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Coastal Management Hotspots in WA

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The Coastal Management group

- 5 coastal engineers & scientists
- Acquire, analyse, maintain and present data relating to the coastal zone
- Provide expertise and advice on coastal management matters and coastal zone/project planning
- Developed idea of Coastal Management Hotspots alongside Department of Planning (DoP) to scope management needs

Management Note: Western Australia does not have special purpose coastal protection legislation to assign responsibility for coastal management to a particular agency or Minister. Common Law is often applied to assign responsibility.



Coastal management hotspots

So what defines a hotspot?

- 30 locations identified from local government management queries/historical requests for funding
- Sites briefly assessed for vulnerability and asset risk
- Locations with both high vulnerability to hazards and a high value of assets were considered a “hotspot”.



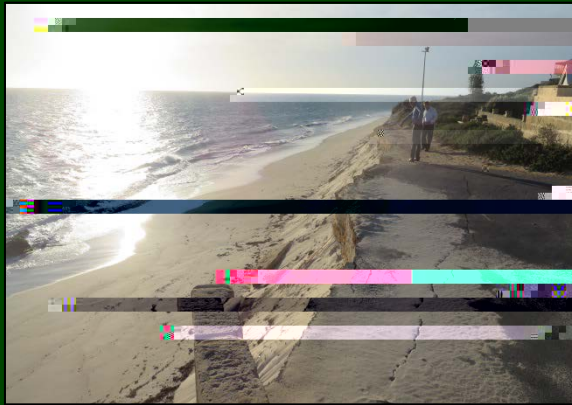
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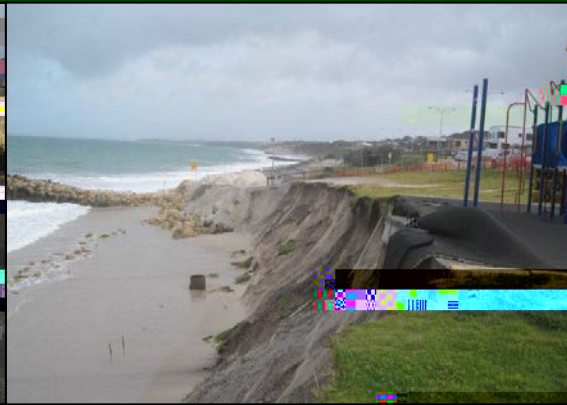


