

In the Environment Court of New Zealand
Christchurch Registry

I Te Koti Taiao o Aotearoa
Ōtautahi Rohe

ENV-2018-CHC-26 to 50

Under the Resource Management Act 1991 (**RMA**)

In the matter of appeals under clause 14 of Schedule 1 of the RMA relating to the proposed Southland Water and Land Plan (**pSWLP**)

Between **Gore District Council, Southland District Council and Invercargill City Council (TLAs)**

Appellants in ENV-2018-CHC-31, and section 274 party to appeals:
ENV-2018-CHC-37 Southland Fish & Game Council; ENV-2018-CHC-39 Alliance Group Limited; ENV-2018-CHC-40 Federated Farmers of New Zealand; ENV-2018-CHC-50 Royal Forest and Bird Protection Society of New Zealand; ENV-2018-CHC-41 Heritage New Zealand Pouhere Taonga; ENV-2018-CHC-47 Te Rūnanga o Ngāi Tahu, Hokonui Rūnaka, Waihopai Rūnaka, Te Rūnanga o Awarua & Te Rūnanga o Oraka Aparima

And **Southland Regional Council (Environment Southland)**
Respondent

Evidence of Ian Evans

22 March 2019

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**anderson
lloyd.**

Introduction

- 1 My name is Ian David Evans.
- 2 I am currently employed by the Southland District Council (**SDC**) as its Strategic Water and Waste Manager.
- 3 I hold a Bachelor of Science Degree in Environmental Management from the University of Ulster and a Masters Degree in Water Resource Management from the Napier University of Edinburgh. I also hold post graduate qualifications from the Chartered Institution of Water and Environmental Management and the Waste Management Industry Training Advisory Board both in the United Kingdom.
- 4 I have 26 years' experience in the Utilities Industry predominantly based around design, build and operation of water and wastewater treatment assets. The past nine years have been based in New Zealand.

Scope of evidence

- 5 In this evidence I propose to provide a broad overview of the infrastructural assets and services that SDC manage in relation to provision of water, wastewater and stormwater services.
- 6 I have prepared evidence in relation to SDC's infrastructure network, budgets and consenting and compliance programme in light of the proposed Southland Water and Land Plan (**pSWLP**) decisions. This includes:
 - (a) Background;
 - (b) Benefits and need for infrastructure;
 - (c) Ongoing need for critical infrastructure;
 - (d) Complex nature of the infrastructure systems;
 - (e) Development of essential infrastructure;
 - (f) Work and budgets for the infrastructure network; and
 - (g) Consenting and compliance programme.

Executive summary

- 7 The combined Territorial Local Authorities (**TLAs**) understand, and indeed support, the need to improve environmental outcomes in relation to the quality of water across the Southland Region. SDC also sees it as appropriate that it play a

leadership role in this regard by being prepared to invest in the upgrading of its infrastructure to meet new improved environmental standards.

- 8 Of significant concern is the need for pSWLP to provide for the ongoing operation and upgrade to community water supply, wastewater and stormwater activities..
- 9 Council will always consider land based discharges from these activities when upgrades are being investigated however this may not always be possible given certain ground conditions across all five Freshwater Management Units (**FMUs**) where SDC provide water wastewater and stormwater services.

Background

- 10 The Southland District Council has a turn-over of \$70 million and is responsible for administering some \$1.5 billion of public assets. Much of this asset base (\$1.2 billion) is represented by the district's extensive roading network. A further \$160 million is invested in core infrastructural assets such as wastewater, water, stormwater services. These assets are critical to the delivery of the wide range of public services provided by SDC.
- 11 SDC provides wastewater collection and treatment systems to some 8,000 properties in 18 communities. The communities served include Te Anau, Winton, Monowai, Wallacetown, Lumsden, Tuatapere, Nightcaps, Riversdale, Edendale-Wyndham, Gorge Road, Manapouri, Riverton, Otautau, Balfour, Tokanui, Browns, Ohai Curio Bay and Stewart Island. It also provides water supplies to some 7,400 properties in some 12 communities along with a further 8 rural (stock water only) schemes. It also manages stormwater infrastructure across some 27 towns.
- 12 This geographical spread puts SDC in a unique position in comparison to the other TLAs as it means that Council must manage discharges across all proposed FMUs and a wide variety of physiographic soils types that may not always be suitable for year round discharges to land. While SDC will always consider this when considering upgrades it is acknowledged that this may not always be possible.
- 13 SDC is aware of the need to maintain a high level of environmental quality in catering for the servicing needs of its communities, particularly the disposal of wastewater, stormwater and solid waste.
- 14 SDC is committed to meet its statutory responsibilities under the Local Government Act 2002 and the RMA to deliver infrastructural services, in an environmentally responsible manner and in a way that recognises and responds to the needs and wants of its communities, as far as reasonably practicable.

