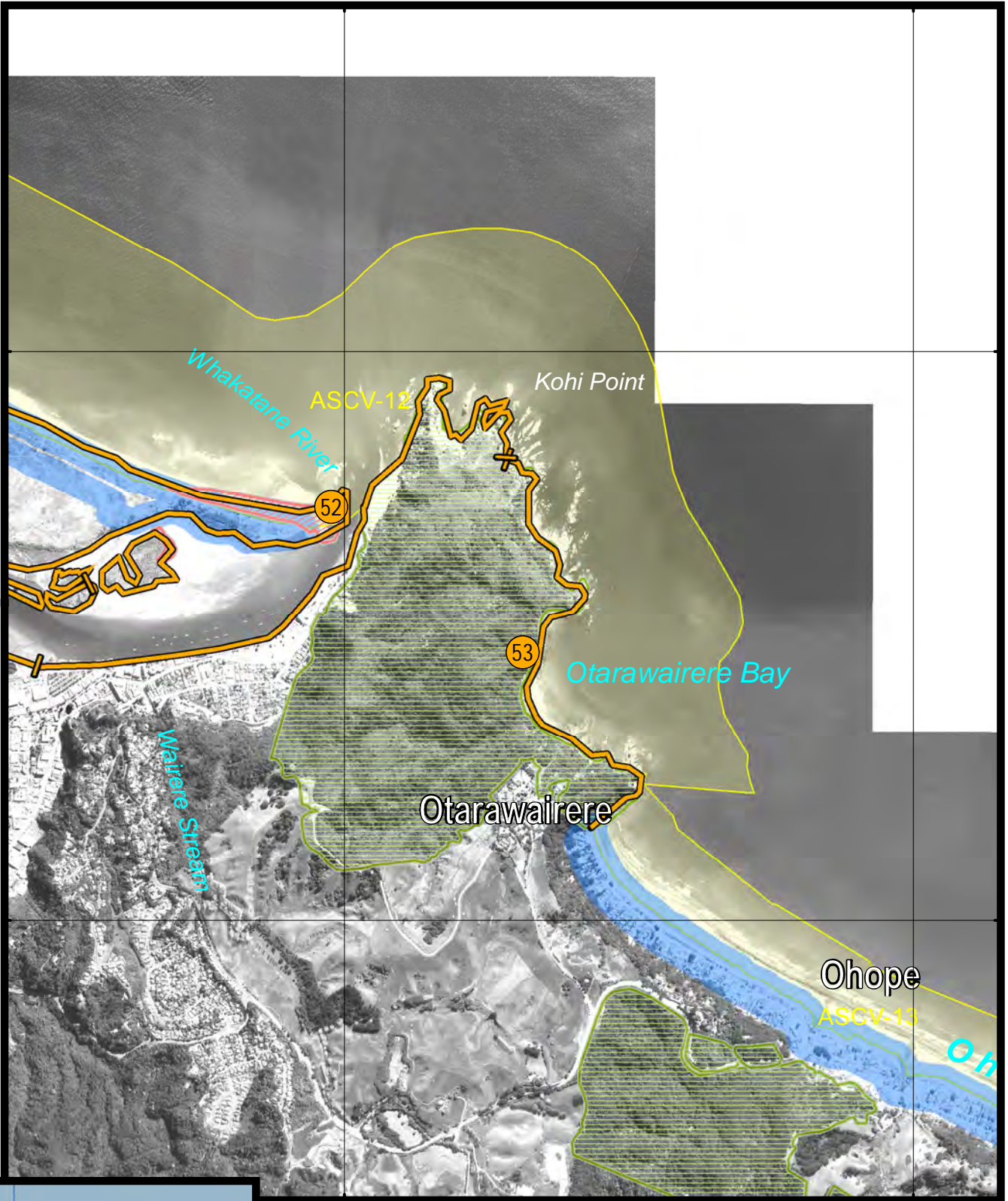


Site 53	Kohi Point	Risk ranking: 2
<p>DESCRIPTION</p> <p>Kohi Point is a prominent rocky point south of Whakatane harbour comprising of a bedrock platform with extensive intertidal terracing leading up to the cliff face. This site includes Otarawairere Bay. Rohemoana site, area gazetted by Iwi Ngāti Awa.</p>		
<p>Foreshore type/environmental value</p>	<p>Rock intertidal platform and shore Shore segments have “habitat value” and “cultural value”</p>	
<p>Map sheets</p>	<p>NZ Topo 50 BE 40 Whakatane</p>	<p>Chart Number NZ 542</p>
<p>Segments</p>	<p>BOP-00720, BOP-00730, BOP-00740</p>	
<p>At Risk Resources</p> <ul style="list-style-type: none"> • High amenity value • The area is of major spiritual value to Iwi • There are shellfish around the hard rock shore and Tuatua on the beach • Cultural sites: Kaimoana site • There are archaeological sites in the vicinity, NZAA ID W15/1060 (Sub-surface midden exposed in pipe trench. Two pieces of obsidian also recovered.) is located on the shore near the river mouth and NZAA W15/19 (Pa site) is located on a eastern rocky outcrop 		
<p>Notes</p> <p>Oil may be difficult to remove from the shoreline especially in rock crevices.</p> <p>Actions</p> <ul style="list-style-type: none"> • Shoreline clean-up when sea state and tidal cycle allows access • Notify wildlife team of potential oiling • Discuss pre-clean-up of intertidal debris - tidal range specific – with wildlife team • Consider pre-emptive capture of wildlife generally • Activation of oiled wildlife response collection teams if required 		
<p>Access</p> <ul style="list-style-type: none"> • Access to Kohi Point by boat from Whakatane or Ohiwa harbours • Walking tracks from west end of Otarawairere Bay. There is no foot access past Otarawairere Bay. There is a boat launching ramp and commercial wharf in the Whakatane River. The rocky shoreline around Kohi Point is a navigation hazard 		

Preferred Response Option Matrix

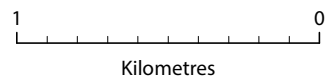
	Most preferred	Least preferred	Feasibility
Containment and Recovery	High		Access may prohibit this option
On water Recovery	High		Weather may prohibit this option
Dispersant Application	Low	Requires escalation to Tier 3 and MNZ approval	Off-shore application to be considered
Shoreline Clean-up	High		Rocky foreshore with limited access
Natural Recovery	Medium		Some natural recovery may be required due to foreshore type



LEGEND

	SCAT Sites
	Shorebird Roosts
	Site District of Local Significance
	Coastal Habitat Preservation Zone
