

Ecological Attributes

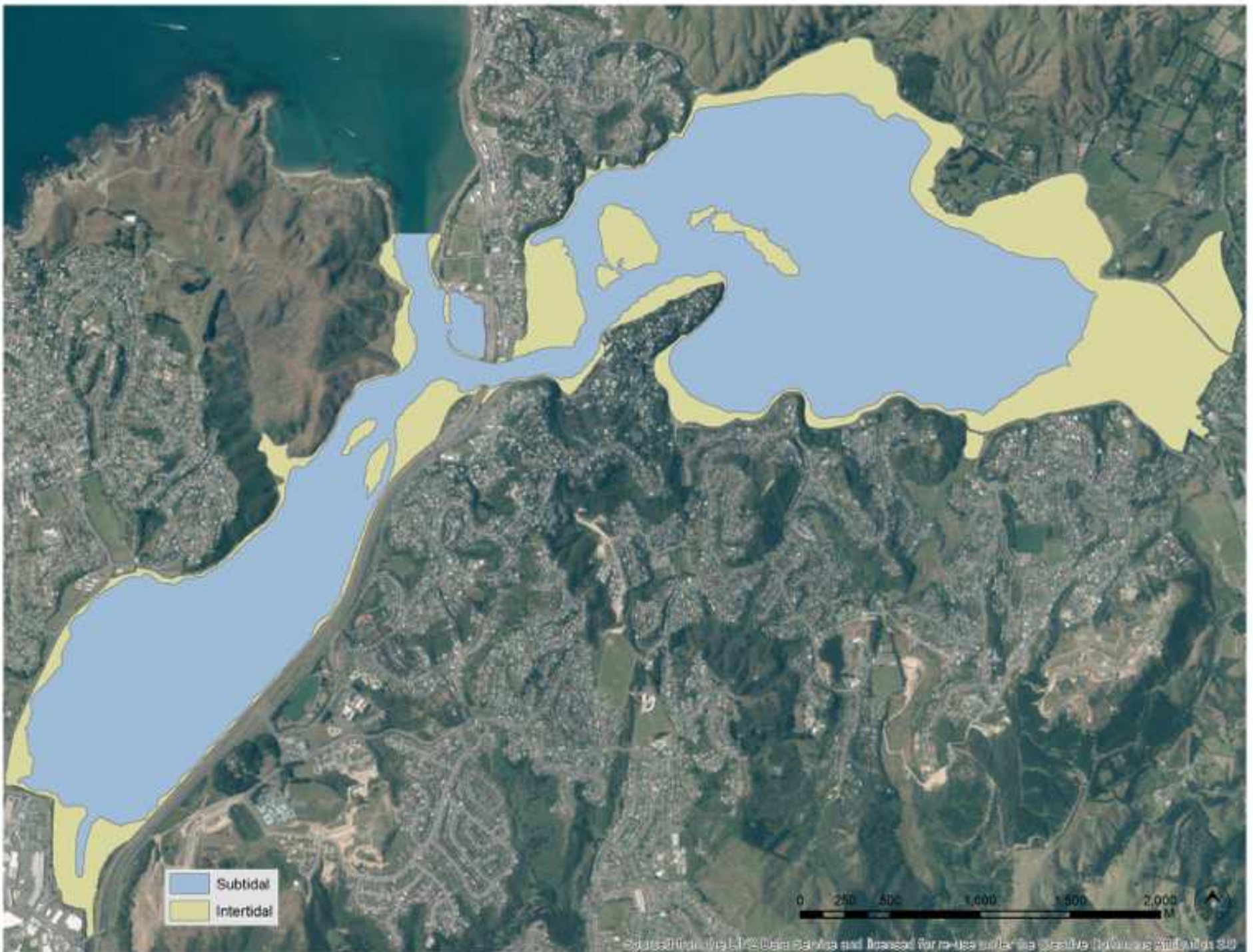
Te Awarua-o-Porirua Harbour



Introduction



Expert assessment



The Legacy

- Sediment already in harbour
limits potential improvements

Harbour attributes assessed

- Sedimentation rate
- % area soft mud
- Metals (Cu, Zn)
- Macroalgae
- Invertebrates

Other attributes/issues?



- Pathogens
- Nutrients
- Wastewater/stormwater
- Seagrass beds, saltmarsh
- Shellfish beds

How assessed

- Similar to freshwater but no modelling
- Sediment, mud and metals
 - NZ Estuary Trophic Index
- Macroalgae
 - Ecological Quality Rating
- Invertebrates
 - NZ-AMBI

Sedimentation rate



- Existing high levels sediment in harbour
 - Little flushing
 - Wind driven currents transport sediment
- Onepoto = B
- Pauatahanui = C
- Scenarios potential improvement

% area soft mud

- Existing high levels in subtidal
- Intertidal less muddy
- Scenarios potential improvement



Metals (Cu & Zn)



- Cu & Zn = A or B
- Hotspots Onepoto
- Cu unlikely to change with scenarios
- Zn may increase BAU
- Changes limited by metals already in sediment

Macroalgae

- C harbour wide
- Periodic blooms
- Growth driven by N
 - N bound to deeper sediment



Invertebrates

- Intertidal = B, subtidal = C
- Mud big driver
 - Particularly subtidal
- Existing mud limits potential changes