- 15 Through its 2018 Long Term Plan SDC has indicated its commitment to maintaining and further developing the infrastructural services needed by its communities. In total the 2018-48 Infrastructure Strategy has a capital expenditure budget of \$1.1 billion.
- 16 SDC's commitment to reducing the environmental impact of its infrastructural services (such as wastewater discharges), is demonstrated by the improvements made in the past to wastewater treatment and the commitment included in the 2018 LTP for further improvements. In total SDC has budgeted to spend some \$24.1 million to improve sewage schemes through its 2018 Long Term Plan, with significant upgrades planned at both Winton and Te Anau.
- 17 This evidence is prepared as joint evidence on behalf of SDC, Gore District Council and Invercargill City Council and although some of the evidence may be specific to Southland District the issues it addresses are common to all three authorities. Likewise the evidence prepared by the other authorities is likely to be as relevant to Southland District. Although the evidence is more related to SDC assets the impacts of the pSWLP will be common across the three organisations.
- 18 As providers of critical infrastructure the three councils are appreciative of the inclusion of objectives and policies in the decisions version of the plan recognising the importance of regionally and nationally significant infrastructure, specifically Objective 9B and Policy 26A.

Benefits and need for infrastructure

- 19 SDC is responsible for the operation and maintenance, renewal and upgrading of 20 community wastewater schemes, 20 community and stock water supplies and 27 community stormwater schemes. Given the amount of individual consents held for water, wastewater and stormwater activities SDC is impacted heavily by any objectives, policies and rules managing such discharges within the pSWLP.
- 20 It is also important to note the considerable cost to administer these consents and monitoring compliance, even before any operation, maintenance, renewal and upgrade costs are taken into consideration. SDC currently pays annual charges to Environment Southland in the region of \$80-100K per annum for management and administration of current consents. It is therefore important that these costs and any additional costs (for example application of new consents) reflect the benefit that they are expected to deliver.
- 21 Facts about the SDC network are:
 - (a) Over 320 km of wastewater infrastructure with a current valuation replacement value of \$121 million;

- (b) 750 km of water supply infrastructure (both drinking and stock) with a current replacement value of \$90 million;
 - (c) 135 km of stormwater infrastructure with a current replacement value of \$35 million; and
 - (d) Approximately 7,500 connections to community water supplies and 9,000 connections to community wastewater schemes.
- 22 Each water supply and community wastewater scheme is administered under its own individual resource consent. Water and wastewater schemes are operated and maintained by Downer NZ, a leading utility infrastructure provider and manager in the Asia Pacific region. An in house team of engineers and infrastructure staff directly manage the day to day activities of the contractor and provide technical oversight, backup and support for both the day to day operation as well as managing the long term renewals and upgrade programme as defined in Activity Management Plans developed in support of SDC's Long Term Plan and Infrastructure Strategy.
- 23 To assist with the decision-making processes around capital investment SDC has developed an Asset Management Plan and policy which defines how assets will be managed long term to provide desired levels of service in a cost effective and sustainable manner for our communities. Asset Management planning provides the direction for future management of assets and activities as well as a robust basis for long term financial forecasting and has resulted in the development of a 30 year Infrastructure Strategy.
- 24 To assist with providing future certainty around decisions on future capital and maintenance programming, SDC has also recently invested significant expenditure in an upgrade to the latest version of a corporate asset management system (Hansen 8). Having this system embedded and fully functional continues to provide certainty to communities that sound investment decisions are backed up by detailed information on the state of SDC assets.
- 25 Looking specifically at the type of wastewater treatment provided by each of SDC's wastewater schemes, 13 of these are through oxidation ponds, which are the commonest form of treatment provided across the country. SDC also currently operate five more sophisticated treatment plants, four of which utilise biological filtration as the primary means of treatment (two of which also provide additional treatment by Ultra Violet disinfection) and the most recent scheme providing a very high level of treatment utilising membrane bioreactor technology to treat wastewater to an extremely high quality.
- 26 Assuming nutrient removal is seen as a key area of concern all but one of these plants will require significant upgrades often involving additional costs such as

land acquisition and power upgrades, as well as consideration of the potential for moving from a water based discharge to a land based one where it is considered that ground conditions are suitable.

Ongoing need for infrastructure

- 27 SDC owned utility infrastructure within Southland dates back to the 1930s and has continuously been developed as communities across the district grew as populations increased. Indeed this infrastructure has continued to be developed with the most recent reticulated networks being installed with the assistance of Government subsidy funding in townships such as Edendale / Wyndham, Tuatapere and Wallacetown. All of these have been developed to engineering specifications current at the time and designed to meet both the needs of the community as well as the water quality standards of the day.
- 28 It is anticipated that in the future there may also be the need to provide reticulated services to other communities not currently serviced by SDC infrastructure.
- 29 It is important to SDC that the pSWLP does provide for this in a manner that would support appropriate further provision of reticulated services to replace failed or aging stand-alone septic tanks, often in small communities.
- 30 Having well managed, maintained and upgraded infrastructure operated and maintained by industry professionals is the cornerstone of any thriving healthy community and will be required for as long as that community remains.