	Beach Accessways
	Area Sensitive to Coastal Hazards
	Area of Significant Conservational Value

SITE 53 Kohi Point Oil Spill Management Plan



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Site 54	Ohiwa Harbour/Estuary	Risk ranking: 1
<p>DESCRIPTION</p> <p>A spit encloses a large and complex estuary/ harbour with multiple sensitive ecological areas. The entrance is narrow resulting in high peak current velocities.</p> <p>Ohiwa is a proposed <u>Ramsar</u> site - a bird area of international importance subject to international treaty and obligation.</p>		
<p>Foreshore type</p>	<p>Diverse estuary with a range of habitats including Sandspits, intertidal mudflats</p> <p>Saltmarsh, mangroves</p>	
<p>Map sheets</p>	<p>NZ Topo 50</p> <p>BE 40 Whakatane</p>	<p>Chart Number</p> <p>NZ 542</p>
<p>Segments: BOP 00820 to BOP01220, EBOP 00010</p>		
<p>At Risk Resources</p> <p>Ohiwa is of high importance for estuarine birds including:</p> <ul style="list-style-type: none"> • New Zealand dotterel (tuturiwhatu) (25 as of 3 Nov 2011) found over the whole harbour including spits (population likely to fluctuate) • Whangakopikopiko (BOP – 01180) (Tern) Island (within mouth of harbour) New Zealand dotterel (4 pairs) • 4-5,000 godwit (kuaka) and other wader species (present in summer only) • Range of other shorebird (500+ birds), gulls, shags, terns, caspian tern (taranui) colony (few) • White-fronted tern (tara) (at risk / declining) breeding colony (variable location) • Black-backed gull (karoro) (c50 pairs) breeding (nationally vulnerable) • Red-billed gulls (akiaki) (nationally vulnerable) • Bittern (matuku hūrepo) (nationally endangered) • Nukuhou River wetland in south eastern portion (around the river) (BOP – 01040, 01050) Most extensive saltmarsh/mangrove areas in harbour – bittern/banded rail/NI fernbird (kareni) • Ohope Beach (BOP – 00810, 00820) amenity values • All inner areas of the estuary are identified in the Regional Coastal Plan as areas of significant conservation/ cultural value • Cultural sites • Has a commercial oyster farm adj. Wainui Road 		
<p>Notes</p> <p>Oil that enters the low energy systems of this estuary will remain for some time. Oil will harm saltmarsh habitat and whitebait spawning areas on in the estuary.</p>		
<p>Actions</p> <ul style="list-style-type: none"> • Preferred response option is interception of oil inside of the estuary entrance • Deflection booming and skimming is likely to be ineffective owing to the high current velocities (over 2 knots) in any of the navigable channels • Notify wildlife team 		

