

» RODNEY
DISTRICT
COUNCIL

LONG TERM COUNCIL COMMUNITY PLAN 2009 - 2019



VOLUME 3

WATER AND SANITARY SERVICES ASSESSMENT

RDC making a positive difference

Under the Local Government Act 2002, the Rodney District Council is required to develop a Long Term Council Community Plan (LTCCP).

The Long Term Council Community Plan (LTCCP):

- describes the kind of district and communities the people of Rodney would like to live in, and the things they would like to see for their communities
- describes how the Council, together with other organisations, will work with Rodney's people to build those communities
- explains what specifically the Council will be doing
- includes the Council's business plans for the coming year, and looks ahead for another nine years.

The LTCCP covers a ten-year timeframe commencing with the 2009/10 financial year. The LTCCP will be prepared again in 2012/13 with simplified annual plans prepared for the intervening years.

The Long Term Council Community Plan 2009 – 2019 (LTCCP) consists of 3 volumes:

This is Volume 3 which contains the Water and Sanitary Services Assessment Summary

Other volumes:

Volume 1 includes an introduction and overview; provides information about Council Activities and how we will provide these; the financial statements including the Statement of Accounting Policies; the Ten Year Capital Expenditure Programme, by Activity; statistical information about Rodney District and the Audit Opinion on the Long Term Council Community Plan 2009 – 2019.

Volume 2 includes funding and financial policies:

Revenue and Financing Policy

Funding Impact Statement

Rating Examples

Remission Policies

Policy on Rates Postponement

Policy on Development or Financial Contributions

Treasury Management Policy

And supplementary policies including:

Policy on Significance

Partnering Policy

Relationships with Maori

Policy for the Appointment and Remuneration of Directors of Council Organisations

Schedule of Fees and Charges

Schedule of Development Contributions

All three volumes are available on the Council website

www.rodney.govt.nz

The Assessment of Water and Sanitary Services 2005 discusses the provision of water supply, wastewater, stormwater, public toilets, waste disposal and cemetery services in Rodney District. The key focus of the Assessment is the protection of public health in the district.

The Assessment is required under the Local Government Act 2002 (LG Act) Sections 125 to 129, which specifies that all territorial authorities must undertake an assessment of water and sanitary services. Council adopted the Assessment in June 2005, following completion of the special consultative procedure prescribed in the LG Act and after receiving written and oral submissions on the draft report.

2 This document is a Summary of Information accompanying the Council's Water and Sanitary Services Assessment 2005. The summary lists the key issues and significant options raised in the full Assessment report which is divided into seven parts; one general background section and one for each of the six services required to be assessed. Each part in the full report discusses in detail any public health issues or risks identified and outlines RDC's proposed response.

The Local Government Act 2002 Sections 125 to 129 requires all councils to undertake an Assessment of Water (water, wastewater and stormwater) and Sanitary (cemeteries, public toilets and waste disposal) services. The two areas believed to have the greatest potential impact with respect to public health in the Rodney District are water supply and wastewater. These services have been the primary focus of this first Assessment, with particular attention paid to their ability to cope with the significant growth and development pressures they are experiencing.

This summary provides an overview of the key issues raised in each part of the Assessment and then discusses options proposed to address each issue, either on a district-wide or community basis, as appropriate. These suggested options form part of a two step process. Projects and preferred solutions will be identified as part of this assessment, but budgets and timeframes are expected to be finalised during Long Term Council Community Plan (LTCCP) preparation.

Update February 2009:

The Water and Sanitary Services Assessment (WSSA) for the Rodney District was initially undertaken in 2005. In February 2009, these updates (shown in italics) were added to this Summary report to reflect changes that have occurred over the last 4 years.

A comprehensive WSSA review will be undertaken in 2010. The 2010 Assessment will focus on reviewing risks associated with small community supplies and private service provision of water and sanitary services. This is because the RDC Asset Management Plans adequately cover the Assessment requirements for major public water and wastewater schemes.

Part A: General Assessment Information

A presentation of general information on the district, overview of the services provided, and a copy of the Water Services Strategy.

Part B: Water Supply Assessment Summary

The primary goals of the water services function are:

- to ensure that adequate and secure community supplies of potable water are provided for all existing and projected commercial, industrial, and domestic purposes
- to encourage the use of effective water conservation practices, and to minimise waste.

Six reticulated water supply networks are managed by the Water Services function in Rodney. Water treatment plants are operated by RDC to supply the urban areas of Warkworth, Wellsford, Snells/Algies Bay, Muriwai and Helensville. The Hibiscus Coast is supplied with water from the Watercare bulk supply network.

The key issues identified in the assessment for public water supply schemes include:

- demand management of water supplies, particularly in the Hibiscus Coast
- infrastructure requirements for the Hibiscus Coast
- the lack of availability of raw water to meet growth demands in the Snells/Algies Bay, Warkworth and Wellsford reticulated areas
- the need for the upgrading of Council water treatment plants to ensure compliance with the revised New Zealand Drinking Water Standards (expected to be implemented in 2005). It is proposed that Aa grading be adopted for Hibiscus Coast supplies, minimum Bb grading for other RDC supplies

- the need for the upgrading of Council water treatment plants and building of additional infrastructure to service growth
- continue provision of a reticulated water supply in Muriwai although funding mechanisms may need to be reviewed.

The remainder of the district is generally supplied with water sourced from rainwater tanks, bores or dams. The way in which this water is stored, treated and reticulated varies widely, from single dwelling households with untreated tank supplies to small communities serviced by privately owned package treatment plants. There are no proposals to build new water treatment plants to supply these households and businesses, although in some cases they may be able to connect to an existing reticulated system – particularly on the Whangaparaoa Peninsula.

