</b>				
139	25251 <i>Echiopsis curta</i> (Bardick)			
<b>Epitoniidae</b>				
140	<i>Opalia (Opalia) australis</i>			
<b>Ericaceae</b>				
141	6306 <i>Andersonia caerulea</i> (Foxtails)			
142	6321 <i>Andersonia sprengeloides</i>			
143	6352 <i>Cosmelia rubra</i> (Spindle Heath)			
144	6360 <i>Leucopogon australis</i> (Spiked Beard-heath)			
145	6396 <i>Leucopogon glabellus</i>			
146	6417 <i>Leucopogon obovatus</i>			
147	40941 <i>Leucopogon obovatus</i> subsp. <i>revolutus</i>			
148	6436 <i>Leucopogon propinquus</i>			
149	<i>Leucopogon</i> sp.			
150	6456 <i>Lysinema ciliatum</i> (Curry Flower)			
<b>Estrilidae</b>				
151	<i>Stagonopleura (Zonaeginthus) oculata</i>			
152	24645 <i>Stagonopleura oculata</i> (Red-eared Firetail)			
<b>Euphorbiaceae</b>				
153	4585 <i>Amperea ericoides</i>			
<b>Fabaceae</b>				
154	15429 <i>Acacia alata</i> var. <i>alata</i>			
155	3262 <i>Acacia cochlearis</i> (Rigid Wattle)			
156	3282 <i>Acacia cyclops</i> (Coastal Wattle)			
157	3363 <i>Acacia hastulata</i>			
158	3424 <i>Acacia littorea</i>			
159	3453 <i>Acacia myrtifolia</i>			
160	3502 <i>Acacia pulchella</i> (Prickly Moses)			
161	3523 <i>Acacia robiniae</i>			
162	30036 <i>Acacia saligna</i> subsp. <i>stolonifera</i>			
163	3588 <i>Acacia uliginosa</i>			
164	3713 <i>Bossiaea linophylla</i>			
165	3718 <i>Bossiaea rula</i>			
166	10861 <i>Callistachys lanceolata</i> (Wornich)			
167	3754 <i>Chorzema diversifolium</i>			
168	3758 <i>Chorzema ilicifolium</i> (Holly Flame Pea)			
169	13107 <i>Chorzema retrorsum</i>			
170	20214 <i>Eutaxia myrtifolia</i>			
171	3891 <i>Gastrolobium bilobum</i> (Heart Leaf Poison)			
172	10909 <i>Gompholobium confertum</i>			
173	3957 <i>Gompholobium tomentosum</i> (Hairy Yellow Pea)			
174	3961 <i>Hardenbergia comptoniana</i> (Native Wisteria)			
175	3965 <i>Hovea elliptica</i> (Tree Hovea)			
176	4017 <i>Jacksonia horrida</i>			
177	4037 <i>Kennedia coccinea</i> (Coral Vine)			
178	4155 <i>Psoralea pinnata</i> (African Scurfpea)	Y		
179	4181 <i>Pultenaea reticulata</i>			
180	20348 <i>Sphaerobolium calcicola</i>		P3	
181	4256 <i>Templetonia retusa</i> (Cockles Tongues)			
<b>Falconidae</b>				
182	<i>Falco (Falco) longipennis</i> subsp. <i>longipennis</i>			
183	25621 <i>Falco berigora</i> (Brown Falcon)			
184	25622 <i>Falco cenchroides</i> (Australian Kestrel)			
185	25624 <i>Falco peregrinus</i> (Peregrine Falcon)		S	
<b>Fasciolaridae</b>				
186	<i>Microcolus dunkeri</i>			
<b>Galaxiidae</b>				
187	<i>Galaxias</i> sp.			
<b>Gekkonidae</b>				
188	24980 <i>Christinus marmoratus</i> (Marbled Gecko)			
<b>Gentianaceae</b>				
189	6539 <i>Centaurium erythraea</i> (Common Centaury)	Y		
<b>Geoglossaceae</b>				

Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
190.	<i>Trichoglossum</i> sp.			
<b>Geraniaceae</b>				
191.	4346 <i>Pelargonium littorale</i>			
<b>Gobiidae</b>				
192.	<i>Favonigobius lateralis</i>			
193.	<i>Favonigobius</i> sp.			
194.	<i>Pseudogobius olorum</i>			
<b>Goodeniaceae</b>				
195.	7487 <i>Diaspasis filifolia</i> (Thread-leaved Diaspasis)			
196.	7523 <i>Goodenia leptoclada</i> (Thin-stemmed Goodenia)			
197.	13165 <i>Goodenia pusilla</i>			
198.	7572 <i>Lechenaultia expansa</i>			
199.	7614 <i>Scaevola globulifera</i>			
200.	7626 <i>Scaevola nitida</i> (Shining Fanflower)			
201.	7634 <i>Scaevola phlebopetala</i> (Velvet Fanflower)			
202.	7662 <i>Velleia macrophylla</i> (Large-leaved Velleia)			
203.	7665 <i>Velleia trinervis</i>			
<b>Gyrostemonaceae</b>				
204.	2787 <i>Gyrostemon sheathii</i>			
<b>Haematopodidae</b>				
205.	25627 <i>Haematopus fuliginosus</i> (Sooty Oystercatcher)			
206.	24487 <i>Haematopus longirostris</i> (Pied Oystercatcher)			
<b>Haemodoraceae</b>				
207.	1407 <i>Anigozanthos flavidus</i> (Tall Kangaroo Paw)			
208.	11826 <i>Conostylis aculeata</i> subsp. <i>aculeata</i>			
<b>Halcyonidae</b>				
209.	30901 <i>Dacelo novaeguineae</i> (Laughing Kookaburra)	Y		
210.	25549 <i>Todiramphus sanctus</i> (Sacred Kingfisher)			
<b>Haloragaceae</b>				
211.	6183 <i>Haloragodendron racemosum</i> (Shrubby Raspwort)			
212.	34676 <i>Meionectes brownii</i> (Swamp Raspwort)			
213.	6198 <i>Myriophyllum salisguineum</i>			
<b>Hemerocallidaceae</b>				
214.	1285 <i>Corynotheca micrantha</i> (Sand Lily)			
215.	1260 <i>Stypandra glauca</i> (Blind Grass)			
<b>Hemiramphidae</b>				
216.	<i>Hemiramphus</i> sp.			
<b>Heterodontidae</b>				
217.	? ?			
<b>Hirundinidae</b>				
218.	24491 <i>Hirundo neoxena</i> (Welcome Swallow)			
<b>Hygrophoraceae</b>				
219.	38795 <i>Hygrocybe conica</i>			
220.	<i>Hygrocybe viscidibrunea</i>			
<b>Hylidae</b>				
221.	25388 <i>Litona maorei</i> (Motorbike Frog)			
<b>Iridaceae</b>				
222.	1550 <i>Patersonia occidentalis</i> (Purple Flag, Koma)			
<b>Ischyroceridae</b>				
223.	<i>Cerapus</i> sp.			
224.	<i>Rhinoecetes</i> sp.			
<b>Juncaceae</b>				
225.	11922 <i>Juncus kraussii</i> subsp. <i>australiensis</i>			
226.	<i>Juncus</i> sp.			
<b>Labridae</b>				
227.	<i>Pseudolabrus</i> sp.			
228.	<i>Siphonognathus beddomei</i>			
<b>Lamiaceae</b>				
229.	6939 <i>Westringia dampieri</i>			
<b>Laridae</b>				

Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
230	<i>Chroicocephalus novaehollandiae</i>			
231	<i>Hydroprogne caspia</i>			
232	25638 <i>Larus pacificus</i> (Pacific Gull)			
233	25644 <i>Sterna nereis</i> (Fairy Tern)			
234	<i>Thalasseus bergii</i>			
<b>Lecanoraceae</b>				
235	33645 <i>Ramboldia arandensis</i>			
236	28036 <i>Ramboldia soreliata</i>			
237	28037 <i>Ramboldia stuartii</i>			
<b>Loganiaceae</b>				
238	13128 <i>Logania serpyllifolia</i> subsp. <i>angustifolia</i>			
<b>Lottiidae</b>				
239	<i>Lottia onychitis</i>			
<b>Macropodidae</b>				
240	24145 <i>Setonix brachyurus</i> (Quokka)		T	
<b>Maluridae</b>				
241	<i>Malurus (Leggeornis) elegans</i>			
242	25650 <i>Malurus elegans</i> (Red-winged Fairy-wren)			
243	25654 <i>Malurus splendens</i> (Splendid Fairy-wren)			
244	25655 <i>Stipiturus malachurus</i> (Southern Emu-wren)			
245	24554 <i>Stipiturus malachurus</i> subsp. <i>westernensis</i> (Southern Emu-wren)			
<b>Malvaceae</b>				
246	5033 <i>Lasiopetalum floribundum</i> (Free Flowering Lasiopetalum)			
247	5094 <i>Thomasia purpurea</i>			
<b>Marginellidae</b>				
248	<i>Balanetta baylii</i>			
<b>Meliphagidae</b>				
249	24560 <i>Acanthorhynchus superciliosus</i> (Western Spinebill)			
250	24561 <i>Anthochaera carunculata</i> (Red Wattlebird)			
251	24562 <i>Anthochaera lunulata</i> (Western Little Wattlebird)			
252	<i>Gliciphila melanops</i> subsp. <i>melanops</i>			
253	25661 <i>Lichmera indistincta</i> (Brown Honeyeater)			
254	<i>Phylidonyris (Melornis) novaehollandiae</i> subsp. <i>longirostris</i>			
255	24596 <i>Phylidonyris novaehollandiae</i> (New Holland Honeyeater)			
<b>Menyanthaceae</b>				
256	36178 <i>Liparophyllum lasiospermum</i>			
<b>Mugilidae</b>				
257	<i>Aldrichetta forsteri</i>			
<b>Muridae</b>				
258	24215 <i>Hydromys chrysogaster</i> (Water-rat)		P4	
<b>Myrtaceae</b>				
259	5316 <i>Agonis flexuosa</i> (Peppermint, Wonil)			
260	17203 <i>Agonis flexuosa</i> var. <i>latifolia</i>			
261	20127 <i>Astartea glomerulosa</i>			
262	5364 <i>Baeckea pygmaea</i>			
263	5425 <i>Calothamnus preissii</i>			
264	5430 <i>Calothamnus schaueri</i>			
265	5605 <i>Eucalyptus cornuta</i> (Yate, Yeid)			
266	5709 <i>Eucalyptus megacarpa</i> (Bullich, Pulidj)			
267	5763 <i>Eucalyptus rudis</i> (Flooded Gum, Kulurda)			
268	5841 <i>Kunzea recurva</i>			
269	5900 <i>Melaleuca cuticularis</i> (Saltwater Paperbark)			
270	5902 <i>Melaleuca densa</i>			
271	5921 <i>Melaleuca incana</i> (Grey Honey Myrtle)			
272	5959 <i>Melaleuca raphiophylla</i> (Swamp Paperbark)			
273	5987 <i>Melaleuca viminea</i> (Mohan)			
274	20100 <i>Taxandria angustifolia</i>			
275	20115 <i>Taxandria juniperina</i>			
276	20134 <i>Taxandria marginata</i>			
<b>Nannoperidae</b>				
277	<i>Edelia vittata</i>			
<b>Neosittidae</b>				
278	25673 <i>Daphoenositta chrysoptera</i> (Varied Sittella)			

Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
<b>Olivaceae</b>				
279	2366 <i>Olix phyllanthi</i>			
<b>Olividae</b>				
280	<i>Amaida</i> sp.			
<b>Orchidaceae</b>				
281	15328 <i>Caladenia applanata</i> subsp. <i>applanata</i>			
282	15329 <i>Caladenia applanata</i> subsp. <i>erubescens</i>			
283	1580 <i>Caladenia cairnsiana</i> (Zebra Orchid)			
284	15348 <i>Caladenia flava</i> subsp. <i>flava</i>			
285	1596 <i>Caladenia huegelii</i> (Grand Spider Orchid)			T
286	1599 <i>Caladenia latifolia</i> (Pink Fairy Orchid)			
287	1605 <i>Caladenia marginata</i> (White Fairy Orchid)			
288	1627 <i>Cryptostylis ovata</i> (Slipper Orchid)			
289	10916 <i>Cyrtostylis huegelii</i>			
290	1636 <i>Diuris pauciflora</i>			
291	1643 <i>Elythranthera brunonis</i> (Purple Enamel Orchid)			
292	1644 <i>Elythranthera emarginata</i> (Pink Enamel Orchid)			
293	<i>Plumatiichilos turfosa</i>			
294	1680 <i>Prasopphyllum parvifolium</i> (Autumn Leek Orchid)			
295	18658 <i>Pterostylis</i> sp. short sepals (W. Jackson BJ259)			
296	1698 <i>Pterostylis vittata</i> (Banded Greenhood)			
<b>Orobanchaceae</b>				
297	7122 <i>Orobanche minor</i> (Lesser Broomrape)	Y		
<b>Otaridae</b>				
298	24210 <i>Neophoca cinerea</i> (Australian Sea Lion)			S
<b>Oxalidaceae</b>				
299	4358 <i>Oxalis purpurea</i> (Largeflower Wood Sorrel)	Y		
<b>Pachycephalidae</b>				
300	25675 <i>Colluricincla harmonica</i> (Grey Shrike-Ithrush)			
301	25679 <i>Pachycephala pectoralis</i> (Golden Whistler)			
<b>Paralichthyidae</b>				
302	<i>Pseudorhombus jenynsii</i>			
<b>Pardalotidae</b>				
303	25681 <i>Pardalotus punctatus</i> (Spotted Pardalote)			
304	25682 <i>Pardalotus striatus</i> (Striated Pardalote)			
<b>Parmeliaceae</b>				
305	43942 <i>Austroparmelia pruinata</i>			
306	27743 <i>Flavoparmelia diffracta</i>			
307	<i>Parmotrema</i> sp.			
308	28114 <i>Xanthoparmelia congensis</i>			
309	29033 <i>Xanthoparmelia glabrans</i>			
<b>Pelecanidae</b>				
310	24648 <i>Pelecanus conspicillatus</i> (Australian Pelican)			
<b>Peronosporaceae</b>				
311	<i>Phytophthora cinnamomi</i>			
<b>Petroicidae</b>				
312	24652 <i>Eopsaltria georgiana</i> (White-breasted Robin)			
<b>Phalacrocoracidae</b>				
313	<i>Microcarbo melanoileucos</i>			
314	25697 <i>Phalacrocorax carbo</i> (Great Cormorant)			
315	24664 <i>Phalacrocorax carbo</i> subsp. <i>novaeollandiae</i> (Great Cormorant)			
316	24667 <i>Phalacrocorax sulcirostris</i> (Little Black Cormorant)			
317	25699 <i>Phalacrocorax varius</i> (Pied Cormorant)			
<b>Phasianidae</b>				
318	25701 <i>Coturnix ypsilophora</i> (Brown Quail)			
<b>Phyllanthaceae</b>				
319	4691 <i>Poranthera microphylla</i> (Small Poranthera)			
<b>Physaraceae</b>				
320	39033 <i>Fuligo septica</i>			
<b>Pittosporaceae</b>				
321	<i>Billardiera</i> sp.			

Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
<b>Platycephalidae</b>				
322	<i>Platycephalus speculator</i>			
<b>Plotosidae</b>				
323	<i>Cnidoglanis macrocephalus</i>			
<b>Poaceae</b>				
324	185 <i>Aira cupaniana</i> (Silvery Hairgrass)	Y		
325	187 <i>Aira praecox</i> (Early Hairgrass)	Y		
326	35159 <i>Ammophila arenaria</i> subsp. <i>arenaria</i>	Y		
327	17240 <i>Austrostipa flavescens</i>			
328	231 <i>Avellinia michelii</i>	Y		
329	244 <i>Briza maxima</i> (Blowfly Grass)	Y		
330	245 <i>Briza minor</i> (Shivery Grass)	Y		
331	306 <i>Dichelachne crinita</i> (Longhair Plumegrass)			
332	533 <i>Paspalum vaginatum</i> (Sail Water Couch)	Y		
333	573 <i>Poa drummondiana</i> (Knotted Poa)			
334	11137 <i>Vulpia fasciculata</i>	Y		
<b>Podargidae</b>				
335	25703 <i>Podargus strigoides</i> (Tawny Frogmouth)			
<b>Podicipedidae</b>				
336	25704 <i>Podiceps cristatus</i> (Great Crested Grebe)			
337	24681 <i>Poliiocephalus poliiocephalus</i> (Hoary-headed Grebe)			
338	25705 <i>Tachybaptus novaehollandiae</i> (Australasian Grebe, Black-throated Grebe)			
<b>Poecillidae</b>				
339	<i>Gambusia affinis</i>			
<b>Polygalaceae</b>				
340	4550 <i>Comesperma calymega</i> (Blue-spike Milkwort)			
341	4552 <i>Comesperma confertum</i>			
<b>Polygonaceae</b>				
342	2412 <i>Muehlenbeckia adpressa</i> (Climbing Lignum)			
343	2432 <i>Rumex conglomeratus</i> (Clustered Dock)	Y		
<b>Polyporaceae</b>				
344	<i>Laccocephalum mylittae</i>			
<b>Portulacaceae</b>				
345	2845 <i>Calandrinia brevipedata</i> (Short-stalked Purslane)			
346	2856 <i>Calandrinia liniflora</i> (Parakeelya)			
<b>Potamogetonaceae</b>				
347	44492 <i>Stuckenia pectinata</i>			
<b>Primulaceae</b>				
348	6484 <i>Samolus repens</i> (Creeping Brookweed)			
<b>Procellariidae</b>				
349	24715 <i>Puffinus huttoni</i> (Hutton's Shearwater)			T
<b>Proteaceae</b>				
350	1819 <i>Banksia grandis</i> (Bull Banksia, Pulgaria)			
351	1830 <i>Banksia littoralis</i> (Swamp Banksia, Pungura)			
352	1841 <i>Banksia praemorsa</i> (Cut-leaf Banksia)			
353	1844 <i>Banksia quercifolia</i> (Oak-leaved Banksia)			
354	1863 <i>Conospermum capitatum</i>			
355	1944 <i>Franklandia fucifolia</i> (Lanoline Bush)			
356	2137 <i>Hakea ceratophylla</i> (Horned Leaf Hakea)			
357	2191 <i>Hakea oleifolia</i> (Dungyn)			
358	2197 <i>Hakea prostrata</i> (Harsh Hakea)			
359	2222 <i>Isopogon attenuatus</i>			
360	12908 <i>Isopogon buxifolius</i> var. <i>buxifolius</i>			P2
361	2226 <i>Isopogon cuneatus</i> (Coneflower)			
362	2262 <i>Persoonia elliptica</i> (Spreading Snottygobble)			
363	2282 <i>Petrophile acicularis</i>			
<b>Psittacidae</b>				
364	<i>Barnardius zonarius</i>			
365	<i>Calyptorhynchus (Calyptorhynchus) banksii</i> subsp. <i>naso</i>			
366	<i>Calyptorhynchus (Zanda) baudinii</i>			
367	<i>Calyptorhynchus (Zanda) latirostris</i>			
368	24733 <i>Calyptorhynchus baudinii</i> (Baudin's Cockatoo (long-billed black-cockatoo), Baudin's Cockatoo)			T

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Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
369.	24734 <i>Calyptorhynchus latirostris</i> (Carnaby's Cockatoo) (short-billed black-cockatoo), Carnaby's Cockatoo)		T	
370.	<i>Calyptorhynchus</i> sp.			
371.	24735 <i>Glossopsitta porphyrocephala</i> (Purple-crowned Lorikeet)			
372.	<i>Neophema</i> ( <i>Neonanodes</i> ) <i>elegans</i> subsp. <i>carteri</i>			
373.	24738 <i>Neophema elegans</i> (Elegant Parrot)			
374.	24739 <i>Neophema petrophila</i> (Rock Parrot)			
375.	41348 <i>Pezoporus flaviventris</i> (Western Ground Parrot)		T	
376.	<i>Platycercus</i> ( <i>Violania</i> ) <i>icterotis</i> subsp. <i>icterotis</i>			
377.	25720 <i>Platycercus icterotis</i> (Western Rosella)			
378.	<i>Purpureicephalus spurius</i>			
<b>Rallidae</b>				
379.	25727 <i>Fulica atra</i> (Eurasian Coot)			
380.	<i>Porphyrio</i> ( <i>Porphyrio</i> ) <i>porphyrio</i> subsp. <i>bellus</i>			
381.	25731 <i>Porphyrio porphyrio</i> (Purple Swamphen)			
382.	<i>Porzana</i> ( <i>Porzana</i> ) <i>pusilla</i> subsp. <i>palustris</i>			
383.	<i>Porzana</i> ( <i>Porzana</i> ) <i>tabuensis</i>			
384.	24771 <i>Porzana tabuensis</i> (Spotless Crane)			
<b>Ranellidae</b>				
385.	<i>Charonia lampas</i>			
386.	<i>Cymatium</i> ( <i>Turritina</i> ) <i>labiosum</i>			
<b>Recurvirostridae</b>				
387.	24774 <i>Ciadorhynchus leucocephalus</i> (Banded Sillit)			
388.	25734 <i>Himantopus himantopus</i> (Black-winged Sillit)			
389.	24776 <i>Recurvirostra novaehollandiae</i> (Red-necked Avocet)			
<b>Restionaceae</b>				
390.	17685 <i>Chaetanthus aristatus</i>			
391.	17692 <i>Cyrtogonidium leptocarpoides</i>			
392.	16595 <i>Desmocladus flexuosus</i>			
393.	1070 <i>Hypolaena exsulca</i>			
394.	18381 <i>Stenotalis ramosissima</i>			
<b>Rhamnaceae</b>				
395.	4828 <i>Spyridium globulosum</i> (Basket Bush)			
<b>Rubiaceae</b>				
396.	7348 <i>Opercularia hispida</i> (Hispid Stinkweed)			
<b>Rutaceae</b>				
397.	4416 <i>Boronia denticulata</i>			
398.	4422 <i>Boronia gracilipes</i> (Karri Boronia)			
399.	4429 <i>Boronia molloyae</i> (Tall Boronia)			
400.	4448 <i>Chorilaena quercifolia</i> (Chorilaena)			
401.	4451 <i>Crowea angustifolia</i> (Crowea)			
402.	18547 <i>Rhadinothamnus anceps</i>			
<b>Santalaceae</b>				
403.	10765 <i>Exocarpos sparteus</i> (Broom Ballart, Djuk)			
404.	2355 <i>Leptomena squarrolosa</i>			
<b>Scincidae</b>				
405.	25049 <i>Ctenotus labillardieri</i>			
406.	25096 <i>Egernia kingii</i> (King's Skink)			
<b>Scolopacidae</b>				
407.	<i>Calidris</i> ( <i>Erolia</i> ) <i>acuminata</i>			
408.	24779 <i>Calidris acuminata</i> (Sharp-tailed Sandpiper)		IA	
409.	24784 <i>Calidris ferruginea</i> (Curtlew Sandpiper)		T	
410.	24788 <i>Calidris ruficollis</i> (Red-necked Stint)		IA	
411.	30532 <i>Limosa lapponica</i> (Bar-tailed Godwit)		IA	
412.	24808 <i>Tringa nebularia</i> (Common Greenshank)		IA	
<b>Scrophulariaceae</b>				
413.	7107 <i>Verbascum virgatum</i> (Twiggy Mullein)		V	
<b>Siliquariidae</b>				
414.	<i>Siliquaria</i> ( <i>pyxipoma</i> )			
<b>Sillaginidae</b>				
415.	<i>Sillaginodes punctatus</i>			
<b>Solanaceae</b>				
416.	6949 <i>Anthocercis littorea</i> (Yellow Tailflower)			

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<b>Sparidae</b>				
417	<i>Acanthopagrus butcheri</i>			
418	<i>Rhabdosargus sarba</i>			
<b>Sphaeromatidae</b>				
419	<i>Exosphaeroma sp.</i>			
420	<i>Paracassidina sp.</i>			
<b>Strigidae</b>				
421	25748 <i>Ninox novaeseelandiae</i> (Boobook Owl)			
<b>Stylidiaceae</b>				
422	7670 <i>Levenhookia dubia</i> (Hairy Stylewort)			
423	7676 <i>Levenhookia pusilla</i> (Midget Stylewort)			
424	7677 <i>Levenhookia stipitata</i> (Common Stylewort)			
425	7678 <i>Stylidium adnatum</i> (Common Beaked Triggerplant)			
426	7695 <i>Stylidium caespitosum</i> (Fly-away Triggerplant)			
427	7774 <i>Stylidium piliferum</i> (Common Butterfly Triggerplant)			
428	7785 <i>Stylidium repens</i> (Matted Triggerplant)			
429	7799 <i>Stylidium spathulatum</i> (Creamy Triggerplant)			
<b>Sulidae</b>				
430	<i>Morus serrator</i>			
<b>Sylviidae</b>				
431	<i>Acrocephalus (Acrocephalus) australis</i> subsp. <i>gouldi</i>			
432	25755 <i>Acrocephalus australis</i> (Australian Reed Warbler)			
433	25758 <i>Megalurus gramineus</i> (Little Grassbird)			
434	<i>Megalurus gramineus</i> subsp. <i>thomasi</i>			
<b>Teloschistaceae</b>				
435	41654 <i>Caloplaca dahlii</i>			
436	<i>Caloplaca sp.</i>			
437	28065 <i>Teloschistes chrysophthalmus</i>			
<b>Terapontidae</b>				
438	<i>Pelates octolineatus</i>			
<b>Threskiornithidae</b>				
439	24841 <i>Platalea flavipes</i> (Yellow-billed Spoonbill)			
440	24844 <i>Threskiornis molucca</i> (Australian White Ibis)			
441	24845 <i>Threskiornis spinicollis</i> (Straw-necked Ibis)			
<b>Thymelaeaceae</b>				
442	5231 <i>Pimelea angustifolia</i> (Narrow-leaved Pimelea)			
443	5239 <i>Pimelea clavata</i>			
444	5243 <i>Pimelea ferruginea</i>			
445	5251 <i>Pimelea imbricata</i>			
446	5252 <i>Pimelea lanata</i>			
447	5261 <i>Pimelea rosea</i> (Rose Banjine)			
448	18117 <i>Pimelea rosea</i> subsp. <i>rosea</i>			
<b>Turnicidae</b>				
449	<i>Turnix (Australturnix) varius</i> subsp. <i>varius</i>			
<b>Veneridae</b>				
450	<i>Eumarcia fumigata</i>			
451	<i>Irus (Irus) carditoides</i>			
<b>Zamiaceae</b>				
452	85 <i>Macrozamia nedlei</i> ( <i>Zamia</i> , Djirdji)			
<b>Zosteropidae</b>				
453	25765 <i>Zosterops lateralis</i> (Grey-breasted White-eye, Silvereye)			

**Conservation Codes**  
 T - Rare or likely to become extinct  
 X - Presumed extinct  
 IA - Protected under international agreement  
 S - Other specially protected fauna  
 1 - Priority 1  
 2 - Priority 2  
 3 - Priority 3  
 4 - Priority 4  
 5 - Priority 5

For NatureMap's purposes, species flagged as endemic are those whose records are wholly contained within the search area. Note that only those records complying with the search criterion are included in the calculation. For example, if you limit records to those from a specific datasource, only records from that datasource are used to determine if a species is restricted to the query area.

Appendix 2



Water Management Plan

Limestone Extraction for Agricultural Lime

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Lot 9005  
Nullaki Peninsula  
**City of Albany**

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May 2016

**CONTENTS**

**WATER QUALITY MANAGEMENT**

1.0	Background	1
1.1	Overview	1
1.2	Water Source Protection Areas	1
1.3	Water Source	1
1.4	Water Quality Protection Guidelines	1
2.0	Physical Attributes	3
2.1	Geology and Geomorphology	3
2.2	Regolith and Soils	3
2.3	Climate	3
3.0	Hydrogeology	4
3.1	Background	4
3.2	Surface Water	4
3.3	Ground Water	4
4.0	Protection of Water Quality	6
4.1	Surface Water, Dewatering and Drainage	6
4.2	Groundwater Protection and Use	6
4.3	Salinity	6
4.4	Recharge and Water Use	6
4.5	Acid Sulfate Risk	7
4.6	Waste Rock and Tailings Management	8
4.7	Unauthorised Access and Illegal Dumping	8
4.8	Solid Domestic and Light Industrial Wastes	9
4.11	Wastewater Disposal	9
4.12	Refuelling	9
4.13	Dangerous Goods and Hazardous Substances	11
4.14	Servicing and Maintenance	11
5.0	Monitoring	12
	References	13

**FIGURES**

See figures within the Management Plan

## **WATER QUALITY MANAGEMENT**

### **1.0 BACKGROUND**

#### **1.1 Overview**

An agricultural lime quarry is proposed to be opened on 10 hectares of a limestone ridge on Lot 9005, Nullaki Peninsula City of Albany.

The limestone on Lot 9005 is highly suitable for lime for agriculture and neutralisation of acidity in addition to some road bases. Drilling has been completed and testing of the lime neutralising value carried out.

#### **Location**

The proposed excavation lies in the south eastern corner of Lot 9005, set back from the coastal cliffs and Foreshore Reserve (30883) which covers the cliffed slope. It is approximately 10 km south east from Denmark townsite on the Nullaki Peninsula.

To the east lies Reserve 17464, vested in the City of Albany and associated with Lake Sadie. The Bibulum Track runs through the reserve.

#### **Current Land Use**

Lot 9005 is covered by remnant coastal vegetation. The proposed quarry site has previously been used for a small limestone quarry to provide limestone for road construction on the subdivided part of the Nullaki Peninsula. The pit had revegetated.

Minor exploration work has been completed for the existing proposal including the preparation of access tracks and drill platforms.

A predator proof fence runs across the Peninsula on the eastern side of Lot 9005

#### **1.2 Water Source Protection Areas**

There are no water source protection areas, although the ocean edge of the Nullaki Peninsula is listed as being part of the Albany Drainage District.

#### **1.3 Water Source**

It is not anticipated that any water will be required for dust suppression. The first 60 metres of access road will be sealed.