- Discuss pre-clean-up of intertidal debris - tidal range specific
- Consider pre-emptive capture of New Zealand dotterel
- Consider pre-emptive capture of wildlife generally
- Activation of oiled wildlife response collection teams if required

Access

- Road access to the entrance of the Ohiwa Estuary is from the east as indicated on the topographical map. However, a dune system at the end of the road restricts access to 4WD
- Access is available along the beach from the east and west side
- There is good vehicle access to the Ohope Beach dune systems. However, vehicle access is restricted across the dunes
- There are two boat launching ramps in the Ohiwa Harbour located at the Port Ohope Wharf and adjacent to the Golf Club and two boat launching ramps located adjacent to Hokianga Island (preferred option is Pukeruru Point)

Preferred Response Option Matrix

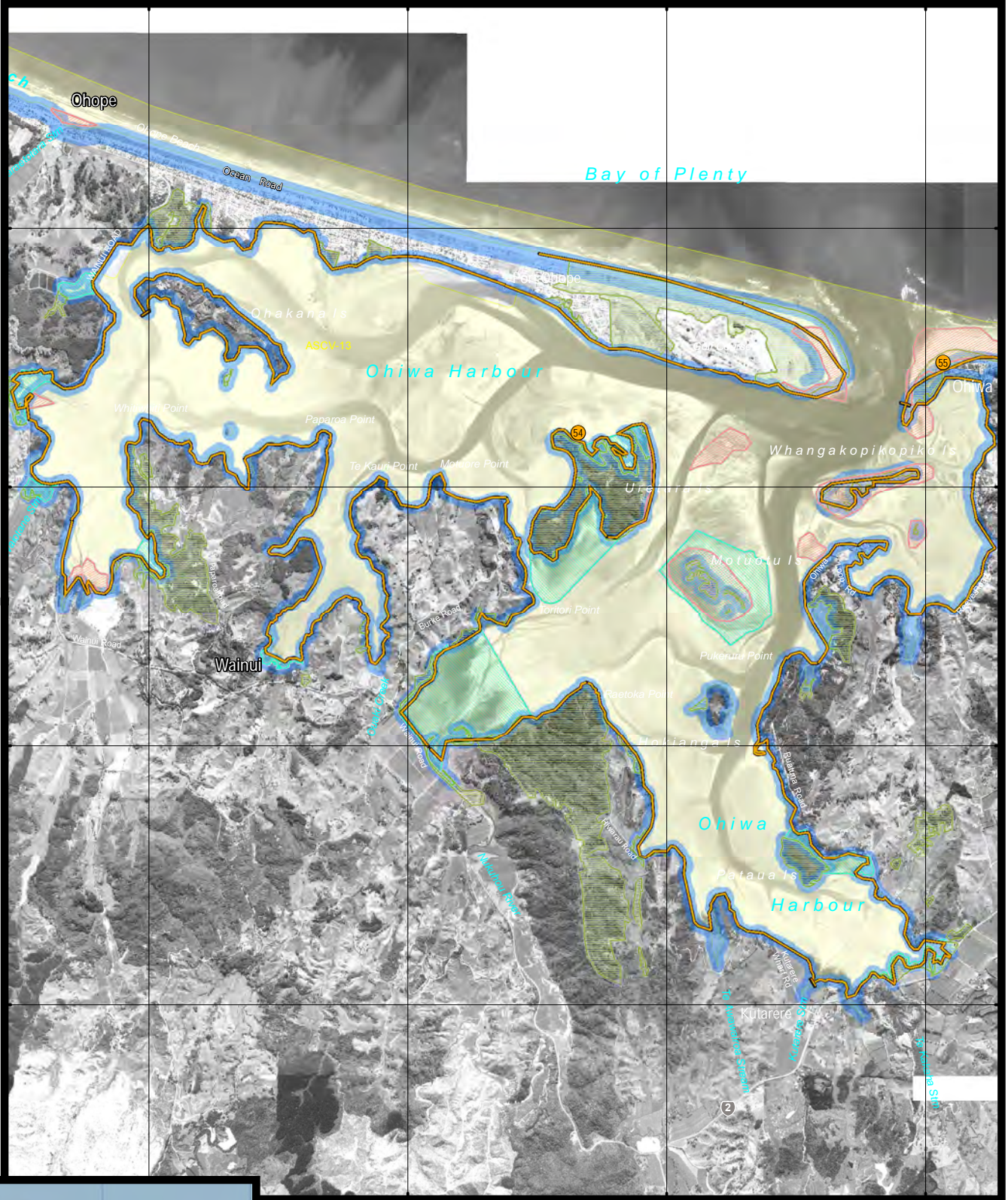
	Most preferred	Least preferred	Feasibility
Containment and Recovery	High		Although challenging, some deflection booming may be considered. Strong tidal currents.
On water Recovery	High		Possible with ORV or similar but strong tidal currents, limited ability
Dispersant Application	Low	Requires escalation to Tier 3 and MNZ approval	Water shallows
Shoreline Clean-up	High		Mostly by foot access with 4WD support
Natural Recovery	Low		Sandy ecological area,