The key issues identified in the Assessment for the private water supply systems include:

- the need for education of private system operators and owners as to the appropriate operation and maintenance procedures for their water supply systems (including rainwater tanks)
- the need for a fire-fighting water supply in the Kumeu-Huapai area.

The government has recently announced that central government funding may be available for community water supplies. RDC proposes to investigate this funding and provide support for preparing funding applications to eligible communities in the district.

Update February 2009:

Further work has been undertaken to upgrade the district's water treatment plants to achieve compliance with the NZ Drinking Water Standards (DWS). All now comply with the 2000 DWS, though some further upgrades are required to comply with the 2005 DWS and the 2008 DWS revision. A groundwater investigation is in progress for Wellsford and, if successful, could mean that an upgrade of the existing river water plant is not required.

Considerable progress has been made on all of the issues identified in the 2005 WSSA and projects to address these are included in the LTCCP 2009-2019. Key projects include:

- development of the Kumeu-Huapai water supply scheme within the next 3 to 5 years
- source upgrades in Wellsford, Warkworth, Helensville
- demand management and pressure management initiatives to improve network performance and reduce losses
- reticulation upgrades in Warkworth, Helensville and Whangaparaoa
- upgrades to small public supplies, such as campgrounds, to meet the DWS 2005
- trunk main upgrades in the Hibiscus Coast to support growth.

Part C: Wastewater Services Assessment Summary

The primary goals of the RDC wastewater function are:

- to ensure that all community sanitary wastes are satisfactorily collected, treated and disposed of in order to protect the health and safety of the public, and to protect and enhance the quality of the natural environment
- to encourage the use of advanced technologies for providing higher quality, reliable, and cost-effective treatment, disposal and reuse options.

Effluent from the Hibiscus Coast is treated at the Army Bay, Waiwera and Orewa wastewater treatment plants. A further seven wastewater treatment facilities are operated by Rodney District Council, providing a reticulated wastewater service to the urban areas of Warkworth, Wellsford, Huapai (part only), Snells/Algies Bay, Helensville, Matakana and Omaha.

The key issues identified in the Assessment for these public schemes include:

- stormwater infiltration and inflow problems into the wastewater network
- wastewater treatment plant performance and the need for a comprehensive environmental monitoring programme.
- prioritisation of upgrading works and allocation of funding
- the need for Council to produce maps showing defined areas for current and future public reticulated wastewater servicing
- the need to review servicing options for communities to meet future growth and discharge quality requirements (strategic reviews will include a study of all available wastewater servicing options for a community, consideration of current and future populations, and an examination of available wastewater

technologies. The various options are short listed and assessed under a quadruple bottom line process considering economic, social, environmental and cultural attributes).

The remainder of the district is generally serviced by on-site or centralised treatment systems (estimated 12,400 systems). The way in which this wastewater is stored, treated and discharged varies widely, from single dwelling households with individual septic tanks to small communities serviced by privately owned package treatment plants.

The key issues identified for these private schemes and systems include:

- management, maintenance and performance of private systems vary. RDC assistance in a district-wide educational programme is recommended
- cumulative effects of individual on-site wastewater systems have been shown to have some public health risks, particularly in urban areas. These systems are not sustainable in the long-term for a number of communities and consultation is proposed to be undertaken on alternative servicing and monitoring options
- a Council policy on acceptable wastewater serving options for new development has been proposed. Particular restrictions are proposed to be enforced on development in urban areas.

On-site Warrant of Fitness (WOF) and pump-out scheme

The on-site WOF and pump-out scheme outlined in the draft assessment was proposed in response to a report commissioned by RDC that identified health risks in the district due to poor maintenance and operation of on-site wastewater systems. These risks were highest in urban areas where there are cumulative effects from multiple systems in close proximity to each other.

The objectives of the proposed scheme were:

- to ensure that on-site systems can be maintained safely in perpetuity (protection of public health); and
- to delay/avoid the need for reticulated systems in urban areas.

Consultation on the proposed scheme in the assessment was inconclusive, with submissions received both for and against the proposals. In response, the final assessment report has been modified to include additional consultation on the scheme with affected urban communities prior to any implementation.

Update February 2009:

Significant work has been undertaken since the 2005 WSSA to improve wastewater treatment plant performance, particularly in the Hibiscus Coast (Army Bay Wastewater Treatment Plant). The LTCCP 2009 – 2019 proposes further investment in treatment plant upgrades, particularly Helensville and Wellsford, as well as funding for an ongoing reticulation rehabilitation programme to manage inflow/infiltration and associated system overflows. These upgrades will ensure compliance with resource consents and that the impact of wastewater discharges on receiving waters is minimised.

The Kumeu-Huapai scheme is the only new wastewater scheme proposed in the LTCCP 2009 – 2019 budget. However if the 2010 WSSA identifies unacceptable risks in other communities, the need for further schemes may need to be considered and included in the LTCCP 2012 – 2022.

There has been no progress in the Warrant of Fitness scheme proposed for consideration – the need for this will be reviewed as part of the 2010 WSSA study.

Part D: Stormwater Drainage Assessment Summary

The primary goals of the stormwater function within Council are:

- to ensure that stormwater is controlled and, if necessary, treated and then disposed of in order to protect the health and safety of the people, land and property
- to maintain the mauri of water
- to protect and enhance the life-supporting properties and quality of the streams, rivers, estuaries and harbours
- to have efficient and effective stormwater infrastructure
- to encourage the use of low-impact stormwater management practices where practicable.

