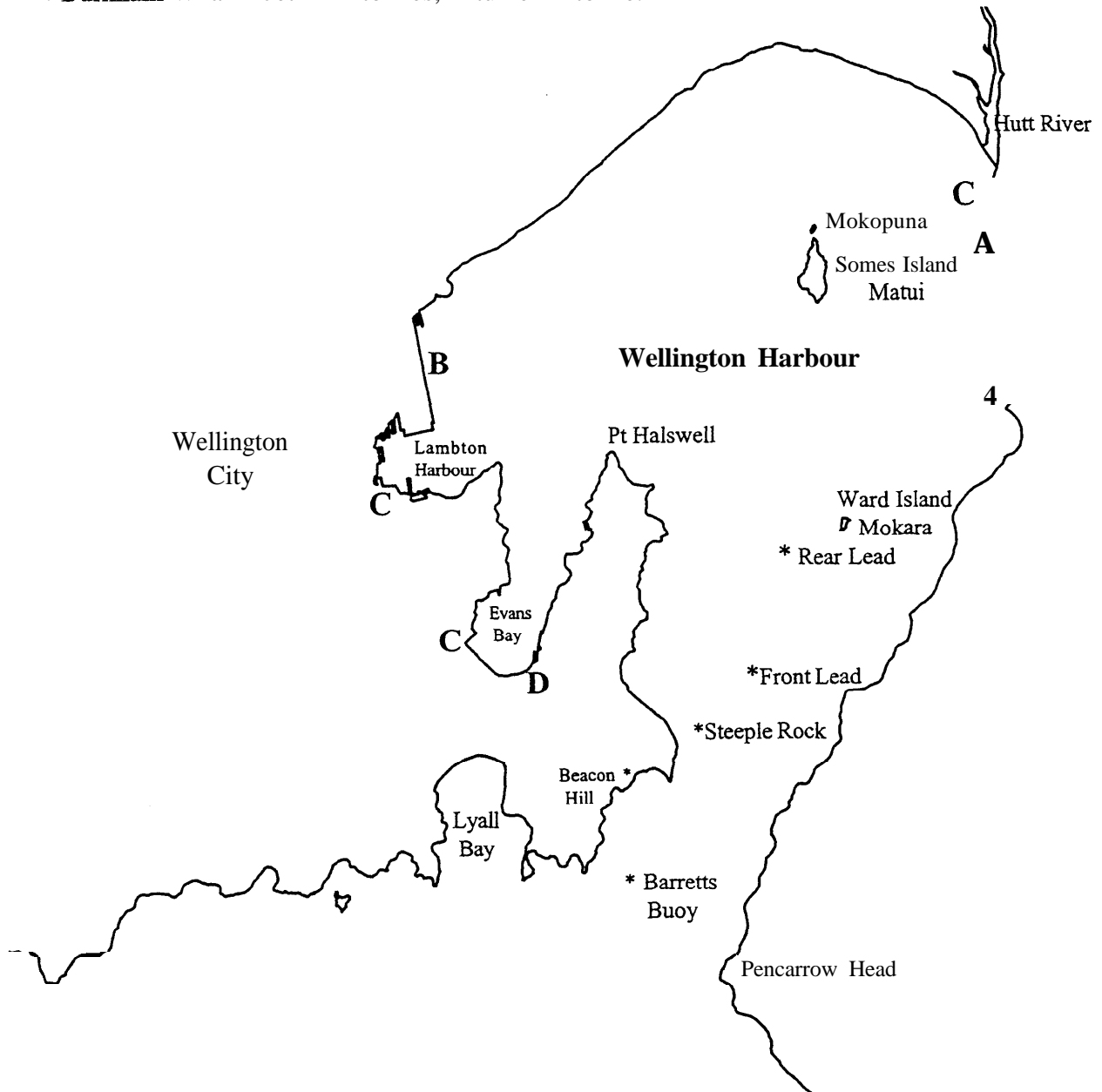


ANNEXE 7

High Risk Sites

The following oil transfer sites, types of oil, and order of magnitude are considered to be representative of the maximum threat within the Wellington region.

- A. Seaview Terminal - diesel or petrol 5 tonnes, lubeoil 2 tonnes
- B. Aotea Quay - light fuel oil, 10 tonnes
- C. Yacht marinas - diesel; 50 litres
- D. Burnham Wharf - Jet A1 2 tonnes, Bitumen 1 tonne.



Environment Under Threat

Resources at risk from oil spills include amenity areas and recreational activities, flora, fauna, industrial activities and sea water intakes. These are set out further in this Annex in order of their relative priority for protection and clean-up. These priorities have been agreed in conjunction with interested parties who have considered the economic, recreational and environmental values to the community of each site. These relative priorities may vary from time to time and are to be regularly reviewed in conjunction with the Plan. Seasonal variation can also greatly alter priorities (as shown).

Persistence of Spilled Oils

Chemical Composition as can be seen from paragraph 1 above. The chemical composition/grade of an oil and the prevailing weather will determine the persistence of spilled oil. The chemical properties of the spilled oil may be obtained from the spiller, or from a chemical analysis of a sample taken of the spilled oil. Chemical analysis of spilled oils can be conducted within 2 hours by the Environmental Science and Research Laboratory via the GWRC, Resource Investigations Department. Additionally, representatives of the oil industry may be able to provide advice on the type and possible persistence of the oil spilled. Representatives are in the Directory in Annex 20 to this Plan.