#### **1.4 Water Quality Protection Guidelines**

*The protection of water whether groundwater or surface water is an important part of the management of quarries. Different types of quarries have different potential impacts which are listed below in general terms. Not all potential impacts will apply to this quarry and the main impacts affecting this site are also listed.*

*Guidance on the quality of water can be found in;*

- *Western Australian Water Quality Guidelines for Fresh and Marine Waters, EPA Bulletin 711, 1993.*
- *ANZECC, 1992, Australian Water Quality Guidelines for Fresh and Marine Waters.*

*A number of documents provide guidance on the management and disposal of surface water that can lead to waterways, wetlands and underground water systems. These mainly apply to urban development but the methods are also applicable to the quarrying industry.*

- *Engineers Australia 2003, Australian Runoff Quality, National Committee on Water Engineering.*
- *Stormwater Management Manual for Western Australia, Department of Environment WA, 2004.*
- *Guidelines for Groundwater Protection in Australia, ARMCANZ, ANZECC, September 1995.*

*Documents specific to the mining and quarrying operations are the DOW – DMP Water Quality Protection Guidelines for Mining and Mineral Processing.*

- *Overview*
- *Minesite water quality monitoring*
- *Minesite stormwater*
- *WQPN 28 Mechanical servicing and workshop (2006)*
- *Mine dewatering*
- *WQPN Landuse Compatibility in Public Drinking Water Source Areas (2004)*
- *WQPN 11 Water quality management in mining and mineral processing: mine dewatering.*
- *WQPN 15 Extractive Industries near sensitive water resources.*
- *Department of Water – Water resource considerations for extractive industries.*
- *Department of Water South West Region Guideline – Water resource considerations for extractive industries.*

*The continued excavation complies with all the documents above. The most relevant documents are WQPN 15 Extractive Industries near sensitive water resources and South West Region Guideline – Water resource considerations for extractive industries.*

Potable water will be brought to the site. Serviced portable support facilities and ablutions are to be at the western end of the site.

## 2.0 PHYSICAL ATTRIBUTES

### 2.1 Geology and Geomorphology

The site is an eroded high ridge of interbedded sequences of coastal dunes, of limestone 120 to 140 metres, rising to over 160 metres AHD on the highest peaks overlying an undulating Proterozoic granitic basement that outcrops of granite hills in the Denmark - Wilson Inlet area.

The limestone is a calc-arenite made from beach sand containing predominantly shell fragments with minor and variable quartz. The limestone has been lithified and recrystallised on the ridge tops to lift the percentage of calcium carbonate to over 70%. The limestone sequences also include buried soil horizons and recalcified limestone overtopped by younger dunes.

The geology is summarised in;

- Geological Survey of Western Australia, 1989, 1 : 50 000 *Environmental Geology Series Torbay*.
- Muhling P C and A T Brakel, 1985, 1 : 250 000 *Geological Series*, Geological Survey of Western Australia.
- Smith R A 1993, 1 : 250 000 *Hydrogeological Series Mt Barker – Alban*, Department of Minerals and Energy.

The degree of lithification (hardness) changes over the property, and determines the use to which each type of limestone can be put.

The limestone is of Quaternary Age formed during changes to sea level during the Pleistocene.

Bores drilled on site and exposure in the cliffs show variable depths of limestone of over 150 metres thickness.

### 2.2 Regolith and Soils

Soils on the site consist predominantly of grey organic sands in the swales over limestone with white to cream limey sands on the youngest dunes and surfaces.

The soils have been mapped at a very broad scale by CSIRO who categorise them with leached sands, but that is not locally correct.

### 2.3 Climate

The climate of the area is classified as Mediterranean with warm summers and cool wet winters.

Temperatures closest to Denmark Research Station, where the maximum temperatures in the summer months are 23.2 to 25.9 degrees Celsius. In winter the maxima are 16 to 17 degrees Celsius with the minima dropping to around 7 degrees C in July.

Rainfall for the area is approximately 1000 mm with more than most rain falling during the winter months April to October inclusive.

The wind direction is predominantly from the south.

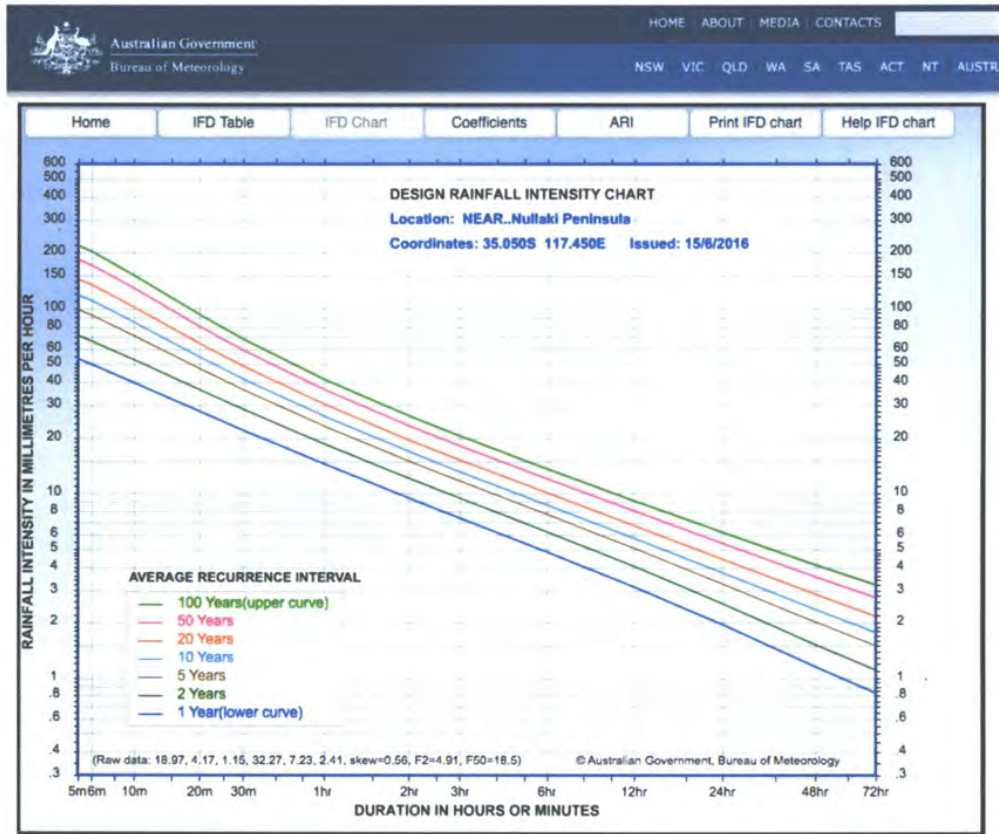


Figure 1 Rainfall Intensity Chart

**3.0 Hydrogeology**

**3.1 Background**

Limestone and sand excavation does not affect the quality of water in the shallow ground water system because the only chemicals used are normal fuels and lubricants; a fact that is recognised by the Department of Water who permit extractive industries in Priority Groundwater areas.

**3.2 Surface Water**

The area has no surface drainage because of the permeable and porous nature of the limesand and limestone. Groundwater in the area flows south to the ocean.

**3.3 Groundwater**

The site lies in the Albany Drainage District.

There is no surface drainage due to the porosity and permeability of the limestone, with precipitation draining to the water table.

The limestone coastal ridge is 120 to 140 metres, rising to over 160 metres AHD on the peak ridges. The proposed limestone quarry is located on the higher ground.

Smith R A 1993, *1 : 250 000 Hydrogeological Series Mt Barker – Albany*, Department of Minerals and Energy does not show the direction of groundwater movement.

Being so close to the ocean the groundwater elevation will be around zero, rising slightly under Nullaki Peninsula and then dropping down again to the north at Wilson Inlet.

The groundwater under the excavation area can be expected to be 0 – 1 metre AHD in elevation. Groundwater flow from under the pit will be towards the ocean to the south.

That means that the separation to groundwater from excavation activities will be over 140 metres.

The stockpile area will be located at an elevation of 20 metres AHD some 18 metres above the groundwater. Groundwater under the stockpile area is likely near the gentle peak of the water table divide but is still likely to flow south to the ocean based on groundwater movement principles under permeable ridges such as this. It is possible that the drains to Lake Saide locally lower the groundwater and the stockpile area lies just over the divide flowing laterally to the drains or north to Wilson Inlet.

It has been estimated that perhaps <10 - 20 % of the rainfall will reach the water table at the processing area with slightly less at the ridge based on the separation to the water table. With an annual rainfall of around 1000 mm this equates the 100 to 200 mm recharge per year.

#### 4.0 PROTECTION OF WATER QUALITY

##### 4.1 Surface Water, Dewatering and Drainage

There is no surface water and will be no dewatering or drainage because the limesand and limestone are so porous.

##### 4.2 Groundwater Protection and Water Use

There will be no activities on site that will change the levels of solute in soils, ground or surface water.

##### 4.3 Salinity Protection

The amount of clearing is minimal in the context of the areas involved, and there is no evidence of subsurface salinity with the groundwater being fresh as shown in bores and dams on the Nullaki Peninsula. Therefore the proposed clearing will not change the local recharge.

Groundwater on site is fresh, flushed by high rainfall and porous soils.

There will be no activities on site that will change the levels of solute in soils, ground or surface water.

##### 4.4 Recharge and Water use

The groundwater was considered by the *Environmental Protection Authority in Bulletins 512, 788, 821 and 818*, and whilst these do not specifically refer to the extraction of basic raw materials they do consider the impact of clearing, planting trees and rural residential developments. The figure the EPA used for recharge from native vegetation was 10 – 15% rainfall, whereas cleared land had a recharge of 30 – 40 %. The floor of the quarry is also cleared and so there is not expected to be any reduction in recharge to the site.

Based on Environmental Protection Authority Bulletins for the Lake Clifton Area, 512, 788, 821 and 818, and an annual average rainfall in that area of 900 mm.

It has been estimated that perhaps <10 - 20 % of the rainfall will reach the water table at the processing area with slightly less at the ridge based on the separation to the water table.

Cleared land such as the pit floor will have an estimated recharge of 40% annual rainfall on the 2.0 hectare stockpile area and perhaps 20 % under the pit. Therefore for one hectare of pit the additional recharge will result in an increase of 10 – 20 % or rainfall or 100 to 200 mm per year or 1 000 to 2 000 kL per hectare.

This proposal seeks Development Approval and an Extractive Industries Licence for an staged extraction area of 10 hectares combined with a stockpile area of 2 hectares on the eastern portion of Lot 9005. At any one time it is anticipated that only 2.0 hectares of pit will be open.

The total ground open at any one time will be around 4 hectares which will result in a temporary increase in groundwater of around 5 000 to 8000 kL which will drop back to the normal recharge on closure and revegetation.

Potable water is to be brought to the site as needed.



#### 4.5 Acid Sulfate Risk

There has been an increased interest in acid sulfate soils since the release of WAPC Planning Bulletin 64. However the interest has been over reactive and conditions and risk applied in many areas where there is no geological risk or evidence of acid sulfate.

Definitive survey procedure is produced in DEC (DER) 2013, *Identification of Acid Sulfate Soils and acidic Landscapes* and within document Acid Sulfate Soil Management Advisory Committee NSW, 1998, *Acid Sulfate Manual*. This information forms the basis for much of the assessment procedures in Australia, including those adopted by the Western Australian Planning Commission and the Department of Environment Regulation.

The *Acid Sulfate Manual* adopts the procedure of reviewing the published data followed up by field assessment, which has been completed for this site. If a geological risk is determined, then a Preliminary Acid Sulfate Assessment is conducted.

Acid Sulfate Soils can potentially form under reducing conditions when there is a source of carbon and a source of sulfur (normally from sea or saline water). Micro-organisms are thought to play an important role in reducing the sulfates within the sediments to form the iron sulfide. It is a natural phenomena, that can be exacerbated by disturbance.

Potential acid sulfate conditions most commonly form under current or past estuarine conditions, peaty conditions, and may also result from weathering of some geological formations and situations which contain sulfides.

The soils most at risk are normally saline/estuarine soils, gley soils, peat and some organoferricretes when exposed to the atmosphere.

Acid sulfate only becomes a potential risk when a number of circumstances are present.

- There is rock, soil or regolith present that is carrying sulfides.
- Sulfide carrying materials from below the water table are to be exposed to the atmosphere.
- Excavation below the water table is to be carried out exposing the sulfide carrying materials to oxygen in the atmosphere.
- Dewatering of the sulfide carrying materials is proposed, exposing them to oxygen.
- Exposure of peat or organoferricrete materials, that were permanently under reducing conditions, to the air.

None of these at risk conditions occur on site.

The site is elevated high CaCO<sub>3</sub> content limesand that is alkaline and oxidised with no evidence or potential of reducing conditions or other risk factors and none would be expected in this geological environment. This type of material is used to neutralize acidic conditions whether it be on agricultural soils or acidic conditions arising from acid sulfate impacts.

Therefore there is no risk of acid sulfate conditions.

#### 4.6 Waste Rock and Tailings Management

Waste and Tailings management is considered in;

- Department of Mines and Petroleum, 1999, Mining Environmental Management Guidelines, Safe Design and Operating Standards for Tailings Storage.

As all the limesand is used in one type of product or another and any sub grade will be natural and suitable for rehabilitation there are no waste rock or tailings.

**Potential “at risk” Waste Inventory - Characterisation**

Type	Comment	Treatment	Reference
Saline surface water	Not present		
Saline ground water	Not present		
Acidic materials and drainage	Not present		
Sodic or dispersive materials	Not present		
Asbestos – asbestiform minerals	None present		
Radioactive materials	Not present		
Metallic or chemical materials	Not present		
Tailings storage	Not required		
Ablutions waste		Serviced portable facilities	Water Management Plan
Dangerous Goods and Hazardous Materials	<b>None will remain on closure.</b>	There are normally no hazardous materials used for hard rock quarrying, apart from fuel, blasting and servicing. The only other materials are for tasks such as weed management and are dealt with under those sections.	
	<b>EXPLOSIVES</b>	Not used	
	<b>FUEL</b> The various plant will be refueled from mobile tanker. <b>None will remain on closure.</b>	Any soil or other materials with drips and spills will be removed offsite to an approved waste site or location. Fuel is discussed in the Water Management Plan.	Water Management Plan
	<b>SERVICE MATERIALS</b> Only minor lubrication will be conducted on site All major servicing will be conducted offsite. <b>None will remain on closure</b>	Any wastes will be collected and removed from site promptly to an approved recycling or waste disposal area. Servicing is discussed in the Water Management Plan.	Water Management Plan
General waste		Regularly removed from site to an approved disposal area	Water Management Plan

- Wastes generated will be recycled wherever possible and periodically disposed of at an approved landfill site.

**4.7 Unauthorised Access and Illegal Dumping**

The potential for rubbish to be dumped relates mainly to unauthorised access and is low as the site is set back from roads. Access restrictions such as gates or barriers will be installed when the site is unmanned and equipment retained on site.

- Any illegally dumped materials are to be removed promptly to an approved landfill or other suitable site, depending on the nature of the material.

#### 4.8 Solid Domestic and Light Industrial Wastes

Non essential or old plant and materials will be removed from the site. Locked gates and the existing fences will be maintained to prevent illegal dumping and contamination of water.

All solid domestic and light industrial wastes will be stored in commercial waste storage containers and/or removed to an approved landfill facility. There will be no waste disposal on site. Waste storage containers will be sealed so that rainfall cannot enter, therefore preventing the formation of leachates.

Wastes generated will be recycled wherever possible and periodically disposed of at an approved landfill site. Any illegally dumped materials are to be removed promptly to an approved landfill or other suitable site, depending on the nature of the material.

