



**Report**                **04.320**  
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**Committee**        **Environment**  
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## **Marine biodiversity programme - update**

### **1. Purpose**

To inform the Committee about the results of the biological surveys of sandy beaches and river estuaries of the Wellington Harbour and the south coast and to discuss the future direction of the marine biodiversity programme.

### **2. Background**

In September 2003, the Environment Committee considered a report which gave an update of the three year marine biodiversity programme 'Our Harbour – Our Strait' (Report 03.593). 'Our Harbour – Our Strait' was a collaborative project with the Ministry for the Environment, and was built around three main themes: community participation; information management; and integrated management, focussing on Wellington Harbour and the south coast.

The Committee also discussed options for further marine biodiversity work and resolved to hold a workshop to consider future direction. The workshop was held in December 2003 and the topics covered were: how the marine work fits into the Council's biodiversity programme; an Auckland Regional Council case study; Oceans Policy work; and proposed work in the Greater Wellington Region.

Since the workshop, a biological survey of the sandy beaches and river estuaries of Wellington Harbour and the south coast has been undertaken. This completes the work scheduled as part of the initial three-year programme.

### **3. The survey method**

Greater Wellington contracted the Cawthron Institute to map the substrate and vegetation of thirteen sandy beaches and three river estuaries within Wellington Harbour and the adjoining south coast. The purpose was to provide an overview of the health of these intertidal habitats, which provide significant amenity and environmental value. These sites are also under pressure due to their locations adjacent to densely populated cities. The information will assist with coastal management and add to our knowledge of coastal resources.

The following methods were used:

- At all sites, **broad-scale habitat mapping** provided robust Geographical Information System (GIS) based mapping of the distribution of intertidal and estuarine substrate characteristics, plants and animals; and
- At Petone (two sites), Lowry Bay, Fitzroy Bay and the Hutt River Estuary, **fine-scale environmental monitoring** measured the spatial variation and inter-relationships of commonly measured physical, chemical and biological indicators.

#### 4. Results of the surveys

Overall, all of the sites were found to be in a healthy condition. Some localised impacts are present, but across the majority of the habitat at all of the sites, the intertidal sediment quality was high. At the fine scale sites, which were selected to provide a picture of the areas most likely to be affected, sediment analyses found no signs of adverse nutrient enrichment or chemical contamination. All sites supported biological communities typical of other New Zealand beaches and estuaries in good condition.

The results of the survey will be useful for our work in both consents management and policy development as the habitat information can be used to indicate the sensitivity of different areas to pressures such as beach grooming, vehicle use and stormwater discharges. In addition, the work done provides an indication of the organisms likely to be present in different substrate types, allowing us to make some assumptions about what organisms should be present in certain areas.

The survey has been successful in gaining immediate public attention and a number of groups and agencies are waiting for the results with interest. The information will be slotted into the Greater Wellington's GIS system and will be available as baseline state of the environment information.

#### 5. Future direction

We are proposing to continue with biological surveys of river estuaries and sandy beaches in other parts of the Region's coast. In particular, the Wairarapa coast has a high number of small river estuaries that contain coastal wetland sequences which we know very little about. The Kapiti and Wellington coasts have larger and only slightly better understood river estuaries. Work in these areas would complement the work done in the Wellington Harbour and in the Pauatahanui Inlet.

Staff will also be working on a Marine Biodiversity Action Plan. This approach is consistent with other action plans being developed as part of Greater Wellington's biodiversity programme. The Action Plan will develop the options and detail the work to be carried out, budgets and timeframes. It will be developed with the following criteria in mind:

- The work is linked to improving our ecological understanding of marine biodiversity;

- Communities may become involved in marine biodiversity work;
- The work can progress within the allocated budget;
- The work will assist with our information requirements for state of the environment reporting and coastal plan review;
- The work will assist in providing information for consents management decision-making; and
- If possible, work will be linked to other biodiversity programmes.

## 6. Strategic Context

The marine biodiversity programme is specified in the Council's Take 10 element – Biodiversity.

## 7. Communication

The survey has received substantial press coverage. The Dominion Post, Hutt Valley News, Elements, Contact and the Capital Times all ran stories on the beach surveys. Several of the papers have requested follow-up stories on the results of the survey. A press release and other information about the survey results will be made available.

Government agencies such as the Department of Conservation and the Ministry of Fisheries are also following this project with interest and have requested information on the project and results.

## 8. Recommendations

*It is recommended that the Committee:*

1. *receive the report;*
2. *note the contents; and*
3. *endorse the future direction of the marine biodiversity programme.*

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