

Coastal/Foreshore Works for Remote Townships Australia Wide Specifically ONSLOW, Western Australia.



Coastal/Foreshore Works for Remote Townships Australia Wide Specifically ONSLOW, Western Australia.

Where is Onslow?



Hobart

Coastal/Foreshore Works for Remote Townships Australia Wide Specifically ONSLOW, Western Australia.

Shire of
Ashburton
105,647 km²





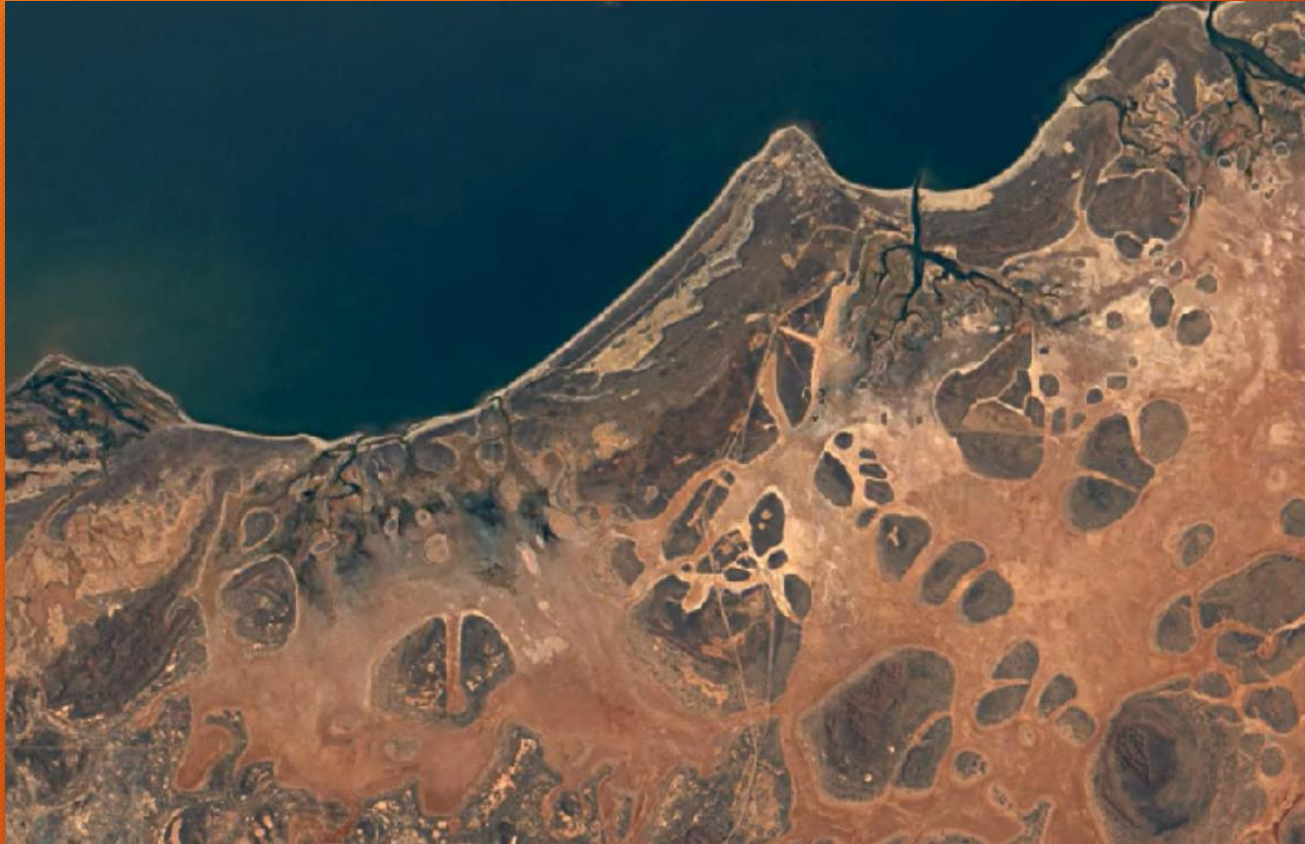
1984