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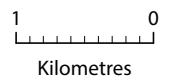


LEGEND

-  SCAT Sites
-  Shorebird Roosts
-  Site District of Local Significance
-  Coastal Habitat Preservation Zone
-  Beach Accessways
-  Area Sensitive to Coastal Hazards
-  Area of Significant Conservational Value

SITE 54 Ohiwa Harbour / Estuary

Oil Spill Management Plan



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Ōpōtiki to East Cape

Site 55	Waiotahi Estuary	Risk ranking: 1
<p>DESCRIPTION</p> <p>This site comprises the 100 Hectare bar-built estuary at the mouth of the Waiotahi River. The site has significant habitat and flora and fauna values. Estuary includes inter tidal mudflats, saltmarsh and mangroves.</p>		
<p>Foreshore type/environmental value</p>	<p>Open water in channel, Foreshore vegetation, saltmarsh, riparian Vegetation</p> <p>All shore segments have "habitat value"</p>	
<p>Map sheets</p>	<p>NZ Topo 50</p> <p>BE 40 Whakatane</p>	<p>Chart Number</p> <p>NZ 542</p>
<p>Segments: EBOP 00010, EBOP 00020, EBOP R 00010</p>		
<p>At Risk Resources</p> <ul style="list-style-type: none"> • Sand spit has nesting New Zealand dotterels (tuturiwhatu) (4-5 pairs) and nesting pied oyster catchers (tōrea) (c4-6 pairs) and other estuarine birds • Major kaimoana site – very important (pipis/cockles) and Whitebaiting (inunga) and inunga (spawning March-April) Urupa on sand spit • Eastern Marine Farms (mussel farm) 4-5 km offshore • All intertidal areas are identified in the Regional Coastal Plan as areas of significant conservation/ cultural value • Cultural sites – some very significant 		
<p>Notes</p> <p>Oil will harm saltmarsh habitat and whitebait spawning areas on the western side of the estuary. Oil may wash over into the estuary during a storm but is unlikely to move up with the tide due to the net outflow of water from the river.</p> <p>Actions</p> <ul style="list-style-type: none"> • Prevent/minimise oil ingress into this system • Establish and maintain effective oil deflection at estuary entrance. Booming may be able to deflect oil to the sandy Eastern side for collection • Notify wildlife team • Discuss pre-clean-up of intertidal debris - tidal range specific • Consider pre-emptive capture of New Zealand dotterel • Consider pre-emptive capture of wildlife generally • Activation of oiled wildlife response collection teams if required 		
<p>Access</p> <p>Access to the entrance of the estuary is via State Highway 35 and turning off at the rest area adjacent to the mouth of the estuary. It would be relatively easy to launch a dinghy from this area. The nearest boat launching ramp is Ohiwa Harbour.</p>		

Preferred Response Option Matrix

	Most preferred	Least preferred	Feasibility
Containment and Recovery	High		Deflection booms possible to enhance shoreline clean-up
On water Recovery	Medium		Possible off-shore with ORV or similar but weather may prohibit
Dispersant Application	Low	Requires escalation to Tier 3 and MNZ approval	Consider dispersant guidelines for off-shore use
Shoreline Clean-up	High		Sandy shoreline suitable
Natural Recovery	Low		Some natural recovery may be required due to shifting foreshore.