The lighter grades of fuel oils (such as diesel) that are more frequently spilled within the Wellington region are toxic and may pose a vapour/fire hazard. As far as clean-up is concerned they do not cause too great a problem and may dissipate quickly if satisfactory weather conditions prevail. Petrol, kerosene and diesel will spread quickly over the surface and due to evaporation will dissipate quickly. However, under certain weather conditions a phenomenon known as “skinning” may occur thereby reducing the rate of evaporation. This skin can easily be broken by agitation from vessels wakes, fire hoses, air hoses, etc

If a spill of light volatile oil occurs close to a source of ignition, then fire fighting foam may need to be spread on the surface of the spill to prevent its ignition. As a general policy, no clean-up operations on a spillage of volatile/flammable products should be undertaken until the appropriate Emergency Services has been consulted.

With light fuel oils, such as are stored at the Kaiwharawhara Tank Depot and fed by pipelines along Aotea Quay, there will be little evaporation. Consequently, this type of oil will very likely require to be treated with approved dispersants or “retained and reclaimed” by use of harbour booms, suction trucks, or skimmers.

Under certain weather conditions a water in oil emulsion known as “mousse” can form which will create a very different problem as it will float and conglomerate into large masses rendering it very difficult to dispose of.

Oil Types

Types of oil commonly transported or used within Wellington marine environment, and their persistence before dissipating naturally in typical Wellington conditions, are:

Petrol Persistence:	0 - 1 day, maybe few hours only
Aviation gasoline	0 - 1 day
Light marine diesel	1 - 2 days
Light fuel oil	1 - 4 days
Medium fuel oil	1 - 7 days
Heavy fuel oil (Bunker C)	1 - 2 weeks
Bitumen	months but will probably sink out of sight

For further information on oil types/characteristics refer to the **Annexe 5**.

Ecological Sites for Special Protection

Charts showing the Regional Coastline are held by the Harbours Department, GWRC and are also available from the Department of Survey and Land Information. DOC, IWI and NTWA will be consulted in order that sensitive areas may be protected.

The Wellington coastline is generally comprised of rock or gravel, and presents good load-bearing properties for moderate to heavy wheeled vehicles. However, not all beaches are amenable to the removal of oil contamination by earth moving machinery; see notes relating to each site.

List of Sensitive Areas (Listed in a West to East direction)

Figure i

- Kapiti Island and Kapiti Marine reserve
- Waikanae Estuary
- Pukerua Bay Sponge Garden
- Plimmerton Beach
- Pauatahanui Inlet
- Onehunga Bay
- Titahi Bay
- Mana Island (the Bridge)

Figure ii

- Makara Stream Estuary
- Cape Tarawhiti to Opau Point

Figure iii

- Sinclair Head - Red Rocks
- Breaker Bay and Island Bay to Owhiro Bay
- Scorching Bay
- Mahanga Bay Shellfish Breeding Area
- Mokopuna Island
- Somes/Matui Island
- Hutt Estuary
- Lowry Bay to Eastbourne
- Hinds Point to Point Arthur

Figure vi

- Lake Onoke
- Cape Palliser and Turakirae Head
- Crayfish Farm Ngawihi

Figure v

- Honeycomb Rock and Kahau Rocks
- Castle Point
- Whakataki - Mataikona Foreshore

FIGURE (i)