Regular inspections (at least weekly) are conducted to ensure no wastes, litter and the like are present in or around the excavation and processing area.

#### 4.9 Wastewater Disposal

A service portable toilet system will be used when the site is manned. Serviced means they are pumped out by a licensed contractor from Albany or Denmark.

#### 4.10 Refuelling

*The protection of water from fuels and other chemicals is an important part of the management of quarries. Different types of quarries have different potential impacts which are listed below in general terms. Not all potential impacts will apply to this quarry and the main impacts affecting this site are also listed*

Extraction of hard rock is a clean operation similar to sand excavation in the nature of the risk to groundwater. Similar quarries have operated locally for many years with no known significant pollution incidents.

No chemicals are used apart from normal lubricants, which is similar to sand excavation, and sand excavation is one of the few industries that are permitted to operate in a Priority 1 Public Drinking Water Source Area, indicating the clean nature of the activity. See Department of Water *Land Use Compatibility in Public Drinking Water Source Areas*.

All spills are to be cleaned up in accordance with the summarised procedures following.

*Documents specific to the fuel and maintenance are the DOW – DMP Water Quality Protection Guidelines for Mining and Mineral Processing*

- *Mechanical servicing and workshop facilities*
- *Above-ground fuel and chemical storage*
- *WQPN 28 Mechanical servicing and workshop (2006)*
- *WQPN 15 Extractive Industries near sensitive water resources.*
- *Department of Water – South West Region Guideline – Water resource considerations for extractive industries.*

A list of the management actions for maintenance is provided. The actions will be used where applicable and as the opportunity presents to maintain water quality on this site.

Italia have safety and pollution management procedures for all their operations. They also use self contained service and recovery vehicles to undertake minor servicing in the field.

### **Fuel Management Plan**

#### ***Fuel Storage***

Currently it is proposed to use mobile tankers to refuel mobile and fixed plant when the site is manned.

Minor fuels will also be required for smaller mobile and fixed plant.

Any drums for smaller plant will be retained on trucks and if placed on site will be stored in a bunded lined facility to retain 110% of the volume stored.

#### ***Fuel Spill Management Plan***

- Fuel and maintenance will be carried out in accordance with the DOW – DMP Water Quality Protection Guidelines for Mining and Mineral Processing, *Mechanical servicing and workshop facilities and Above-ground fuel and chemical storage*.
- Soils, limestone and roadbase hardstand such as those on this site are adsorptive. The main risk of contamination is the minor drips that occur during the removal of hoses etc. Minor spills are quickly degraded by soil microbial matter.
- Refuelling and lubricating activities only occur in designated areas. Equipment for the containment and cleanup of spills is to be provided in these areas.
- Spillage will be contained in plant and working areas by shutting down plant or equipment if the plant or equipment is the source of the spill (provided it is safe to do so).
- In the event of a spill or adverse incident, activities will be stopped in that area until the incident is resolved.
- Any spills will be contained by the excavation or processing area. A fluid spill emergency response kit is in place. For larger spills soil and resource will quickly be placed around the spill to contain it in as small an area as possible. When contained, the contaminated aggregate/loam soils will be scooped up and removed to an approved landfill or other approved site.
- All significant adverse incidents (such as a fuel spill of >5 litres) in one dump, are recorded, investigated and remediated. A record is to be kept of incidents and the Local Authority and Department of Environment Regulation notified within 24 hours. No such incidences have been recorded at the quarry.
- The only other risk is from a tank rupture, but tanks are designed to manage this eventuality. A commitment is made to notify Department of Environment Regulation/Department of Water and Shire of Harvey of any spill greater than 5 litres in one dump. This is much less than the DOW requirement trigger of 100 litres. Soil contaminated by large spills will be removed from the site to an approved disposal area.
- No significant non compliances have been recorded.

- Spillage will be contained in plant and working areas by shutting down plant or equipment if the plant or equipment is the source of the spill (provided it is safe to do so).
- Transport chemicals in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

#### 4.11 Dangerous Goods and Hazardous Substances

There is no transport, storage or handling of hazardous materials involved in hard rock extraction.

Fuel will be carried on vehicles when brought to site for refuelling. Fuel cartage will be governed by normal mobile fuel transport management and the DMP/DOW guidelines listed above. Minor fuel may be required for small on site mobile and fixed plant and hand equipment and this will not be stored on site unless personnel are on site.

#### 4.12 Servicing and Maintenance

*Documents specific to the fuel and maintenance are the DOW – DMP Water Quality Protection Guidelines for Mining and Mineral Processing*

- *Mechanical servicing and workshop facilities*
- *Above-ground fuel and chemical storage*

The main risk of contamination comes from tank or hose rupture on earth moving machines. A spill kit containing absorbent granules is located on site for emergency use. A commitment is made to notify Department of Water and DMP of any spill greater than 5 litres. DER Guidelines suggest 100 litres but this is felt to be too high.

- All major servicing of vehicles will be conducted off site.
- Servicing plant and equipment will be in accordance with a maintenance schedule.
- Lubricating and maintenance activities are to occur in designated areas in the processing area and pit. Equipment for the containment and cleanup of spills is to be provided.
- Spillage will be contained in plant and working areas by shutting down plant or equipment if the plant or equipment is the source of the spill (provided it is safe to do so).
- Waste substances and chemicals will be stored in accordance with the Site Waste Guidelines.
- Waste oil and other fluids derived from the routine maintenance of mobile machinery, will be transported off site and disposed off at an approved landfill site. Grease canisters, fuel filters, oil filters and top-up oils will be stored in appropriate containers in a shed or brought to the site as required.
- Vehicle washdown is not proposed.
- Regular inspections and maintenance of fuel, oil and hydraulic fluids in storages and lines will be carried out for wear or faults.
- Accidental spill containment and cleanup protocol will be implemented as necessary.

- Any waste chemicals derived during routine maintenance activities will be stored in appropriate sealed containers within a designated storage area or taken from site and disposed of at an approved facility.
- Rubbish generated is to be recycled wherever possible and periodically disposed of at an approved landfill site.
- The site will be maintained in a tidy manner by removing all rubbish regularly offsite.

#### **5.0 Monitoring**

As there is no surface water and the groundwater is not being accessed, combined with the low inherent risk of excavating limesand and past experience, no water monitoring is required or proposed.

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Limestone Extraction for Agricultural Lime, Lot 9005, Nullaki Peninsula, City of Albany

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Appendix 4- Correspondence from Department of Agriculture & Food.

*Development Application for Extractive Industries Licence -Lime Pit  
Lot 9005 Rock Cliff Circle, Nullaki*

21



Government of **Western Australia**  
Department of **Agriculture and Food**



Your reference:  
Our reference: **A1402199**  
Enquiries: 9892 8444  
Date: 15 July 2016

Jan van der Mescht  
City of Albany  
PO Box 484  
Albany WA 6330

### **LIME DEMAND AND QUALITY – ALBANY, WESTERN AUSTRALIA**

Dear Jan,

On behalf of the Department of Agriculture and Food, WA (DAFWA) please find below a brief commentary on the quality and demand for agricultural lime as it may relate to the Albany Region. This information has been compiled in response to a request from the City of Albany to the Graeme Robertson Group in reference to a proposed lime extraction development application in the Nullaki area, west of Albany.

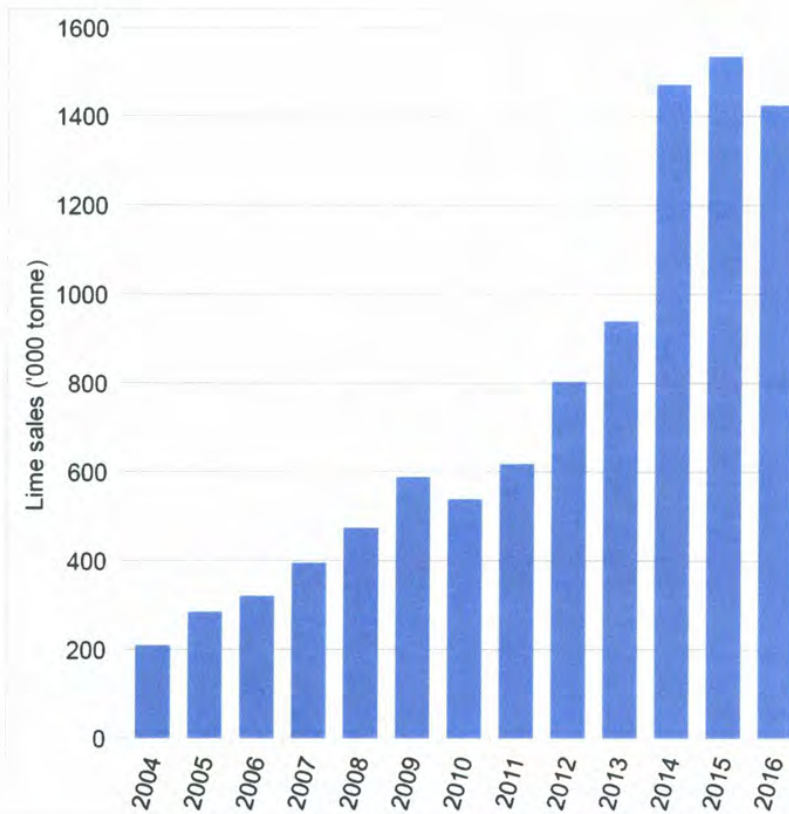
Lime sand or crushed limestone is extracted and made available for use in the building industry, roads and engineering and as a soil ameliorant for agriculture. The primary use of lime in agriculture is to treat soil acidity.

Soil acidity is a major degradation problem across Western Australian, especially in the South Coast Region with the dominance of light textured and highly leached sand plain soils. Soil acidity is estimated to cost broadacre agriculture approximately \$498 million per year in WA. It is one of the few soil constraints that can be treated with appropriate management. Bulk lime, in the form of limesand, crushed limestone or dolomite is currently the cheapest way to ameliorate acid soils.

The DAFWA publication "*Report card on sustainable natural resource use in agriculture Status and trend in the agricultural areas of the south-west of Western Australia*" provides an excellent condition assessment and risk analysis of increasing soil acidity over the South Coast Region. Figure 2.1.5 from the same publication illustrates the progressive increase in agricultural lime sales from 2005 to 2012. More recent statistics (Figure 1, below) acknowledges the same trend to 2016 with the rate of lime use continuing to increase substantially in Western Australia following sustained promotion for the better management of soil acidity.

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**Figure 1.** Lime use in Western Australia to treat acidifying soils, 2004–2016. These data represent the aggregate agricultural lime sales figures for each year for Lime WA Inc. members. It is estimated that these current members represent approximately 80 percent of the total market share.

There is increasing recognition amongst agriculturalists that lime use needs to increase and the trend in use is positive (Figure 1). A report prepared for South Coast Natural Resource Management Inc. – “*Lime Situation Report 2015 South Coast NRM Region*” (Fry, 2015) estimated the agricultural lime required in the South Coast Region over the next 10 years to be approximately 8 million tonnes. If most soils are remediated in the next 5 years, this will require close to a million tonnes per year. To maintain South Coast soils at target pH would require approximately 20 million tonnes over the next 30 years and 30 million tonnes over the next 50 years.

Current lime supply on the South Coast from existing extraction sites is limited and often the quality from many of the regional sources is low (in the form of carbonate available within the liming agent and the particle size of the product). If used at a rate required to ameliorate South Coast soils, based on recent investigation and analysis of demand, current pits may only have enough lime resources to last a few more years.

DAFWA has discussed the lime pit proposal with Mr Robertson, including examining several analytical results on face value from random site sampling across the proposed development area, together with reviewing an early draft of the 'Excavation and Rehabilitation Management Plan' for the proposed lime pit.

Based on the information supplied and knowledge of current demand and supply for agricultural lime product in the South Coast Region, DAFWA acknowledges that:

- the quality of the Nullaki lime source is high, with an average Neutralising Value (NV) of about 74%. (NV of lime is the ability for a unit mass of lime to change soil pH – a measure of efficiency expressed as a percentage). The Nullaki result is considered to be very good for the South Coast Region, acknowledging that current sources in the region range from 35% to 80%. This places the Nullaki source in the better or higher quality range for the region.
- there is a definite need for improving the supply of good quality lime product for agricultural use in the Southern Region. It is understood that the Bornholm lime pit is due to close shortly; the Ocean Beach lime pit in Denmark generally only supplies to Denmark rate payers, the Nannup lime pit isn't always operational, and the supply of WALCO Manypeaks lime is seasonal.
- the proposed lime pit will be developed and expanded in a sensitive environmental landscape, necessitating comment from the Department of Environmental Regulation;
- the draft 'Excavation and Rehabilitation Management Plan' is adequate in addressing immediate development needs, although DAFWA would prefer to review a final version of the Plan. The discussion on site rehabilitation was limited in view of options for retiring some areas and potentially extending or expanding the pit extraction area.
- it is highly recommended that the Robertson Group takes up membership with WA Lime Inc. ([www.limewa.com.au](http://www.limewa.com.au)). This group serves as an independent association to further advance industry issues and more actively promote the implementation of the Code of Practice for lime supply in Western Australia.

I trust that this addresses the enquiry from the City of Albany in regard to lime supply and quality in the Southern Region. There are no lime sales statistics specifically for the Albany area, but the aggregated results for agricultural lime sales across WA (dominantly within the South West land division) infers a high and increasing demand for lime product. If you have further queries about agricultural lime, lime quality or lime supply for WA, please contact Tim Overheu on 98928444 or [landuse.planning@agric.wa.gov.au](mailto:landuse.planning@agric.wa.gov.au).

