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Committee   Environment Committee
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Update on the progress of the Beacon Hill Communication Station refurbishment and upgrade programme

1.   Purpose

To inform the Committee of progress in implementing the outcomes of the *Wellington Harbour Port and Harbour Marine Safety Code Navigational Risk Assessment* (the Port and Harbour Risk Assessment), and associated proposed work at the Beacon Hill Communications Station facility.

2.   Significance of Decision

The matters in this report do not trigger the significance policy of the Council or otherwise trigger section 76 (3) (b) of the Local Government Act 2002.

3.   Background

At the 23 February 2006 meeting of the Environment Committee, the findings of the Port and Harbour Risk Assessment, undertaken with Marico Marine NZ Limited were presented. That report recommended upgrading the Beacon Hill facility, as a matter of priority, with significant investment in equipment, staff training and staff resources.

The report noted that:

"Beacon Hill Signal Station is in need of equipment renewals and staff training to prepare for an enhanced future role. This role needs to be defined and its systems and skills base brought into the 21st century. Its ability to contribute effectively to vessel traffic management will remain immature until the Safety Management System obtains stakeholder buy-in to its role and necessary upgrades."

On 29 March 2006, Maritime New Zealand formally approved the Port and Harbour Risk Assessment and Russell Kilvington, Director of Maritime New

Zealand commended Greater Wellington on the very high standard and thoroughness of the assessment. Also, mention was made of the proactive approach being taken to implement the Port & Harbour Marine Safety Code in Wellington Harbour.

The proposed Safety Management System referred to above is the next step in formally implementing the findings of the Marico report, and work has commenced.

Councillors have been invited to visit and view the operation and facilities presently in use at Beacon Hill. We look forward to such a visit.

4. Comment

In August 2004, the National Advisory Committee (NAC), a group which represents twenty key maritime stakeholders (e.g. Regional Councils, Maritime New Zealand, the Shipping Federation, etc), adopted the Port and Harbour Marine Safety Code (the Code). Previously, the NAC had identified a need for Regional Councils to undertake a port and harbour risk assessment in an effort to improve the safety of New Zealand's harbours and ports.

The Code requires each harbour authority, and port company, to complete a risk assessment of their respective harbour(s).

Consequently, Greater Wellington and Centreport undertook to:

- Complete a risk assessment of marine operations within pilotage areas of Wellington port and harbour; and

- Develop a Safety Management System (SMS) based on the completed risk assessment for Wellington port and harbour.

Marico, through its work in the development of the risk assessment report, identified a need to improve the Beacon Hill facility. While not the only recommendation found in the Marico report, it is one of the key ones, and a commitment was made to Councillors that a further report would be prepared dealing more specifically with the Beacon Hill facility and proposed upgrades.

It was also noted in the report to the Committee, at the February meeting, that the implementing of some key findings of the Marico report had significant long-term management and budgetary implications for Greater Wellington. These may be over and above, those already anticipated in Greater Wellington's Long Term Council Community Plan of $400,000.

5. The Beacon Hill Signal Station

In 1864, a signal station was established at Beacon Hill, and communication systems have been updated and improved progressively. In 1998, a new radar was bought, and this enables vessel movements to be recorded and tracked as they transit the harbour.

The station provides an interface between regulatory and safety responsibilities (those of Greater Wellington) and commercial shipping functions (those of CentrePort and shipping companies using the harbour).

The Council has agreed to the following level of service to be provided by Beacon Hill:

- the station operates 24 hours a day and every day of the year

- maintain a formal written and electronic log/diary in which the names and times of all vessels entering or leaving the harbour are recorded

- regularly monitor the operation of the main harbour navigation lights during the hours of darkness and report on any faults.

The Beacon Hill facility also provides a number of other critical functions:

- marine VHF radio and telephone communications (which are recorded) and monitor vessel movements to ensure recommended tracks are complied with generally

- communicate other vessel movements within the harbour, as well as weather and sea conditions at the harbour entrance (which can vary significantly from forecasts) to harbour users

- assist the Habours Department to enforce the Navigational Safety Bylaws applicable to the harbour to help minimise the opportunity for any rule not being complied with

- monitor an Automatic (vessel) Identification System (AIS) – which tracks ships electronically

- the geographical site of Beacon Hill's AIS receiver aerial ensures a good coverage of Wellington Harbour and Cook Strait

- operate a webcam (the system "refreshes" automatically every two minutes), which enables weather conditions and shipping movements to be viewed remotely during daylight hours

- act as a "line-of-sight" VHF link to transmit signals from the Baring Head wave rider buoy to process data for display on a website

- an important communications role as part of our Regional Marine Oil Pollution Response Plan.

