

EMU POINT TO MIDDLETON BEACH

COASTAL ADAPTATION AND PROTECTION STRATEGY

Peppermint (*Agonis flexuosa*)

COMMUNITY UPDATE WINTER 2014

PURPOSE OF THIS UPDATE

This update provides an overview of recent activities carried out as part of the Emu Point to Middleton Beach Coastal Adaptation and Protection Strategy.

The City of Albany recently commenced a comprehensive two year monitoring program which will gather data to inform future coastal planning for the area.



TRIAL GROYNES AND SAND RENOURISHMENT

The City has completed work on two trial groynes implemented at Emu Beach and sand renourishment of the area with approximately 10,000m³ of sand from Ellen Cove. Early indications are that the groynes are functioning as predicted, sand is building up to the East in front of the old sand bag revetment and erosion is increasing slightly to the West of the newly constructed groynes. The trial will continue to be monitored using photo monitoring and beach surveys.

VISIT FROM UWA STUDENTS

In April 2014 sixty Marine Science Students from UWA came down to Albany and took part in seven research projects in the Albany area. One of these projects was at Emu Point where the students worked with Dr Harriet Paterson to look at water movement and sediment transport through the Emu Point Channel and the shallows near the Emu Beach swimming baths. The students deployed drifters fitted with GPS loggers to estimate the current speeds and direction of the water and also measured the amount of material suspended in the water. Dr Harriet Paterson's work on currents and sediment movement around the Emu Point/Middleton Beach area is part of a partnership between UWA Centre for Excellence in Natural Resource Management and the City of Albany and part funded by a Coastwest Grant from the Western Australian Planning Commission.

LIVE WIND DATA AVAILABLE ONLINE

A new page on the City of Albany website will allow the public to view live wind data from Emu Point. An anemometer at Emu Beach is now recording wind speed, direction and gusts at Emu Point. This data is being collected as part of the Emu Point to Middleton Beach Coastal Adaptation and Protection Strategy and is funded by the Department of Transport, Albany Port Authority and the City of Albany. The information is updated every ten minutes on the City of Albany webpage.

More information available at www.albany.wa.gov.au.



Emu Point after renourishment and with groynes



Ellen Cove after sand was taken away

The Peppermint (*Agonis flexuosa*) tree motif is featured at the top of this 'Winter Update' because it is native to Albany. The Latin term *flexuosa* (meaning 'full of bends') refers to its zigzag branchlets. The Peppermint has white flowers and leaves that smell of peppermint when crushed or torn. It is a favourite food and habitat for Western Ringtail Possums and can be found between Emu Point & Middleton Beach.

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Aerial photograph for seagrass mapping. Photo: Andrew Halsall

SEAGRASS MAPPING

Environmental Consultant Geoff Bastyan has been busy mapping and identifying the seagrass in the waters adjacent to Emu Point and Middleton Beach over the last couple of months.

This has involved; aerial photography, towed video analysis and scuba diving.

The analysis so far has seen encouraging signs for the coastal system.

Geoff has seen high numbers of seedling recruitments in the waters opposite the detached breakwater and on Lockyer Shoal.

Seagrass has an important function in the marine environment as it traps sand and slows the movement of water. It is an integral part of the recovery process of the Emu Point area.

Although encouraging, this process of establishment will take decades and could be set back with any major storms that occur.

This study is part funded by a Coastwest Grant from the Western Australian Planning Commission.

TRAINING WALL

You may have noticed that the City has been busy doing some repairs to the training wall at Emu Point. This has included reinstatement of laterite rocks to increase the stability and height of the wall and cement stabilised backfill along the edge of the wall to protect it from scouring out when waves wash over the top.



A mature *Posidonia coriacea* plant in the sand holes.

PHOTO MONITORING

The Emu Point photo monitoring program commenced in July 2013 and is designed as a simple, inexpensive tool that can be used to record and measure change in the coastline. It has been designed in conjunction with the Department of Transport with support from local councils in Mandurah and Geraldton.

Our monitoring is carried out monthly in summer and fortnightly in winter as the rate of change is greater during winter. The photos are taken by a mixture of dedicated volunteers and City staff. Photos are taken from 24 points from Ellen Cove to the Emu Point Boat pens, this allows us to capture this whole stretch of coastline including the beaches and rock structures.

The time that the photo is taken is recorded and this allows us to correlate the image with the local tide data and weather conditions including storm surge. The overall aim of the project is to collect data that will inform present and future decisions in regard to coastal management.



Department of Transport



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- Albany Port Authority Community Sponsorship Fund
- City of Albany

Management:

City of Albany

Current Status:

Planning and Implementation