Yours sincerely

*Tim Overheu*

Timothy Overheu  
Manager, Land Use Planning and Policy  
Department of Agriculture and Food, WA



**CITY OF ALBANY LOCAL PLANNING SCHEME 1  
EXTRACTIVE INDUSTRY – 9005 Eden Road, Nullaki  
OVERVIEW OF SUBMISSIONS**

Issue	Comment
<ul style="list-style-type: none"> <li>• Lime is a required resource within the region</li> <li>• There is a demand for lime within the region</li> <li>• High quality lime is not readily available in the Denmark area</li> </ul>	<p>It is acknowledged the availability lime is key resource for construction and soil management.</p> <p>DAFWA has provided correspondence reinforcing the importance of Lime within the agricultural sector.</p> <p>In respect to the Denmark area, it is understood the Denmark lime pit is in the process of re-opening. However, whether the Denmark facility is operating or not is not a consideration for the matter.</p> <p>While it is acknowledged the availability lime is key resource for construction and soil management, the shortage or abundance and quality of a commodity is not a consideration within the planning framework.</p>
<ul style="list-style-type: none"> <li>• The proposal will have detrimental amenity impacts on adjoining properties</li> </ul>	<p>Amenity is defined within Local Planning Scheme No.1 as;</p> <p><i>“All those factors which combine to form the character of an area and include the present and likely future amenity”</i></p> <p>The Department of Environmental Regulation has advised that depending on operational output, the proposal may be a prescribed activity and require a licence. It should be noted that screening and crushing are subject to a separate licence and assessment through the Department of Environment Regulation.</p> <p>The Extractive Industry and Mining Policy requires that buffer distances are to be in accordance with the setbacks outlined within the Environmental Protection Authority requirements - <i>the Environmental Protection Authority’s Separation Distances between Industrial and Sensitive Land Uses guidelines</i>. The closest dwelling is approximately 1200 from haul road on the subject site.</p>

Issue	Comment
	<p>Any operations would be subject to ongoing compliance with the Environmental Protection (Noise) Regulations 1997.</p> <p>In addition to the above, the Department of Environment Regulation is the responsible body for the assessment of the emissions and buffers for screening and crushing plants. The applicant is therefore responsible and obligated to ensure that they have the required licences from DER prior to any activity onsite.</p>
<ul style="list-style-type: none"> <li>• Impact on property value</li> </ul>	<p>Property value in itself is not a valid planning concern. However, a number of the underlying factors which lead to this concern are, for example, consistency within the conservation zone and amenity.</p> <p>Residents have advised they have purchased properties (at a significant cost) within the conservation zone, on the reasonable expectation of a high level of amenity, and on the basis that the zone would not be shared with an extractive industry or similar uses.</p>
<ul style="list-style-type: none"> <li>• Health impacts of lime dust</li> <li>• Impact on adjoining agriculture activities</li> </ul>	<p>The <i>Extractive Industry and Mining Policy</i> requires that buffer distances are to be in accordance with the setbacks outlined within the Environmental Protection Authority requirements.</p> <p>The Department of Environment Regulation is the responsible body for the assessment of the emissions and buffers for screening and crushing plants. The applicant is responsible for ensuring that they have the required licences from DER prior to undertaking this activity onsite. The applications for screening and crushing are subject to process by DER whereby the potential impact on Dust on either dwellings or nearby agricultural uses (outside of the CZ1 zone)</p> <p>A dust and noise management plan have been submitted.</p> <p>The Department of Health state that unless adequately treated, rainwater is not reliably safe to drink, it is almost impossible to completely protect rainwater from contamination. However, our advice is that installing screens, filters and first flush devices will reduce contamination if people are using rainwater for this purpose.</p>

Issue	Comment
<ul style="list-style-type: none"> <li>The Nullaki wilderness association is not a suitable organisation to distribute funds</li> </ul>	<p>Noting the officer recommendations. In the event that approval was to be granted, and a monetary contribution as seen as an acceptable situation, the allocation of funds to a body which has the expertise to expend the funds in a suitable matter would be a matter for consideration. It is acknowledged that there may be more suitable and qualified organisations.</p>
<ul style="list-style-type: none"> <li>The existing road network is not suitable and is dangerous</li> <li>The extension of Lee Road is unsuitable</li> <li>There will be passing issues</li> <li>Who pays for the infrastructure improvements and maintenance resulting from the proposal?</li> </ul>	<p>If the applicant was to be granted approval they would be required to fully construct Lee road and upgrade associated roads/infrastructure along the route to accommodate trucks. Upgrades may be substantial as it could potentially involve bridges and road widening. If approved, it is recommended the applicant be required to undertake a road infrastructure audit to identify roads and infrastructure that require upgrading to accommodate the proposal.</p> <p>It is acknowledged that trucks on the proposed route would be shared with other users, and create and additional safety risk for cyclists and road users. However, as it is a public road, all users, be it pedestrians, cyclist, or trucks, are required to use the road in a safe manner in accordance with relevant legislation.</p> <p>Associated issues with the extension of Lee Road has also been submitted by DPAW;</p> <ul style="list-style-type: none"> <li>The extension of Lee Road comes to within approximately 140m of an overnight track Shelter, 80 metres from the emergency helicopter extraction point and will cross over the Bibbulmun Track;</li> <li>If the proposal was to proceed the Bibbulmun Track Shelter would need to be relocated. Relocation of the Bibbulmun Shelter and possible track re-alignments would be at a significant cost due to not only the physical removal and relocation but the rehabilitation of existing site and alteration of associated publications (maps, guidebooks).</li> </ul> <p>If the applicant was to be granted approval they would be required to fully construct Lee road and upgrade associated roads/infrastructure along the route to accommodate trucks. Upgrades may be substantial as it could potentially involve bridges and road widening. If approved, it is recommended the applicant be required to undertake a road infrastructure audit to identify roads and infrastructure that require upgrading to accommodate the proposal.</p>

Issue	Comment
<ul style="list-style-type: none"> <li>• The proposal will impact on the Bibbulmun track and nearby overnight stay shelter</li> <li>• The proposal would disturb the secluded experience of the track</li> <li>• Moving the shelter would be a significant cost</li> </ul>	<p>These comments were confirmed and elaborated further on in the referral response from DPAW, reaffirming concerns raised with;</p> <ul style="list-style-type: none"> <li>• Proximity of the proposal to the Bibbulmun track</li> <li>• Potential impact on the Bibbulmun track and the amenity of the users, noting that there is a campsite in the proximity of the proposed haulage road.</li> <li>• The Bibbulmun Track Foundation also raised similar concerns in respect to the trail being a world class long distance</li> </ul>
<ul style="list-style-type: none"> <li>• The Munda Bidi Trail travels along sections of the proposed haul route and would increase the risk to users.</li> </ul>	<p>It is acknowledged that trucks on the proposed route would be shared with the Munda Bidi trail, and create an additional safety risk for cyclists and road users. However, as it is a public road, all users, be it pedestrians, cyclist, or trucks, are required to use the road in a safe manner in accordance with relevant legislation.</p> <p>The Bibbulmun track foundation also raised these matters.</p> <p>If the applicant was to be granted approval they would be required to fully construct Lee road and upgrade associated roads/infrastructure along the route to accommodate trucks. Upgrades may be substantial as it could potentially involve bridges and road widening. If approved, it is recommended the applicant be required to undertake a road infrastructure audit to identify roads and infrastructure that require upgrading to accommodate the proposal.</p>
<p>There are a number of errors within the proposal, including the distance to the closest dwelling</p>	<p>It is noted that there were a number of discrepancies within the report. When the proposal was assessed, the dwelling on Lee Road which was omitted was included.</p> <p>DPAW has advised the Bibbulmun alignment shown was incorrect.</p>
<p>The proposal has not considered Aboriginal Heritage</p>	<p>The Department of Aboriginal Affairs (DAA) has advised that there are no reported Aboriginal sites or heritage places within the area of the proposal. However, the DAA</p>



Issue	Comment
	<p>recommend the developers utilise the Aboriginal due diligence guideline when undertaking developments.</p>
<p><b>Department of Planning</b></p> <p>While the applicant does have the right, under cl 9.1.1 of LPS1, to apply for planning approval for a use not listed and for the application to be advertised in accordance with cl 9.4.3, the proposal fails to meet the land use provisions of Cl 4.2.18(a), cl 5.5.14 and Schedule 12.</p> <p>The primary objective of the zone is for Residential uses. The secondary objective (b) (iii) directs the local government to provide for land use and development provisions which prevent impacts to the zone's conservation purpose.</p> <p>The proposal also fails to meet the following development provisions of Schedule 12:</p> <ul style="list-style-type: none"> <li>• it proposes a maximum of 4ha development area which exceeds the 1ha maximum allowable development footprint (cl 3.4 (e) and 4.3)</li> <li>• the flora study is not a targeted flora or fauna survey and has not surveyed the proposed lime pit site for rare, endangered and/or threatened flora or fauna species (cl 4.5)</li> <li>• proposed pit #4 is within the 200m exclusion area of the foreshore reserve (cl 4.6(i)); and</li> <li>• the pits are located along a significant ridgeline (cl 4.6(v)).</li> </ul> <p>In summary the proposal does not meet the land use and development provisions for the zone and the Department of Planning recommends that the development application be refused in order for LPS1 to be effectively enforced and for the</p>	<p>Submission noted. The Department of Planning submission is discussed within the item.</p> <p>The Department of Planning comments regarding the acceptability of the proposal has been given significant weight in the consideration of the matter. .</p>

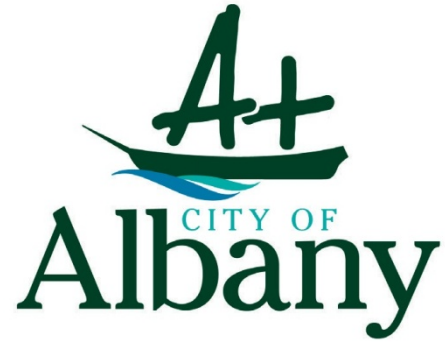
Issue	Comment
<p>local government to avoid any representations made against it under s211 of the Planning and Development Act 2015 .</p> <p>Other matters to note</p> <ul style="list-style-type: none"> <li>• The land use is not supported within the Albany Local Planning Strategy ;</li> </ul> <p>The Lower Great Southern Strategy notes environmental or conservation considerations may have a higher priority than resource extraction in the region. It notes basic raw material and agricultural mineral extraction areas need to be identified in local planning strategies and protected in local planning schemes, with consideration given to neighbouring land uses, visual impact issues and buffer areas to accord with acceptable environmental and amenity standards. The development application area is not identified in the local planning strategy and does not comply with local planning scheme provisions.</p> <p>The proposal does not comply with cl 6.2.3 of State Planning Policy 2.4 'Basic Raw Materials' as it does not comply with planning and environmental requirements of LPS1.</p> <p>The proposal does not comply with State Planning Policy 2.5 'Rural Planning' . The policy identifies Conservation zones within the 'Rural living' zone definition . Basic raw material extraction is a use associated with 'Rural land uses' of a 'Rural land' zone. The definition explicitly excludes rural land use in the 'Rural living' zone . The policy also reiterates that basic raw material resources and sites should be identified in local planning strategies and schemes as required.</p> <p>The proposal does not comply with cl 6.5 of SPP 3.7 'Planning in Bushfire Prone Areas' as no bushfire assessment has been included with the application. It should also be noted that Lot 9005 is the subject of two subdivision planning applications (WAPC 151916 and WAPC 152952) which were recently considered by the WAPC Statutory Planning Committee and subsequently refused because the proposals failed to prove that</p>	

Issue	Comment
<p>bushfire risk to life and property could be appropriately mitigated .</p> <p>Approval would set an undesirable precedent for similar uses within all other lots within the Conservation zone ;</p> <p>There is no mechanism that can guarantee proposed royalties from the sale of lime extracted will be reinvested across the whole of the Nullaki Peninsula Conservation zone;</p> <p>The DAFWA letter should only be considered regarding its comments on lime quality and resources within a greater context of the region and the State . It is not a letter of support for this particular proposal as more detail was requested on impacts of the proposal over the life of the project; and</p> <p>The original amendment over area CZ1 from Rural zone to Conservation zone was supported by the Environmental Protection Authority on the proviso that 'Extractive Industry' uses were removed from the permissible uses.</p> <p>The Department encourages the City of Albany to undertake a strategic assessment of limestone and lime sand locations within the local government area as soon as possible, as recommended in the Albany Regional Basic Raw Material Study (1996), in order for the identification and long term planning of extractive industries in suitably zoned areas.</p>	
<p><b>Department of Water</b></p> <p>The DoW has no objection to the proposal. As the extractive site is located high on the coastal ridge, there will be no impact on groundwater, nor is there any waterways at this location. It is not anticipated that the stockpile activities will have any impacts on water resources.</p>	<p>Submission noted.</p>

Issue	Comment
<p>The DoW also supports the rehabilitation management plan, and recommends that should be extractive industry be approved, there should be strict compliance with this plan to ensure that the conservation values of the Nullaki Peninsula are not compromised by the extractive industry.</p>	
<p><b>Department of Mines and Petroleum</b></p> <p>In September 2016, the Geological Survey of Western Australia (GSWA) commented on a town planning scheme amendment over this area that would facilitate this proposal. supported in principle because a continuing supply of these materials is important for agriculture and infrastructure purposes.</p>	<p>Submission noted.</p>
<p><b>Department of Aboriginal Affairs</b></p> <p>The Department of Aboriginal Affairs (DAA) advises there are no reported Aboriginal sites or Aboriginal heritage places within the areas of the Proposal.</p> <p>The DAA recommends that developers take into consideration the DAA's Aboriginal Heritage Due Diligence Guidelines when planning specific developments associated with the Proposal. These have been developed to assist proponents to identify any risks to Aboriginal heritage and to mitigate risk where heritage sites may be present.</p>	<p>Submission noted.</p>
<p><b>Department of Parks and Wildlife</b></p> <p>The Department of Parks and Wildlife South Coast Region objects to this development application for the following reasons.</p>	<p>Submission noted.</p>

Issue	Comment
<p>The Nullaki Peninsula represents a key ecological linkage point in the coastal Macro Corridor as identified in the Western Australian South Coast Macro Corridor Network (Wilkins et al. 2006).</p> <p>This report forms a bioregional strategy for ensuring landscape scale connectivity between the forested south west of Western Australia and the intact rangeland vegetation and Great Western Woodlands. Corridors of native vegetation provide ecological linkages that assist the retention and maintenance of the keys components of biodiversity such as genetics, species and ecosystems.</p> <p>Bibbulmun Track alignment as shown on Figure 2 of proposal is incorrect and does not indicate the location of the Bibbulmun Track Nullaki Shelter (Overnight Shelter and tent camping) which is a critical piece of recreational infrastructure that will be affected by the lime pit haul road proposal</p> <ul style="list-style-type: none"> <li>• Proposed road extension of Lee Road comes to within approximately 140m of the Shelter, -80m from the emergency Helicopter extraction point and will cross over the Bibbulmun Track;</li> <li>• Ambience, sense of place, solitude, sensation of wilderness experience is what people are looking for as part of the Bibbulmun Track experience. These values will be impacted by haul road being so close (-140m, noise and dust), the stockpile management noise levels (-400m away from Shelter with loading/unloading operations), hours of operation being proposed as Mon-Sat 6:30am-5:00pm and increased campsite security issues from access by opportunistic road users along Lee Road extension;</li> </ul> <p>If the proposal was to proceed the Bibbulmun Track Shelter</p>	

Issue	Comment
<p>would need to be relocated. Relocation of the Bibbulmun Shelter and possible track re-alignments would be at a significant cost due to not only the physical removal and relocation but the rehabilitation of existing site and alteration of associated publications (maps, guidebooks).</p> <p>Relocating the shelter is problematic in terms of finding a new appropriate location that would be positioned within the necessary parameters of meeting distance requirements for walkers heading south or north from the previous shelter location. City of Albany approvals for a new location would need to be sought along with potential Aboriginal Heritage assessments being undertaken for any proposed re-location site.</p>	



## Development Services

# NON-HABITABLE STRUCTURES

*(i.e. Outbuildings, Sheds, Gazeboes, Carports, Sea-containers, Shade houses)*

## 1. Objective

1. To achieve a balance between providing for various legitimate storage needs of residents whilst minimising any adverse impacts non-habitable structures may have on the locality.