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1986

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1988

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1990

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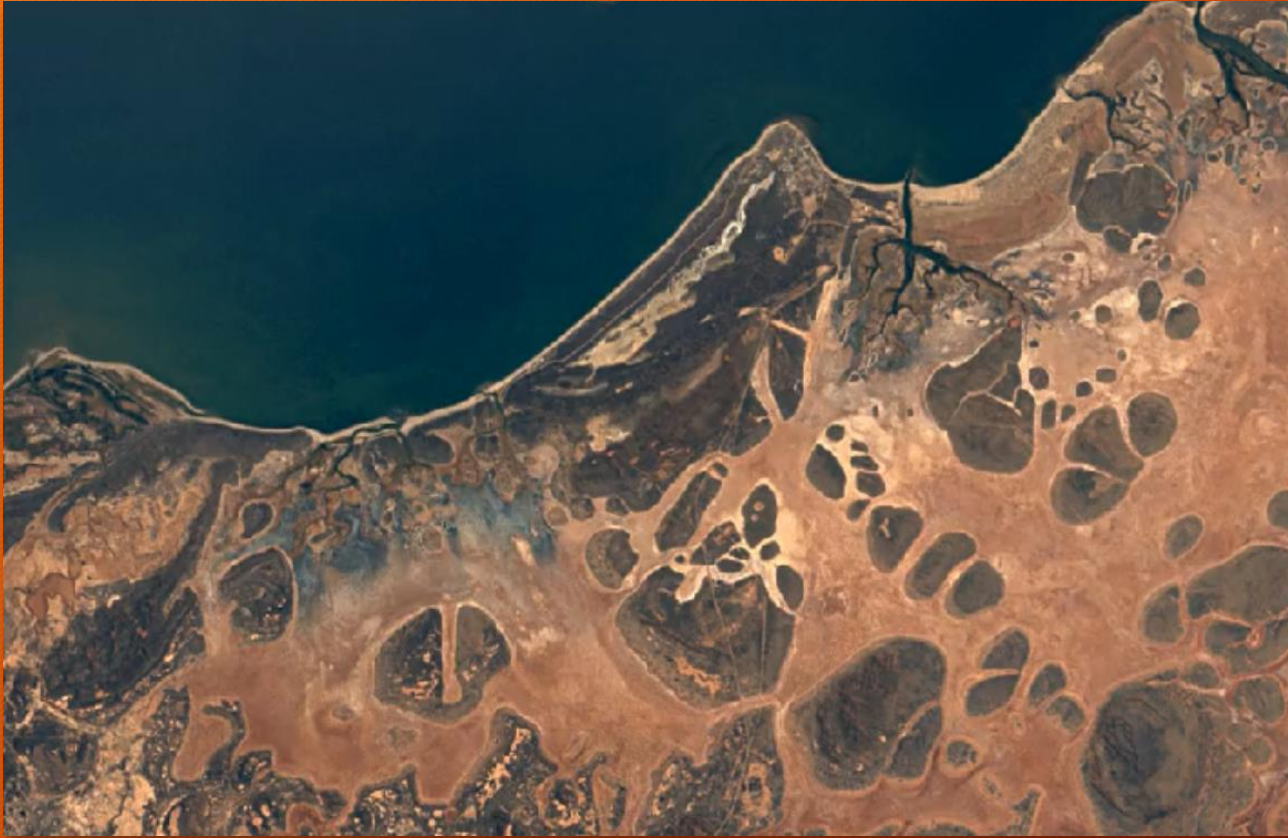




1992

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1994

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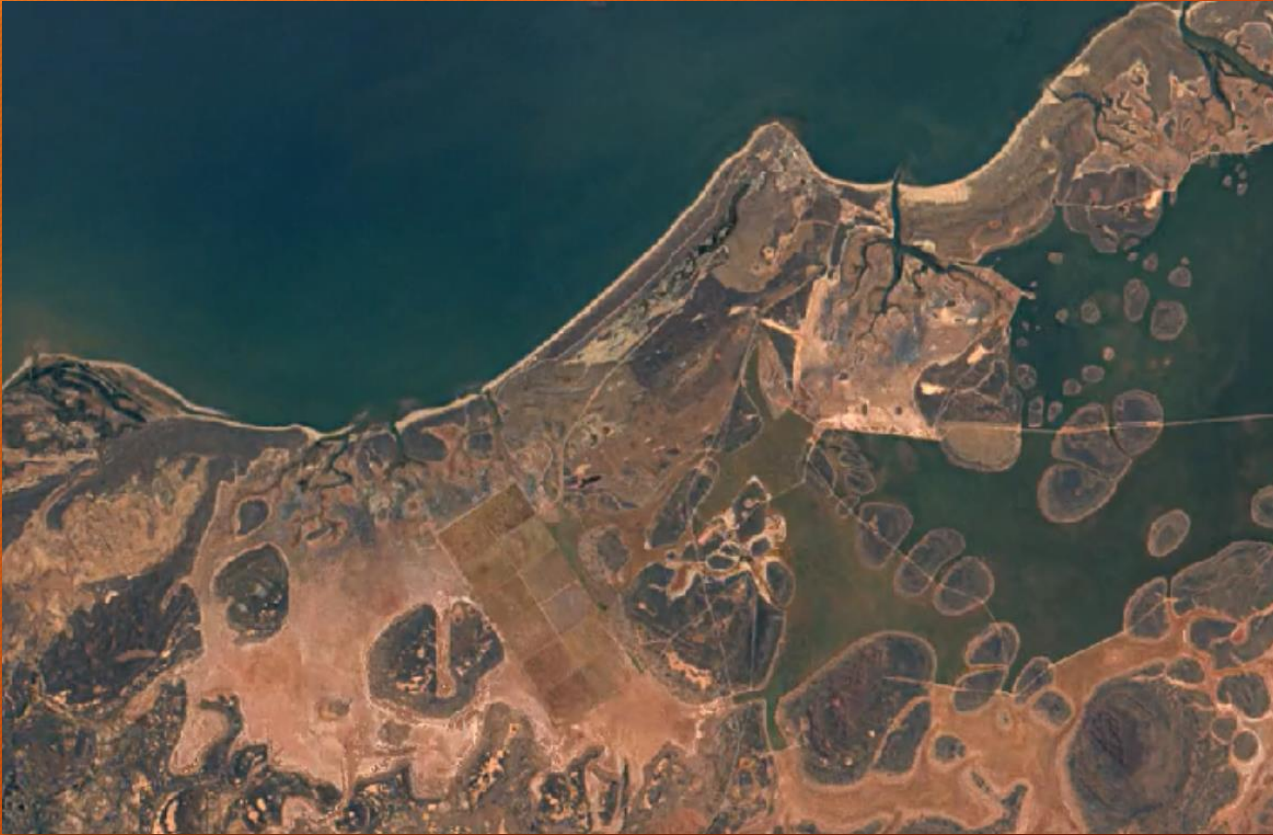