A closer look

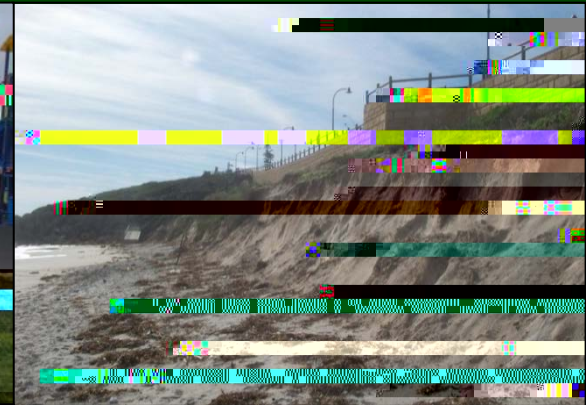
Seabird



Quinns



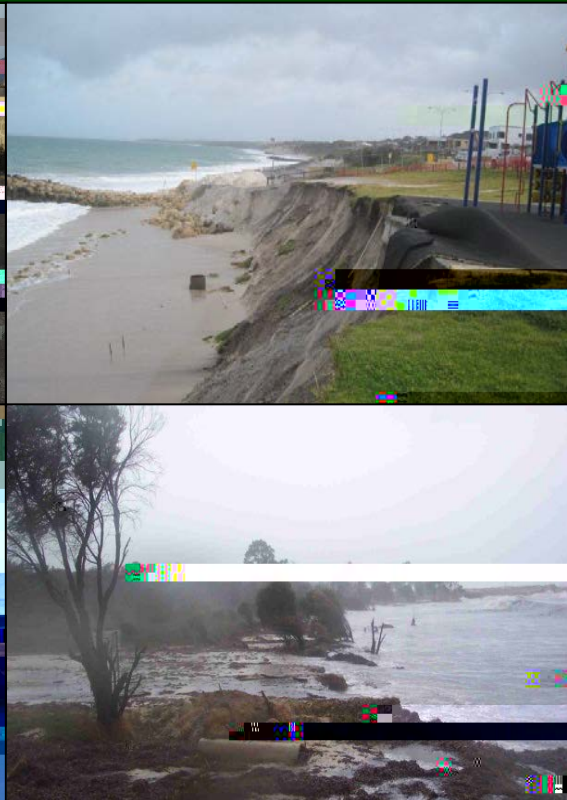
Watermans Bay



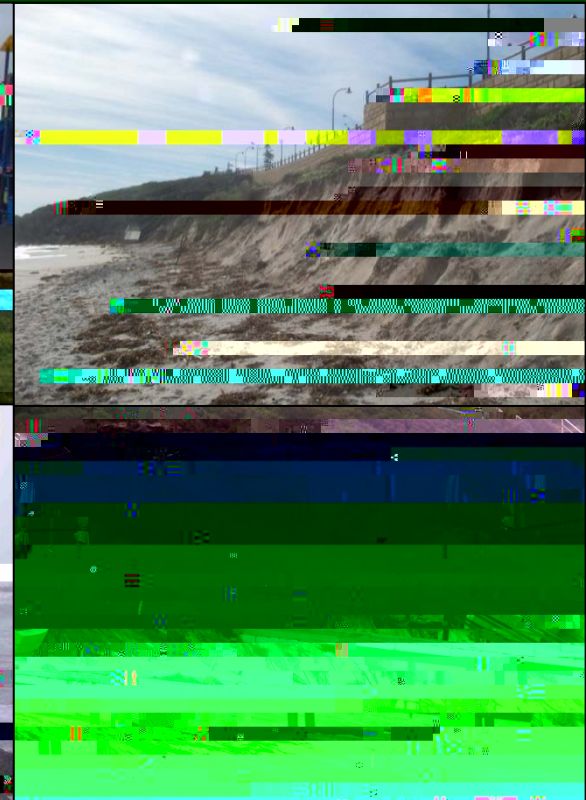
Binningup



Geographe Bay



Margaret River





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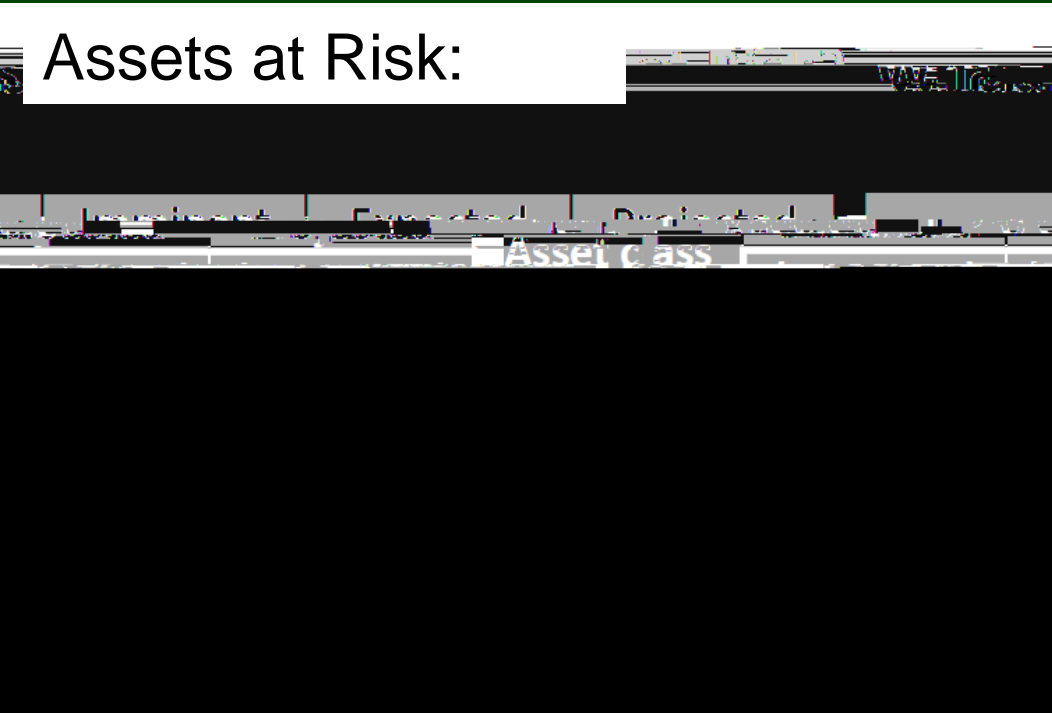