Council provides and maintains stormwater drainage infrastructure in most urban areas of the district. This typically consists of a conventional gravity drainage stormwater system, comprising of a network of pipes and open channels which convey stormwater to natural watercourses. This means that pipes run downhill and are not intended to operate under pressure. However, in some older urban areas, stormwater infrastructure is absent or has not kept up with intensification / infill development. In rural and undeveloped areas, public stormwater drainage systems are usually limited to those provided alongside the public roading network.

The asset management/catchment management plan and discharge consents processes have already undertaken a significant amount of work identifying and prioritising stormwater issues in the district. The treatment options for public health risks identified in the Assessment are already incorporated into existing Council planning processes.

The key issues identified in the Assessment are:

- the need to continue with the asset management/catchment management plan and discharge consent programmes to prioritise stormwater works needed
- continuation of the drain safety programme
- continuation of the Safeswim programme
- adoption and implementation of the Water Services Strategy.

Update February 2009:

The primary issues for the stormwater activity are managing growth and mitigating the impact of the stormwater activity on the environment. Continued development of catchment management plans (and implementation of the recommendations) are a key focus of the 2008 Stormwater Asset Management Plan.

Part E: Cemeteries Assessment Summary

RDC operates seven cemeteries across the district that are available for public use. It is anticipated that two additional cemeteries will be operated by RDC by the end of 2005. There are also a number of denominational and privately or trustee-operated cemeteries that accept interments. There are no crematoria in the district but residents have access to other facilities in the Auckland region.

The seven Council cemeteries offer between them the choice of traditional burial plots, ash interment plots and Returned Services areas. No additional special burial services are available with the exception of a memorial wall in the Wainui Cemetery servicing the Eastern Ward.

There is no immediate need for additional cemeteries to be provided for public health protection purposes. The capacity across the district can be shown to already adequately provide for the burial needs of the Rodney District community beyond the 10 year planning horizon of the sanitary assessment. The issues raised in the assessment were based on community burial preferences and level of service desires rather than a need to protect public health. These include:

- a lack of cemetery facilities servicing the Kumeu and Warkworth areas
- lack of provision of special burial services.

Update February 2009:

The two additional cemeteries have been provided in the district since the 2005 WSSA – the Warkworth Presbyterian and Tabora Cemetery. RDC now operates nine cemeteries across the district. The provision of these cemeteries addresses some of the servicing issues discussed in the 2005 WSSA report in the short-term. Council has also bought land near Kumeu to develop a cemetery to provide additional capacity in this high growth area, but this is a long-term project and not included in the LTCCP 2009 – 2019 budgets.

Part F: Solid Waste Assessment Summary

RDC does not provide or manage any solid waste collection services directly; however private rubbish contractors are licensed by the Council to collect domestic waste.

A rate-funded kerbside collection service for recyclable goods is provided to all residential households in the district.

RDC adopted a Waste Management Plan, called the Zero Waste Plan (ZWP) in July 2002. The plan aims for zero waste to landfill by 2020. ZWP was extensively consulted on before adoption and adequately addresses the issues required by the assessment of sanitary services. Additional information not included in the plan has been provided in the Assessment for completeness. RDC will:

- continue to implement the actions set out in the ZWP; and
- review ZWP every 3 years to reflect progress of initiatives undertaken to date, to update timetable of future actions and provide a forecast of the future demand for solid waste recycling, reuse and disposal. The next review is scheduled to take place in 2005.

Update February 2009:

The Zero Waste Plan was updated in 2005. A new action plan was prepared to address the following priority areas:

- *Organic waste (from both residential and commercial sources)*
- *Construction and demolition wastes*
- *Inorganic refuse (from both residential and commercial sources)*
- *Hazardous waste*
- *Packaging and special wastes*
- *Residual waste including the management of closed landfills.*

Part G: Public Toilets Assessment Summary

RDC maintains 80 public toilets blocks across the district. There are also a significant number of toilets owned by other organisations and businesses that are available for public use. Public toilets are needed to provide for the comfort of visitors and travellers, users of public spaces and other public activity destinations such as shopping centres, events and other gatherings.

Council has undertaken a grading of its own public toilets as part of the Assessment so that it can prioritise the works needed to continue to ensure the protection of public health. Other steps taken to protect public health include the labelling of all non-potable water supplies as being unsuitable for drinking and the pumping out of septic tanks as necessary for all RDC public toilets.

Visitor numbers and demand for access to Rodney's coast, estuaries and rivers for recreational activities continue to rise and are expected to increase demand for public toilets, particularly at the northern beaches. Council will continue to monitor the use of public toilets in these locations to ensure that they can adequately meet demand.

The improvement plan for the Assessment addresses a number of information gaps that exist and will be remedied in the next assessment. These include the collection of information on public toilets owned by organisations other than Council and the preparation of a demand forecast for popular destinations.

In summary, key issues raised were:

- the need to consider the assessment grading scores when prioritising the upgrading or replacement works programme for public toilets
- the need to continue to allocate funding in the LTCCP for 'miscellaneous upgrades' to enable Council staff to respond in a timely manner to any facilities needing urgent remedial works
- completion of a demand analysis and forecast examining the public toilet requirements in the district, particularly with respect to key destinations and travel routes
- monitoring of the use of public toilets, particularly those at popular destinations, to ensure that they are able to meet demand
- collection of information on all toilets available to the public.

Update February 2009:

The need for improved understanding of public toilet use and future demand requirements is still an issue. Some budget has been allocated in the LTCCP 2009 – 2019 for new toilets to service growth and to upgrade water supplies. Demand analysis will be undertaken as part of the 2010 WSSA to ensure that these are provided in the area of most need.

The 2008 Parks Asset Management Plan includes increased budget for renewal and rehabilitation, to ensure that the existing facilities are being maintained.