1996

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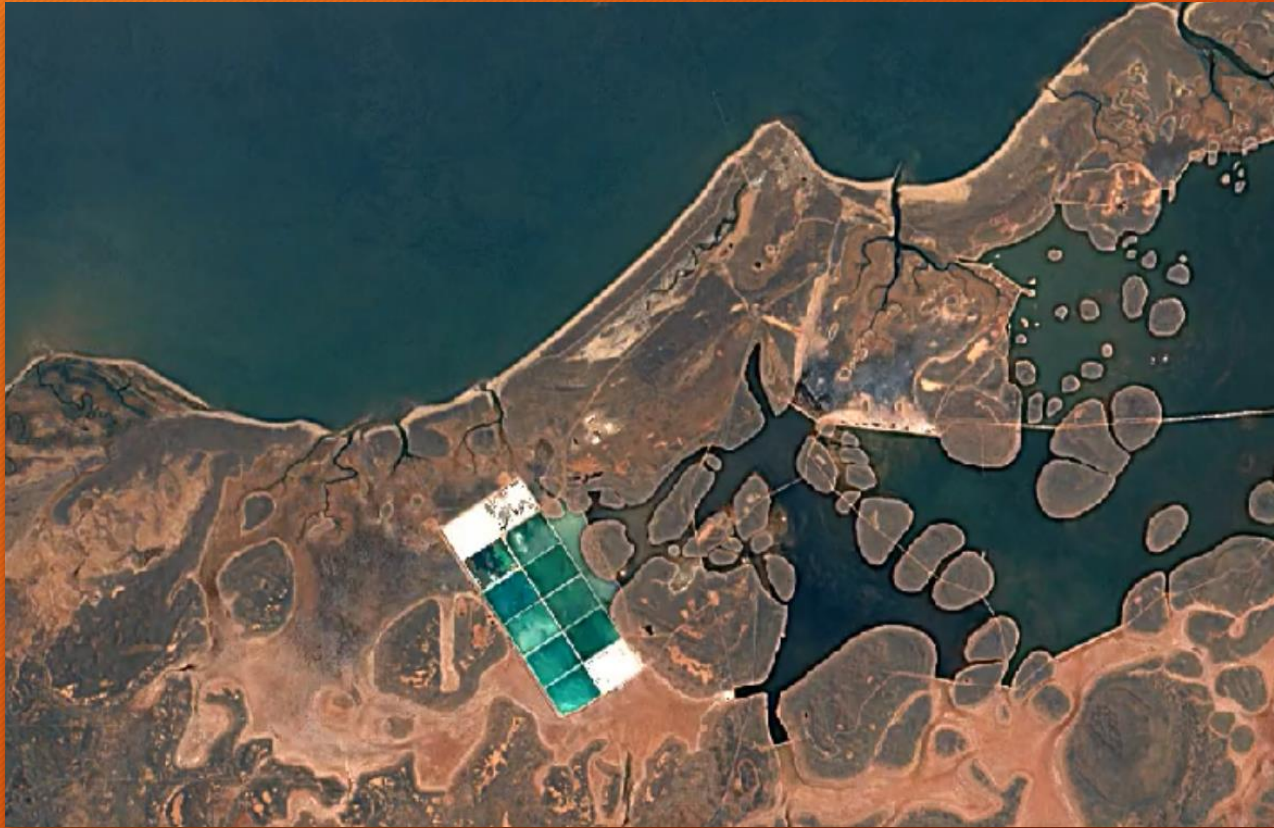




