

Network Utilities





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Key Issues

Council provides network utilities (such as water, stormwater and wastewater services) to houses and businesses within the district as well as other essential services. These services provide for the social and economic wellbeing and health and safety of people and communities. Works and network utilities may have adverse effects, however the community accepts many of these effects because the services are required for the effective functioning of our communities. Adverse social, cultural, economic and environmental effects would result if works and infrastructure services were not provided. Are the objectives and policies in the Plan providing for the development of works and network utilities in such a way as to achieve the anticipated environmental results?



Indicators

Pressures:

- Quantity of stormwater discharged from Council services per annum;
- Quantity of sewage treated by Council services;
- Quantity of water consumed per annum; and
- Number of new utilities granted resource consent per annum (e.g. wind turbines, large-scale satellite dishes, telecommunications aerials).



State:

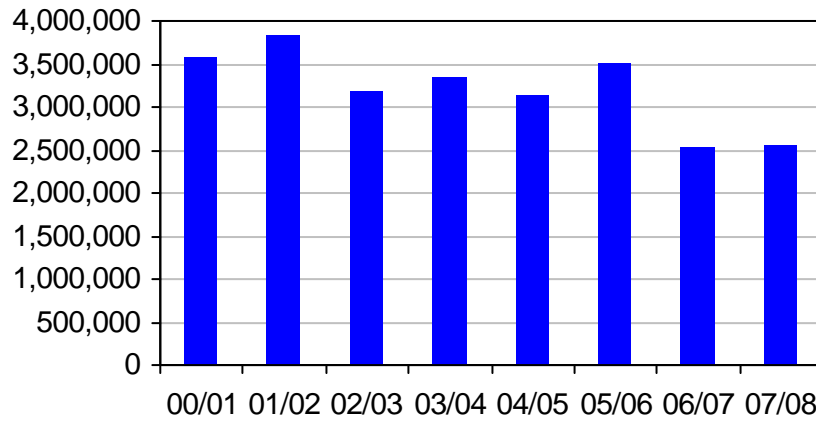
- Level of compliance with resource consent conditions achieved by Council infrastructure e.g. stormwater;
- Area of reserves under Council management;
- Quality of drinking water (Ministry of Health Standards);
- Length, number and state of Council infrastructure;
- Incidence of water shortage restrictions;
- % increase in water consumption;
- % increase in the quantity of stormwater discharged; and
- % increase in the amount of sewerage treated.

Response:

- Amount of overhead cable undergrounded by power companies per annum;
- Co-siting of facilities;
- Amount of Council spending on maintenance and upgrades of urban services;
- % of the community that receive education material regarding water conservation; and
- Number and value of development contributions collected per annum (e.g. reserve, water, stormwater, roading etc).

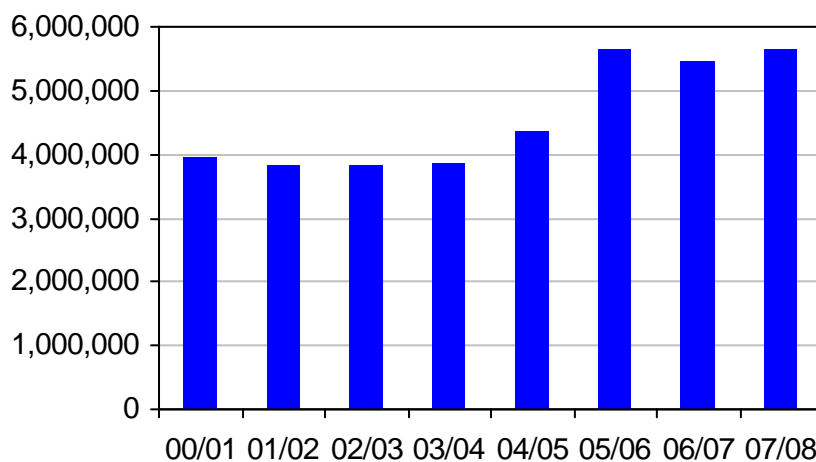
Results:

Quantity of sewage treated by Council services
(m3)



The quantity of sewage being treated in the district has decreased slightly over the last eight years. This has been due to improvements on the metering of discharges and efforts by large industry to reduce the volume they discharge to Council treatment plants. Council has also instigated a program to measure and reduce stormwater infiltration to our sewerage systems.