## 2. Scope

1. Non-habitable structures include structures that are not attached to a dwelling and commonly known as outbuildings, sheds, gazeboes, carports, sea containers and shade houses.
2. Garden structures (i.e. structures without a solid roof - pergolas with shade cloth and arbours) are considered exempt from the provisions of the policy.
3. This policy applies to non-habitable structures on lots designated for 'Residential', 'Tourist Residential', 'Future Urban', 'Special Residential', 'Rural Residential', 'Rural Village', Yakamia Creek, 'General Agriculture and Priority Agriculture' (<4ha) and 'Conservation' purposes. This Policy does not apply to non-habitable structures on lots designated 'General Agriculture and Priority Agriculture' (>4ha), 'Industrial' or 'Commercial'.
4. Setbacks for non-habitable structures in the 'Residential', 'Tourist Residential' and 'Future Urban' zones are to conform to the Table 1, 2a or 2b of the Residential Design Codes WA. Setbacks for non-habitable structures in the 'General Agriculture and Priority Agriculture', 'Conservation', 'Rural Residential', 'Special Residential' and 'Rural Village' zones are to comply with the provisions listed in the scheme applicable to each area. Where requirements are not clearly defined, compliance shall be in accordance with the objective of this policy.
5. A non-habitable structure with a floor area of 10m<sup>2</sup> or less and under 2.4m in height is considered exempt from the provisions of the policy (i.e. small garden shed). A second non-habitable structure with a floor area of 10m<sup>2</sup> or less and under 2.4m in height is to be assessed in accordance with the Non-habitable structure Policy.



### 3. Definitions

**“Reflective Materials”** includes factory applied finishes such as zincalume, galvabond and light colorbond colours such as white, off-white and surfmist.

**“Height”** is the height of the non-habitable structure as measured vertically from the natural ground level to the highest point of the building above that point, as stipulated in the Residential Design Codes of Western Australia, and not the measurement taken above the proposed finished floor level of the non-habitable structure.

**“Maximum Floor Area”** the combined total floor area of all existing and proposed non-habitable structures on a lot.

### 4. Policy Provisions

1. Non-habitable structures do not require planning approval except under the following circumstances:
  - a. Where the *Local Planning Scheme 1* requires planning scheme consent or a proposal varies from a Scheme or Residential Design Code provision.
  - b. For the development of a sea container.

Applications for sea containers are to include:

- i. Plans indicating re-development measures to make more visually appealing. This can be done by painting and/or re-cladding to a colour and design similar to surrounding development; and
- ii. Referral to neighbours (neighbours comments).

Screening by planting trees or shrubs or by any other methods shall be considered to reduce the visual impact of the sea container.

- c. For the development of a non habitable structure on a vacant lot that is zoned Residential, Tourist Residential, Future Urban, Residential Development or Special Residential.

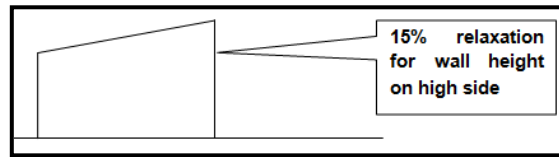
Approval will be conditional upon:

- i. A Building Permit for a dwelling being issued by the City; and
- ii. Referral to neighbours (neighbours comments).

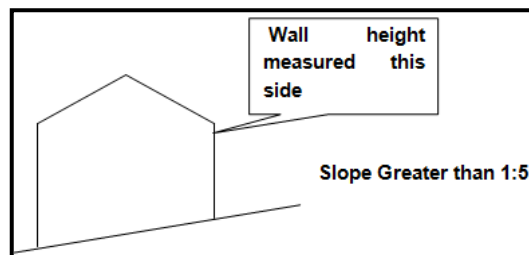
Screening by planting trees or shrubs or by any other methods may be required to reduce the visual impact of the non-habitable structure on the vacant lot.

- d. Where development varies from standards defined in Table 1 and the following provisions (i-iv):

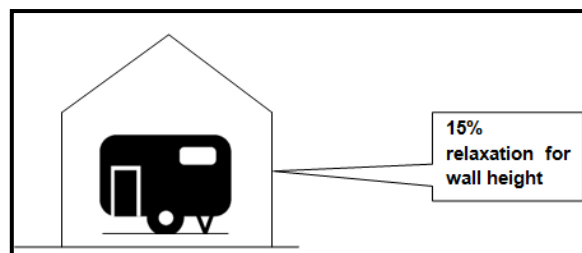
- i. For mono-pitched (skillion) roofed non-habitable structures (not ridged roofs), a relaxation of the height of the wall (on high side - up to 15%) may be supported; or



- ii. where the land upon which the non-habitable structure is to be erected has a slope greater than 1 in 5, the height of the wall shall be measured on the wall that is located at the higher point of the site where the land has not been subject to cut and/or fill; or



- iii. where in order to accommodate larger boats, caravans or motor-homes, the applicant is to demonstrate proof of ownership of such vehicle/vessel and a relaxation of the height of the wall (up to 15%) may be supported on Residential / Tourist Residential / Future Urban / Zone lots that are less than 4000m<sup>2</sup>; or



- iv. A discretionary allowance of an extra 5m<sup>2</sup> over the maximum permitted floor area may be considered in cases where the stated maximum floor area allowed is unworkable due to the dimensions of a standard design.
2. Non-habitable structures shall be located away from the primary or secondary street areas (i.e. to the rear of the lot).
  3. Non-habitable structures that exceed 60m<sup>2</sup> in floor area shall be constructed out of non-reflective materials.

**TABLE 1: NON-HABITABLE STRUCTURE SPECIFICATIONS**

Zoning	Max. Wall Height	Max. Ridge Height	Max. Floor Area (combined floor area of all non-habitable structures on lot)
Residential / Tourist Residential / Future Urban / Zone (Lots < 450m <sup>2</sup> )	2.4 metres	3 metres	<60m <sup>2</sup> in area or 10% in aggregate of the site area, whichever is the lesser
Residential / Tourist Residential / Future Urban / Zone (Lots 450m <sup>2</sup> - 600m <sup>2</sup> )	3 metres	4.2 metres	<60m <sup>2</sup> in area or 10% in aggregate of the site area, whichever is the lesser
Residential / Tourist Residential / Future Urban / Zone (Lots 600m <sup>2</sup> - 1000m <sup>2</sup> )	3 metres	4.2 metres	100m <sup>2</sup>
Residential / Tourist Residential / Future Urban / Zone (Lots 1000m <sup>2</sup> – 2000m <sup>2</sup> )	3 metres	4.2 metres	120m <sup>2</sup>
Residential / Tourist Residential / Future Urban / Zone (Lots 2000m <sup>2</sup> – 4000m <sup>2</sup> )	3 metres	4.5 metres	150m <sup>2</sup>
Residential / Tourist Residential / Future Urban / Zone (Lots > 4000m <sup>2</sup> )	3.5 metres	4.5 metres	170m <sup>2</sup>
Yakamia Creek Zone (Lots < 3000m <sup>2</sup> ).	3.5 metres	4.5 metres	120m <sup>2</sup>
Yakamia Creek Zone (Lots > 3000m <sup>2</sup> ).	3.5 metres	4.5 metres	150m <sup>2</sup>
Special Residential Zone (Lots < 4000m <sup>2</sup> )	4.2 metres	4.8 metres	150m <sup>2</sup>
Special Residential (Lots > 4000m <sup>2</sup> )	4.2 metres	4.8 metres	170m <sup>2</sup>
Rural Residential Zone (Lots < 2ha)	4.2 metres	4.8 metres	200m <sup>2</sup>
Rural Residential Zone (Lots 2ha to 4ha)	4.2 metres	4.8 metres	220m <sup>2</sup>
Rural Residential Zone (Lots 4ha to 6ha)	4.2 metres	4.8 metres	240m <sup>2</sup>
Rural Residential Zone (Lots > 6ha)	4.2 metres	4.8 metres	300m <sup>2</sup>
Rural Village Zone (Lots < 4000m <sup>2</sup> )	3 metres	4.5 metres	150m <sup>2</sup>
Rural Village Zone (Lots 4000m <sup>2</sup> - 1ha)	4.2 metres	4.8 metres	170m <sup>2</sup>
Rural Village Zone (Lots > 1ha)	4.2 metres	4.8 metres	220m <sup>2</sup>
Rural Small Holding Zone (Lots < 1ha)	4.2 metres	4.8 metres	220m <sup>2</sup>
Rural Small Holding Zone (Lots 1 - 4ha)	4.2 metres	4.8 metres	240m <sup>2</sup>
Rural Small Holding Zone (Lots > 4ha)	4.2 metres	4.8 metres	300m <sup>2</sup>
General Agriculture and Priority Agriculture Zone (Lots < 2ha)	4.2 metres	4.8 metres	<del>200m<sup>2</sup></del> 220m <sup>2</sup>
General Agriculture and Priority Agriculture Zone (Lots 2ha to 3.99ha)	4.2 metres	4.8 metres	<del>220m<sup>2</sup></del> 240m <sup>2</sup>
Conservation Zone (Lots < 2ha)	3.5 metres	4.8 metres	170m <sup>2</sup>
Conservation Zone (Lots > 2ha)	4.2 metres	4.8 metres	220m <sup>2</sup>

**Note:** Prior to considering an application for a non-habitable structure that proposes a variation to this policy, it is recommended that the Council first consider varying the policy. In order to do so, the Council will need to seek comment from the public and the Western Australian Planning Commission. Alternatively, it is recommended that such an application be refused.

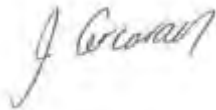
**CITY OF ALBANY**

**REPORT**

To : His Worship the Mayor and Councillors  
From : Administration Officer - Planning  
Subject : Development Application Approvals – August  
2017  
Date : 4 September 2017

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1. The attached report shows Development Application Approvals issued under delegation by a planning officer for the month of August 2017.
2. Within this period 58 Development applications were determined, of these;
  - 58 Development applications were approved under delegated authority;



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**Jasmin Corcoran**  
Information Officer – Development Services

**PLANNING SCHEME CONSENTS ISSUED UNDER DELEGATED AUTHORITY**

Applications determined for August 2017

Application+AM :45 Number	Applicatio n Date	Street Address	Locality	Description of Application	Decision	Decision Date	Assessing Officer
P2170312	21/06/2017	Frederick Street	Albany	Single House - Design Codes Assessment & Policy Variation	Delegate Approved	8/08/2017	Taylor Gunn
P2170384	20/07/2017	Parade Street	Albany	Holiday House	Delegate Approved	10/08/2017	Alex Bott
P2170411	31/07/2017	Drake Bend	Bayonet Head	Single House - Design Codes & Policy Variation	Delegate Approved	11/08/2017	Taylor Gunn
P2170423	9/08/2017	Sea View	Bayonet Head	Single House - Retaining Wall (Design Codes Assessment)	Delegate Approved	28/08/2017	Taylor Gunn
P2170373	14/07/2017	Barker Road	Centennial Park	Single House - Detached Habitable Additions	Delegate Approved	4/08/2017	Taylor Gunn
P2170399	26/07/2017	Cockburn Road	Centennial Park	Industry - Light (Window Timing)	Delegate Approved	9/08/2017	Jessica Anderson
P2170421	8/08/2017	Cockburn Road	Centennial Park	Industry Light - Approval of Existing Lunchroom & Toilet	Delegate Approved	25/08/2017	Jessica Anderson
P2170424	10/08/2017	Albany Highway	Centennial Park	Office/Restaurant - Additions (Deck)	Delegate Approved	28/08/2017	Jessica Anderson
P2170292	8/06/2017	Link Road	Drome	Industry - Rural (Forestry Harvesting)	Delegate Approved	17/08/2017	Craig McMurtrie
P2170422	8/08/2017	Elleker-Grasmere Road	Elleker	Agriculture - Intensive (Organic/Vegetables)	Delegate Approved	30/08/2017	Jessica Anderson
P2170298	9/06/2017	La Perouse Road	Goode Beach	Single House - Design Codes Assessment	Delegate Approved	4/08/2017	Craig McMurtrie
P2170442	22/08/2017	La Perouse Road	Goode Beach	Development - Earthworks In Excess Of 600mm (Retaining Wall)	Delegate Approved	28/08/2017	Taylor Gunn
P2170260	26/05/2017	Watarai Rise	Kalgan	Single House - Outbuilding & Earthworks in excess of 600mm (Boundary Setback Variation)	Delegate Approved	25/08/2017	Craig McMurtrie
P2170331	29/06/2017	Moonlight Road	Kalgan	Single House - Outbuilding (Over-size) - Approval of Existing Development	Delegate Approved	21/08/2017	Taylor Gunn
P2170410	31/07/2017	South Coast Highway	Kalgan	Development - Storage and Hay Shed	Delegate Approved	4/08/2017	Taylor Gunn
P2170416	4/08/2017	Churchlane Road	Kalgan	Single House - Additions (Deck)	Delegate Approved	23/08/2017	Jessica Anderson
P2170414	3/08/2017	Mason Road	Lange	Single House - Additions (Patio)	Delegate Approved	23/08/2017	Jessica Anderson
P2170418	8/08/2017	Isongripur Street	Lange	Single House & Outbuilding (Design Codes Assessment)	Delegate Approved	14/08/2017	Taylor Gunn
P2170344	4/07/2017	King George Street	Little Grove	Single House - Additions (Design Codes Assessment)	Delegate Approved	22/08/2017	Craig McMurtrie
P2170376	17/07/2017	Mckeown Avenue	Lockyer	Home Occupation (Jams Pickles Biscuits & Slices)	Delegate Approved	23/08/2017	Craig McMurtrie
P2170281	2/06/2017	Andrew Way	Lower King	Single House - Outbuilding Extension (Design Codes Assessment)	Delegate Approved	4/08/2017	Craig McMurtrie
P2170330	28/06/2017	King River Drive	Lower King	Ancillary Accommodation - Boundary Setback Variation	Delegate Approved	24/08/2017	Craig McMurtrie
P2170328	28/06/2017	Withers Way	Mekall	Family Day Care	Delegate Approved	21/08/2017	Craig McMurtrie
P2170358	7/07/2017	Lancaster Road	Mekall	Development - Poultry Sales	Delegate Approved	21/08/2017	Jessica Anderson
P2170360	7/07/2017	Edinburgh Road	Mekall	Grouped Dwelling (X2)	Delegate Approved	23/08/2017	Craig McMurtrie
P2170427	11/08/2017	Mceal Loop	Mekall	Single House - Design Codes Assessment	Delegate Approved	24/08/2017	Taylor Gunn
P2170431	15/08/2017	Beaudon Road	Mekall	Single House - Outbuilding	Delegate Approved	28/08/2017	Jessica Anderson
P2170387	20/07/2017	Marine Terrace	Middleton Beach	Grouped Dwelling - Outbuilding (Design Codes Assessment)	Delegate Approved	24/08/2017	Taylor Gunn
P2170440	21/08/2017	Golf Links Road	Middleton Beach	Development - Earthworks in Excess of 600mm (Retaining Wall)	Delegate Approved	28/08/2017	Taylor Gunn
P2170412	31/07/2017	Douglas Drive	Milbrook	Single House - Additions	Delegate Approved	3/08/2017	Alex Bott
P2170428	11/08/2017	Warren Road	Milbrook	Single House & Water Tank	Delegate Approved	15/08/2017	Alex Bott
P2170397	26/07/2017	Albany Highway	Milparra	Non Conforming Use - Shop - Temporary Storage (See Containers x2)	Delegate Approved	18/08/2017	Alex Bott
P2170334	29/06/2017	Drew Street	Mira Mar	Bed and Breakfast	Delegate Approved	22/08/2017	Craig McMurtrie
P2170392	24/07/2017	Mcleod Street	Mira Mar	SHORT TERM ACCOMMODATION - BED AND BREAKFAST	Delegate Approved	15/08/2017	Alex Bott
P2170407	27/07/2017	Nelson Street	Mira Mar	Single House - Retaining Walls on Boundary (Design Codes Assessment)	Delegate Approved	4/08/2017	Alex Bott
P2170417	7/08/2017	Mcleod Street	Mira Mar	Grouped Dwelling (X 2)	Delegate Approved	7/08/2017	Alex Bott
P2170243	19/05/2017	Marine Drive	Mount Clarence	Single House - Addition (Patio) & Earthworks In Excess Of 600mm (Retaining Walls)	Delegate Approved	28/08/2017	Taylor Gunn
P2170299	12/06/2017	Middleton Road	Mount Clarence	Reserve Development - Trails Network	Delegate Approved	21/08/2017	Jessica Anderson
P2170408	27/07/2017	Hay Street	Mount Clarence	Holiday House	Delegate Approved	1/08/2017	Craig McMurtrie
P2170161	31/03/2017	Robinson Street	Mount Melville	Single House (Design Codes Assessment)	Delegate Approved	24/08/2017	Alex Bott
P2170317	23/06/2017	Verdi Street	Mount Melville	Single House - Additions (including as constructed) & Alterations	Delegate Approved	9/08/2017	Taylor Gunn
P2170326	27/06/2017	Johnston Street	Mount Melville	Holiday House	Delegate Approved	3/08/2017	Craig McMurtrie
P2170357	6/07/2017	Festing Street	Mount Melville	Bed and Breakfast	Delegate Approved	11/08/2017	Alex Bott
P2170386	20/07/2017	Maxwell Street	Mount Melville	Educational Establishment (Recycling Classes/Sessions) and General Industry - Recycling - Additions (Storage/Staff Room)	Delegate Approved	4/08/2017	Taylor Gunn
P2170367	11/07/2017	Chester Pass Road	Napier	Fire Appliance Storage	Delegate Approved	3/08/2017	Alex Bott
P2170303	15/06/2017	Rock Cliff Circle	Nullicki	Single House & Water Tanks (x 2)	Delegate Approved	4/08/2017	Craig McMurtrie
P2170342	4/07/2017	Allimore Drive	Robinson	Rural Pursuit - Grazing	Delegate Approved	2/08/2017	Jessica Anderson
P2170359	7/07/2017	Knights Road	Robinson	Single House - Outbuilding (Hayshed - Overheight)	Delegate Approved	23/08/2017	Alex Bott
P2170409	31/07/2017	Monroe Court	Robinson	Single House - Additions (Garage)	Delegate Approved	4/08/2017	Alex Bott
P2170433	16/08/2017	Manni Road	Robinson	Single House - Additions (Patio)	Delegate Approved	17/08/2017	Taylor Gunn
P2170340	3/07/2017	Chaunty Way	Spencer Park	Single House (Design Codes Assessment)	Delegate Approved	30/08/2017	Craig McMurtrie
P2170353	5/07/2017	Lower King Road	Walmislew	Cemetery/Crematorium - Additions (Patio)	Delegate Approved	23/08/2017	Craig McMurtrie
P2170415	3/08/2017	Windsor Road	Wellstead	Recreation - Additions (Existing Water Tank)	Delegate Approved	28/08/2017	Jessica Anderson
P2170445	23/08/2017	Greenwood Drive	Willuyung	Development - Earthworks In Excess Of 600mm (Retaining Wall)	Delegate Approved	30/08/2017	Taylor Gunn
P2170350	5/07/2017	Grandway	Yakamia	Home Business - Online Sales (Wellness Product Wholesale)	Delegate Approved	2/08/2017	Jessica Anderson
P2170430	14/08/2017	Hell Rise	Yakamia	Single House - Retaining Walls (Design Codes Assessment)	Delegate Approved	25/08/2017	Taylor Gunn
P2170239	17/05/2017	Livingstone Road	Youngs Siding	Rural Pursuit (Alpacra Craft Gallery)	Delegate Approved	18/08/2017	Alex Bott