Onslow Salt Development

1998

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Salt Pans
Established

2000

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Salt Stockpiles

2002

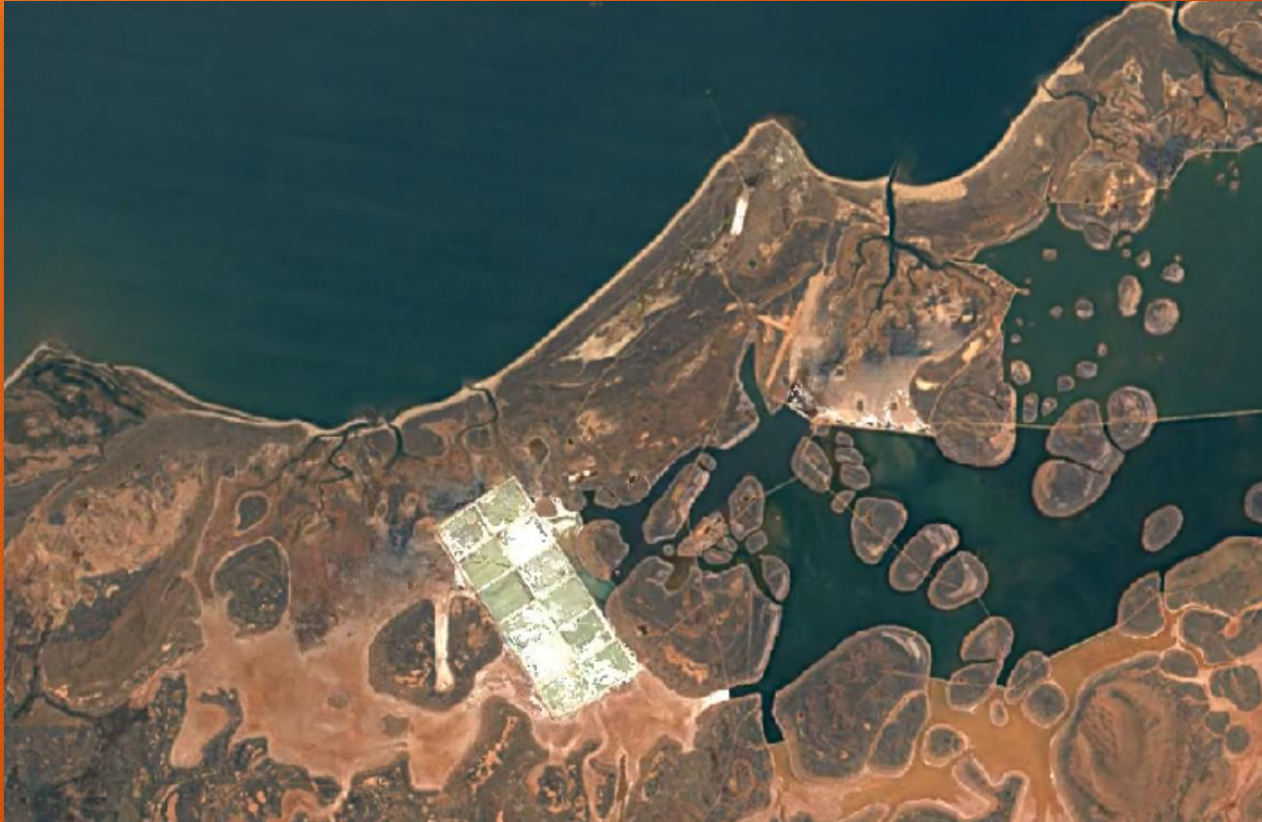
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Salt Water Controls in Place

2004

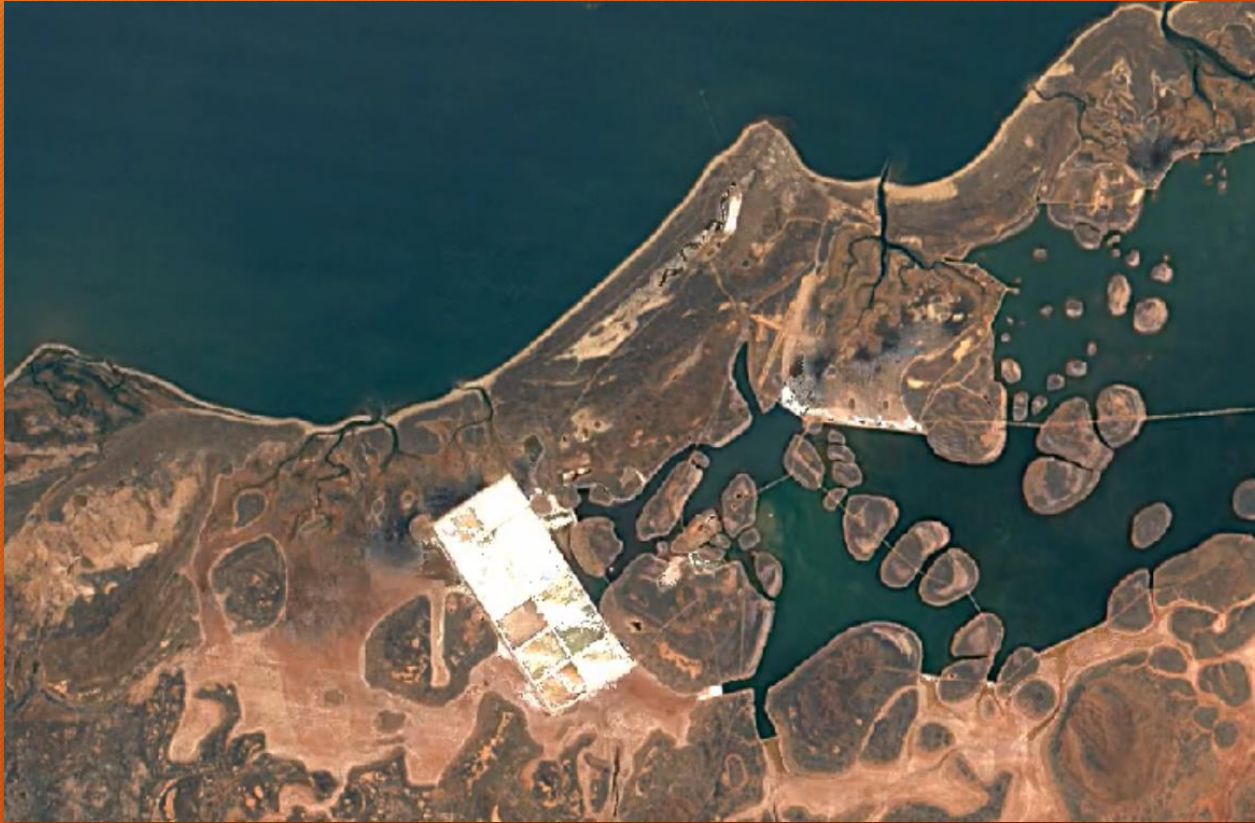
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Further Inlet Controls