Options: District-wide

Options have been proposed to address each of the key issues raised in the six parts of the Assessment. Some of the issues and options are specific to individual communities and these are addressed in the following section. Key district-wide options considered in the Assessment include:

| Service | Issue | Projects / Options | Council Role | Estimated Cost | 2009 Update |
|--------------|--|---|---------------------------|------------------------|--|
| All services | Council has limited budget and resources, and needs to manage spending in the most cost effective manner possible. | Continue existing asset management programmes to manage operational and capital works for Council-provided services. | Service provider. | Funded in the LTCCP. | <i>Will be continued.</i> |
| Water | There are a significant number of households and businesses supplied with water from sources other than RDC reticulated systems. Some of these are community water supplies which are defined as having 25 persons resident for more than 60 days per year. Council proposes to take an advisory and educational role with respect to these community and private supplies to ensure that any public health risks are minimised. | Community supplies: Option to establish a database of community supplies in the district for information collection purposes and to facilitate the distribution of advisory material. | Facilitator. | Cost to be determined. | <i>No progress, has not been considered a priority for RDC. Need will be reviewed during 2010 WSSA in consultation with MoH.</i> |
| | | Community supplies: Investigate the costs and a potential funding model for a water quality testing programme for community water supplies. | Advocate/ Facilitator. | Cost to be determined. | <i>Basic water quality testing is provided by the Environmental Health Officers.</i> |
| | | Community and private supplies: Investigate the most cost effective means of preparing advisory material on the correct operation and maintenance procedures for water supplies. | Advocate/ Facilitator. | Cost to be determined. | <i>Information is available on rainwater tanks, bores and water conservation. Preparation of further materials and promotion will be looked at next.</i> |
| | | Central government funding may be available for some community water schemes. RDC to support eligible communities in funding applications. | Advocate/ Facilitator. | Cost to be determined. | <i>This is a MoH role, but RDC can be involved as required.</i> |
| Wastewater | Storm and groundwater infiltration and inflow into wastewater network - compromises system ability to deal with wastewater flows. Priority areas are Warkworth, Red Beach and Stanmore Bay. | Continue infiltration and inflow investigations to identify where remedial work is required. | Service provider. | \$120,000 per annum. | <i>Programme is ongoing and budget included in LTCCP 2009 – 2019.</i> |
| | | Continue infiltration and inflow remediation programmes to resolve problems identified. | Service provider. | \$450,000 per annum. | <i>As above.</i> |

| Service | Issue | Projects / Options | Council Role | Estimated Cost | 2009 Update |
|------------|---|--|-----------------------------------|-------------------------------------|---|
| Wastewater | A number of RDC wastewater treatment plants are of an older design and struggle to achieve the modern discharge standards required. In addition, RDC budgets are limited and spending needs to be prioritised. | Implement an environmental monitoring programme in the district to assist in determining the most appropriate upgrade for each Council treatment plant. Expenditure priorities (in descending order) are Helensville, Army Bay, Warkworth, Snells/Algies Bay, Waiwera, Wellsford, Huapai and Omaha. | Service provider. | Cost to be determined. | <i>As part of consent requirements, monitoring occurs at Army Bay, Snells/Algies Bay, Huapai, Helensville, Waiwera and Wellsford.</i> |
| | A number of factors dictate the need for RDC to clearly define where public reticulated wastewater systems will be provided in the district. This has been completed in the form of a policy on public wastewater systems. | Option to adopt RDC policy on public wastewater systems (discusses implementation of defined area plans specifying current serviced areas & future serviceable areas; and introduces development restrictions on the type of wastewater systems that will be approved in defined areas, e.g. no private cluster systems, must be built to Council standards, taken over and managed by Council). | Service provider. | Policy adoption. | <i>No progress.</i> |
| | The provision of private wastewater treatment systems (septic tanks or community treatment systems) in the district has been assessed as resulting in varying levels of risk to public health. Contributing factors are poor system design, poor ground conditions, poor understanding by property owners and poor maintenance and management. RDC's response to the risk has been to prepare a policy on private wastewater systems. The policy proposes a number of options to protect public health. The option/s applicable to a system are dependent on the size and location of a property in the district. Key options are included in this table, however if you wish to examine all of the options and controls proposed for development, it is suggested that you obtain full copy of the policy. Consultation on these options will be undertaken with affected communities. | Prepare or source homeowner and developer guidelines for private systems and encourage all property owners to regularly maintain their on-site system. <i>Option applies to all private systems.</i> | Service provider/ Facilitator. | \$40,000 per annum. Self funded. | <i>No progress, has not been considered a priority for RDC. Need will be reviewed during 2010 WSSA in consultation with MoH.</i> |
| | | RDC or ARC to provide training and certification of service providers. <i>Option applies to all private systems.</i> | Advocate/ Facilitator. | Cost neutral. | <i>As above.</i> |
| | | Subdivisions to identify minimum suitable site area for on-site treatment and disposal. >4,000 m ² and slope less than 24 degrees. <i>Option applies to all private systems.</i> | Advocate/ Facilitator. | Policy adoption. | <i>As above.</i> |
| | | Limit servicing of properties by private systems in urban areas. Developments of more than 2 properties will be required to investigate providing a public system in association with Council. <i>Option applies to all private systems in urban areas.</i> | Advocate/ Facilitator. | Policy adoption. | <i>As above.</i> |
| | | Future developments of 200 or more residential properties to be designated as urban areas and required to provide public reticulated wastewater systems. <i>Option applies to large developments.</i> | Advocate/ Facilitator. | Policy adoption. | <i>As above.</i> |

