

Site 48	Pikowai Stream	Risk ranking: 3
<b>DESCRIPTION</b>		
This site comprises a small fresh water stream that is tidal to where it is crossed by SH 2. A 500 m long lagoon sits behind the dune system. Stream may not be connected in normal flow conditions to the sea.		
<b>Foreshore type/environmental value</b>	Sand, lagoon. All shore segments have "habitat value".	
<b>Map sheets</b>	<b>NZTopo50</b> BD38 Maketu	<b>Chart Number</b> NZ542
<b>Segments</b>	<b>BOP-00308</b>	
<b>At Risk Resources</b>		
<ul style="list-style-type: none"> <li>• New Zealand dotterel (tuturiwhatu) nesting – two pairs</li> <li>• Whitebait (inanga)</li> <li>• Sand spit</li> <li>• Locally important recreational fisheries</li> <li>• Moderate public use by fishermen and white baiters. Pikowai Campground beside</li> </ul>		
<b>Notes</b>		
Oil that enters this system will be able to be cleaned up as there is no natural vegetation in the riparian areas.		
<b>Actions</b>		
<ul style="list-style-type: none"> <li>• Limit the amount of oil entering and moving through the estuary by placing a barrier across the entrance as oil approaches and monitor</li> <li>• Release built-up stream water from sand barrier during low tides as required, but close before high tide returns</li> <li>• Sand may form an effective barrier, but <b>only</b> after local cultural liaison and/or supervision</li> <li>• Shoreline clean-up – remove cleaned material from beaches daily (do not allow to remain over any high tidal period) and place at staging location to be agreed</li> <li>• Notify wildlife team of potential for oiling</li> <li>• Discuss pre-clean-up of intertidal debris - tidal range specific – with wildlife team</li> <li>• Consider pre capture New Zealand dotterels from the western spit</li> <li>• Consider pre-emptive capture of wildlife generally</li> <li>• Activation of oiled wildlife response collection teams if required</li> </ul>		
<b>Endpoint Criteria:</b>		
Clean segments to endpoint criteria (refer to endpoint clean-up criteria according to environmental value).		

**Access**

Via SH 2, Pikowai.

Note that access is across a train line. Develop safety plan for safe access to this site in conjunction with KiwiRail.