Numbers 1 to 8 see pages 1 I - 19

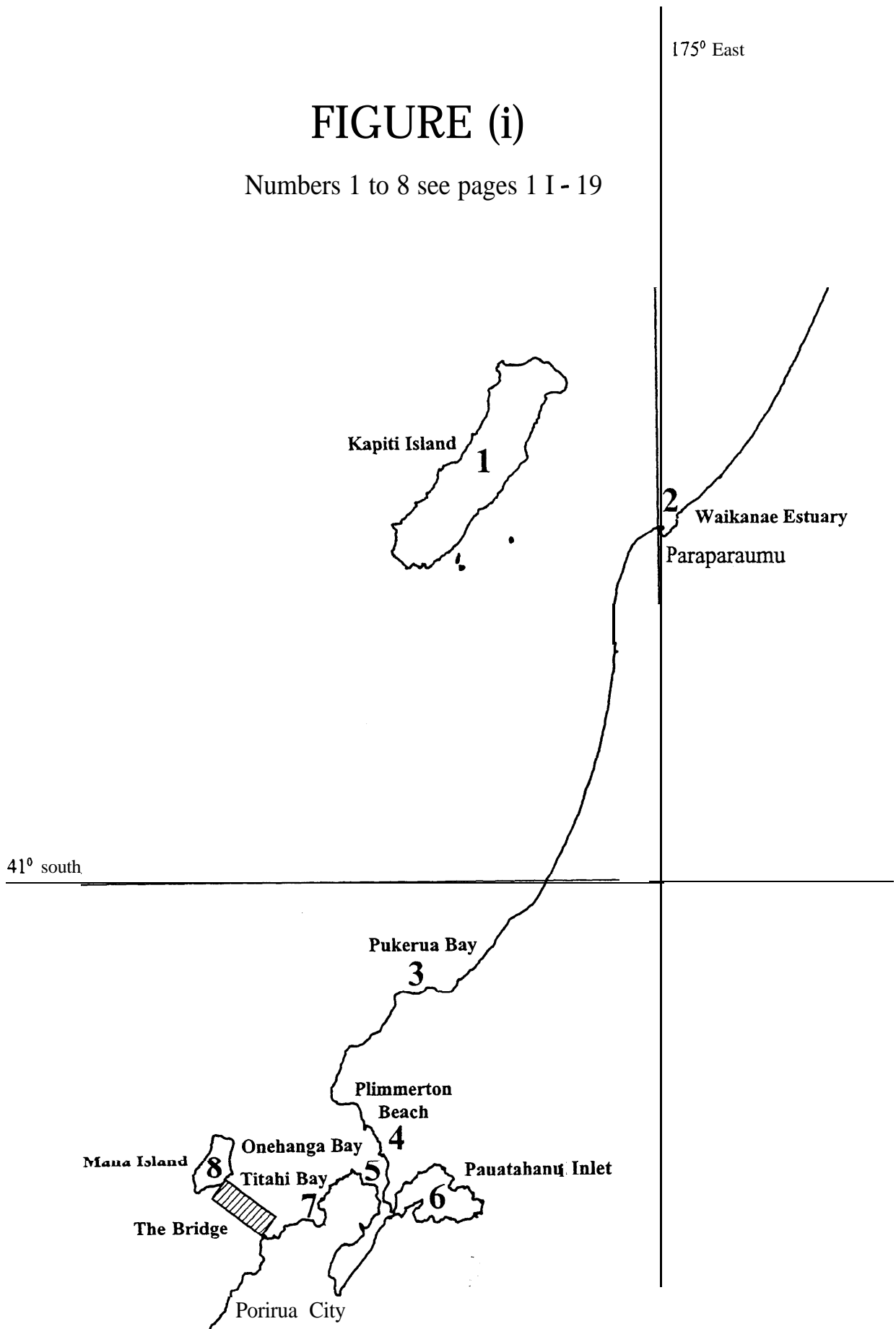


FIGURE (ii)

Numbers 9 to 11 see pages 20 - 21

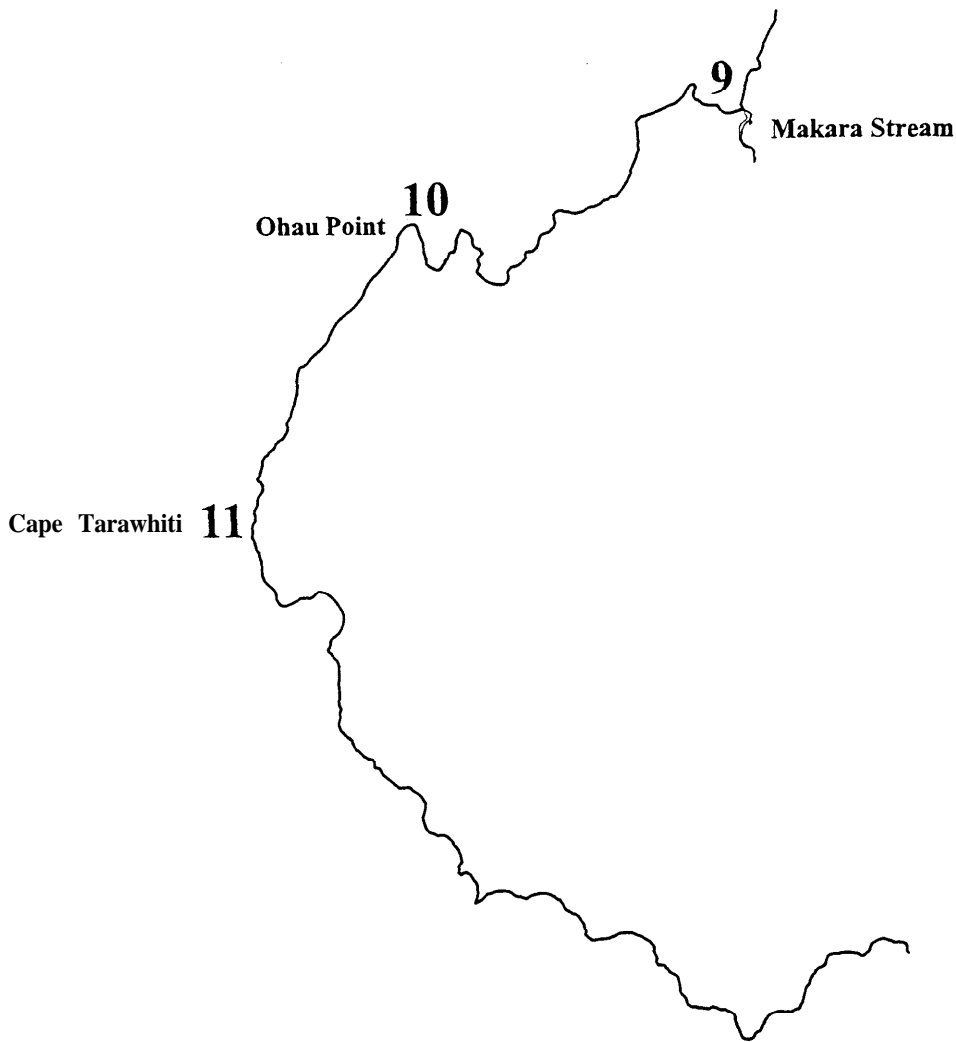


FIGURE (iii)

Numbers 12 to 21 see pages 22 - 30



FIGURE (iv)