Quantity of water consumed (m3)



The total quantity of water being consumed in the district has increased significantly over the last few years. In the above table a cubic meter (m3) = 1000 litres.

Compliance rates with resource consent conditions

| Year | Level of Compliance |
|-----------|--|
| 2000/2002 | 100% level of compliance with its resource consent conditions. |
| 2002/2003 | 100% in Matamata and Te Aroha. 30% at the Morrinsville WWTP (Wastewater Treatment Plant) due to operational problems associated with high industrial loads and critical equipment failures. |
| 2003/2004 | 40% compliance primarily due to not providing information to Environment Waikato in a timely manner, WWTPs being not fully compliant with conditions imposed on the consent, and a raw sewerage spill from near the Allen Street pump station in Morrinsville. |
| 2004/2005 | 60% compliance due mostly to lack of monitoring and reporting of consent compliance in a timely manner. Morrinsville WWTP also failed to comply with discharge targets several times due to coliform levels. |
| 2005/2006 | A compliance rate of less than 90% was achieved for waste water, with non conformances at the Morrinsville and Te Aroha WWTP's. 100% level of compliance was achieved for stormwater discharges. |
| 2006/2007 | Council complied 100% with water and stormwater resource consent conditions. 85.5% compliance was achieved with wastewater discharge consent conditions. |
| 2007/2008 | Council complied 100% with water and stormwater resource consent conditions. 90.8% compliance was achieved with wastewater discharge consent conditions. |

Our gradings

| Quality of Drinking Water (Ministry of Health Drinking Water Standards) | 2000 to 2005 | 2005 to 2007 | Notes |
|---|--------------|--------------|-------|
| Hinuera | Ac | uu | |
| Tahuna | Ac | uu | |
| Waharoa | Ba | uu | 1 |
| Morrinsville | Bb | uu | 2 |
| Te Aroha | Bb | uu | |
| Te Poi | Cc | uu | |
| Matamata | Db | Ab / Eb | 3 |
| Te Aroha West (untreated) | Ee | uu | 4 |

Notes

1. Waharoa water was reported as Du in 2004/2005 due to some water tests being taken on the wrong day of the week.
2. Morrinsville water was reported as Du in 2004/2005 because of some P2 (trace element) testing not being recorded, current ratings have Morrinsville water supply as Bb
3. The Matamata water treatment plants were graded in October 2007, the Tills Road Water Treatment Plant failed the turbidity compliance criteria and has been given an E grade. The bores that supply Matamata & Waharoa have been given secure status and A grades. Zones or reticulation systems are graded at the lowest grading for any treatment plant that feeds into the system.
4. Te Aroha West is fed directly from the Pohimihi raw water trunk main and although the water passes through an ultra violet light treatment system it has no chlorine residual and as such is considered untreated. A permanent boil water notice is in place on the supply.

An "A1" grade is the highest grade possible for a Water treatment plant process and indicates a completely satisfactory (or very low risk) water supply. The second letter grades the reticulation system, again an "a" is the highest grade possible for a reticulation system. A "u" indicates that the Treatment Plant or reticulation system is currently un-graded.

More detailed information on water gradings can be found at the following website <http://www.drinkingwater.co.nz/general/grading.asp>

Due to generally mild summers and frequent rain there had been no major water shortages in the district from 2000-2006. Short term water restrictions were imposed in Te Aroha and Tahuna in 2000/01 and again in Te Aroha, Tahuna and Te Poi in 2002/03. In 2007/08 due to extremely dry weather, water restrictions were instigated on 14 January 2008 as alternate day sprinkling for all towns, these restrictions became total sprinkler bans as the dry weather continued.

Amount of Council spending on upgrading & renewing urban services

| Year | 00/01 | 01/02 | 02/03 | 03/04 | 04/05 | 05/06 | 06/07 | 07/08 |
|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| (\$) | 2,268,084 | 2,616,682 | 2,006,954 | 4,417,581 | 3,164,000 | 5,621,623 | 9,782,233 | 10,615,340 |

To help Council provide for increased demand and growth, development contributions are collected by Council on all new developments and subdivisions.