Assessment by Seashore (2016) with DoP

Preliminary Analysis of 30 hotspots to assess assets at risk, erosion hazards, site prioritisation, management pathways, and knowledge gaps

Assets at Risk:



Projected Cost Estimates

- \$40-100M in 5 yrs
- \$150-450M in 25 yrs

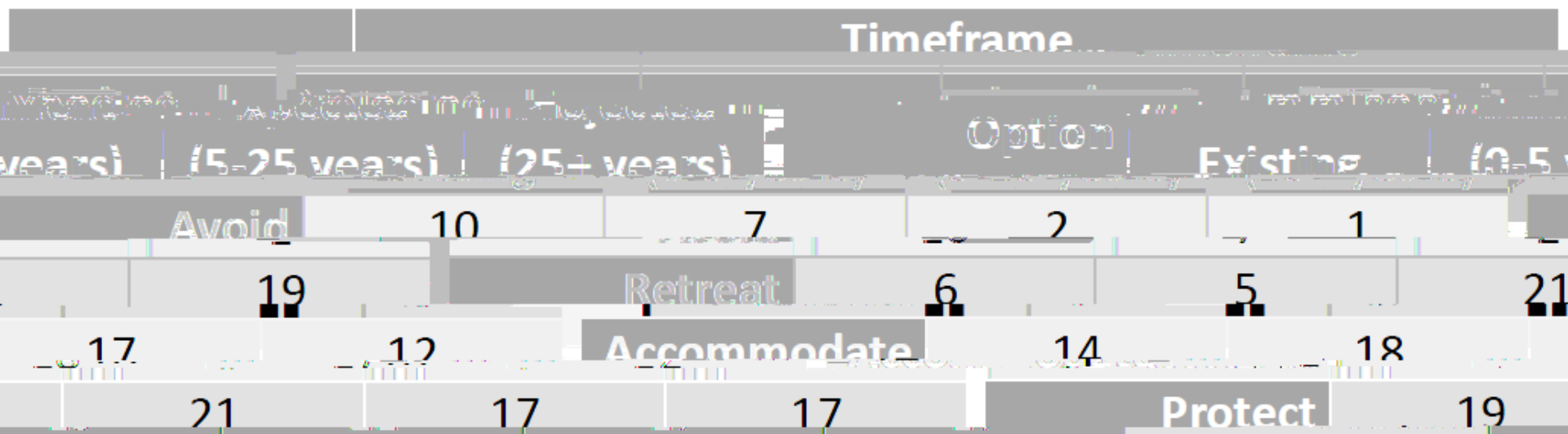
More assets become threatened over time...



