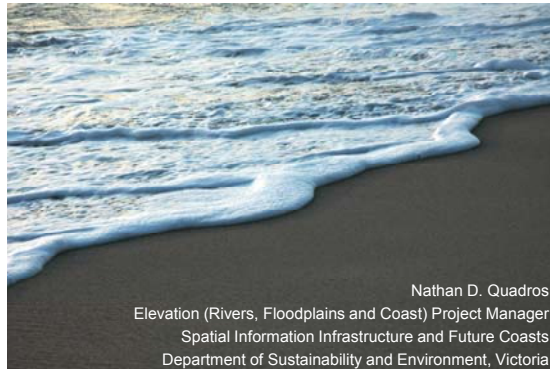


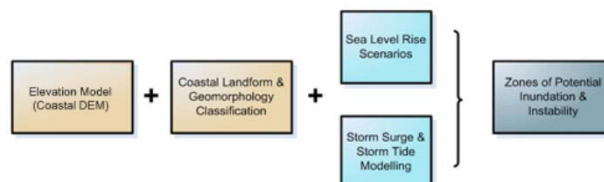
# Future Coasts: Victorian Coastal Elevation Project



Nathan D. Quadros  
Elevation (Rivers, Floodplains and Coast) Project Manager  
Spatial Information Infrastructure and Future Coasts  
Department of Sustainability and Environment, Victoria

## Victorian Coastal Vulnerability Assessment

- The Victorian Coastal DEM represents a multi-million dollar investment by the Victorian Government.
- The project is being funded by the Department of Sustainability and Environment (DSE) and is jointly managed by the Future Coasts Program and Spatial Information Infrastructure (SII).
- The coastal DEM is a key component of the Victorian Coastal Vulnerability Assessment (VCVA)
- The VCVA is the Future Coasts Program response to assessing the physical vulnerability of the Victorian coast.