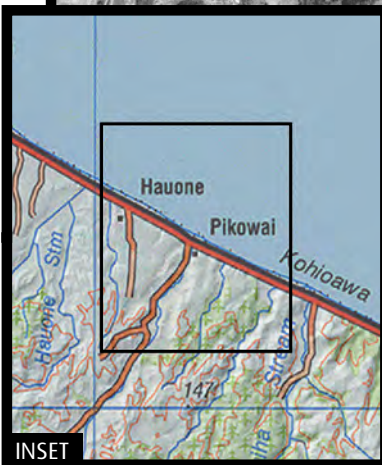
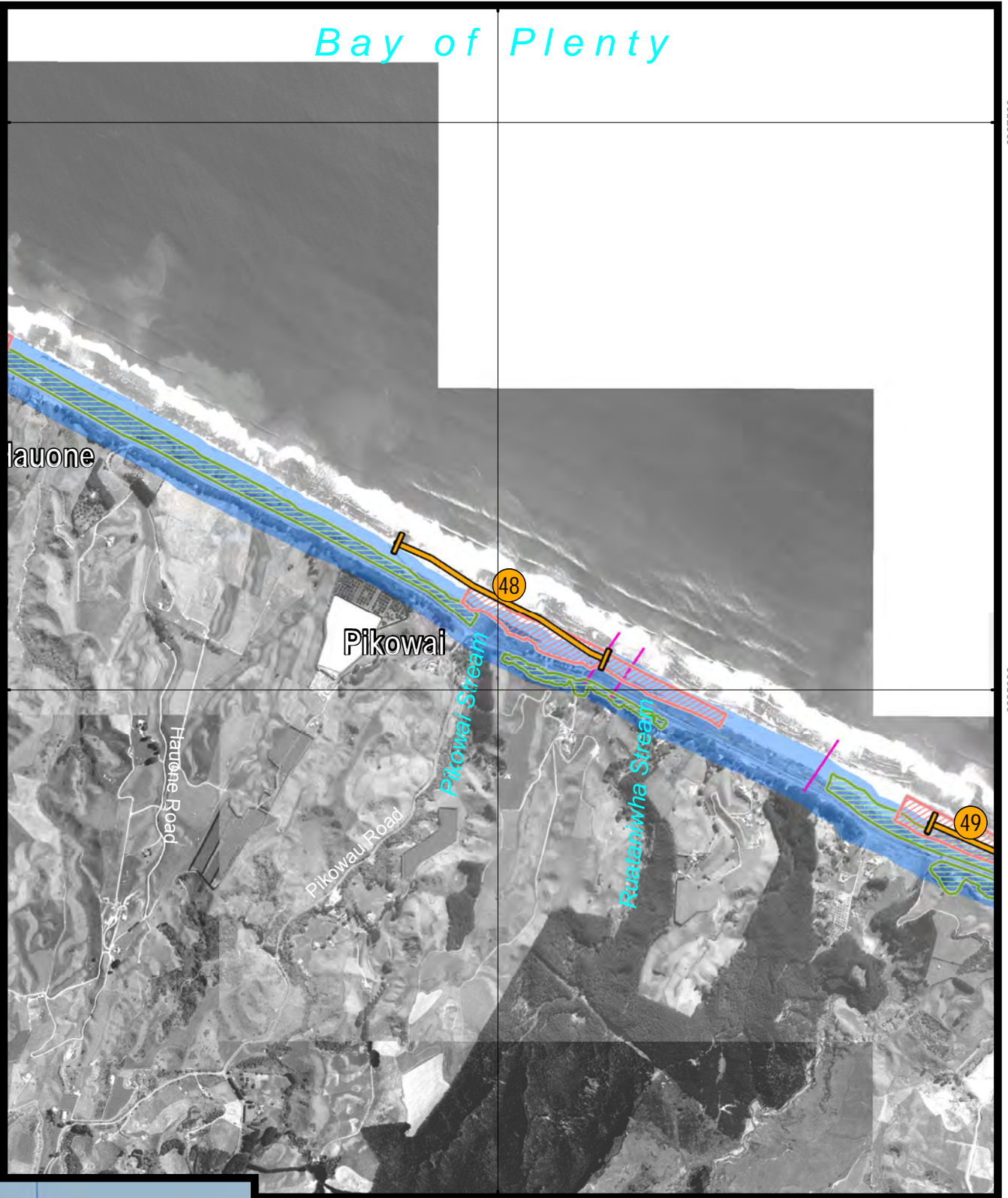
**Preferred Response Option Matrix**

	Most preferred	Least preferred	Feasibility
Containment and Recovery	High		Sand boom across entrance
On water Recovery	High		Shallow coastal shoreline
Dispersant Application	Low	Requires escalation to Tier 3 and MNZ approval	Shallow coastal shoreline
Shoreline Clean-up	High		Access to stream area is over trainline
Natural Recovery	Medium		High intensity coastline

# Bay of Plenty

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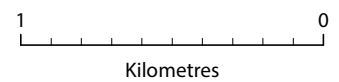
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**LEGEND**