Numbers 22 to 25 see pages 3 1 - 33

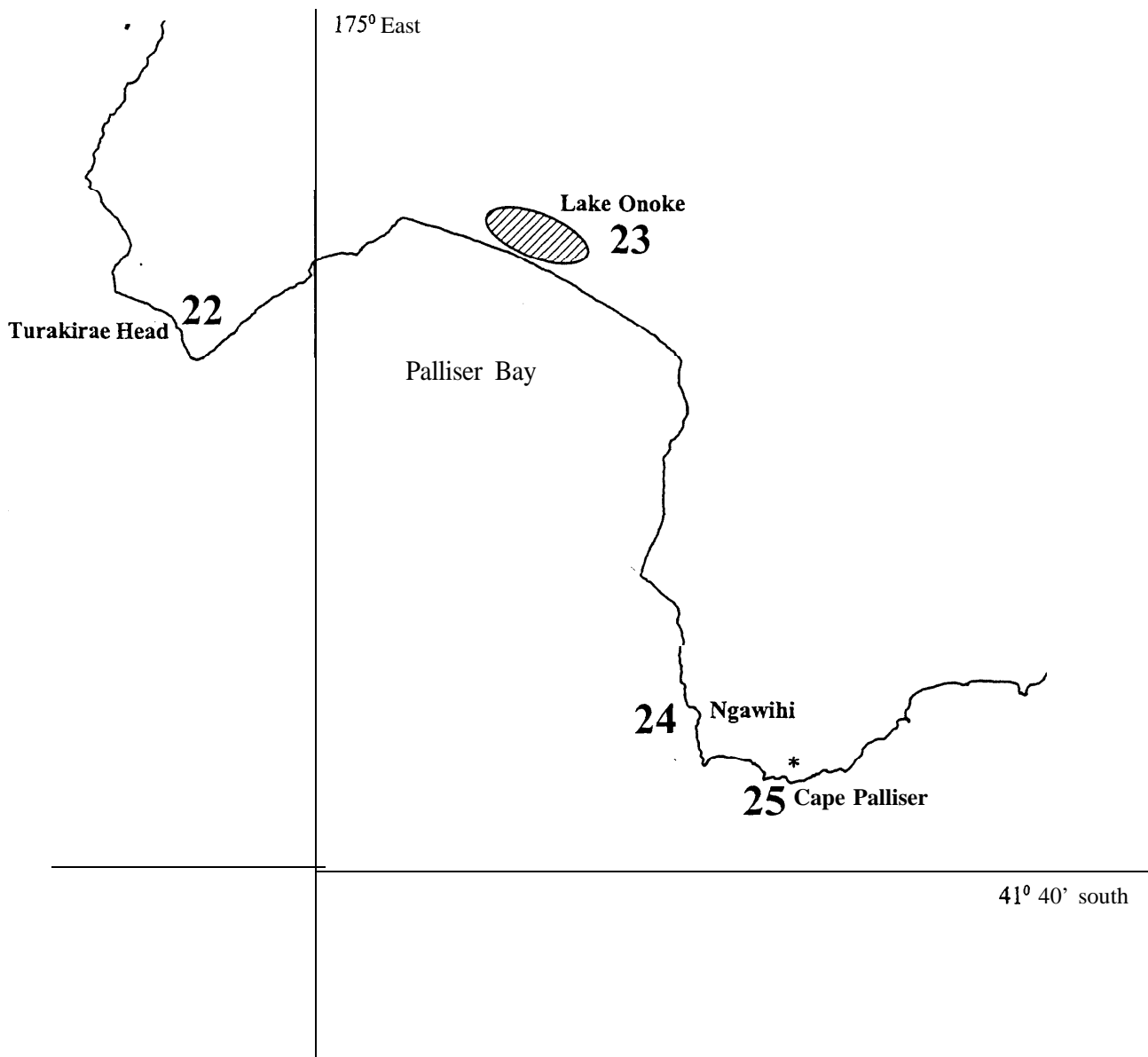
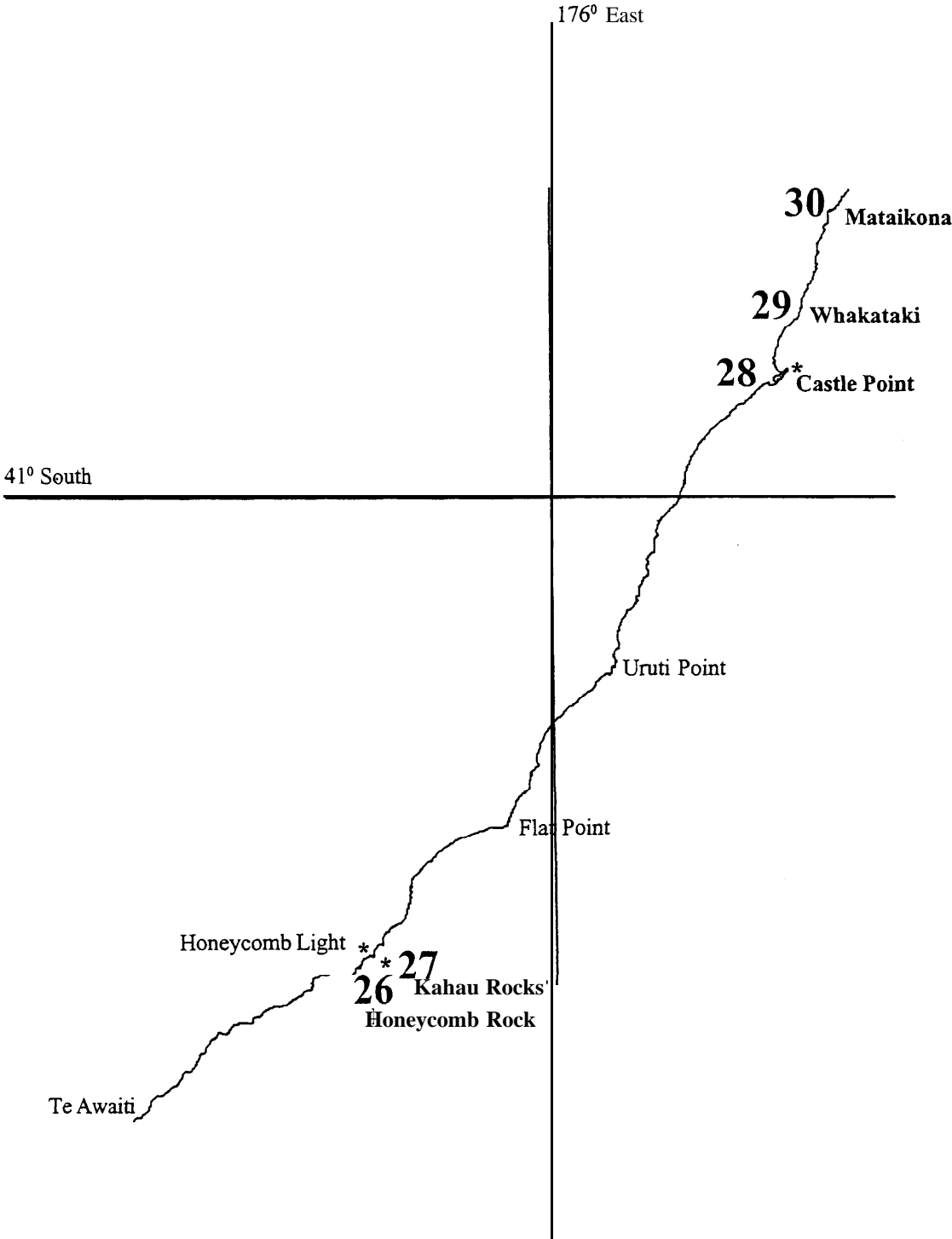