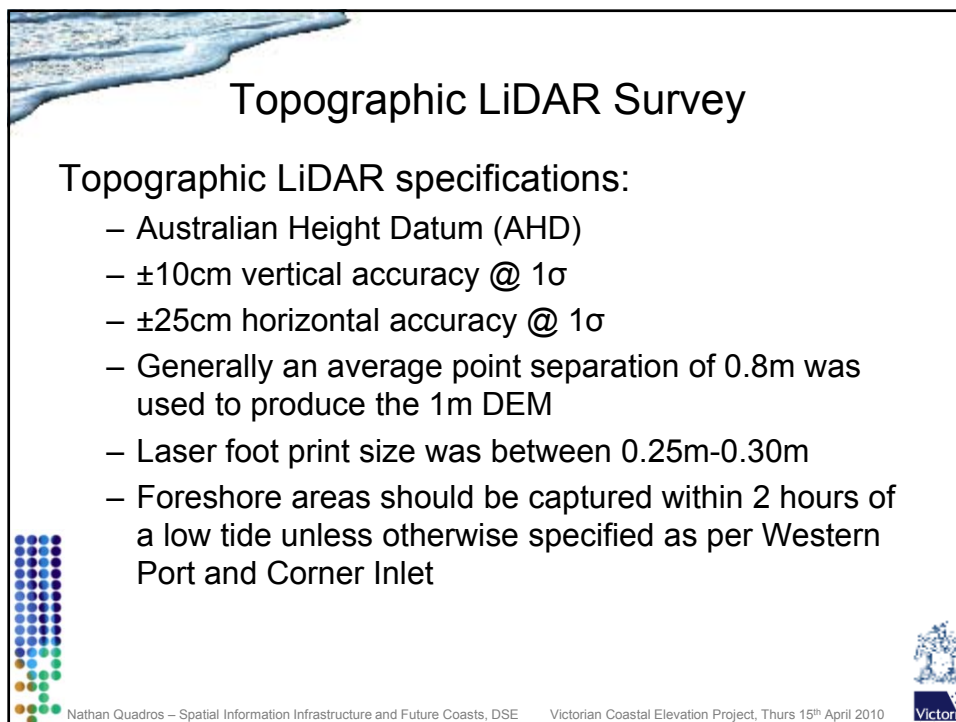
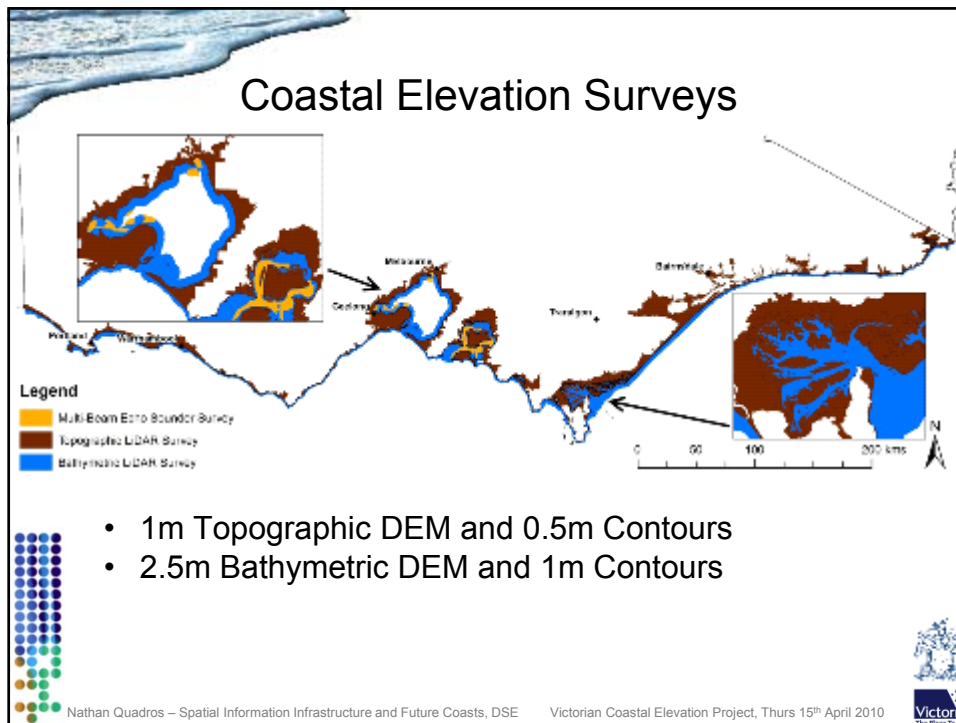


Future Coasts is  
part of the Victorian  
climate change  
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## Bathymetric LiDAR Survey

### Bathymetric LiDAR specifications:

- Australian Height Datum (AHD)
- IHO Order 1 ( $\pm 50\text{cm}$ ) vertical accuracy @  $2\sigma$
- $\pm 3.17\text{m}$  horizontal accuracy @  $2\sigma$
- An average point separation of  $5\text{m}$  was used to produce the  $2.5\text{m}$  DEM
- Laser foot print size was  $2.5\text{m}$
- Coverage requirements
- AHD heights were computed using a combination of a hydrodynamic modeling and linear interpolation tidal models based on observed tides

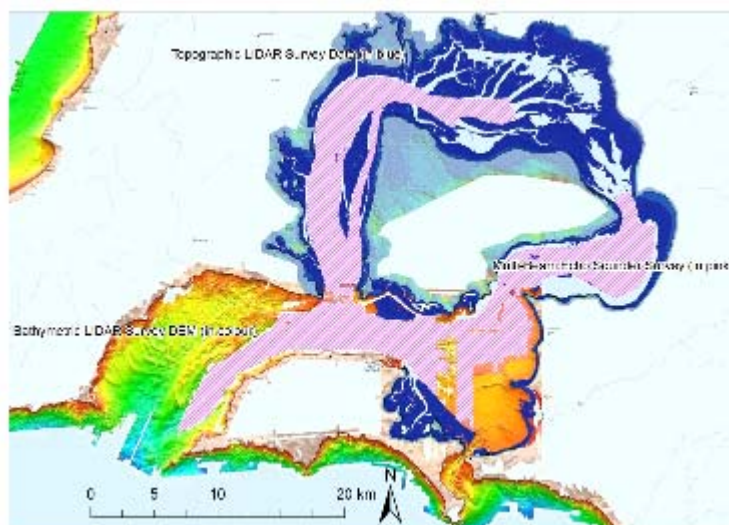


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## Multi-Beam Echo Sounder Survey