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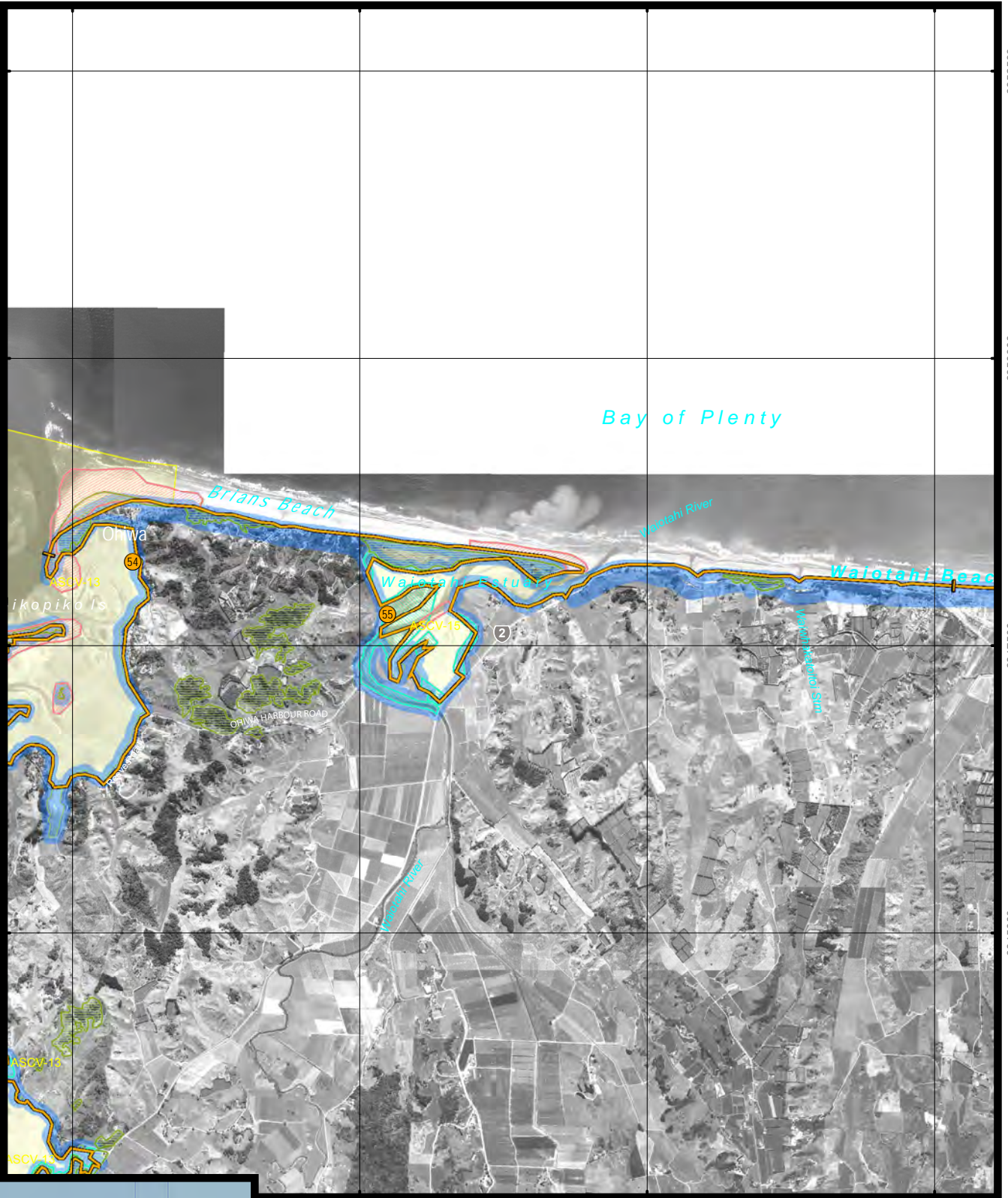
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


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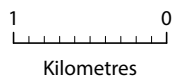


LEGEND

-  SCAT Sites
-  Shorebird Roosts
-  Site District of Local Significance
-  Coastal Habitat Preservation Zone
-  Beach Accessways
-  Area Sensitive to Coastal Hazards
-  Area of Significant Conservational Value