2006

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Preliminary Investigation for Chevron

2008

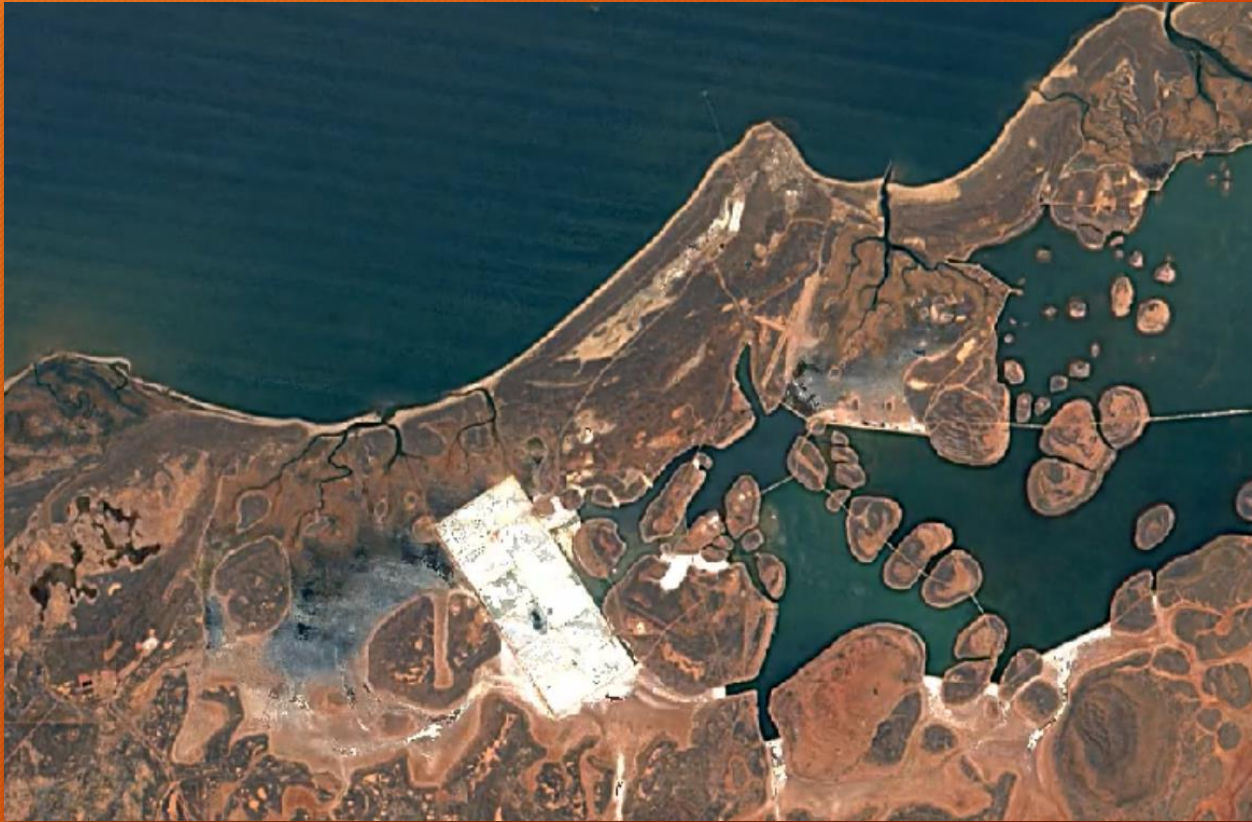
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Onslow Salt Well Established

2010

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Chevron Wheatstone Project Start-up

2012

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Wheatstone Port Facilities underway

2014

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Wheatstone Gas Plant Under Construction

2016

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Wheatstone Gas Plant Nearing Completion

2018

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Chevron Wheatstone Gas Plant