| Service | Issue | Projects / Options | Council Role | Estimated Cost | 2009 Update |
|-------------------|---|---|-----------------------------|--|---|
| Wastewater | | <p>We propose to consult with urban communities on the establishment of an on-site system Warrant of Fitness (WOF) and pump-out scheme. Elements of this scheme could include:</p> <ul style="list-style-type: none"> • building a database for recording private on-site wastewater systems • education program • 5 yearly WOF inspections of private wastewater systems • sludge removal as required at 5 yearly inspection (this cost is already allowed for in the annual charge). <p><i>The communities in which this programme is proposed to be implemented are included in the following section.</i></p> | Service provider. | <p>Self funded programme.</p> <p>\$50-\$69 per property per annum.</p> | <i>No progress, has not been considered a priority for RDC. Need will be reviewed during 2010 WSSA.</i> |
| Stormwater | A number of RDC programmes are already in place to deal with the stormwater public health issues identified. Priority areas for stormwater works are listed under individual communities. | Continue with catchment management plan programme. | Service provider. | Identified in LTCCP budgets. | <i>Programme ongoing.</i> |
| | | Continue discharge consent programme. | | | <i>Programme ongoing.</i> |
| | | Continue with drain safety programme. | | | <i>Programme ongoing.</i> |
| | | Continue with Safeswim programme. | | | <i>Discontinued due to consistently clear results.</i> |
| | Flooding risks in some rural areas as drain management responsibilities are not well defined. | Maintenance responsibilities and policy need to be clearly defined for drain management, especially in rural riparian areas. | Service provider/ Advocate. | Not scoped. | <i>No progress, is part of 2008 Asset Management Plan improvement programme.</i> |
| Sanitary services | The only key district-wide sanitary services issues related to public health that were raised were in relation to public toilets. | Option to consider the assessment grading scores when developing upgrading and replacement work programmes. | Service provider. | Identified in LTCCP budgets. | <i>No progress. Will be reviewed as part of 2010 WSSA.</i> |
| | | Option to monitor the ability of public toilets to cope with existing and future demands. | | | <i>No progress, will be carried out as part of 2010 WSSA.</i> |
| | | Option to complete a demand analysis for the district, looking at future needs. | | | <i>As above.</i> |

Options: Eastern Ward

The Hibiscus Coast is the largest urban area in the district and has the highest growth due to its vicinity to Auckland and the motorway. The urban area extends from Silverdale in the south, Army Bay on the Whangaparaoa Peninsula through to Hatfield's Beach in the north. The main features of the Hibiscus Coast are the beaches. Originally, the Whangaparaoa Peninsula was developed around holiday accommodation but has now become predominantly a residential area.

The Hibiscus Coast is supplied with water from the Watercare bulk supply network. Wastewater from the Whangaparaoa Peninsula community is collected and treated by the RDC wastewater treatment plant at Army Bay. Wastewater from the Orewa and Waiwera communities is treated at their respective treatment plants, although works are underway to de-commission the Orewa plant and divert the effluent to Army Bay for treatment.

Please refer to the district-wide section for all assessment options. Key options considered specifically for this community in the Assessment include:

| Service | Issue | Projects / Options | Council Role | Estimated Cost | 2009 Update |
|--|--|---|-----------------------------------|---|--|
| Water | Watercare is able to supply enough bulk water to the Hibiscus Coast if demand management initiatives are implemented during the summer peak. There are a number of projects underway to provide new infrastructure to meet current and future growth demand and alleviate the problems faced in summer; these will be completed by 2007. | New Orewa No.2 water main and Scott Rd service reservoir to be provided by Watercare by 2007. | Advocate. | Watercare cost ≈ \$20 million. | Completed. |
| | | Wade River Rd extension to the existing 300mm water main connecting Scott Rd reservoir to RDC network. | Service provider. | LTCCP 05/06 & 06/07 \$0.9 million. | Completed. |
| | | Protection of HBC supply until new infrastructure assets are operational. Automatic shutdown valve. Opening standby bores (Resource consent application underway). Demand management programme (already underway for 04/05, will need to be repeated during 05/06 summer peak). | Service provider. | \$20,000 \$170,000 (Council approved fund). | Completed. |
| | Growth in the district, including development of structure plan areas means additional infrastructure is required for servicing. | Strategic water main project ("J" route) to supply new development area in Silverdale North and Orewa West. | Service provider. | Budget in LTCCP 2004/06 \$0.5 million Total cost \$1.5 million. | Staged programme over next ten years included in LTCCP 2009 – 2019 budget. |
| | | Silverdale North and Orewa West watermains. | Service provider. | Budget in LTCCP 2004/07 \$1.8 million. | Completed. |
| | | Tindalls reservoir – meeting growth requirements, particularly around Gulf Harbour. | Service provider. | Budget in LTCCP 2005-2007 \$1 million. | Completed. |
| | Some reticulated parts of the ward do not comply with fire service requirements. | Upgrading of fire mains for non-complying areas. | Service provider. | Budget in LTCCP 2005/06 \$220,000. | Programme ongoing. |
| Revision of NZ drinking water standards. | Watercare supplies to achieve Aa grading under new classification. | Advocate. | No additional funding identified. | Not yet achieved. This is a KPI for the LTCCP 2009 – 2019. | |

