



STAFF REPORT

TO: Environment & Planning Sub-Committee

FROM: J T Thomas – Resource Scientist - Water

REFERENCE: W324

SUBJECT: **A SURVEY OF SOURCES AND QUALITY OF THE RESIDENTIAL WATER SUPPLY AND WASTEWATER/SEWAGE DISPOSAL OF COASTAL SETTLEMENTS IN GOLDEN BAY– REPORT EP05/06/10** – Report prepared for 1 June 2005 Meeting

1. INTRODUCTION

To date the Tasman District Council has had little information on the current residential water supplies, wastewater or sewage disposal methods in the coastal settlements of Golden Bay, particularly the settlements of Patons Rock, Parapara, Milnthorpe, Totara Avenue and Pakawau.

2. SURVEY

The Council employed a student (Danny Garden) in the Natural Resources Engineering, Department of Civil Engineering, University of Canterbury, to carry out this study as part of a summer (2004/2005) student project. Danny was supervised by Dr D Painter / Dr O'Sullivan / Dr H Thorpe at the University with J Thomas (TDC Water Resources Scientist) supervising him in the field. Both Dr Painter and O'Sullivan visited and assisted him over the period of testing and field work in Golden Bay. A total of 238 properties were visited and surveyed in the area above. Field data was collected regarding the water supply and wastewater systems employed. Water source details were collected i.e. rainwater, bores, wells or creek. If the source was identified as a bore or well, details of the source were collected. Note: This was an excellent opportunity for Council to improve its database as most of these bores and wells are old and not on Councils records.

Field measurements were conducted on the well and bore supplies and included measurement of salinity, conductivity and temperature as well as water level. The chemical testing involved testing 26 samples from the groundwater source, with one rainwater source also tested from each area.

3. CHEMICAL TESTING

The samples collected were tested for Total Suspended Solids, Nitrate-Nitrogen, Dissolved reactive phosphorous, Coliform Bacteria and Biochemical Oxygen Demand and in some areas iron was also tested (Patons Rock and Pakawau).

4. BRIEF SUMMARY

4.1 Water

From 238 properties 55 wells were located, most of the others had rainwater. Parapara and Totara Avenue have a community water supply. Parapara water source is from two bores and Totara Avenue a spring fed supply.

Coliform bacteria were found to be the only contaminant tested for that was higher than the New Zealand Drinking Water Standards (2000). Only seven of 23 samples complying with the guidelines.

Nitrate levels are acceptable under drinking water standards, but were close with triggering levels for surface-freshwater guidelines.

4.2 Wastewater

Most of these areas are serviced by old septic tank systems with a limited number of more modern on-site treatment systems e.g. oasis, unfortunately there are still several long drops existing.

The age and conditions of the septic tanks vary considerably over the areas surveyed. In the Patons Rock area there have been cases of malfunctions in the past but no complaints recently. The survey in this area revealed one septic tank with a distinctive sewage odour. The residents here also complained about the bad smells from the creek to the north and south of the area. This is being followed up.

In the Parapara area a number of residents complained about sewage smells. The problem appears to be located at the north end of the beach. There were also comments relating to stormwater problems following heavy rain.

In the Milnthorpe area residents surveyed had no reports of sewage smells and the survey itself did not pick any likely problems.

The survey of the Totara Avenue properties indicated no trace of sewage smells although residents stated there had been odour issues in the past.

No adverse smells were noted along the beach or at any of the properties in Pakawau and residents did not report any seepages or sewage odours in the area.

5. RECOMMENDATIONS

- a) That the Committee receive this report.
- b) That the Committee considers a mailout of information on domestic water quality, well and bore protection and the maintenance of local wastewater systems, to those people in the survey area. Supported by making resources available to provide advice on queries.

- c) The Committee considers supporting repeating this survey in the 2006 / 2007 year. This would enable trend assessment on water quality and wastewater systems in this area following this initial survey.

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