Onslow Salt



**Horizon Power
LNG Plant**



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Onslow Airport 1964



Airport Construction 2013

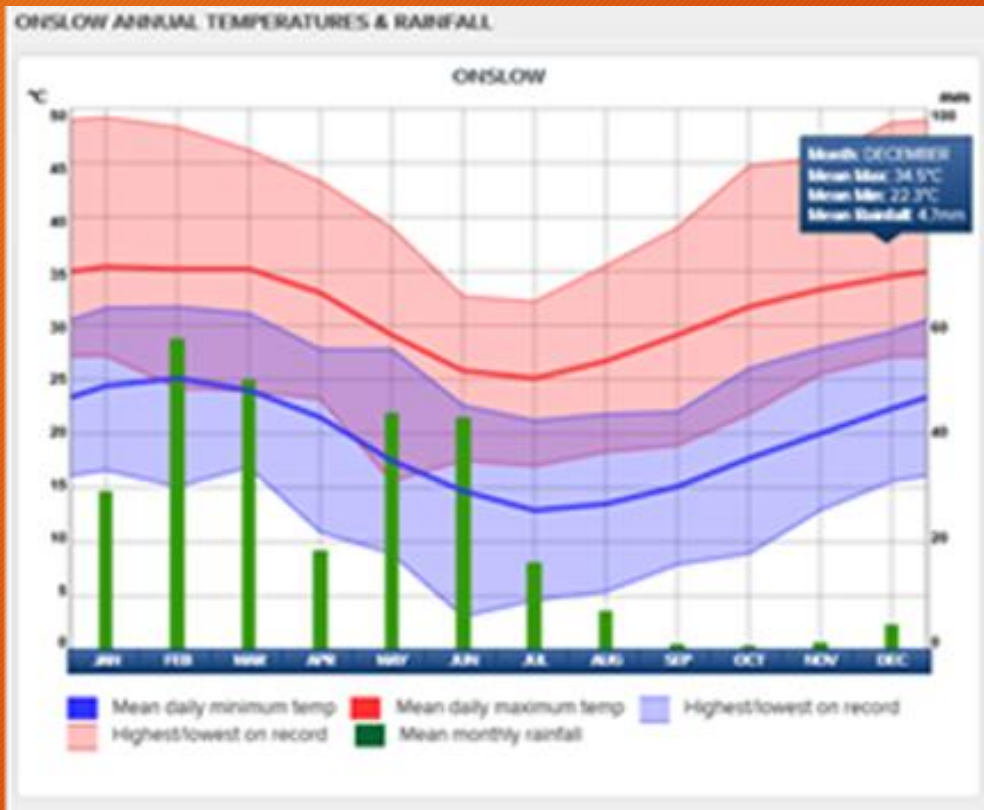
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LIDAR—Light Detection and Ranging



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Onslow Temperature & Rainfall Data.



Onslow Airport After Cyclone Vance 1999



Region After significant Rain Drying out.

Site of Class IV
Waste
Management
Facility

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Onslow
Sub-station
Horizon Power.



Onslow Water
Supply Storage Tanks
WaterCorp.

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Beadon Creek Future Port and Marine Development Precinct. Incorporating a Logistics Dock/Supply Base to service off-shore Sites and a Marina.

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BEFORE

375 mm Pipe 90% Blocked

20 YEAR OLD PIPE



AFTER

Pipe after jetting works completed.



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Examples of COMPROMISED PIPES found during this project.

Horizon Power Low Voltage
Supply conduit.



Horizon Power
Service conduits.



WaterCorp. Asbestos Cement
Watermain.



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Examples of compromised sections due to tree roots entering stormwater pipelines .



Second Avenue outside the Shire
Administration Building.



Outside the Beadon Bay Hotel.

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High Pressure Jetting Process (Cleanflow Environmental Services).

This CCTV footage shows how effective the pressure head can clear sediment and debris from a blocked pipe at 40%