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

## SITE 48 Pikowai Stream Oil Spill Management Plan



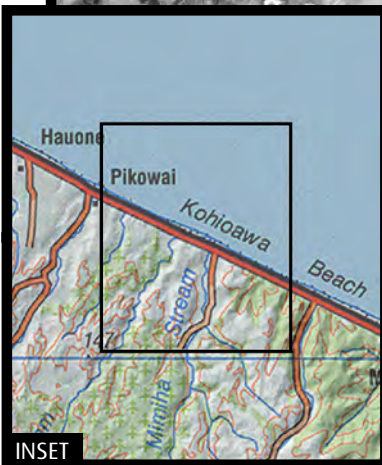
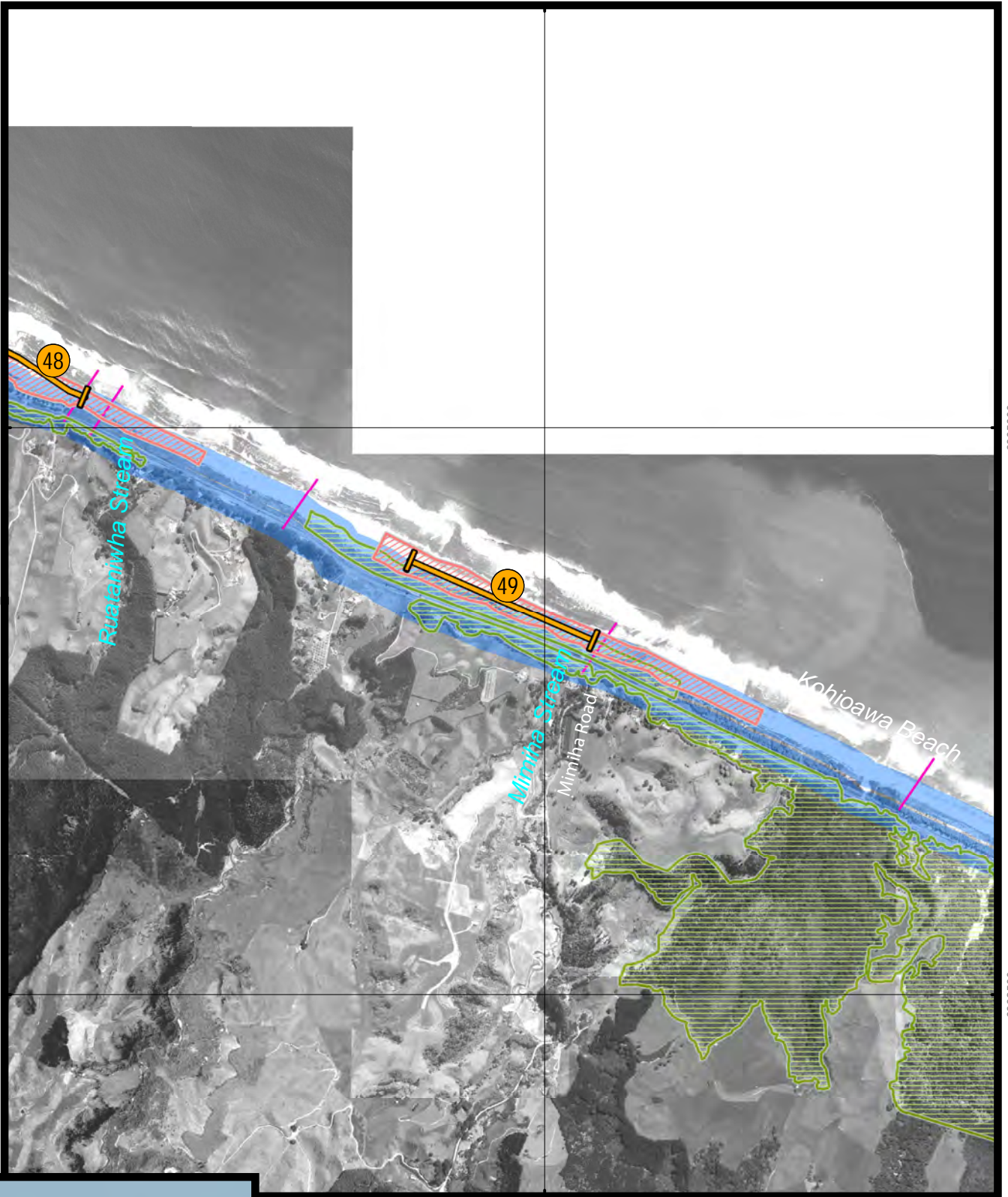
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Site 49	Herepuru Stream	Risk ranking: 3
<p><b>DESCRIPTION</b></p> <p>This site includes a small fresh water stream with a tidal lagoon area enclosed behind the sand-spit. The stream may not be connected in normal flow conditions to the sea and the mouth is highly mobile.</p>		
<p><b>Foreshore type/environmental value</b></p>	<p>Sand, riparian vegetation, saltmarsh, steep beaches. All shore segments have "habitat value."</p>	
<p><b>Map sheets</b></p>	<p><b>NZ Topo 50</b> BE39 Edgecumbe</p>	<p><b>Chart Number</b> NZ 542</p>
<p><b>Segments</b></p>	<p><b>BOP-00310</b></p>	
<p><b>At Risk Resources</b></p> <ul style="list-style-type: none"> <li>• New Zealand dotterel (tuturiwhatu) nesting</li> <li>• White bait (inanga)</li> <li>• Lagoon</li> <li>• Riparian vegetation</li> </ul>		
<p><b>Notes</b></p> <p>Moderate public use: fishermen and white baiters</p> <p>Oil that enters the low energy system of this lagoon will remain for some time. Oil will harm saltmarsh habitat and whitebait spawning areas.</p> <p><b>Actions</b></p> <ul style="list-style-type: none"> <li>• Notify wildlife team</li> <li>• Discuss pre-clean-up of intertidal debris - tidal range specific – to maintain gecko habitat</li> <li>• Consider pre-emptive capture of New Zealand dotterel</li> <li>• Consider pre-emptive capture of wildlife generally</li> <li>• Activation of oiled wildlife response collection teams if required</li> <li>• Prevent/minimise oil ingress into this system</li> <li>• Consider collection and recovery on sandy areas</li> <li>• Bulldoze entrance closed at high tides and release river water when required (see STM for small estuaries – feasibility dependent on river flow)</li> </ul>		
<p><b>Access</b></p> <p>Via SH 2, note that access is across a train line. Develop safety plan for safe access to this site.</p>		