Number and value of development contributions collected per year

| | 00/01 | 01/02 | 02/03 | 03/04 | 04/05* | 05/06* | 06/07* | 07/08* |
|------------|--------|---------|--------|---------|---------|---------|-----------|-----------|
| Number | 12 | 32 | 14 | 35 | 59 | 261 | 379 | 263 |
| Value (\$) | 32,620 | 210,942 | 43,863 | 226,898 | 758,471 | 915,296 | 1,661,510 | 1,457,327 |

*Includes Network contributions and Parks and Reserves contributions

District Plan Provisions

Section 3.7.2 Works and Network Utilities

Objective:

- To enable the effective provision of works and utilities so as to minimise the adverse environmental effects while enabling people and communities to provide for their social economic and cultural wellbeing and for their health and safety.

Policies:

- To encourage the co-siting of facilities where practical to avoid, remedy or mitigate adverse environmental effects particularly the impact of multiple masts and lines on the landscape;
- To protect existing and proposed works and infrastructure from incompatible use or subdivision of adjacent lands;
- To ensure that works and network utilities are considered having particular regard to the avoidance, remediation or mitigation of anticipated adverse environmental effects and comprehensive analysis of the existing and future services/facilities;
- To provide an acceptable degree of protection to settlements and productive rural land from the adverse effects of flooding; and
- To take a precautionary approach in the siting of facilities relative to dwellings where there is significant doubt or debate over the impact of its effects.

Anticipated environmental results

- Efficient use of land for utilities; and
- The management of buffer areas around certain utilities.

Objective:

- To ensure that effective, efficient and environmentally appropriate water supply, sewage reticulation and treatment and stormwater services continue to be provided and maintained.

Anticipated environmental results

- Efficient provision of infrastructure by Council; and
- Protection of land and assets from floods and poor drainage.

Efficiency and Effectiveness

Are the District Plan's objectives and policies the most effective and efficient way to achieve the following anticipated environmental results?

- *Efficient use of land for utilities;*
- *The management of buffer areas around certain utilities;*
- *Efficient provision of infrastructure by Council; and*
- *Protection of land and assets from floods and poor drainage.*

Works and network utilities such as the supply of water, stormwater and wastewater management are essential to maintain the environmental quality, and quality of life considered acceptable within the district. Council aims to provide effective and environmentally efficient water, stormwater and sewage reticulation and treatment to meet the needs of our communities. Council provides network utilities to houses and businesses within the district. Works and network utilities provide services essential to our social and economic wellbeing, and to our health and safety. Other utilities in our district include electricity, telecommunications and gas.

While there are positive effects of providing infrastructure, works and network utilities may potentially have some negative effects on the community and our environment. These are addressed either through resource consent conditions that aim to remedy, mitigate and avoid any adverse effects of activities, or by setting environmental parameters through the designation process. There could also be negative social, economic and environmental effects if these works and infrastructure services were not provided.

The objective *'To ensure that effective, efficient and environmentally appropriate water supply, sewage reticulation and treatment and stormwater services continue to be provided and maintained'* can be assessed using a number of different measures. Incidences of water shortages can be a sign that our infrastructure is not effectively providing enough water for our communities. Water shortages can also be caused by other factors or by a combination of factors such as extreme dry weather or overuse of water. Between 2000/01 and 2007/08 there have only been three incidences of water restrictions imposed in certain areas throughout the district. Short term water restrictions were imposed in Te Aroha and Tahuna in 2000/01 and again in Te Aroha, Tahuna and Te Poi in 2002/03. In 2007/08 due to extremely dry weather, water restrictions were instigated on 14 January 2008 as alternate day sprinkling for all towns, these restrictions became total sprinkler bans as the dry weather continued. Water shortages are not necessarily controlled by methods in the District Plan however it is one measure to show the effectiveness of network utilities. The quantity of water consumed has increased dramatically from 4million m³ 2000/01 to 5.7 million m³ in 2007/08. Our District Plan requires all new development within our towns to be connected or to have a connection provided to the water supply.