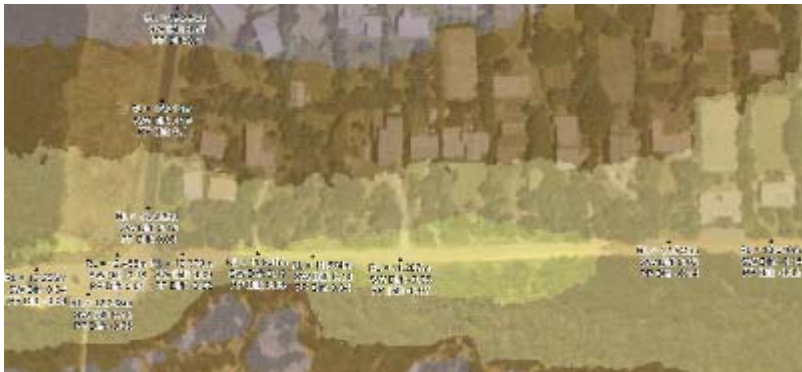
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## Integrating Coastal LiDAR Surveys

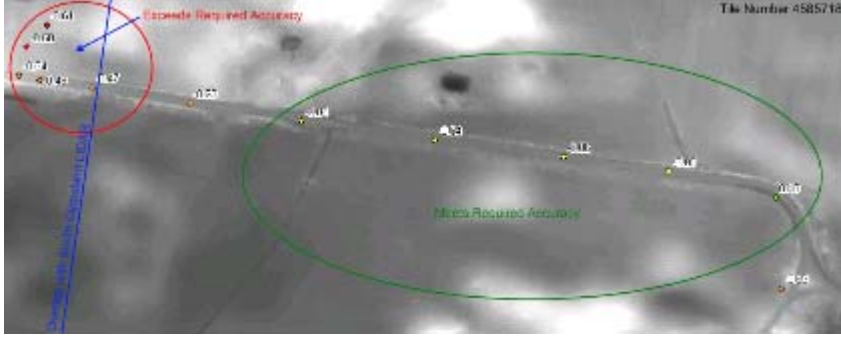
- Ground control
- Data overlap
- Difference analysis
- Data merging