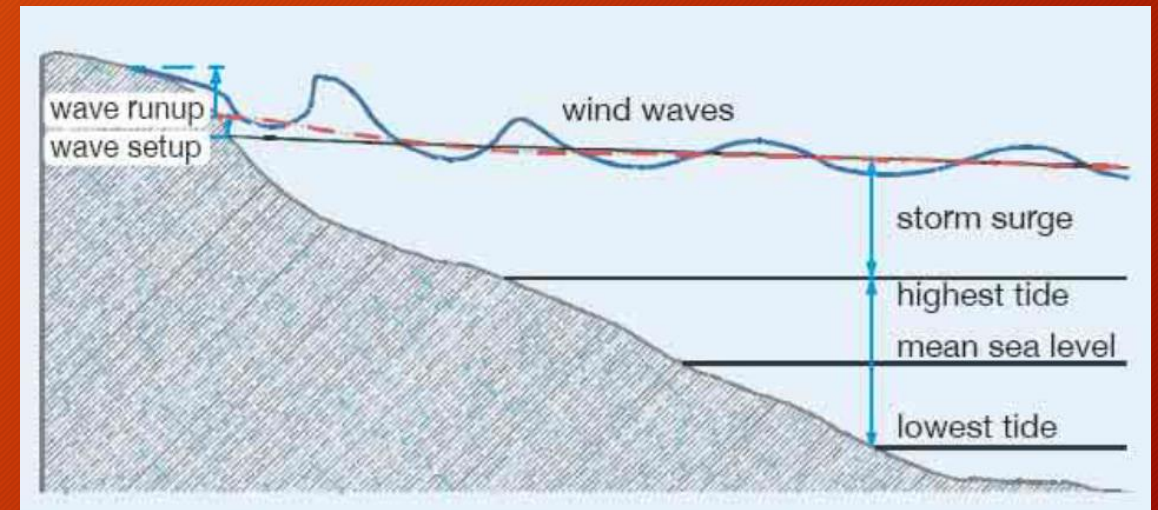
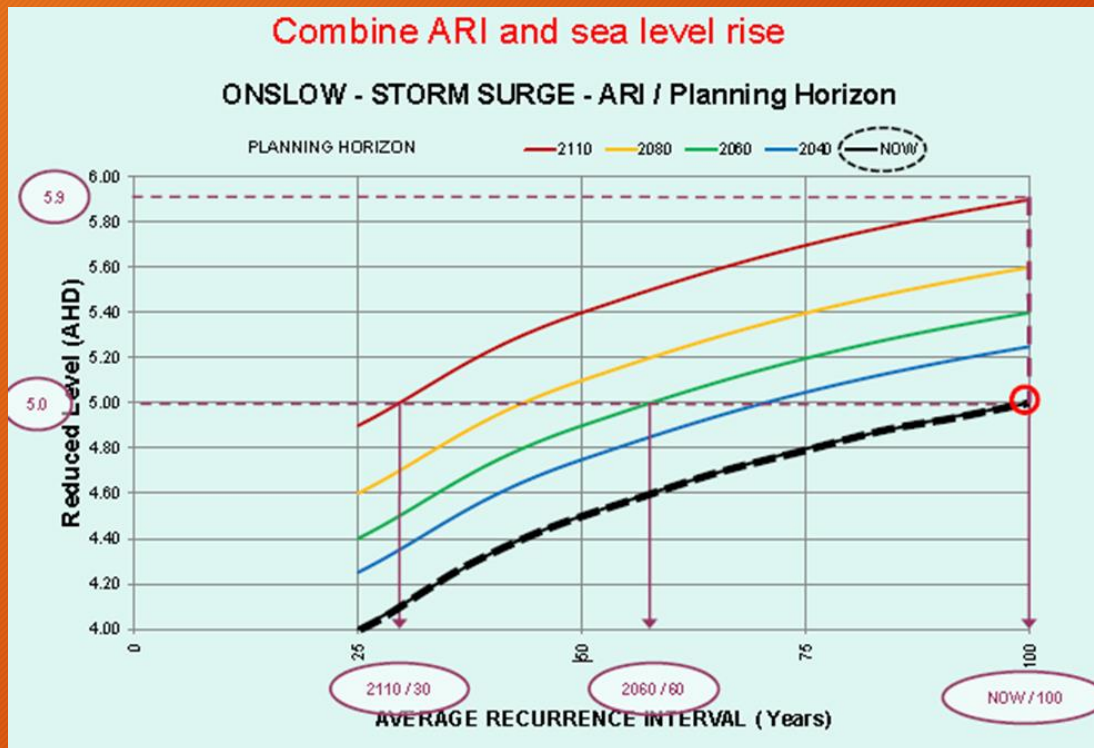
Some pipes were found to be completely blocked on this project.

Stormwater network and disposed of approximately 25 tonnes of “Well Everything”



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Assessment Data for Consideration.



Onslow's North Facing Bay Shows
Significant Vulnerability to Coastal
Erosion and Flood Damage.

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Moving Forward.

With the planned Capital Works Expenditure and the ongoing programmed annual maintenance works allowing for improvements and upgrades to the Stormwater Infrastructure Network and avoid long term flood damage occurring in the future.