FIGURE (v)

Numbers 26 to 30 see pages 34 - 36



Significant Ecological Areas for all Year Protection

Kapiti Island and Kapiti Marine Reserve - 1 fig i

This island is a nature reserve, classified by the DOC to be of international significance (due to its population of endangered bird species, it also has the highest category of protection under the Reserves Act), and is surrounded in part by Kapiti Marine Reserve. It has diverse marine environment with four habitat types. These habitats encompass offshore reef systems with strong tides; partly sheltered areas with siltation; sheltered reef and beach areas; and exposed rocky headlands. The island has cultural significance to Tangata Whenua. During the months of May to October a fur seal colony resides on the Northern end.

The Kapiti Boating Club is an alternate Communications Base/On-Scene HQ.

Paraparaumu airfield is capable of operating aircraft up to the size of a Boeing 737 or a C 130 Hercules and is the base for various commercial aircraft that may be of use in reconnaissance or the application of dispersants (see **Annexe 16** for aircraft and contact details).

The closest source of vessels other than trailer boats is the public moorings at **Paremata/Mana**, approximately 15 miles to the south (see **Annexe 19**, Directory, for contact details).

Local Environmental Conditions

As the island is exposed to the prevailing SW wind with a long fetch across Cook Strait, a heavy sea may be experienced in fi-esh onshore conditions. Tidal streams in the Rauoterangi Channel between the island and Paraparaumu Beach may run at up to 1.8 knots at Spring tides, as predicted on Chart NZ 463 1. Historically, debris has been found to gather naturally from Pukerua Bay North to Paekakariki. Weather forecasts can be obtained from the Meteorological Service at Kelburn, Tel 04 470 0743, alternately Beacon Hill Signal Station Tel. 04 473 4547/388 7795 have the latest Cook Strait weather forecast.

Preferred Response Options

If possible, oil should prevented from stranding on the island, particularly on the eastern shore. This may best be achieved by the use of deflection booms, or alternatively, chemical dispersion of oil outside the 10 metre depth contour (the seabed is deeply shelving close to the island).

To avoid mechanical damage to the habitat, landing on the island should be kept to the absolute minimum nor should the island if at all avoidable be used to store equipment or recovered oil. Dispersants should not be applied if the treated oil is likely to come within the 10 metre depth contour, particularly within the wading area at Kurukohatu Point or the reef systems on the eastern side of the island.

Access

Access to the island is controlled by the DOC contact Bruce Dix, 04 472 5821 or Waikanae Field Centre 04 296 1112 who can arrange their ranger's small boat. Alternatively, access may be by vessel from **Paremata/Mana** or by helicopter from

Paraparaumu airfield: Kapiti Aero Club Tel 902 6536 or Helipro Tel 04 297 1177; or from Wellington Airport : Airwork NZ Ltd., Tel 04 387 9994.

Disposal

Great care must be taken when disposing of waste on Kapiti Island, all work will most likely be manual with little mechanical help, all personnel will be briefed by DOC prior to embarking for the island. Short term storage might have to be arranged on Kapiti Island, the position of these areas will be arranged in consultation with DOC.

Waikanae Estuary - 2 fig i

A range of important habitats and indigenous plant and animal species. A nationally significant wetland for waders, seabirds and waterfowls. An important spawning area and nursery for threatened fish species. The reserve contains significant vegetation of estuarine shrub rush land. It is also a recreational area..

Local Environmental Conditions

Exposed in northerly winds.

Preferred Response Option

The estuary could be protected with deflection booms. Use dispersants seaward of the 10 metre depth contour to prevent the oil from stranding.

Restriction on Options

Use of dispersant too near the shore is prohibited.

Access

There is road access to the beach at the river mouth and Otaihanga Boating Club is situated a little up river.

Disposal

Trucks to landfill if allowed.

Pukerua Bay Sponge Garden - 3 fig i

About 300m offshore from Pukerua Bay at about 30m depth. A localised sponge garden resulting from a small backwater which causes high local nutrient levels. A characteristic of importance to Tangata Whenua. It has scientific value and is a proposed site of a Marine Protection Area.

Restriction on Options

Care to be taken when using dispersant, however the depth would indicate that there would be few problems. It must be noted however that sponges are filter feeders. It is possible that they could be poisoned by a dispersant/oil mix, DOC must be consulted immediately if there is a danger of pollution.

Disposal

Not available.

Plimmerton Beach - 4 fig i

An important recreational and residential area. Swimming and Windsurfing are the main water recreation pursuits.

Restrictions on Options

Dispersant outside the 10m depth. The main option if pollutant approaches the shore will be deflection booms and beach recovery.

Disposal

Temporary storage will have to be effected until disposal is arranged either by road tanker or to landfill.