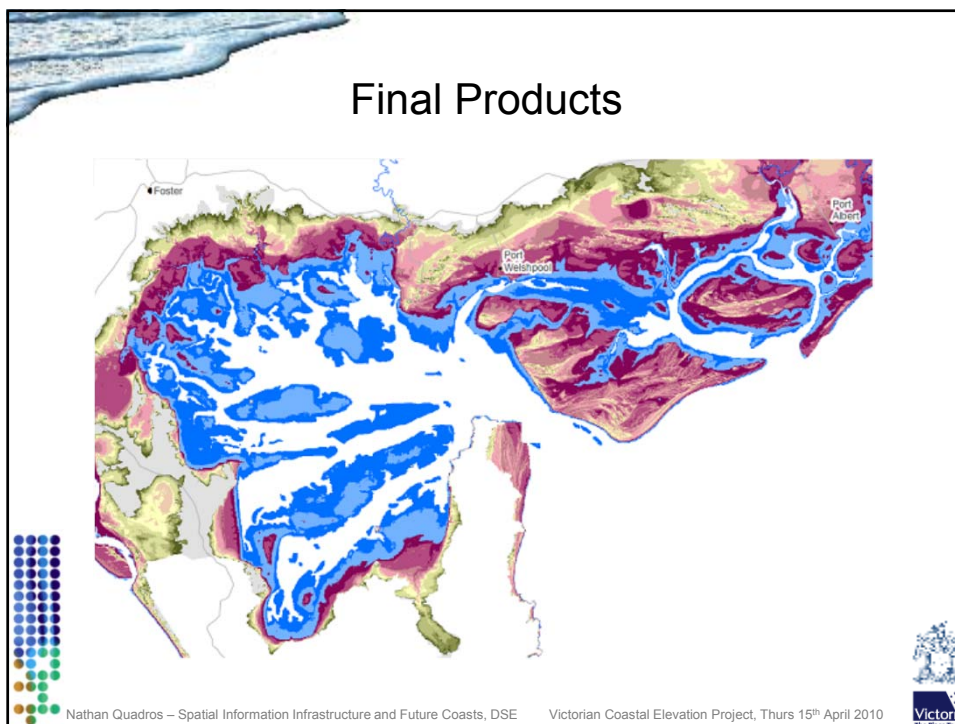
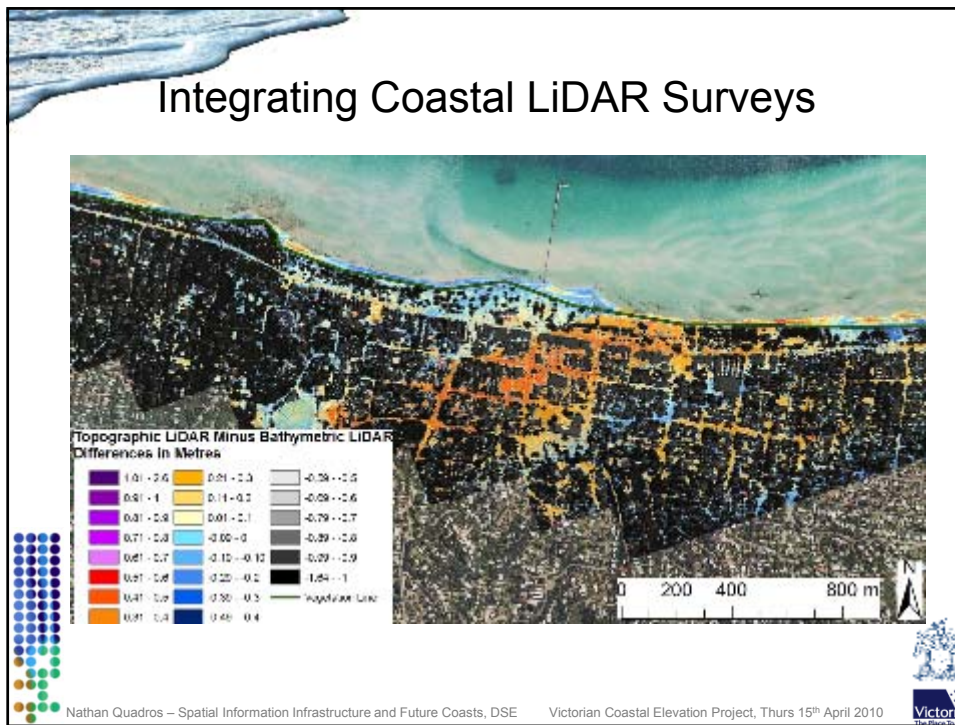
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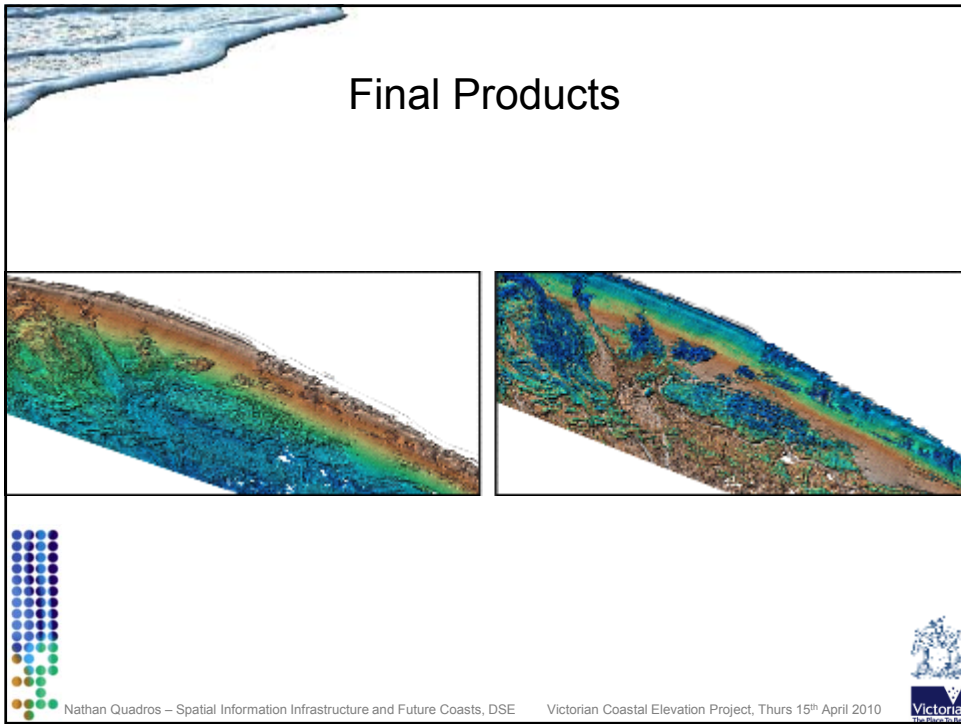
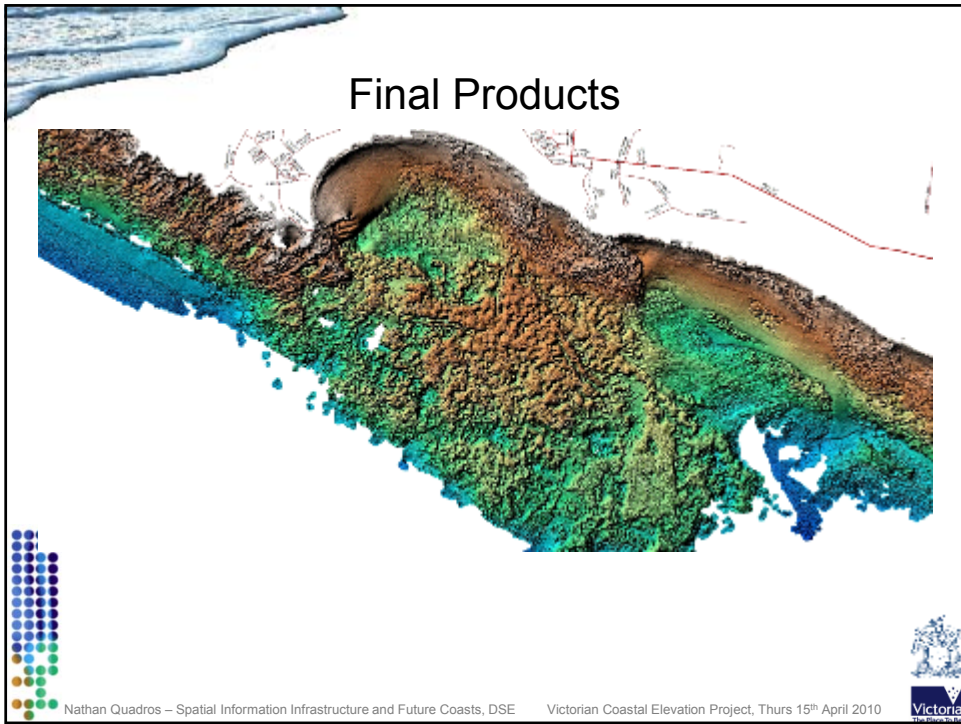
## Integrating Coastal LiDAR Surveys

- Ground control
- Data overlap
- Difference analysis
- Data merging



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## Final Products



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- DSE Vicmap products (Coastal 1m DEM and 0.5m Contours)  
<http://www.dse.vic.gov.au/vicmap>
- DSE Future Coasts  
<http://www.climatechange.vic.gov.au/futurecoasts>
- More Information  
e-mail: [climate.change@dse.vic.gov.au](mailto:climate.change@dse.vic.gov.au)
- Newsletters  
If you would like to receive future newsletters, email to register your details.

# THANK YOU



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