The Council is not obliged, under any legislation, to operate and maintain a harbour communication system at Beacon Hill. However, Beacon Hill is considered to be a very cost effective way for Greater Wellington to ensure that our in-house monitoring and management of the harbour is undertaken, and important functions are recorded. This approach is consistent with Maritime

New Zealand's desire that Harbour authorities provide an effective vessel traffic information and monitoring service.

The Marico report noted that Beacon Hill facility featured strongly in stakeholder feedback and is highly valued by all. Cook Strait ferry operators liaise closely with Beacon Hill staff and the report noted that all stakeholders recognised that it was prudent to retain the Beacon Hill facility at a time when other similar facilities in New Zealand were disbanded and dismantled.

In addition, a pending report on ferry safety in the Cook Strait is likely to recommend that the role of the Beacon Hill facility be extended to provide a Vessel Traffic Service (VTS) that has the capacity to cover harbours in both Wellington and Marlborough and the entire Cook Strait. It is mooted that the provision of this service could attain a safety standard on par with the Channel Information Service that operates in the Dover Strait.

In short, the Beacon Hill facility is viewed as an integral part of the safety management system for the Wellington port and harbour, with the potential to manage further development associated with an integrated Cook Strait safety system.

There are alternatives to the continued use of a manned Beacon Hill facility. For example, a remote camera and VHF facility could be used with a visual and communications system located elsewhere. However, this does not preclude the need for a 24 hour a day facility operated by people, nor Greater Wellington's statutory responsibility to monitor shipping movements in our harbour waters. Under these scenarios, another location would need to be found to house both staff and remote equipment to ensure that 24 hour monitoring occurs. It is arguable whether or not this would result in any financial saving. In addition, the fact that staff would be taken away from the current Beacon Hill facility, where they have direct visual contact with the harbour entrance, is not seen as a positive.

In going forward, we need to consider how best to address the safety needs of the port and harbour and the Council's requirement to provide this service.

The proposed upgrade to the Beacon Hill facility, and the continued operation of this facility, are considered to be the most practical and cost effective way in which to manage our future obligations.

6. Achieving compliance with the Marico Report - Proposed Upgrades to Beacon Hill

Marico's report recommends that navigational electronic equipment at Beacon Hill is upgraded.

This involves a consolidation of current activities – e.g. plotting radar and AIS information on an electronic chart display to enable the duty officer to have all relevant information in one place. To do so will require some ergonomic redesign of the "workstation" and an upgrade of equipment. Such a system will also include data storage and playback facilities, and the ability to feed

some information to other harbour users. This will become a basic building-block for any future modifications.

Next will be the purchase and installation of a new integrated electronic surveillance system to cover the whole harbour, with probably a second radar scanner and webcam fitted on Point Jerningham light to cover the inner harbour. This will also feed into the electronic chart display at the work desk.

The purchase and installation of this equipment is budgeted at $400,000.

In addition, prior to fitting such equipment, refurbishment of the existing Beacon Hill building, which is substantially constructed of the hardwood, jarrah needs to be done. Refurbishments of the kitchen and toilet areas are required. It is likely that a small tower will be needed adjacent to the building on which to mount a radar scanner (instead of on the building roofline).

General repairs and refurbishment to the building are budgeted at around $200,000.

7.   The Safety Management System (SMS)

The SMS is a holistic long-term harbour safety management plan that will eventually incorporate the recommendations of the Marico Risk Assessment report. This will include any additions or changes to Navigational Safety Bylaws.

The SMS is required to be developed by, and implementation commenced by June 2006 and we intend to use the authors of the Marico report to help us develop the SMS. Effectively, the SMS represents the 'implementation' arm of the Port and Harbour Risk Assessment.

Not everything can be done at once, and regard will need to be had to any reviewed Maritime legislation that might come into force during the period of implementation of the SMS. This could include staff training/retraining requirements. Guidelines for Vessel Traffic Systems are currently being considered by Maritime New Zealand.

It is also important that Councillors note the difference between VIS (Vessel Information Service) – the system which currently operates at Beacon Hill and VTS (Vessel Traffic Service). The latter, at more expense, requires a higher standard of operation, training/qualifications and attendant liabilities.

The Harbormaster will continue to report to the Environment Committee and keep Councillors updated on the development of the SMS, and upgrade works to the Beacon Hill facility.

8.   Recommendations

That the Committee:

1.   ***receives*** *the report; and*

2.   ***notes*** *the contents.*

Report prepared by: Report approved by:

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