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Committee Environment
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Findings from the Coastal Environment work for the State of the Environment report

1. Purpose

To inform the Committee of the main points emerging from the technical report on the Coastal Environment prepared as part of the development of the State of the Environment Report.

2. Background

Over the last year, officers have been working on technical reports for the State of the Environment Report (SER) which will be published by the end of 2005. Technical reports have been written reporting on the objectives of each of the chapters in the Regional Policy Statement (RPS).

This report covers the findings of work done for the Coastal Environment chapter.

3. Coastal environment

The Resource Management Act 1991 (RMA) places particular requirements on management of the coastal environment. Natural character and public access are both matters of national importance that must be recognised and provided for. So is the relationship of Maori with their ancestral lands, water, wahi tapu and other taonga – areas of which the coastal environment is a significant part.

The RPS has four objectives for the coastal environment. These reflect the requirements of the RMA and community expectations.

3.1 Natural character

The RPS aims to preserve the coast's natural character by protecting significant areas, protecting physical and ecological processes that depend on the coast, restoring degraded areas, and managing the use and development of areas around the coast.

3.1.1 Protecting significant areas

Most nationally and regionally significant areas in the region have been protected by covenants, or are in public ownership. Some areas are also protected by requirements set out in district plans.

3.1.2 Protecting physical and ecological processes

Life on Wellington harbour beaches

Sandy beaches and river estuaries are home for shellfish, birds, and coastal plants. Over the last two summers, Greater Wellington surveyed the beaches and river estuaries of Wellington Harbour, the south coast and Kapiti coast.

The study found our intertidal sandy beaches and river estuaries in Wellington Harbour in good overall health. Human impacts like stormwater discharges appear to be localised, and not threatening the health of these ecosystems.

Pauatahanui cockles

The Guardians of Pauatahanui Inlet have surveyed the Inlet's cockle population every three years since 1992. Their findings are compared with results from a study in 1976, which reckoned cockle numbers at between 438 and 608 million.

The first Guardians' survey in 1992 estimated the cockle population at around 220 million, and each subsequent census has returned a similar figure.

Adult cockles have declined slightly since 2001, but the number of juveniles has jumped, which bodes well so long as they enjoy reasonable survival. If they do, we'll know whether the population could return to early levels, or if whatever caused the decline between 1976 and 1992 has permanently diminished its carrying capacity.

Sediment contamination in Porirua Harbour

Contaminants in stormwater sediments affect aquatic life in estuaries and shallow harbours. The sheltered Onepoto arm of Porirua Harbour, which drains highly urbanised catchments, is particularly vulnerable.

In 1997, we sampled sediments at 11 sites around the shores of both arms of Porirua Harbour and tested for contamination. Sediment near the mouth of the Porirua Stream had lead and zinc at levels high enough to start affecting aquatic life. Heavy metal levels in sediments around the shores of the rest of the Onepoto arm and in the Pauatahanui arm and were lower, and unlike the Porirua Stream sites, did not exceed any guideline levels.

In 2004, we sampled sediments in five more locations in Porirua Harbour, this time the deeper sediments away from the shore. We found levels of copper, lead and zinc high enough to start affecting aquatic life in the Onepoto arm while DDT levels are high in both arms of the Harbour.

While mercury levels are a concern in the sediments of the Onepoto arm – as is copper in Browns Bay in the Pauatahanui arm – concentrations of arsenic, cadmium, chromium, mercury, nickel and silver in both arms of the Harbour were all below guideline limits. All metals except cadmium were higher in the Onepoto arm than the Pauatahanui.

3.1.3 Restoration of degraded areas

Greater Wellington established the community environmental care programme *Take Care* in 2000. Since then we have supported 13 voluntary groups who are restoring and rehabilitating degraded coastal sites.

Care groups at Otaki, Paraparaumu, Days Bay, Island Bay, Castlepoint and Riversdale Beach are tackling dune erosion by fencing them off and replanting with the native sand binding grasses spinifex and pingao.

At the Waikanae Estuary scientific reserve, Paekakariki escarpment, Eastbourne and the Motuwaiereka Estuary at Riversdale, volunteers have concentrated on weed removal, replacing them with native plants.

City and district councils take on coastal restoration and rehabilitation projects of their own – Wellington City Council’s cleanup of the old Moa Point sewage outfall and purchase and restoration of land around the Owhiro Bay Quarry are just two examples.

3.1.4 Managing subdivision, use and development

Subdivision, and a subsequent shift from rural to residential land use, is the most pervasive pressure on the coast’s natural character. Since 1999, coastal land has been split into 4,481 new lots, mostly along the Kapiti Coast, where the District Council has dealt with the effects by putting a coastal dune environment zone in its district plan.