Complex nature of the infrastructure systems

- 31 There are a number of issues with the existing infrastructure and challenges TLAs face when planning significant infrastructure projects. Such challenges include the following:
 - (a) All networks tend to develop over time as communities continue to grow and develop. This results in infrastructure of various materials constructed to the appropriate engineering standards of the day. In such circumstances infrastructure will meet its design end of life at different stages and therefore renewals planning must take this into account;
 - (b) In certain circumstances there may be a lack of historic records detailing critical data required for planning significant upgrades. This includes pipe material, exact location, depth to invert etc. This often requires significant investigation work to be completed at the beginning of a project and may result in delays to work being completed and significant contract variations. It is fair to say that this tends to be the case more often for stormwater infrastructure;

- (c) Community expected level of service has changed since the majority of the infrastructure was constructed, including impact on the environment and loss of service. This also needs to be taken into account when considering economic impact of decision making.
 - (d) There is a requirement to consult with the community regarding proposed changes to levels of service (which is generally undertaken through the Long Term Plan process) and to keep them informed of any significant upgrades or renewals.
 - (e) Ultimately however it is Council as the asset owner that must make the most appropriate decisions around the funding and operation of infrastructure in a manner that reduces environmental impact in line with appropriate regulation while continuing to meet community expectations.
- 32 It is essential that all upgrades and improvements to the TLA infrastructure must be carefully considered and well scoped and planned and delivered in a manner and timescale that meet the requirements of our communities and TLAs statutory obligations.

Development of essential infrastructure

- 33 Infrastructure plays a key role in providing for the health and wellbeing of SDC ratepayers as well as environmental protection and enabling economic development across the region. From SDC's perspective, one key example of the importance of infrastructure in promoting economic development can be seen in Te Anau where the level of tourism growth would likely be considerably restricted were it not for the provision of high quality infrastructure. In the case of SDC wastewater treatment schemes these also need to be managed consistently with cultural expectations.

Work and budgets for the infrastructure network

- 34 To give some perspective about the overall scale of the 3 waters and solid waste activities of SDC, current operating expenditure is in the order of \$1.9 million per annum for drinking water supplies, \$1.7 million per annum for community wastewater schemes, \$280K per annum on rural (stock) water supplies with a further \$3.8 million across the solid waste activity.
- 35 The primary mechanism for funding these core activities is through rates as allowed for under the Local Government (Rating) Act 2002, with significant capital work funded by way of loans.
- 36 Water, wastewater and solid waste activities are funded on a district wide basis by those receiving the service whereas the stormwater activity is currently funded

at a local level. This currently makes it difficult for small communities to undertake upgrades to the stormwater network without incurring a significant financial burden.

Consenting and compliance programme

- 37 Wastewater compliance with resource consent conditions is reported through to Environment Southland through regular liaison with staff from their Compliance Division. In terms of compliance with limits imposed through the consenting process SDC's recent performance shows a continuously improving trend. For example in recent years' compliance has been recorded at 89% for 2013/14, 93.5% for 2014/15, 95% for 2015/16 and 98% for the 2016/17 year.
- 38 Where there are known issues that can be attributed to discharges from Council infrastructure, there are projects in place to upgrade these, a recent example being the completion of a \$450K upgrade to the Edendale Wyndham wastewater treatment plant to address non-compliances with the discharge quality. Another example is work currently ongoing to upgrade the discharge field from the Oban wastewater treatment plant.

Conclusion

- 39 The TLAs understand and support the need to improve environmental outcomes in relation to the quality of water across the Southland Region. SDC also sees it as appropriate that it play a leadership role in this regard by being prepared to invest in the upgrading of its infrastructure to meet new improved environmental standards.
- 40 It is important, however, that the broader economic and social wellbeing of communities are considered and that ultimately the economic impacts of the increases in standards be taken into account and that upgrades can be delivered in a manner that delivers an outcome that is best for the community.
- 41 It is important that the statutory framework, when resource consents are considered, provide the least expensive consenting pathway to enable consents for essential infrastructure to be obtained at minimum cost and for maximum duration. Otherwise the money that would otherwise be spent on capital works gets spent on consultants and consent processes, detracting from the effectiveness of the infrastructure.
- 42 It is for these reasons that the pSWLP, objectives that recognise the importance of such infrastructure, and the need for it to continuously operate, and regularly be upgraded is very important and supported.

43 SDC supports the outcomes to the pSWLP covered by Mr Dunning in his evidence on behalf of the TLAs.

A handwritten signature in black ink, appearing to read 'Ian Evans', written in a cursive style.

Ian Evans