Onehunga Bay - 5 fig i

Recreational area with cultural importance.

Local Environmental Conditions

Exposed shoreline to northerlies.

Preferred Response Option

Deflection booms with dispersant outside the 10m depth.

Restriction on Options

Booms will not be able to be deployed with northerlies blowing.

Access

There is road access to the beach. For launching boats the Mana Cruising Club slipway will be best suited for this purpose.

Disposal

Trucks to landfill if allowed Mana Island. - 5 Fig ii

Pauatahanui Inlet - 6 fig i

The entire Pauatahanui Inlet from the inlet side of the Paramata bridge. This is a wetland reserve of national importance for flora, fauna and habitat. It is also an important recreational boating area including windsurfing and water-skiing.

Restrictions on Options

The depth of water is too shallow for the extensive use of dispersant, deflection and containment booms with recovery on site will be the main option.

Disposal

There will be a limited area for temporary storage, however most pollutant recovered will have to be disposed of at a landfill (if allowed) or taken away for treatment by road tanker.

Titahi Bay - 7 fig i

A recreational area.

Local Environmental Conditions

Exposed in the northerly winds.

Preferred Response Option

Protect with deflection booms. Use dispersants seaward of the 10 metre depth contour to prevent the oil from stranding.

Restriction on Options

Use of dispersant too near the shore is prohibited, note 'The Bridge' just south west of the bay.

Access

There is road access to the beach.

Disposal

Trucks to landfill if allowed.

Mana Island (the bridge) 8 fig i

The Seabed between Mana Island and the Mainland (Known as the “Bridge”) forms a unique submarine isthmus with marine flora and fauna of National significance. Characteristic is of importance to the Tangata Whenua. There is also a fur seal colony at the North end of the island, usually in residence between May to October.

Restrictions on Options

Approved dispersant is a viable option to attempt to avoid any oil landing on Mana Island. Otherwise deflection booms will have to be utilised (Weather permitting) to attempt to avoid any pollutant beaching.

Disposal

There will be little temporary storage on Mana Island although floating storage is an option.

Makara Stream Estuary - 9 fig ii

Significant indigenous flora and fauna in the estuary, with cultural interest.

Local Environmental Conditions

Exposed in northerly and westerly winds.

Preferred Response Option

The estuary can be protected with deflection booms. It may also be possible to block off the river mouth using a front end loader and the available pebbled beach material. Use dispersants seaward of the 10 metre depth contour to prevent the oil from stranding.

Access

There is road access to the beach at the river mouth. At the mouth, within the estuary, there is a small concrete slip to launch boats from. The route from Karori is preferable when towing trailers, as it is wider than the road coming from Johnsonville.

Disposal

Trucks to landfill if allowed.

Ohau Point to Cape Tarawhiti - 10 to 11 fig ii

Fur seal colony during winter.

Local Environmental Conditions

Very exposed coastline.

Preferred Response Option

Monitor and allow oil to weather.

Restriction on Options

Dispersants outside the 10m depth.

Access

Only access from the sea.

Sinclair Head - Red Rocks - 12 fig iii

This area of coastline is predominantly rocky, exposed to the prevailing SW wind with frequent bad weather and high energy wave action. A seal colony in the area makes offshore clean-up important, particularly from May to October when many seals are in residence.

Local Environmental Conditions

Exposed rocky shoreline, sheltered from the north.

Preferred Response Option

Due to the remote site, exposed conditions, nature of the topography, and tidal currents, booms are likely to be unsatisfactory. The only effective response likely to be possible is rapid application of approved dispersants whilst the spill was offshore.

Restriction on Options

Care to be taken when using approved dispersants owing to vicinity of seal colony.

Access

Access by land is via unformed road and on beach gravel making it suitable for 4WD vehicles only. By sea, Red Rocks is 14 miles from the Port of Wellington and 4 miles from Island Bay where local fishing vessels may be available.

Disposal

If oil waste was to be recovered, it might be held temporarily in improvised bunded areas at the back of the beach; more permanent disposal may be made with the Owhiro Bay landfill, but caution should be exercised with the beach loading

Owhiro Bay and Island Bay to Breaker Bay - 13 to 14 fig iii

These areas are rocky inter tidal regions with pockets of shingle/sand beaches that have been tagged as potential sites for Marine Protected Areas. This area of coastline is predominantly rocky, with frequent bad weather and high energy wave action. In fresh onshore conditions it may be dangerous to operate vessels or attempt foreshore clean-up. Offshore clean-up would be necessary for protection of the offshore reef systems. In many instances it may be preferable to allow for natural weathering/clean-up.

Local Environmental Conditions

As noted above, these areas are frequently a high energy environment as they are exposed to the prevailing SW wind. Currents in this area may be expected to run at 0.5 to 0.9 knot and provide good flushing action. The beaches in these areas are natural collection points.

Preferred Response Option

Natural weathering/approved dispersants.

Restrictions on Options

Care to be taken when approved dispersants used owing to wildlife.

Access

A road runs around the coast providing good access, but care should be taken not to restrict public access unduly. However, in fresh on shore conditions public access may need to be restricted due to the possibility of oil mist being blown ashore. The relatively sheltered area inside Island Bay would enable boom deployment to be effective. Trailer boats may be launched with ease from the beach at Island Bay, with care at Owhiro Bay and Breaker Bay, and not at Houghton Bay (due to often strong surf and a strong under current). The beach will take moderate to heavy vehicles, preferably four wheel drive.

Disposal

Disposal may be achieved in the landfill at Owhiro Bay.