| Service | Issue | Projects / Options | Council Role | Estimated Cost | 2009 Update |
|----------------|---|--|-------------------|-----------------------------------|---|
| Wastewater | A project to resolve wastewater treatment issues at Army Bay and Orewa is underway. | Complete upgrade of the Army Bay treatment plant, decommission Orewa oxidation ponds (\$4.5 million) and construct HBC pipeline Red Beach – D'Oyly to carry Orewa effluent to Army Bay plant (\$3.5 million). | Service provider. | Balance of works \$8 million. | <i>Nearly completed.</i> |
| | Sludge requires disposal before Orewa oxidation ponds can be decommissioned. | Treatment of sludge (thermally dried) from Orewa oxidation ponds. | Service provider. | \$4.5 million. | <i>Upgrades included in LTCCP 2009 – 2019 budget.</i> |
| | Outfall will reach capacity in the medium term. | Option to upgrade outfall capacity upgrade of Army Bay marine outfall in 2011/2012. | Service provider. | \$5 million. | <i>Included in LTCCP 2009 – 2019 budget.</i> |
| | Review of Waiwera wastewater options required. | Undertake strategic review of options for future servicing of Waiwera. | Service provider. | Likely options ≈ \$3 million. | <i>Included in LTCCP 2009 – 2019 budget.</i> |
| | All properties serviced by on-site wastewater systems. | Properties have option of electing to join on-site system Warrant of Fitness (WOF) and pump-out scheme. (See district-wide section for details.) | Service provider. | \$50-\$69 per property per annum. | <i>No progress.</i> |
| Stormwater | Severe flooding issues in Stanmore Bay . | Stanmore Bay catchment management plan is underway and a high priority for completion. Also addresses environmental and level of service issues. | Service provider. | \$5,000,000 total works. | <i>Best practical option mostly complete, some further budget included in LTCCP 2009 – 2019.</i> |
| | Significant flooding issues in Orewa CBD and Red Beach. | Measures being developed to address. | Service provider. | Not scoped. | <i>Ongoing, budget included in LTCCP 2009 – 2019.</i> |
| Public toilets | Seven public toilets in the Eastern ward recommended for upgrade or replacement. | Options for Orewa (Town centre, Moana reserve, Victor Eaves park), Stillwater reserve, Stanmore Bay reserve, Hatfields Beach reserve and Manly esplanade to be considered during budget preparations. | Service provider. | To be set in 2006 LTCCP. | <i>Stanmore Bay, William Bayes park, Red Beach and Stillwater reserve toilets proposed for upgrade in first three years of the Asset Management Plan.</i> |

Options: Northern Ward

The northern part of our district contains the Warkworth, Wellsford and Snells/Algies Bay communities and a number of smaller coastal and inland settlements such as Matakana and Omaha. Lifestyle blocks, retirement housing and holiday baches are features of the north but primary production (including dairying) is still very significant and forestry occupies about 29,579 hectares.

Please refer to the district-wide section for all assessment options. Key options considered specifically for this community in the Assessment include:

| Service | Issue | Projects / Options | Council Role | Estimated Cost | 2009 Update |
|--|---|--|---------------------------------------|--|---|
| Water | Sources of raw water to supply future demand from reticulated communities in the northern part of the district are limited (particularly Snells/Algies Bay, Warkworth and Wellsford). Investigations are underway to identify potential future supplies for these communities. Although these are continuing, some likely options have been indicated. Further community consultation will be required before any option is selected. | Use existing Cement Pond as raw water storage and construct pipeline from Warkworth to Snells/Algies Bay (likely option for Warkworth and Snells/Algies Bay, subject to investigations). | Service provider. | \$3 million. | <i>This project is no longer required after finding a groundwater supply in Warkworth. This supply will be developed in next three to five years.</i> |
| | | Use of raw water sources at Duck Creek and Glen Eden (Supply to Warkworth and Snells/Algies Bay). | Service provider. | \$4.7 million. | <i>As above.</i> |
| | | Redwoods Dam (supply for Warkworth and Snells/Algies Bay). | Service provider. | \$11 million. | <i>As above.</i> |
| | | Waiwhiu River or boreholes (likely option for Wellsford). | Service provider. | \$1.1 million. | <i>Groundwater investigation in progress for Wellsford.</i> |
| | | Te Hana bore (Wellsford supply). | Service provider. | \$2-3 million. | |
| | | Project Aqua (regional Northern Ward project, large water supply dam on Carter Holt Harvey forest). | Service provider. | \$23 million (with total catchment). \$13 million (only with dam and water shed area). | <i>This project is no longer required.</i> |
| | Private supply from raintanks / bores. Will limit the extent of future development. Higher public health risk than reticulated supply which is still required as back-up in dry periods. | Advocate/ Facilitator. | Developers' cost. | <i>Information for the public on the design, installation and maintenance of rainwater tanks is available.</i> | |
| | Wellsford treatment plant and reticulation infrastructure upgrades. | Upgrade required to meet minimum revised NZ Drinking Water Standards, proposed grading Bb. Construction to begin 2004/05. | Service provider. | \$832,000 50% budget in LTCCP. | <i>An upgrade of the plant may not be required if an adequate groundwater supply is found.</i> |
| Warkworth treatment plant and reticulation infrastructure upgrades. | Treatment plant upgrade to meet minimum requirements of revised NZDWS, proposed grading Bb. Construction to begin 2004/05. | Service provider. | \$1.7 million 60% budget in LTCCP. | <i>Completed.</i> | |
| | Pulham McKinney water main and CBD pressure control. | Service provider. | Budget in LTCCP 2005-2006 \$400,000. | <i>Completed.</i> | |