**CITY OF ALBANY**

**REPORT**

To : His Worship the Mayor and Councillors  
From : Administration Officer - Development  
Subject : Building Activity – August 2017  
Date : 1 September 2017

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1. In August 2017, ninety three (93) building permits were issued for building activity worth \$11,290,807.00. This included three (3) demolition licences and four (4) sign licences.

It is brought to Council's attention that this figure includes building licence #161616 for refurbishment for office use (internal fitout) & access ramp, with an estimated value of \$1,528,355.00.

2. The two (2) attached graphs compare the current City activity with the past three (3) fiscal years. One compares the value of activity, while the other compares the number of dwelling units.
3. A breakdown of building activity into various categories is provided in the Building Construction Statistics form.
4. Attached are the details of the permits issued for August 2017, the second month of activity in the City of Albany for the financial year 2017/2018.

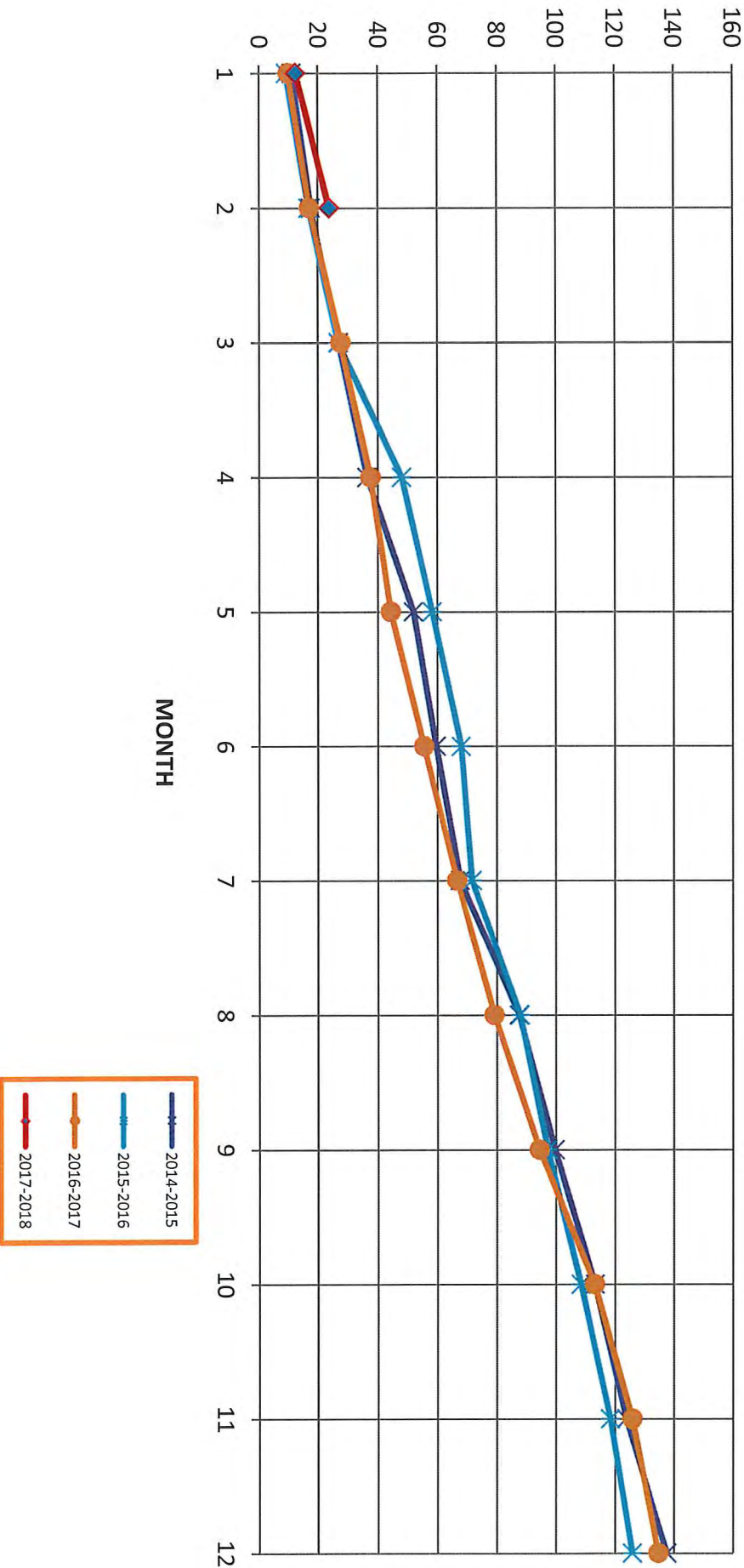


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Zoe Sewell

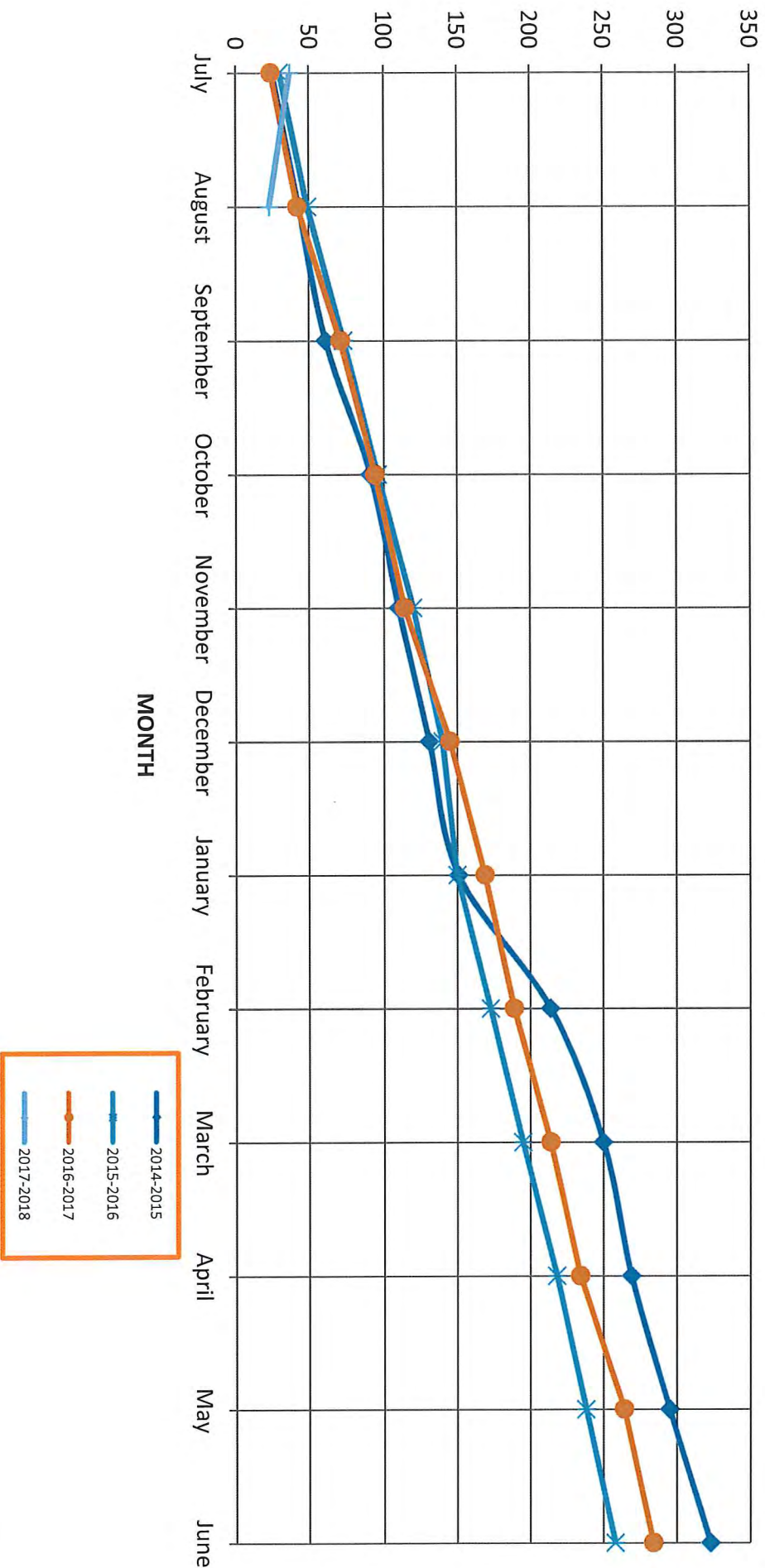
**Administration Officer – Development**

# BUILDING ACTIVITY \$M Value



REPORT ITEM DIS049 REFERS  
NUMBER OF UNITS

DWELLING UNITS





CITY OF ALBANY

BUILDING CONSTRUCTION STATISTICS FOR 2017 - 2018

MONTH	SINGLE DWELLING	\$ Value	GROUP DWELLING	\$ Value	TOTAL No	DOMESTIC/ OUTBUILDINGS		ADDITIONS/ DWELLINGS		HOTEL/ MOTEL		NEW COMMERCIAL		ADDITIONS/ COMMERCIAL		OTHER		TOTAL \$ VALUE	
						No	\$ Value	No	\$ Value	No	\$ Value	No	\$ Value	No	\$ Value				
2017-2018	No	\$ Value	No	\$ Value	No	\$ Value	No	\$ Value	No	\$ Value	No	\$ Value	No	\$ Value	No	\$ Value	No	\$ Value	
JULY	35	9,772,133	2	661,012	37	344,567	16	528,190	0	0	2	279,000	3	818,000	4	41,000		12,443,902	
AUGUST	20	5,297,962	3	973,006	23	328,817	23	545,280	0	0	8	2,011,063	4	1,615,679	11	519,000		11,290,807	
SEPTEMBER																			
OCTOBER																			
NOVEMBER																			
DECEMBER																			
JANUARY																			
FEBRUARY																			
MARCH																			
APRIL																			
MAY																			
JUNE																			
TOTALS TO DATE	55	15,070,095	5	1,634,018	60	673,384	39	1,073,470	0	0	10	2,290,063	7	2,433,679	15	560,000		23,734,709	