Scorching Bay - 15 fig iii

The area is a popular bathing beach in summer. A small rock stack a few metres from the shore at the southern end of Scorching Bay. One of four nesting sites for the White Fronted Tern in the Wellington Region. The foreshore on either side of the bay is a rocky, inter-tidal habitat of moderate ecological value.

Local Environmental Conditions

Exposed to Southerly, partially sheltered from northerly.

Preferred Response Option

Protection of the amenity beach by the use of booms is preferred in summer, but may be used as an oil collection point in winter. The intertidal areas in the vicinity should receive priority protection in winter, and secondary protection (to the amenity beach in summer). Heavy contamination of the beach may be removed by mechanical means if necessary; cleaning of the inter-tidal rock area is preferably cleaned with low pressure salt water flushing and sorbents.

Restriction on Options

The use of dispersants within the 10 metre depth contour of the shore, or within 500 metre of the shellfish farm in Mahanga Bay (to the north of Scorching Bay) is prohibited. Destructive cleaning methods such as steam cleaning/water or sand blasting of the intertidal area should not be used.

Access

Good access is provided by the coast road although it is narrow it provides the only access to residential dwellings south of Point Gordon. Care should be taken to avoid closing the road completely, and restricted public access should be allowed for residents. Trailer boats may be launched off the beach at Scorching or Worser Bay. Boats should take care not to foul their propellers on kelp that is known to grow in the vicinity.

Disposal

By truck to landfill

**Mahanga Bay Shellfish Breeding Area, Oceanographic Institute, Evans Bay - 16
fig iii**

Both these operations have salt water intake pipes which should be protected from oil and/or dispersant.

Local Environmental Conditions

Exposed to both northerly and southerly conditions.

Preferred Response Option

Priority protection required. Approximately 200 metres of harbour boom required. Depths of water to 15 metre and sand/shell seabed may pose mooring problems in fish conditions.

Restrictions on Options

Use of dispersants within 500m off shore on out going tide, or 1000m on incoming tide, is prohibited.

Access

Good access from Evans Bay Parade; boat launching ramp at site of old Patent Slip or at Evans Bay boat harbour; boom may be deployed off sea wall adjacent to Institute.

Disposal

Depending on quantity and composition of collected oil waste, permanent disposal may be made at Owhiro Bay landfill.

Somes/Matui Island - 17 fig iii

Nesting area for little blue penguin, variable oyster catcher, southern black backed gull. One of four known nesting sites for reef heron in the Wellington Region. The only nesting site for spotted shag in the Wellington Region.

Local Environmental Conditions

There are no significant local anomalies in this area.

Preferred Response Option

Deflection booms with dispersant outside the 10m depth.

Restriction on Options

Owing to the difficulty in landing heavy equipment on Somes Island, initial cleaning/disposal will be by hand.

Access

Somes/Matui Island is only available by boat East by West Co Ltd operate a service to the Island. Tel 025 477 488 (recorded message – time table 499 1273) Office 04 499 1282.

Disposal

Temporary storage areas can be arranged in consultation with DOC, main disposal will be to the mainland. There is a possibility of re-commissioning high temperatures incinerators on Somes Island if it was deemed necessary.

Mokopuna Island - 18 fig iii

Is a nesting area for little blue penguin, variable oyster catcher and spotted shag. It is one of the known nesting sites for reef heron in the Wellington region.

Local Environmental Conditions

There are no significant local anomalies in this area.

Preferred Response Option

Deflection booms and dispersants outside the 10m depth.

Restrictions on Options

Only hand tools may be used if any oil beaches on the island, little or no temporary storage area.

Access

By small craft only.

Disposal

Any on shore pollution will have to be taken to the mainland for disposal.

Hutt Estuary - 19 fig iii

The Hutt River Estuary is important for juvenile fish species and wading birds. As it is the only estuary in the Wellington Harbour, clean-up operations should be undertaken offshore as opposed to onshore. For these reasons the estuary should be protected from oil and the use of dispersants should be restricted. However, as the Hutt River continually discharges large quantities of fresh water through the estuary, the use of approval oil dispersants may cause few short-term effects due to the large-volume flushing action.

Local Environmental Conditions

Tidal streams set parallel to the shore (at between .0.5 to 1.0 knots) except in the vicinity of the Hutt River mouth where the outfall (of between 0.5 and 2.0 knots) will significantly modify water movement. Meteorological conditions can vary this considerably depending on the recent rainfall.

Preferred Response Option

Protective booming offshore; cleaning of stranded oil by low pressure salt-water flushing, or left for natural cleaning.

Restrictions on Options

Use of dispersants inside 10 metres depth not preferred; removal of stranded oil by burning, steam cleaning or earth moving machinery prohibited. Note that dispersants Shell VDC and Corekit 9527 will not work in a freshwater situation.

Access

For moderate to heavy vehicles comer of Croft Grove and Pitt Street or the boat slip at the end of Marine Parade, boat access is from Seaview marina slip. The entrance to the river is very shallow and will only allow access by small craft.

Disposal

Temporary disposal may be made at the Shell installation, Seaview.

Lowry Bay to Eastbourne - 20 fig iii

The foreshore along this coast is of high amenity value for marine fossicking and for the popular bathing beaches (particularly those of Days Bay and Eastbourne) on this westerly shore. Recreational boating activity is focused on the moorings at Lowry Bay and off the beach at Eastbourne. Although this area is of moderate significance due to its high amenity value the bathing beach areas are of low ecological significance.

Local Environmental Conditions

In the vicinity of Eastbourne the tidal stream sets parallel to the shore at between up to one knot. Further into the harbour in the vicinity of Lowry Bay the tidal stream reduces to 0.5 knots. As the area is exposed to the prevailing SW wind which is funnelled by the harbour entrance, wind can often be expected to have a greater effect than the water movement. The northern end of Lowry Bay, beneath Point Howard, is a natural collection area.