| Service | Issue | Projects / Options | Council Role | Estimated Cost | 2009 Update |
|---|--|---|---------------------------|--|--|
| Water | Snells/Algies Bay treatment plant and reticulation infrastructure upgrades. | Treatment plant upgrade to meet minimum requirements of revised NZDWS, proposed grading Bb. James St treatment plant upgrade scheduled for completion 2005. | Service provider. | \$908,000. 40% budget in LTCCP. | <i>Plant upgrade included in LTCCP 2009 – 2019.</i> |
| | Te Hana community drinking water supply is unsuitable. | Provide support to residents on Te Hana water supply in identifying suitable alternative. | Advocate/ Facilitator. | No Council cost. | <i>Completed.</i> |
| Wastewater | Wellsford wastewater system – a number of upgrade options identified. | Undertake strategic review of options for future servicing. Likely \$500,000 near future, \$3.5 million 2016/2017. | Service provider. | Likely ≈ \$500,000 near future. | <i>Significant upgrades proposed in LTCCP 2009 – 2019, around \$5M.</i> |
| | Warkworth wastewater system – a number of upgrade options identified. | Undertake strategic review of options for future servicing. | Service provider. | Likely cost in order of ≈ \$5.6 million. | <i>Significant upgrades proposed in LTCCP 2009 – 2019, around \$12M.</i> |
| | Snells/Algies Bay wastewater system – a number of upgrade options identified. | Increase effluent pumping rate to allow for tidal staging. | Service provider. | Currently underway. | <i>Completed.</i> |
| | | Undertake short term improvements to enable compliance with resource consent. | Service provider. | \$200,000. | <i>Completed.</i> |
| | | Undertake strategic review of options for future servicing. | Service provider. | Likely cost in order of ≈ \$2.5 million. | <i>Significant upgrades proposed in LTCCP 2009 – 2019, around \$7M.</i> |
| | Matakana wastewater system – a number of upgrade options identified. | Minor improvements to wetlands. | Service provider. | \$50,000. | <i>Completed.</i> |
| | | Undertake strategic review of options for future servicing. | Service provider. | Likely ≈ \$1 million. | <i>Review completed, budget included in LTCCP 2009 – 2019 for transfer of wastewater to Omaha.</i> |
| Omaha wastewater system – growth requirements. | Upgrade plant to treat effluent from new development. | Facilitator. | Developer cost. | <i>Completed.</i> | |

| Service | Issue | Projects / Options | Council Role | Estimated Cost | 2009 Update |
|--|---|---|-----------------------------------|-----------------------------------|---|
| Wastewater | Point Wells, Leigh, Matheson Bay – public wastewater system required. | Consult with communities on implementation of on-site system Warrant of Fitness (WOF) and pump-out scheme. (See district-wide section for details.) | Service provider. | \$50-\$69 per property per annum. | <i>Not implemented.</i> |
| | | Undertake options review. Funding model to be determined. Point Wells to Omaha only, subsidies available. Service all communities. | Service provider. | ≈ \$2 million. ≈ \$8 million. | <i>Point Wells now connected to Omaha. Future servicing of Leigh/ Matheson Bay to be investigated but no budget in LTCCP 2009 – 2019.</i> |
| | Te Hana – public wastewater system required. | Consult with communities on implementation of on-site system Warrant of Fitness (WOF) and pump-out scheme. (See district-wide section for details.) | Service provider. | \$50-\$69 per property per annum. | <i>Not implemented.</i> |
| | | Investigate option to connect to Wellsford public system. Funding model to be determined. | Service provider. | \$1.2 million. | <i>Completed.</i> |
| | Martins Bay – public wastewater system required. | Consult with communities on implementation of on-site system Warrant of Fitness (WOF) and pump-out scheme. (See district-wide section for details.) | Service provider. | \$50-\$69 per property per annum. | <i>Not implemented.</i> |
| | | Investigate option to connect to Snells/Algies Bay public system. Funding model to be determined. | Service provider. | \$400,000. | <i>Campground and some properties connected.</i> |
| Baddeleys / Campbells, Buckleton Beach, Jamieson Bay, Kaipara Flats, Mahurangi East / Scotts Landing, Opahi Bay, Puhoi, Rainbows End, Sandspit, Whangateau. Urban communities where cumulative effects of private on-site systems need to be controlled. | Consult with urban communities on implementation of on-site system Warrant of Fitness (WOF) and pump-out scheme. All other properties with on-site systems in the ward may elect to join the scheme voluntarily. (See district-wide section for details.) | Service provider. | \$50-\$69 per property per annum. | <i>Not implemented.</i> | |

| Service | Issue | Projects / Options | Council Role | Estimated Cost | 2009 Update |
|----------------|--|--|-------------------|--------------------------|---|
| Stormwater | Lack of stormwater reticulation in Snells Beach results in localised flooding problems. | Piping upgrades identified as preferred solution. | Service provider. | Not yet scoped. | <i>Some work completed, some additional budget included in LTCCP 2009 – 2019 budget.</i> |
| | Flooding of key routes. | Still investigating, future projects. | Service provider. | Not yet scoped. | <i>Ongoing. Signage posted on flood prone roads.</i> |
| Cemeteries | No local cemetery in Warkworth . | For short term capacity, RDC is negotiating right to acquire the Warkworth Presbyterian cemetery. | Service provider. | Maintenance costs. | <i>There is now a local cemetery in McKinney Road, Warkworth.</i> |
| | | Long term capacity, RDC will need to investigate suitable site alternatives. | Service provider. | Not yet scoped. | <i>Review need as part of 2010 WSSA.</i> |
| Public toilets | Four public toilets in the Northern ward recommended for upgrade or replacement. | Options for Whangateau (Big Omaha Wharf), Wellsford (Centennial Reserve), Martins Bay and Wharehine (Stables Landing reserve) to be considered during budget preparations. | Service provider. | To be set in 2006 LTCCP. | <i>Wellsford Town Centre and Te Hana included in first 3 years of LTCCP 2009 – 2019 budget.</i> |