SITE 55 Waiotahi Estuary

Oil Spill Management Plan



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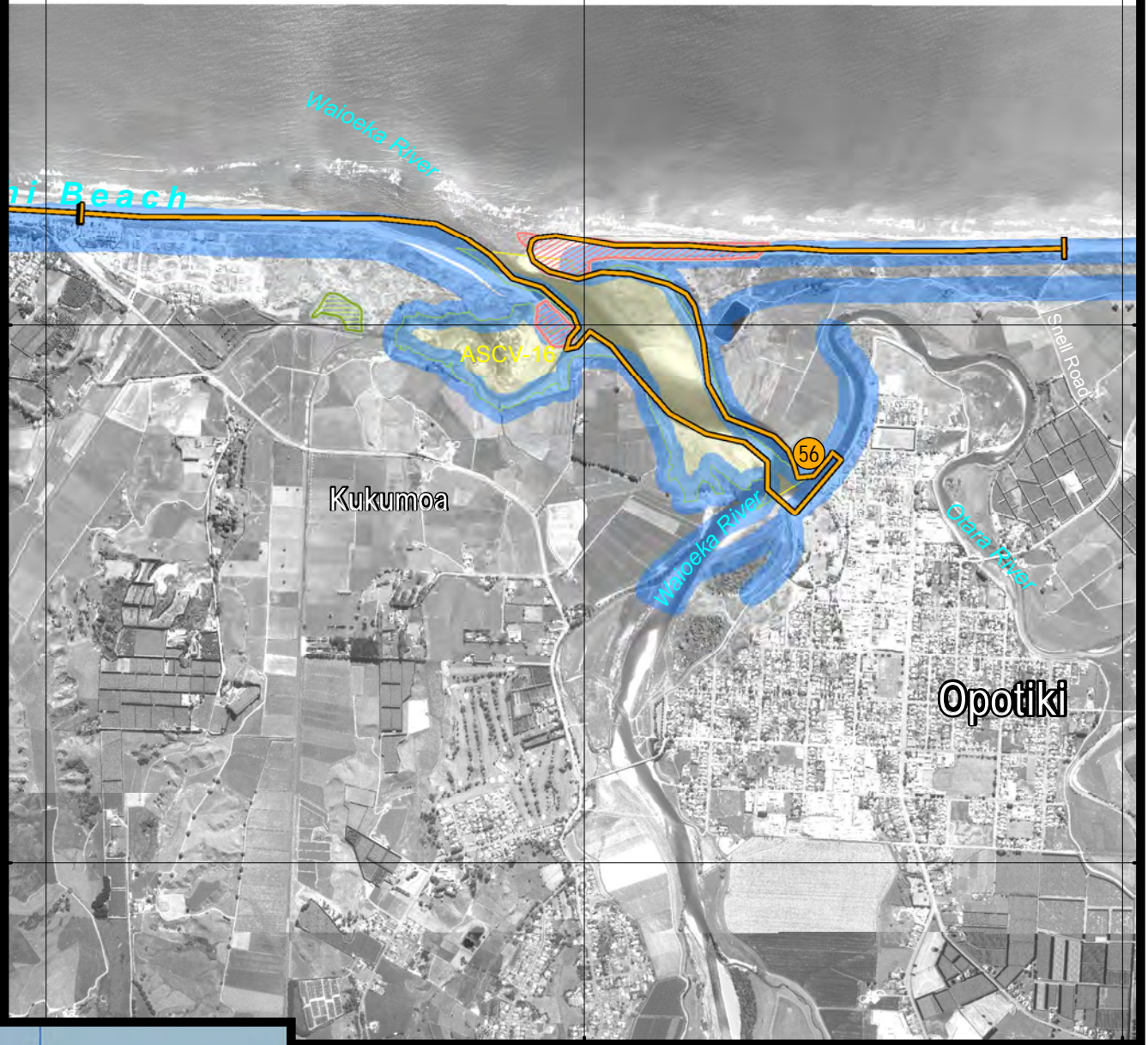