Preferred Response Option

The beaches in this area have a limited sediment supply thus offshore clean-up operations would be preferable year round although the priority is not as high as for ecologically significant areas.

Access

Good access is provided by the main Hutt Valley-Eastbourne Road which has a high traffic density due to city commuters. Care should be taken not to unduly restrict this traffic. A ferry runs to Wellington City from Days Bay Wharf for commuter traffic only (Operator is East by West Ferry Ltd. Tel 04 499 1282).

Disposal

To landfill if allowed and available.

Hinds Point to Point Arthur - 21 fig iii

Though most likely one of the worst places to gather shellfish in the region, the general public still engage in shellfish collection. Signs could be erected to warn the public away if oil or other pollution was seen to be approaching the shore.

Long-standing public health warnings advise against the taking for food of all shellfish from Wellington Harbour because of sewage contamination. As these warnings are frequently ignored, it would be prudent, if approved dispersants were used in the area, to make announcements on local radio stations to emphasize the existing ban, and the added risk from dispersants.

Local Environmental Conditions

Exposed shoreline, both northerly and southerly.

Preferred Response Option

Natural Weathering/Dispersant

Restriction on Options

Use of dispersant too near the shore is prohibited.

Access

Via gate and track at the end of the Eastbourne road.

Disposal

Trucks to landfill if allowed.

Turakirae Head and Cape Palliser - 22 and 25 fig iv

There is a large seal colony in this area, all the year round with large number of juveniles present. This area is of great cultural and historical significance to the Tangata Whenua.

Council recognises Te Ati Awa as the tribal group with Mana whenua status. They are represented by Te Runanganui o Taranaki Whanui ki te Upoko o te Ika a Maui and Wellington Tenth Trust. Liz Mellish of the Wellington Tenth Trust is a good contact **473 2502**.

Local Environment Conditions

No significant anomalies although this coast is very exposed to southerly gales.

Preferred Response Option

Dispersants outside the 10m depth.

Restrictions on Options

This coastline is very rocky and isolated making it difficult for any large plant to access. There is little or no temporary storage.

Access

By four wheel drive only or helicopter. A landing from the sea may be possible, however it can only be made in calm conditions.

Disposal

All waste will have to be removed from the area to a landfill if allowed.

Lake Onoke - 23 fig iv

A breeding ground for threatened bird species and marine fish. Vegetation includes rare and vulnerable native plant species. There is the small settlement of Lake Ferry on the lake's eastern shore near the river mouth.

Local Environmental Conditions

Exposed shoreline to southerly.

Preferred Response Option

Dependant on the lake level and prevailing weather conditions, its mouth can be closed off to the sea. When conditions do not allow for this then booms can be deployed towards the seaward end of the lake in order to protect the upper reaches. Through the Wairarapa Civil Defence, advice can be obtained regarding closer of the lake and getting the bulldozer, usually kept at the mouth, operational.

Use dispersants seaward of the 10 metre depth contour to prevent the oil stranding.

Restriction on Options

Use of dispersant too near the shore is prohibited.

Access

There is vehicular access to the beach near the mouth of the lake.

Disposal

Trucks to landfill if allowed.

Crayfish Farm Ngawihi - 24 fig iv

Ngawihi is a small fishing community on the South coast approximately 4 kilometers West of Cape Palliser. Ngawihi has cultural and historical significance to Tangata Whenua. A small crayfish farm is situated on the southern end of the township with salt water intakes taking water from the immediate waters edge.

Local Environmental Conditions

There are no significant local anomalies in this area, though the beach is rocky and shelving and exposed to southerlies.

Preferred Response Option

Deflection booms and dispersant outside the 10m depth.

Restrictions on Options

Temporary storage will be difficult, no permanent storage in area.

Access

Ngawihi is very isolated and access is by sealed road from Lake Ferry. Access from the water is relatively dangerous although the local fishermen would be able to assist.

Disposal

Disposal would have to be affected by land transport to a suitable landfill or by road tanker to an approved environmental disposal site.

Honeycomb Rock and Kahau Rocks - 26 to 27 fig v

Significant site for indigenous flora and fauna. Fur seal colony during winter.

Local Environmental Conditions

High energy coastline.

Preferred Response Option

Use dispersants seaward of the 10 metre depth contour to prevent the oil from stranding.

Restriction on Options

Use of dispersant too near the shore is prohibited.

Access

Remote area.

Disposal

Trucks to landfill if allowed.

Castle Point - 28 fig v

Naturally vegetated and fragile coastal vegetation containing rare plant species. A habitat for sea mammals and breeding ground for bird species. An internationally significant crayfish larvae population. Outstanding scenic values and an important physical and geological landscape. There is also a small sea side settlement there and this area is used for recreational purposes.

Local Environmental Conditions

Castle Point shelters a bay under most conditions.

Preferred Response Option

Dispersants beyond the 10 metre depth contour to prevent oil washing ashore. Booms can be deployed in the bay. Bulldozer could be useful to build up sand spit between the shore and light house.

Restriction on Options

Use of dispersant too near the shore is prohibited.

Access

There is vehicular access onto the sand spit.

Disposal

Trucks to landfill if allowed.

Whakataki - Mataikona foreshore - 29 to 30 fig v

Significant habitat for wildlife.

Local Environmental Conditions

High energy coastline.

Preferred Response Option

Dispersants beyond the 10 metre depth contour to prevent oil washing ashore. Booms can be deployed in the Mataikona Estuary.

Restriction on Options

Use of dispersant too near the shore is prohibited.

Access

There is vehicular access to the river mouth.

Disposal

Trucks to landfill if allowed.

A list of further sites which may require special protection is available from DOC whose representative is part of the On-Scene Commanders team.

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