**Preferred Response Option Matrix**

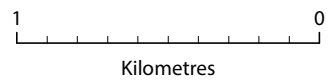
	<b>Most preferred</b>	<b>Least preferred</b>	<b>Feasibility</b>
Containment and Recovery	High		Sand boom across entrance
On water Recovery	High		Shallow coastal shoreline
Dispersant Application	Low	Requires escalation to Tier 3 and MNZ approval	Shallow coastal shoreline
Shoreline Clean-up	High		Good access along this coastline
Natural Recovery	Medium		High intensity coastline



**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 49 Herepuru Stream Oil Spill Management Plan



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Site 50	Matata Lagoon	Risk ranking: 1
<p><b>DESCRIPTION</b></p> <p>This site comprises of the Matata River with associated wetland and stream confluence. A western fresh water side lagoon/wetland is connected only at high spring tides; the eastern side stream is connected through a flood gate.</p>		
<p><b>Foreshore type/environmental value</b></p>	<p>High dune protected from coastline, Mud substrate, lagoon/wetland, saltmarsh. Riparian vegetation. All shore segments have "habitat value".</p>	
<p><b>Map sheets</b></p>	<p><b>NZ Topo 50</b> BE 39 Edgecumbe</p>	<p><b>Chart Number</b> NZ 542</p>
<p><b>Segments</b></p>	<p><b>BOP-00490, BOP-00650, BOP- 00660, BOP- 00500</b></p>	
<p><b>At Risk Resources</b></p> <ul style="list-style-type: none"> <li>• Fresh water wetland lagoon, control by weir and one way flap gate. Raupo predominant</li> <li>• Recovering ecosystem</li> <li>• Channels and islands within the lagoon, although this is not directly connected to the sea</li> <li>• Numerous bird species including at risk and threatened bird species, e.g.: banded rail (kataitai), fern bird (kareni), bittern (matuku hūrepo), spotless crane (pūweto), white heron (kōtuku), New Zealand dotterel (tuturiwhatu)</li> <li>• Whitebait (inanga)</li> <li>• Very high cultural values</li> <li>• Motor camp beside, high amenity use</li> </ul>		
<p><b>Notes</b></p> <p>Oil that enters the low energy systems of this estuary will remain for some time. Oil will harm intertidal and sand flats habitat.</p> <p><b>Actions</b></p> <ul style="list-style-type: none"> <li>• Prevent/minimise oil ingress into this system</li> <li>• Establish collection and recovery on sandy areas on eastern side of estuary mouth</li> <li>• Lagoon will only receive water from the river estuary on an extreme spring tide through overtopping of the one way weir. Weir just serviced, if threat please call Peter Cavaner (harbour superintendent) 027 5708283 and will arrange a watch. Very minimal risk of oil reaching the lagoon</li> <li>• Notify wildlife team of potential for oiling</li> <li>• Discuss pre-clean-up of intertidal debris - tidal range specific – with wildlife team</li> <li>• Consider pre-emptive capture of New Zealand dotterels if present</li> <li>• Consider pre-emptive capture of wildlife generally</li> <li>• Activation of oiled wildlife response collection teams if required</li> </ul>		

**Access**  
 Via SH 2, Matata.  
 Access track to eastern side arm.  
 Locked gate access to western wetland weir (BOPRC have key).