INSET

Site 56	Waioeka Estuary	Risk ranking: 1
DESCRIPTION		
This site comprises of a bar-built estuary at the mouth of the Waioeka and Otara Rivers. The site has significant salt-marsh habitat partially protected by a flood gate.		
Foreshore type/environmental value	Open water in channel, Foreshore vegetation, saltmarsh, Mud and sand flats	
Map sheets	NZ Topo 50 BE 41 Opotiki	Chart Number NZ 542
Segments: EBOP 00030, EBOP 00040, EBOP R 00030		
At Risk Resources		
<ul style="list-style-type: none"> • Sand spit has nesting New Zealand dotterels (4-5 pairs) • Usually strong outflow of water from the river • Whitebaiting (spawning March-April) • The majority of the main estuary and western arm are identified in the Regional Coastal Plan as areas of significant conservation/ cultural value • Cultural sites: Urupa in sand dunes on western side of mouth 		
Notes		
Oil that enters the low energy systems of this estuary will remain for some time. Oil will harm saltmarsh habitat and whitebait spawning areas.		
Actions		
<ul style="list-style-type: none"> • A boom may be erected at the entrance of the estuary away from rough seas in order to contain the oil and prevent it spreading throughout the estuary. It should be constructed on the boat ramp adjacent to the Opotiki Wharf and transported to the entrance by boat. Booms may have to be set to account for any current at the entrance of the estuary although site inspections indicate the current is not strong • Limit oil entering the western lagoon through protective barrier and blocking holes in flood-gate • Capture oil on the south-western intertidal and clean this area to limit the volume of oil in the estuary • Consider pre-emptive capture of New Zealand dotterel • Consider pre-emptive capture of wildlife generally • Activation of oiled wildlife response collection teams if required 		
Access		
Access to the entrance of the estuary is re-emptivevia State Highway 35. Good access on eastern side through locked gate to sewerage treatment plant (contact ODC for access).		
Access to the wharf area is indicated on the topographical map at the end of Wharf Street. There is a boat launching ramp at the wharf. Access to the entrance of the estuary is via 4WD along the beach from Snells Road on the east side of the river		

Preferred Response Option Matrix

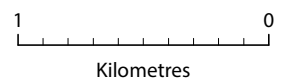
	Most preferred	Least preferred	Feasibility
Containment and Recovery	High		Deflection booms possible to enhance shoreline clean-up
On water Recovery	Medium		Possible off-shore with ORV or similar but weather may prohibit
Dispersant Application	Low	Requires escalation to Tier 3 and MNZ approval	Consider dispersant guidelines for off-shore use
Shoreline Clean-up	High		Sandy shoreline suitable for shoreline clean-up
Natural Recovery	Medium		Some natural recovery may be required due to shifting foreshore.



LEGEND

- SCAT Sites
- Shorebird Roosts
- Site District of Local Significance
- Coastal Habitat Preservation Zone
- Beach Accessways
- Area Sensitive to Coastal Hazards
- Area of Significant Conservation Value