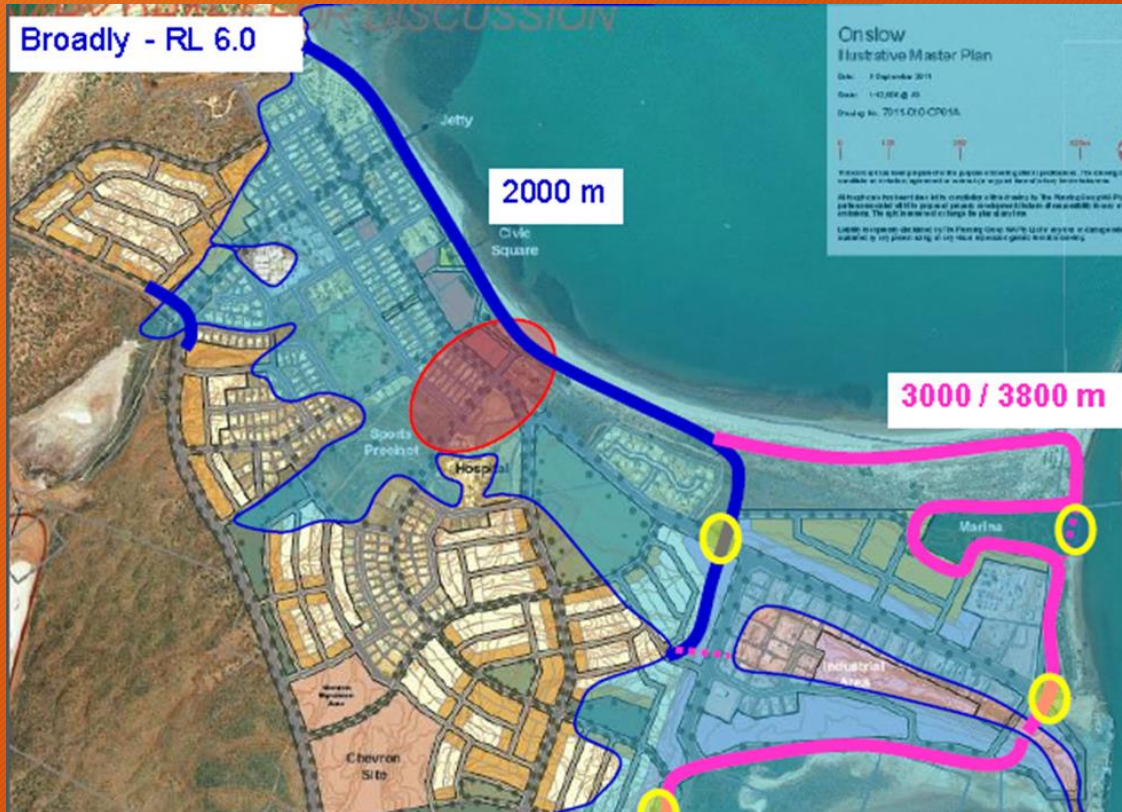


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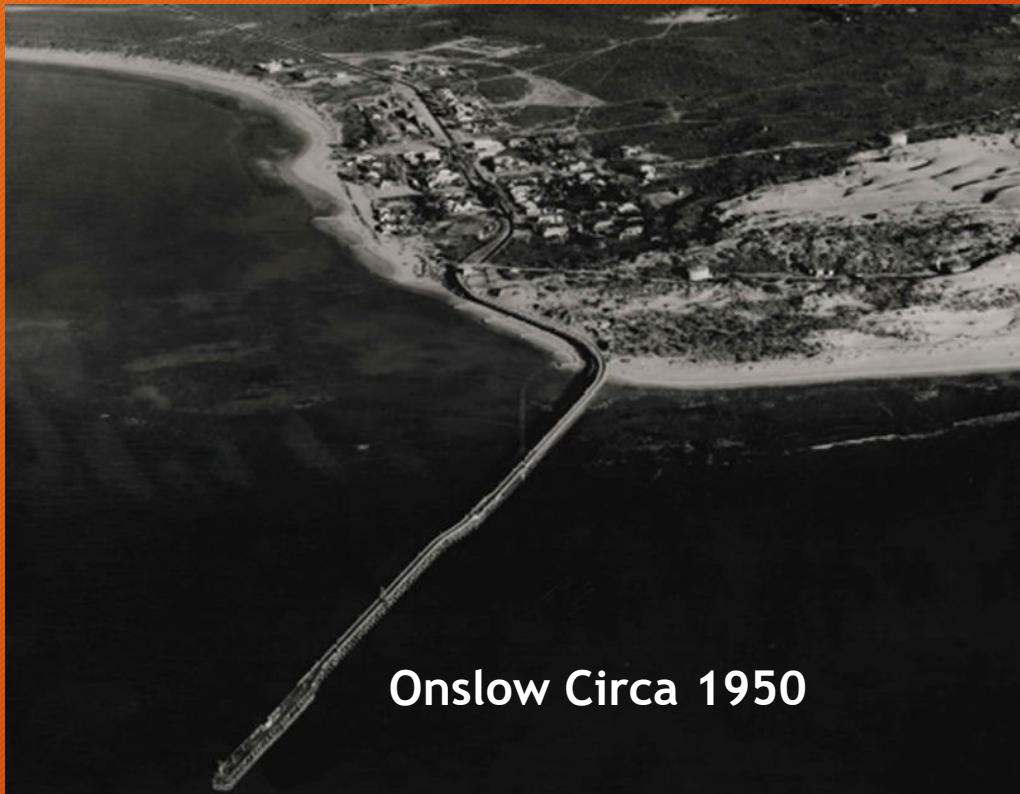
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In an Ideal world we would build the flood protection required as can be seen here as part of the deep water channel dredging project (To be finished late 2019).



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Just a thought, we could employ King Canute Consultants
To help protect Onslow.



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Acknowledgements:

- Shire of Ashburton
- Cardno
- GHD
- University of Western Australia
- Cleanflow Environmental Services (Perth)
- NTC Contracting (Onslow)

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References:

- Onslow Town Site Strategy Background Report January 2010
- Onslow Coastal Hazard Report 2011
- Pilbara Regional Water Plan 2010-2030
- Drainage Assessment August 2010
- Drainage Infrastructure Assessment December 2015
- Shire of Ashburton Onslow Town Centre Master Plan Development (GHD Woodhead)
- Coastal Hazard Risk Management & Adaption Plan July 2017 (CHRMAP)
- Various topographical, feature and LIDAR surveys (Light imaging, detection and ranging method {3D Scanning})
- Seawall condition report July 2017 (GHD)
- Sand Migration Study March 2019
- Ashburton Sediment Dynamic Study (UWA)
- Coastline Dynamics, Coastal Infrastructure Impacts, & Future Erosion Hotspots along the Ashburton Coast Report (UWA)
- IPWEA Practice Notes - Infrastructure, referencing climate Change.

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**Thank you for your time
and listening to this presentation.**

We have time for some questions.