The quality of drinking water in our district is a measure of the effectiveness of the treatment plants. Treatment Plant gradings are based primarily on the possible health risks to the community arising from bacteria (Ecoli), protozoa (giardia and cryptosporidium) and chemical trace elements in the source water. The grading process assesses how effectively the treatment plant can act as a barrier to such contaminants passing through to the consumer. An "A grade" is the highest grade. In our district the Te Aroha West supply is not regarded as a treated water supply and would never be able to be graded as a potable supply in its current setup. The supply from Tawari and Matamata South is graded Ab but the supply from Tills Road is graded Eb. Work is being carried out to improve the Tills Road supply to reach a minimum grading of B. Te Aroha, Hinuera, Te Poi, Tahuna and Morrinsville remain ungraded with work at Morrinsville and Te Poi continuing to reach a B grading. The improvements needed to achieve an A grading would be very costly, therefore it is suggested that the community might be happy with achieving a B grade as oppose to the rates increase that would need to occur.

When Matamata-Piako District Council gains resource consent from the Waikato Regional Council for Wastewater Treatment Plants (WWTP), the Regional Council imposes conditions to control amenity effects such as odour. In the 2006/07 and 2007/08 financial years Council had zero complaints recorded relating to odours from wastewater pump stations or treatment facilities. The conditions of consent for the WWTP consents (although coming from the Regional Councils Plan), requires Council to effectively achieve environmental standards which allows MPDC to achieve the first part of the objective *'To enable the effective provision of works and utilities so as to minimise the adverse environmental effects while enabling people and communities to provide for their social economic and cultural wellbeing and for their health and safety'*.

The lack of complaints in regards to wastewater treatment may be helped by the District Plan provision which requires new dwellings, dwelling based activity or subdivision within 300 metres of Council effluent treatment plants to gain consent. These activities are classed as 'restricted discretionary' activities in the rural, rural-residential and residential zones and 'non-complying' in industrial, business and Kaitiaki zones. This requirement means appropriate consideration can be given to whether the activity is compatible with a WWTP and/or appropriate measures are undertaken to remedy, mitigate or avoid adverse effects.

The quantity of sewage being treated in Matamata-Piako has decreased slightly over the last eight years. This has been due to improvements on the metering of discharges and efforts by large industry to reduce the volume they discharge to Council treatment plants. Council has also instigated a program to measure and reduce stormwater infiltration to our sewerage systems.

Improvements to WWTPs have seen a steady increase in the level of discharge compliance throughout the district. Council commissioned a new \$4.5 million WWTP for Te Aroha in December 2006 and the effluent discharge from this plant is fully compliant with the current discharge consent from EW. This suggests that we are effectively achieving the AER *'To ensure that effective, efficient and environmentally appropriate water supply, sewage reticulation and treatment and stormwater services continue to be provided and maintained'*.

Information on the volume of stormwater discharged from Council reticulation is not monitored. Council does however regularly monitor the quality of stormwater discharged as per conditions detailed in our discharge consents.

Council has spent a considerable amount of money on the maintenance and upgrading of urban services such as sewerage, water and stormwater. In 2000/01 Council spent \$2.3 million, this markedly increased to \$10.6 million in 2007/08. We can suggest that increased spending is leading to improvements and making progress towards achieving the AER 'To ensure that effective, efficient and environmentally appropriate water supply, sewage reticulation and treatment and stormwater services continue to be provided and maintained'.

It is acknowledged that Council does not have much information on works and network utilities because this is mainly governed by the regional plan through discharge or water take consents and the designation process.

It is suggested that the provisions that are within the District Plan that control development surrounding WWTPs are working reasonably effectively as no complaints regarding odour have been lodged. It would be ineffective to not have rules providing buffer areas of 300 metres surrounding effluent treatment plants as this would likely create reverse sensitivity effects and potentially limit the operational capacity of the WWTPs.

Summary

| Anticipated Environmental Results Network Utilities | Achieved? ☺ - Achieving → - Progress towards achievement ☹ - Not achieving ? - Not monitored |
|--|---|
| Efficient use of land for utilities | ? |
| The management of buffer areas around certain utilities | ☺ |
| Efficient provision of infrastructure by Council | → |
| Protection of land and assets from floods and poor drainage | ? |