**Preferred Response Option Matrix**

	Most preferred	Least preferred	Feasibility
Containment and Recovery	High		Sandy coastal area, unlikely
On water Recovery	High		Prior to reaching shore with appropriate vessel
Dispersant Application	Low	Requires escalation to Tier 3 and MNZ approval	Proximity to shore, water depth
Shoreline Clean-up	High		Sandy shoreline, pre-clean required
Natural Recovery	Medium		Some natural recovery may be required due to foreshore moments



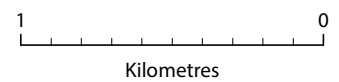


**LEGEND**

	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 50 Matata Lagoon

## Oil Spill Management Plan



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
Site 51	Rangitaiki River East	Risk ranking: 1
<p><b>DESCRIPTION</b></p> <p>This site comprises the Rangitaiki river with a lagoon branching off to the east behind the dunes. This lagoon is connected to the river by a collapsed culvert with no flood gate protection, and is known as Thornton Wildlife Management Reserve.</p> <p>Within the gazetted rohe moana (area) of Ngāti Awa.</p>		
<p><b>Foreshore type/environmental value</b></p>	<p>Sand, riparian vegetation, saltmarsh, Lagoon</p> <p>All shore segments have "habitat value"</p>	
<p><b>Map sheets</b></p>	<p><b>NZ Topo 50</b></p> <p>BE 39 Edgecumbe</p>	<p><b>Chart Number</b></p> <p>NZ 542</p>
<p><b>Segments</b></p>	<p><b>BOP – 00550, 01480, 01490, 00580</b></p>	
<p><b>At Risk Resources</b></p> <ul style="list-style-type: none"> <li>• Numerous at risk bird species including: banded rail (kataitai), spotless crane (pūweto), bittern (matuku hūrepo), and fern bird (kareni). Also New Zealand dotterel (tuturiwhatu)</li> <li>• Freshwater fish - White bait (inunga)</li> <li>• Lagoon - Raupo dominant, predominantly fresh water wetland</li> <li>• Cultural sites: Nohonga (settlement) beside reserve</li> <li>• There are two archaeological sites in proximity to the river banks, W15/356 (Midden - lens of crushed tuatua) and W15/335 (no information). These should be noted when considering response options and avoided if possible or discussed with Iwi</li> <li>• Moderate public use including fishermen and White Baiters</li> </ul>		
<p><b>Notes</b></p> <p>Oil that enters the low energy systems of this estuary will remain for some time. Oil will harm intertidal and sand flats habitat</p>		
<p><b>Actions</b></p> <ul style="list-style-type: none"> <li>• Limit the amount of oil entering and moving through the estuary by placing protection across the entrance culvert. Repair or fill collapsed culvert to prevent oil entering lagoon/ wetland – reopen when possible</li> <li>• Establish and maintain protective oil deflection at estuary entrance. Booming may be of assistance with oil directed to the SANDY western side for collection or snares may be sufficient. Note that current velocities on incoming tide may be over 2 kts</li> <li>• Notify wildlife team of potential for oiling</li> <li>• Discuss pre-clean-up of intertidal debris - tidal range specific – with wildlife team</li> <li>• Consider pre-emptive Capture Of New Zealand dotterels</li> <li>• Consider pre-emptive capture of wildlife generally</li> </ul>		
<p><b>Access</b></p> <p>Via Thornton Hall Road, accessed from Thornton road on the south-east side of road bridge.</p>		