SITE 56 Waioeka Estuary Oil Spill Management Plan



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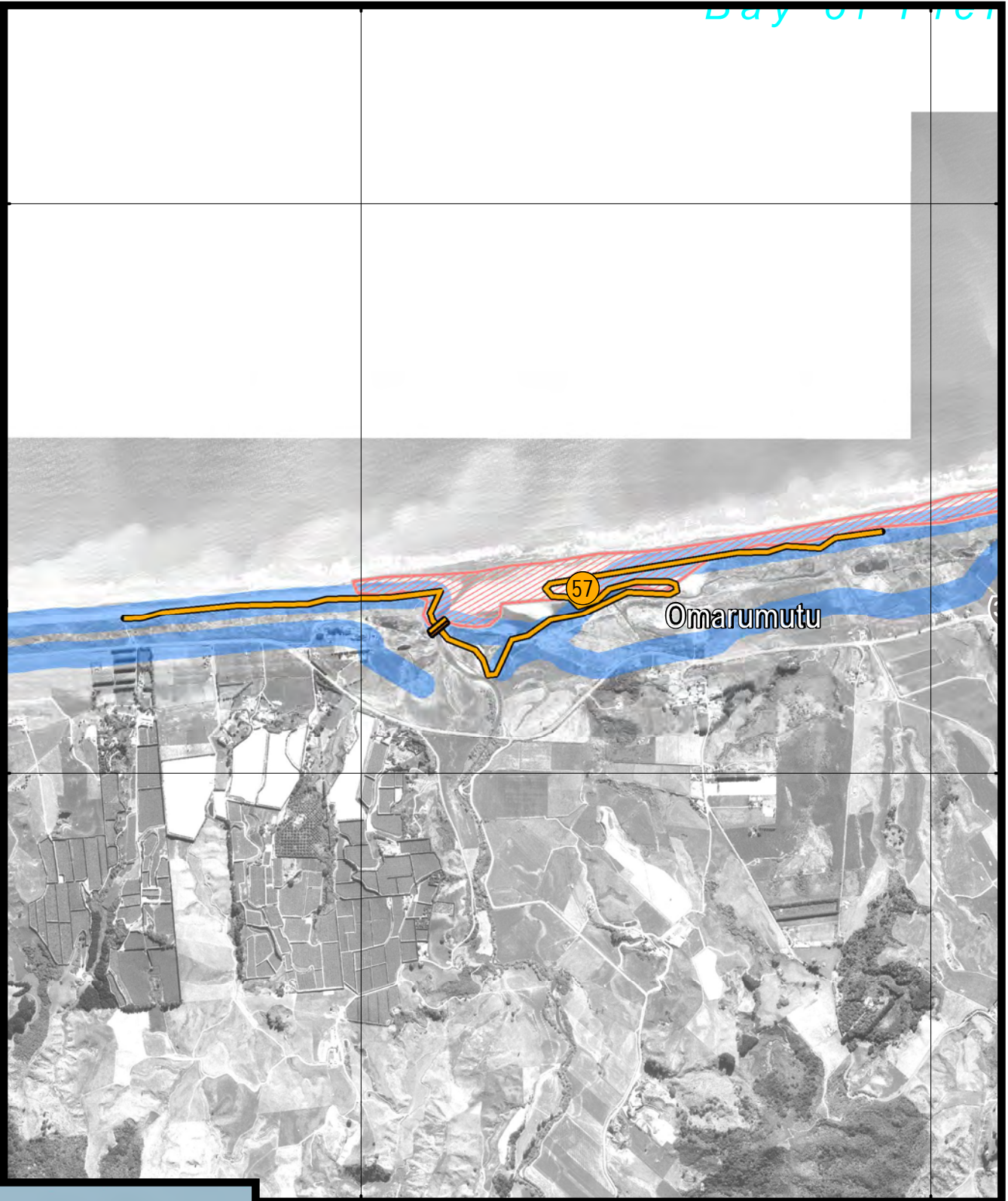
Site 57	Waiaua Estuary	Risk ranking: 1
DESCRIPTION		
This site comprises bar-built estuary with a highly mobile mouth. A sandbar encloses the areas of significant salt-marsh habitat.		
Foreshore type/environmental value	Lagoon, Shorebird feeding areas, Open water in channel, saltmarsh Fish spawning	
Map sheets	NZ Topo 50 BE 41 Ōpōtiki	Chart Number NZ 542
Segments: EBOP 00080, EBOP 00090		
At Risk Resources		
<ul style="list-style-type: none"> • Sand spit has nesting New Zealand dotterels (tuturiwhatu) (12) and nesting oyster catchers and • Feeding estuarine birds • Usually strong outflow of water from the river • Whitebaiting (spawning March-April) • Lagoon behind spit to east • Saltmarsh vegetation in lagoon • Bird sanctuary on ocean side of spit for shore nesting birds • Beach has gravel sized particles • Intertidal areas are identified in the Regional Coastal Plan as areas of significant conservation/cultural value • Cultural sites: Urupa in sand dunes on western side of mouth 		
Notes		
Oil that enters the low energy systems of this estuary will remain for some time. Oil will harm saltmarsh habitat and whitebait spawning areas.		
Actions		
<ul style="list-style-type: none"> • Limit oil entering the eastern lagoon through protective barrier/booming • Capture oil on the north-western sandy intertidal and clean this area to limit the volume of oil in the estuary • Shoreline clean-up along the ocean beach on both sides of the mouth of the estuary • Notify wildlife team • Discuss pre-clean-up of intertidal debris - tidal range specific • Consider pre-emptive capture of New Zealand dotterel • Consider pre-emptive capture of wildlife generally • Activation of oiled wildlife response collection teams if required • Priority clean-up of spit entrances to limit remobilisation of oil into estuary (See STM for Sandy Beaches Shoreline Clean-up) 		

Access








Access to the entrance of the estuary is via State Highway 35: track access to the west; beach access from Opape to the east.

Preferred Response Option Matrix

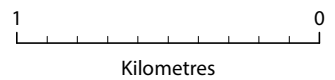
	Most preferred	Least preferred	Feasibility
Containment and Recovery	High		Deflection booms possible to enhance shoreline clean-up
On water Recovery	Medium		Possible off-shore with ORV or similar but weather and location may prohibit
Dispersant Application	Low	Requires escalation to Tier 3 and MNZ approval	Consider dispersant guidelines for off-shore use
Shoreline Clean-up	High		Sandy shoreline suitable for shoreline clean-up
Natural Recovery	Medium		Some natural recovery may be required due to shifting foreshore.



LEGEND

-  SCAT Sites
-  Shorebird Roosts
-  Site District of Local Significance
-  Coastal Habitat Preservation Zone
-  Beach Accessways
-  Area Sensitive to Coastal Hazards
-  ASCV - Area of Significant Conservational Value

SITE 57 Waiaua Estuary Oil Spill Management Plan



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