Nearly half the new lots in the Wairarapa since 1999 were created at Riversdale this year. If development pressures increase over the next decade, more protection will be needed for areas high in natural character. This could be secured through policies in the combined district plan being prepared by the Wairarapa district councils.

3.2 Coastal water quality

Greater Wellington and the city and district councils keep regular watch on coastal water quality at 76 sites around the region’s coastline. These sites are popular with swimmers, surfers and boaties. The results are shown in a graph attached in Appendix 1.

Ministry for the Environment and Ministry of Health guidelines set two thresholds for bacteria levels (enterococci) with actions for when those levels are reached. The guidelines recommend a three-tier (traffic-light) management framework where:

- Green, or surveillance mode, denotes low or no public health risk (single sample enterococci count \leq 140/100ml)
- Amber is an alert mode that requires follow-up monitoring until levels return to green mode (single sample enterococci count $>$ 140/100ml)
- Red calls for an action response - the beach must be closed to avoid a likely health risk (two consecutive sample enterococci counts $>$ 280/100ml).

Some key points from the results of the last four summers are:

- Only one site – Paekakariki Beach surf club – had all samples at the surveillance level (green) during the last four summer bathing seasons. This site also achieved 100 per cent compliance with the surveillance level during routine winter monitoring from April 2002 to October 2004.
- Fifty-nine sites complied with the surveillance level (green) on more than 90 per cent of summer sampling occasions.
- The sites with the lowest compliance with the surveillance level (green) were Plimmerton's South Beach, Titahi Bay at Bay Drive and at the south beach access road, Pauatahanui Inlet at Browns Bay, and Porirua Harbour at the Rowing Club.
- The sites with the most action level (red) occurrences were Titahi Bay at Bay Drive, Pauatahanui Inlet at Browns Bay, Plimmerton's South Beach, Porirua Harbour at the rowing club, and Plimmerton Beach at Bath Street. Sometimes the bacteria levels were more than 100 times over the guideline limit.

Weather records show that most action level (red) occurrences coincided with heavy rain, implicating sewage-contaminated stormwater or streams contaminated with agricultural runoff as the likely sources of bacterial contamination. But this wasn't always the case. For example, Plimmerton's South Beach had three action level events during dry spells.

The reason for dry weather breaches is unclear. Sewage could be getting into stormwater pipes via illegal connections, some streams could be polluted by agricultural or other animal discharges, or high wave energy could be stirring up contaminated sediment.

3.3 Public access

City and district councils are responsible for securing public access rights in any proposed coastal developments. Information on the state of public access to the coast is lacking, so we cannot tell where it's working well and where it's not. As a snapshot, there is road access to and along most of the west coast beaches – Otaki, Te Horo, Peka Peka, Waikanae, Paraparaumu, Raumati, Pukerua Bay, Plimmerton, and Paremata. There is also access at Titahi Bay, Whitireia Park and to most of both arms of Porirua Harbour.

From Owhiro Bay, a public road lends good access virtually all the way round to Pencarrow Head, interrupted only by marinas and the CentrePort complex.

In the Wairarapa, the coastal road offers good beach access from Ocean Beach to Cape Palliser. North of Cape Palliser, access is limited to just seven roads leading to the coast.

3.4 Aspirations of tangata whenua

The coastal aspirations of tangata whenua can be broadly described as a desire for kaitiakitanga. All the region's iwi have a large coastline that they are actively seeking to manage as kaitiaki. In doing this, they must work with local and central government agencies.

Iwi representatives interviewed felt that iwi are the only group interested in the overall holistic management of the coast - everyone else sticks to their statutory responsibilities. Iwi felt that, even within Greater Wellington, different departments are not always working in an integrated way.

All iwi are concerned about coastal development, particularly the effects of subdivisions on the character and natural processes of the coastal environment. Some effects of coastal development that concern them are:

- changes to streams and wetlands near the coast;
- the strain on the water resources of the Kapiti Coast;
- the effects of sewage; and
- the increased pressure on fisheries.

Iwi said that a lack of access to information about the coastal environment was affecting their ability to meet their aspirations in the area.

Despite these gaps, they observed that traditional knowledge is still held, and is a source of protection for the environment. Tangaroa (god of the sea) has the power to remind us all that we are part of the system, not the boss of it.

4. Communication

A communications plan has been developed for the State of the Environment Report, which will be published in December of this year.

5. Recommendations

It is recommended that the Committee:

1. **Receive** the report; and
2. **Note** the contents.

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Attachment 1: Graph of coastal water quality over the last four summers.