**Preferred Response Option Matrix**

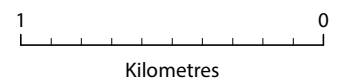
	<b>Most preferred</b>	<b>Least preferred</b>	<b>Feasibility</b>
Containment and Recovery	High		Booming may work
On water Recovery	High		Shallow coastal area
Dispersant Application	Low	Requires escalation to Tier 3 and MNZ approval	Shallow coastal area
Shoreline Clean-up	High		Good access for beach teams, per-clean required
Natural Recovery	Medium		May be required due to foreshore moments



**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 51 Rangitaiki River East Oil Spill Management Plan



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Site 52	Whakatane River/ Estuary	Risk ranking: 2
<b>DESCRIPTION</b> This site comprises bar built river mouth with tidal influence up to 5km inland. A sandbar encloses small areas of salt marsh and tidal open water lagoon. River is used for recreational and commercial boat access.		
<b>Foreshore type/environmental value</b>	Lagoon, Tidal Mud flats, Fine grained sand, saltmarsh Segments have habitat (intertidal) and contact value	
<b>Map sheets</b>	<b>NZ Topo 50</b> BE40 Whakatane	<b>Chart Number</b> NZ 542
<b>Segments</b>	<b>BOP-00640, BOP-00670, BOP-00680, BOP-00690, BOP-00710, BOP-00720, BOP-01300, BOP-01330, BOP-01290</b>	
<b>At Risk Resources</b>		
<ul style="list-style-type: none"> <li>• Sand spit has nesting New Zealand dotterels (tuturiwhatu) (number fluctuates)</li> <li>• Whitebait (inanga) spawning areas</li> <li>• Fernbird (mātātā) reported</li> <li>• Other wetland bird species present</li> <li>• Saltmarsh south of the sand spit in the lower estuary</li> <li>• Freshwater wetlands further upstream raupo dominated</li> <li>• Known as Orini Wetlands</li> <li>• Used extensively for recreational and commercial fishing and boating activity. Heavy fishing activity from groynes</li> <li>• Areas of moorings and marina</li> <li>• Amenity: Seawalls/ groynes of large boulders either side of river mouth</li> <li>• Cultural site: Within the gazetted rohe of Ngati Awa</li> <li>• 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</li> <li>• Pulp and paper processing plant has water intake above road bridge</li> </ul>		
<b>Notes</b>		
<ul style="list-style-type: none"> <li>• An oil spill out to sea is unlikely to enter the Whakatane River because of the net outflow of water from the river</li> <li>• The strong current in the river prevents boom deployment and it is likely that a spill from the wharf area will move out to sea before a boom could be deployed</li> <li>• The Regional Council office may be used as an On Scene Headquarters</li> </ul>		
<b>Actions</b>		
<ul style="list-style-type: none"> <li>• Limit the oil entering the salt marsh habitat and lagoon to the south of the sand spit</li> <li>• Investigate the flood control gate in lower reaches of the river and the feasibility of wedging shut the flap to prevent oil travelling up the Orini Canal on the tide</li> </ul>		

- Close floodgates and release water on out-going tide to help keep oil from moving up estuary, but close on incoming tide
- Foreshore cleaning on eastern shore to reduce remobilization of oil into river
- Decide on pre-emptive removal of beach branch debris at spit entrance. Note that access is problematic
- Notify wildlife team
- Discuss pre-clean-up of intertidal debris - tidal range specific – with wildlife
- Consider pre-emptive capture of New Zealand dotterel
- Consider pre-emptive capture of wildlife generally
- Activation of oiled wildlife response collection teams if required
- Investigate protecting paper mill intake

### Access

Southern saltmarsh can be accessed through town centre.