**BUILDING, SIGN & DEMOLITION LICENCES ISSUED UNDER  
DELEGATED AUTHORITY**

Applications determined for August 2017

Application Number	Builder	Description of Application	Street #	Property Description	Street Address	Suburb
161672	E MCLEAN	3 X NON HABITABLE STRUCTURES - DEMOLITION	1	Lot 20	DUKE STREET	ALBANY
161673	OUTDOOR WORLD ALBANY	PATIO - UNCERTIFIED	9	Lot 180	HILL STREET	ALBANY
161588	TECTONICS CONSTRUCTIONS GROUP PTY LTD	SCAFFOLDING OVER FOOTPATH	60	Lot 25	SPENCER STREET	ALBANY
161616	WAUTERS ENTERPRISES PTY LTD	REFURBISHMENT FOR OFFICE USE (INTERNAL FITOUT)	117-121	Location RES 33641	SERPENTINE ROAD	ALBANY
161639	OWNER BUILDER	DECK -	9	Lot 18 16	WATKINS ROAD	ALBANY
161596	A.B. ROOFING	PLACEMENT OF CHERRY PICKER	180	Lot 206	YORK STREET	ALBANY
161637	OCCUPANCY PERMIT STRATA	6 x RESIDENTIAL UNITS - OCCUPANCY PERMIT STRATA	181	Lot 1	GREY STREET WEST	ALBANY
161704	TURPS STEEL FABRICATIONS	PATIO - UNCERTIFIED	17	Lot 692	FLYNN WAY	BAYONET HEAD
161698	C & R GLIOSCA	ALTERATIONS TO EXISTING SINGLE DETACHED	31	Lot 20	BAYONET HEAD ROAD	BAYONET HEAD
161560	BURCHAM'S BUILDING	DECK EXTENSION WITH ROOF OVER - UNCERTIFIED	62	Lot 43	BAYONET HEAD ROAD	BAYONET HEAD
161662	HOME GROUP WA GREAT SOUTHERN PTY	NEW DWELLING - UNCERTIFIED	15	Lot 823	DRAKE BEND	BAYONET HEAD
161665	WA COUNTRY BUILDERS PTY LTD	NEW SINGLE DETACHED DWELLING ONE-	7	Lot 159	BENALLA DRIVE	BAYONET HEAD
161635	CHRISTOPHER TWEDDLE	NEW SINGLE DETACHED DWELLING TWO-	18	Lot 578	THE OUTLOOK	BAYONET HEAD
161629	RYDE BUILDING COMPANY PTY LTD	NEW GARAGE EXTENSION TO EXISTING GARAGE ATTACHED TO DWELLING	33	Lot 351	STRANMORE BOULEVARD	BAYONET HEAD
161677	G LEEDER	NEW OFFICE & MEETING ROOM - CLASS 5 / 9B -	88	Lot 305	COCKBURN ROAD	CENTENNIAL PARK
161691	HACER PTY LTD	INTERNAL ALTERATIONS TO CURRENT TENANCY TLB4/5 - CERTIFIED	160	Lot 300	ALBANY HIGHWAY	CENTENNIAL PARK
161669	ALBANY V-BELT AND RUBBER	PYLON SIGN	146	Lot 5	ALBANY HIGHWAY	CENTENNIAL PARK
161610	G CASSIDY	1X HORIZONTAL SIGN	99	Lot 37	COCKBURN ROAD	CENTENNIAL PARK
161638	MCB CONSTRUCTION PTY LTD	STORAGE SHED AT MENS SHED PREMISES - CERTIFIED	77	Lot 745	SANFORD ROAD	CENTENNIAL PARK
161618	ALBANY SIGNS	2 x SIGNS -	7	Lot 1 6	YOUNG STREET	CENTENNIAL PARK

REPORT ITEM DIS049 REFERS

Application Number	Builder	Description of Application	Street #	Property Description	Street Address	Suburb
161628	OCCUPANCY PERMIT	COMMUNITY RECREATION BUILDING & SPORTS CHANGE	156	RES 405 Lot 1359	LOCKYER AVENUE	CENTENNIAL PARK
161466	PLUNKETT HOMES (1903) PTY LTD	SINGLE STOREY DWELLING - UNCERTIFIED	61	Lot 21	BINDAREE ROAD	CUTHBERT
161676	OCCUPANCY PERMIT	OCCUPANCY PERMIT - NEW PATIENT TRANSFER BUILDING WITH AMBULA	35615	Lot 4861 5643 214	ALBANY HIGHWAY	DROME
161631	J & TW DEKKER PTY LTD	SINGLE STOREY DWELLING AND WATER TANK	30	Lot 652	MOWFORTH ROAD	ELLEKER
161619	OWNER BUILDER	NEW DOMESTIC SHED	1215	Lot 30	LOWER DENMARK ROAD	ELLEKER
161679	BEN RYAN BUILDING CONTRACTOR	NEW TELECOMMUNICATIONS TOWER PLANT	43	Lot 14	BOTTLEBRUSH ROAD	GLEDHOW
161623	WA COUNTRY BUILDERS PTY LTD	SINGLE STOREY DWELLING - CERTIFIED	3	Lot 666	CARTER STREET	GLEDHOW
161612	MCB CONSTRUCTION PTY LTD	NEW ROLLER DERBY SKATING FACILITY -	47	Lot 300	ROUNDHAY STREET	GLEDHOW
161649	OWNER BUILDER	PATIO - UNCERTIFIED	1	Lot 18	ST GEORGES CRESCENT	GOODE BEACH
161663	A & D DOCKING	CHANGES OF CLASSIFICATION SHED TO ANCILLARY - UNCERTIFIED	97	Lot 162	WALFORD ROAD	KALGAN
161678	OCCUPANCY PERMIT	OCCUPANCY - CONVERSION OF PART CLASS 10A	133	Lot 771	MOUNT BOYLE ROAD	KALGAN
161668	OWNER BUILDER	FARM SHED - UNCERTIFIED	45010	Lot 22	SOUTH COAST HIGHWAY	KALGAN
161634	KOSTER'S OUTDOOR PTY LTD	SHED - UNCERTIFIED		Lot 9	MYOLA DRIVE	KALGAN
161661	BUILDING APPROVAL CERTIFICATE	SHED/WORK SHOP BUILDING APPROVAL	1	Lot 112	FORSYTH GLADE	KRONKUP
161688	J & TW DEKKER PTY LTD	SINGLE STOREY DWELLING & SHED - UNCERTIFIED	10	Lot 52	ISONGERUP STREET	LANGE
161690	B HOOK	AMENDMENT TO 141844 - REVISED LOCATION OF	11	Lot 101	BANDICOOT DRIVE	LANGE
161702	RETAINING AND PAVING WORLD	RETAINING WALL - UNCERTIFIED	47	Lot 5	WILSON STREET	LITTLE GROVE
161680	KDS BUILDING SERVICES	NEW GROUPED DWELLING 1 OF 2 -	8	Lot 251	STUBBS ROAD	LITTLE GROVE
161681	KDS BUILDING SERVICES	NEW GROUPED DWELLING (2 OF 2) - CERTIFIED	8	Lot 251	STUBBS ROAD	LITTLE GROVE
161660	LEND LEASE BUILDING CONTRACTORS PTY LTD	FASCIA ATTACHMENT & PYLON SIGNAGE - CERTIFIED	639	Lot 1	FRENCHMAN BAY ROAD	LITTLE GROVE

## REPORT ITEM DIS049 REFERS

Application Number	Builder	Description of Application	Street #	Property Description	Street Address	Suburb
161624	MATSON FABRICATIONS	SHED - UNCERTIFIED	6	Lot 10	GROVE STREET EAST	LITTLE GROVE
161626	OWNER BUILDER	RETAINING WALL - UNCERTIFIED	9	Lot 206	BLACKSWAN COURT	LITTLE GROVE
161683	OCCUPANCY PERMIT	FUNCTION CENTRE WORSHIP HALL - INCIDENTAL	31-41	Lot 150	TOWNSEND STREET	LOCKYER
161684	OWNER BUILDER	GARAGE - UNCERTIFIED	469	Lot 7	LOWER KING ROAD	LOWER KING
161646	RYDE BUILDING COMPANY PTY LTD	NEW SINGLE DETACHED DWELLING ONE-STOREY WITH PORCH ALFRESC	26	Lot 376	MCNEAL LOOP	MCKAIL
161694	WA COUNTRY BUILDERS PTY LTD	NEW DWELLING - CERTIFIED	4	Lot 216	MERCURY WAY	MCKAIL
161695	WA COUNTRY BUILDERS PTY LTD	NEW DWELLING - CERTIFIED	46	Lot 261	CELESTIAL DRIVE	MCKAIL
161699	OWNER BUILDER	PATIO - UNCERTIFIED	13	Lot 596	O'KEEFE PARADE	MCKAIL
161664	RANBUILD GREAT SOUTHERN	SHED - UNCERTIFIED	54	Lot 234	CENTAURUS TERRACE	MCKAIL
161644	ALBANY CONSTRUCTION & MAINTENANCE	SHED - UNCERTIFIED	25	Lot 700	O'KEEFE PARADE	MCKAIL
161657	RANBUILD GREAT SOUTHERN	PATIO EXTENSION - UNCERTIFIED	23	Lot 348	COMET CORNER	MCKAIL
161654	WA COUNTRY BUILDERS PTY LTD	SINGLE STOREY DWELLING - CERTIFIED	24	Lot 375	MCNEAL LOOP	MCKAIL
161656	WA COUNTRY BUILDERS PTY LTD	NEW SINGLE DETACHED DWELLING ONE-STOREY WITH PORCH ALFRESC	32	Lot 268	CELESTIAL DRIVE	MCKAIL
161630	WA COUNTRY BUILDERS PTY LTD	SINGLE STOREY DWELLING & RETAINING WALLS - CERTIFIED	24	Lot 72	JUNCTION STREET	MCKAIL
161632	RANBUILD GREAT SOUTHERN	NEW DOMESTIC SHED	28	Lot 710	GERDES WAY	MCKAIL
161604	P KINDER	FULL DEMOLITION - RESIDENTIAL DWELLING	29	Lot 2	MARINE TERRACE	MIDDLETON BEACH
161700	OWNER BUILDER	2X SHIPPING CONTAINERS WITH DOME SHELTER FOR TEMPORARY STORA	504	Lot 15	ALBANY HIGHWAY	MILPARA
161659	KOSTERS STEEL CONSTRUCTION PTY LTD	2 X WAREHOUSES - CERTIFIED	17	Lot 212	MERRIFIELD STREET	MILPARA
161667	OWNER BUILDER	RETAINING WALL - UNCERTIFIED	31	Lot 301	NELSON STREET	MIRA MAR
161658	HOME GROUP WA GREAT SOUTHERN PTY LTD	NEW GROUPED DWELLING (X1) - SINGLE DETACHED DWELLING ONE-ST	46	Lot 70	NELSON STREET	MIRA MAR

# REPORT ITEM DIS049 REFERS

Application Number	Builder	Description of Application	Street #	Property Description	Street Address	Suburb
161653	GREAT SOUTHERN SHEDS & STEEL	CARPORT - UNCERTIFIED	17	Lot 7	GREENSHIELDS STREET	MIRA MAR
161648	OWNER BUILDER	RETAINING WALLS - UNCERTIFIED	8	Lot 46	STEWART STREET	MIRA MAR
161564	POCOCK BUILDING COMPANY PTY LTD	SINGLE STOREY DWELLING - UNCERTIFIED	29A	Lot 2	GREENSHIELDS STREET	MIRA MAR
161687	RYDE BUILDING COMPANY PTY LTD	NEW SINGLE DETACHED DWELLING TWO-	12	Lot 1	SERPENTINE EAST ROAD	MOUNT CLARENCE
161692	J LOCKHART	PATIO & RETAINING WALL - UNCERTIFIED	197B	Lot 1	MIDDLETON ROAD	MOUNT CLARENCE
161606	OWNER BUILDER	ALTERATIONS TO EXISTING SINGLE DETACHED DWELLING (SEMI-ROOFE	167	Lot 22	HARE STREET	MOUNT CLARENCE
161652	RANBUILD GREAT SOUTHERN	RETAINING WALLS/FENCING - UNCERTIFIED	1-3	Lot 34	SHERRATT STREET	MOUNT MELVILLE
161642	KOSTER'S OUTDOOR PTY LTD	NEW STORAGE SHED -- CERTIFIED	2151	RES 19162 Lot 4463	CHESTER PASS ROAD	NAPIER
161670	J MALES	NEW SINGLE DETACHED DWELLING ONE-	463	Lot 201	ROCK CLIFF CIRCLE	NULLAKI
161532	IRONMONGER BUILDING COMPANY PTY LTD	CHANGE OF CLASSIFICATION FROM CLASS 9B TO CLASS 6 - CERTIFIE	463	Lot 403	ALBANY HIGHWAY	ORANA
161627	GC CONSTRUCTION AND	TELECOMMUNICATIONS TOWER AND EQUIPMENT HUT -	134	Lot 4664 2926	WILCOX ROAD	REDMOND
161671	BUILDING APPROVAL CERTIFICATE	LEAN TO ATTACHED TO EXISTING SHED AND HORSE STABLES - BUILDI	83	Lot 52	HOME ROAD	ROBINSON
161607	G LEEDER	NEW SINGLE DETACHED DWELLING ONE-	36	Lot 203	TROTTER GROVE	ROBINSON
161608	OWNER BUILDER	SHED EXTENSION TO EXISTING SHED - UNCERTIFIED	4	Lot 3	MANNI ROAD	ROBINSON
161620	TURP'S STEEL FABRICATION	NEW DOMESTIC SHED - UNCERTIFIED	94	Lot 14	COLLINGWOOD ROAD	SEPPINGS
161685	RANBUILD GREAT SOUTHERN	PATIO DEMOLITION - UNCERTIFIED	19	Lot 189	GAIRDNER ROAD	SPENCER PARK
161643	WA COUNTRY BUILDERS PTY LTD	NEW SINGLE DETACHED DWELLING ONE-STOREY WITH PORCH ALFRESC	96	Lot 204	DISCOVERY DRIVE	SPENCER PARK
161666	K MATSON	CARPORT - UNCERTIFIED	13	Lot 14	PRETIOUS STREET	SPENCER PARK

## REPORT ITEM DIS049 REFERS

Application Number	Builder	Description of Application	Street #	Property Description	Street Address	Suburb
161617	J BOCCAMAZZO	RE-ROOF OF EXISTING DWELLING AND GARAGE	126	Lot 177	ULSTER ROAD	SPENCER PARK
161633	KOSTER'S OUTDOOR PTY LTD	SHED - UNCERTIFIED	49	Lot 9	DAVID STREET	SPENCER PARK
161655	KOSTER'S OUTDOOR PTY LTD	SHED - UNCERTIFIED	76	Lot 256	WARRENUP PLACE	WARRENUP
161647	B & D EVANS	NEW SINGLE DETACHED DWELLING ONE-	26	Lot 402	CATLING CLOSE	WARRENUP
161651	PERRELLA BUILDING & FABRICATION	SHED - UNCERTIFIED	26	Lot 402	CATLING CLOSE	WARRENUP
161640	OWNER BUILDER	ALTERATIONS TO EXISTING DOMESTIC SHED (PART CONVERSION TO ST	95-105	Lot 300	KOORYONG AVENUE	WARRENUP
161641	BUILDING APPROVAL CERTIFICATE	BUILDING APPROVAL CERTIFICATE - SECTIONS 49(A) 49(B) & 51 -	95-105	Lot 300	KOORYONG AVENUE	WARRENUP
161650	C & C HUME	AMENDMENT TO ORIGINAL BUILDING PERMIT #140439 - MINOR ALTERA	15	Lot 815	WESTON RIDGE	WILLYUNG
161584	R CHARLES	WORKSHOP & OFFICE	Lot 110	Lot 110	NEGRI ROAD	WILLYUNG
161703	TURPS STEEL FABRICATIONS	PATIO - UNCERTIFIED	17	Lot 121	MEARS ROAD	YAKAMIA
161693	WA COUNTRY BUILDERS PTY	NEW DWELLING - CERTIFIED	8	Lot 719	GALLE STREET	YAKAMIA
161674	OWNER BUILDER	ALTERATIONS & DEMOLITION WORK TO EXSITING RESIDENCE - UNCERT	6	Lot 72	BOHEMIA ROAD	YAKAMIA
161675	BUILDING APPROVAL CERTIFICATE	ENCLOSURE OF FRONT PORCH AND REAR PATIO - BUILDING APPROVAL	6	Lot 72	BOHEMIA ROAD	YAKAMIA
161636	KBUILT CONSTRUCTION PTY LTD	ALTERATIONS TO EXISTING SINGLE DETACHED DWELLING (EXTENSION	67	Lot 343	ULSTER ROAD	YAKAMIA
161615	OWNER BUILDER	NEW DOMESTIC SHED - UNCERTIFIED	18	Lot 724	GALLE STREET	YAKAMIA