Options: Western Ward

The south-western part of our District includes the communities of Helensville and Kumeu/Huapai as well as the smaller settlements of Riverhead and Waimauku. As a result of its proximity to Auckland, lifestyle blocks are very popular here but horticulture, winemaking and forestry are also important to the local economy. The Kaipara Harbour is the largest enclosed harbour in the southern hemisphere.

| Service | Issue | Projects / Options | Council Role | Estimated Cost | 2009 Update |
|---------|---|---|------------------------|---------------------------------------|--|
| Water | Sources of raw water to supply future demand from the Helensville reticulated community are limited. Investigations are underway to identify a potential future supply. Although these are continuing, some likely options have been indicated. Further community consultation will be required before any option is selected. | Raise Dam One of Mangakura supply dams. | Service provider. | Cost to be determined, ≈ \$4 million. | <i>Budget for investigation and implementation of additional ground water sources included in LTCCP 2009 – 2019.</i> |
| | | New dam or infiltration gallery in Ohirangi Stream. | Service provider. | Cost to be determined, ≈ \$4 million. | |
| | | Watercare pipeline - Pipeline from Waitakere boundary through Kumeu – Huapai. | Service provider. | Cost to be determined, ≈ \$4 million. | |
| | Helensville treatment plant and reticulation infrastructure upgrades. | Upgrade required to meet minimum revised NZ Drinking Water Standards and treat algae-affected raw water supply, proposed grading Bb. Construction to be 2004-2007. | Service provider. | \$3,072,000 budget in LTCCP. | <i>Completed.</i> |
| | Parakai infrastructure upgrade required to meet supply security and growth demand. | Parakai reticulation upgrades proposed. Project 2006-2008. | Service provider. | \$220,000 Budget in LTCCP. | <i>Upgrade of bulk supply main included in the LTCCP 2009 – 2019.</i> |
| | Muriwai supply is RDC subsidised. | RDC will investigate funding and charging model for Muriwai supply in future budgets. | Service provider. | Budget in LTCCP. | <i>No further system extension proposed.</i> |
| | | Treatment plant upgrade to meet minimum requirements of revised NZDWS, proposed grading Bb. | Service provider. | \$125,000. | <i>Completed.</i> |
| | | RDC will not extend existing supply to new properties or other areas of Muriwai. | Service provider. | No cost. | <i>This remains the policy.</i> |
| | The Fire Service has raised concerns at the potential lack of fire-fighting water in the Kumeu-Huapai industrial area. | Investigate options available for a dedicated fire-fighting water supply for the Kumeu – Huapai area. May be existing supplies that can be identified and can be made available for emergency use – ARC has suggested they may be able to assist in locating these. | Advocate/ Facilitator. | Cost to be determined. | <i>LTCCP 2009 budget includes Kumeu-Huapai water supply scheme.</i> |

| Service | Issue | Projects / Options | Council Role | Estimated Cost | 2009 Update |
|---|---|---|-----------------------------------|--|---|
| Wastewater | Helensville wastewater system – a number of upgrade options identified. | Complete de-sludging of oxidation ponds. | Service provider. | 2004/05 budget. | <i>Completed.</i> |
| | | Undertake strategic review of options for future servicing. | Service provider. | Likely cost in order of \$1.2M short term \$2.2M likely 2012/2013. | <i>Major treatment plant upgrade included in LTCCP 2009 – 2019 budget.</i> |
| | Huapai (part only) wastewater system. | Undertake minimal upgrade to reduce overflows. | Service provider. | \$100,000. | <i>Completed.</i> |
| | Kumeu, Huapai, Riverhead, Waimauku – public wastewater system required. | Consult with urban communities on implementation of on-site system Warrant of Fitness (WOF) and pump-out scheme. (See district-wide section for details.) | Service provider. | \$50-\$69 per property per annum. | <i>Not implemented.</i> |
| | | Consultation on shortlisted options for Kumeu area wastewater scheme, involves de-commissioning existing plant. Funding model to be determined. | Service provider. | \$25 million Subsidies available. | <i>Budget for new scheme included in LTCCP 2009 – 2019 budget.</i> |
| | Muriwai – public wastewater system required. | Consult with urban communities on implementation of on-site system Warrant of Fitness (WOF) and pump-out scheme. (See district-wide section for details.) | Service provider. | \$50-\$69 per property per annum. | <i>Not implemented.</i> |
| | | Review options and feasibility for public system. Funding model to be determined. | Service provider. | \$5-\$9 million. | <i>Budget for new scheme included in LTCCP 2009 – 2019 budget.</i> |
| Dairy Flat Airport, Kaukapakapa Shelly Beach, Taupaki, Waitakere Village Urban communities where cumulative effects of private on-site systems need to be controlled. | Consult with urban communities on implementation of on-site system Warrant of Fitness (WOF) and pump-out scheme. All other properties with on-site systems in the ward may elect to join the scheme voluntarily. (See district-wide section for details.) | Service provider. | \$50-\$69 per property per annum. | <i>Not implemented. Needs to be reviewed as part of 2010 WSSA.</i> | |
| Stormwater | Risk of flooding and potential failure of stopbanks due to overtopping and tidal inundation. Risk of restricted access with flooding of SH16. | Development rules, flood berming through Kumeu and stopbanking in various areas; some piping upgrades. Future proposals, timeframes to be consulted in LTCCP process. | Service provider. | Not yet fully costed. | <i>Kumeu River floodway and Parakai stopbanks upgrade included in LTCCP 2009 – 2019 budget.</i> |
| Cemeteries | No local cemetery in Kumeu . | Long term capacity, RDC has been investigating suitable site alternatives for more than three years. Yet to be identified. | Service provider. | Dependent on selected site. | <i>Council has purchased land for future development of a cemetery.</i> |

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