CHRMAP process is needed for hotspots

Coastal Hazard Risk Management and Adaptation Planning (CHRMAP)

- Only general assets at risk were identified
- Communication strategies required
- Identify which stage each hotspot is at within the CHRMAP process



Note: each hotspot may require more than one type of adaptation strategy



Erosion

Two Rocks Hotspot

Classic marina example: accretion on one side, erosion on the other

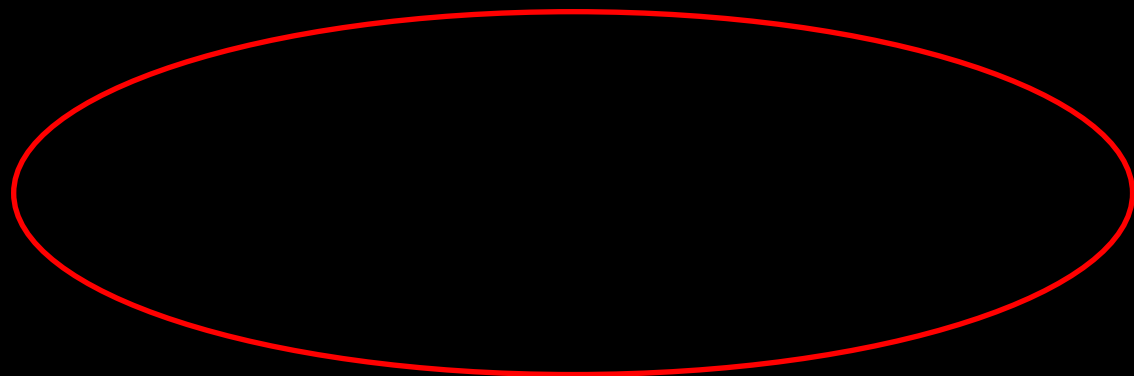
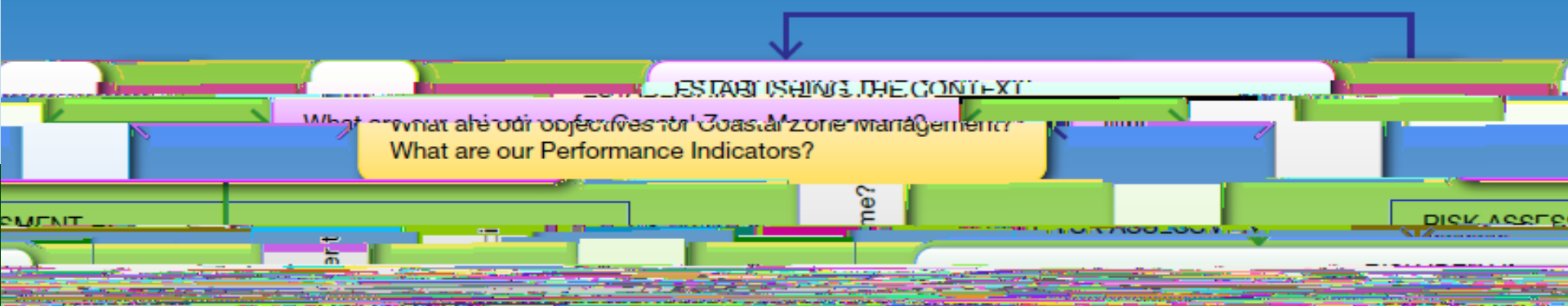
- 1 of 10 Perth hotspots
- Houses and road threatened
- Good range of metocean data, lack of geophysical data
- Need to understand vulnerability before assessing risk and adaptation pathways

Accretion





Potential rocky ridge between beach and infrastruNk6(r)- rNk6(r)8m-36M7o.



Coastal management considerations:

- Community desires
- Policy framework
- Limited data and management expertise
- **Funding**



What next?

Staged approach to hotspot planning/management

- Coastal Management Advisory Group
- Expand original list to >30 hotspots
- Collaboration between experienced WA researchers, managers, and government with DoP
- Focus on data collection and knowledge gaps
- Education and guidance
- (Long-term) CHRMAP creation and implementation