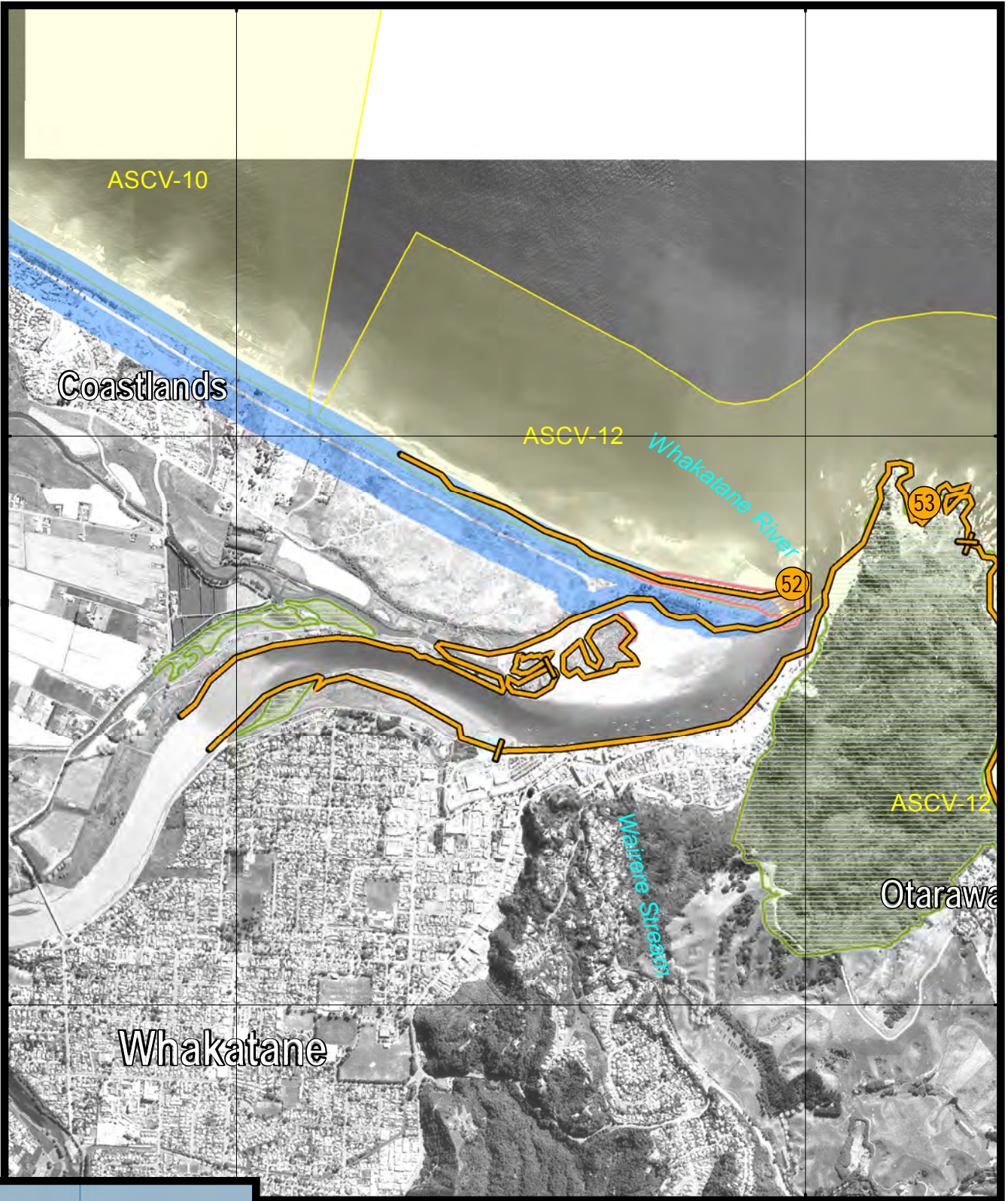
Northern areas (beaches, wetlands and sand spit) can be accessed via Keepa Road and Bunyan Road (locked gate, contact WDC for key/ access).

Coastal beaches and sand spit access via beach. Coastlands, Whakatane.

There is a boat launching ramp and commercial wharf in the Whakatane River adjacent to the Whakatane township.

### Preferred Response Option Matrix

	Most preferred	Least preferred	Feasibility
Containment and Recovery	High		Strong tide currents may prohibit this.
On water Recovery	High		Strong tide currents may prohibit this.
Dispersant Application	Low	Requires escalation to Tier 3 and MNZ approval	Water depth won't allow
Shoreline Clean-up	High		Requires a pre-clean
Natural Recovery	Medium		Can be a high intensity coastline










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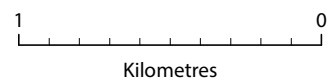
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**LEGEND**

-  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 52 Whakatane River / Estuary Oil Spill Management Plan



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