

WESTLAND
DISTRICT COUNCIL



A G E N D A

Extraordinary Council Meeting

Council Chambers

**5 July 2017
commencing at 1.00 pm**

His Worship the Mayor R.B. Smith
Deputy Mayors Cr H.M. Lash and Cr L.J. Martin
Crs D.L. Carruthers, R.W. Eatwell, D.M.J. Havill ONZM,
J.A. Neale, G.L. Olson, D.C. Routhan



EXTRAORDINARY COUNCIL MEETING

EXTRAORDINARY MEETING OF THE WESTLAND DISTRICT COUNCIL,
TO BE HELD IN THE COUNCIL CHAMBERS, 36 WELD STREET, HOKITIKA
ON WEDNESDAY 5 JULY 2017 COMMENCING AT 1.00 PM

COUNCIL VISION

Westland District Council will facilitate the development of communities within its district through delivery of sound infrastructure, policy and regulation.

This will be achieved by:

- Involving the community and stakeholders.
- Delivering core services that meet community expectations and demonstrate value and quality.
- Proudly promoting, protecting and leveraging our historic, environmental, cultural and natural resource base to enhance lifestyle and opportunity for future generations.

Purpose:

The Council is required to give effect to the purpose of local government as prescribed by section 10 of the Local Government Act 2002. That purpose is:

- (a) To enable democratic local decision-making and action, by and on behalf of, communities; and
- (b) To meet the current and future needs of communities for good-quality local infrastructure, local public services, and performance of regulatory functions in a way that is most cost-effective for households and businesses.

1. MEMBERS PRESENT, APOLOGIES AND INTEREST REGISTER:

1.1 Apologies & Leave of Absence

1.2 Interest Register

2. ITEM:

2.1 Wastewater Treatment Franz Josef

Report



DATE: 05 July 2017
TO: Mayor and Councillors
FROM: Chief Executive

WASTEWATER TREATMENT FRANZ JOSEF

1 SUMMARY

- 1.1 The purpose of this report is to seek approval to undertake work outside the delegated approval limit of the CE.
- 1.2 There is urgency in obtaining this approval, as specialised machinery (a D11 bulldozer) is currently available on the West Coast, and is intended to be relocated back to Canterbury this week.

2 BACKGROUND

- 2.1 Wastewater from Franz Josef is currently treated using two oxidation ponds that are situated on the northern side of the Waiho River, approximately 500 metres west of State Highway 6.
- 2.2 The current West Coast Regional Council Resource Consent (RC00387) pertaining to the activities required to operate and maintain the current site was granted in 2001 for a term of 35 years from the date of issue. In July 2015 this consent was amended to increase the maximum concentrations of certain contaminants allowed in the treated wastewater discharge. The increase in these limits was as a result of further investigations showing that discharge will still meet guidelines for secondary contact recreation and guidelines for the protection of wildlife while allowing for summer peak discharges and seasonal variation. The increase in discharge limits was also reviewed for other Westland District Council operated wastewater treatment plants in Fox Glacier and Haast.
- 2.3 In March 2016 the existing oxidation ponds were inundated by the Waiho River during a flood event. The north-western embankment that contains Pond 2 (westernmost pond) was blown out by the flood waters and Pond 2

emptied of its contents as a result. Gravels were also deposited in Pond 1 reducing its capacity to treat the incoming raw wastewater. The Pond 2 embankment was repaired following the flood and work to remove material deposited by the river into Pond 1 has also since been completed.

- 2.4 The infiltration gallery that disperses treated wastewater under the bed of the Waiho River is prone to blocking. This is a frequent issue because it is located under a braided river where the active river channels are constantly migrating. It is therefore difficult to retain an active river channel above the infiltration gallery at all times. There have been multiple instances of temporary non-compliance with the infiltration gallery and correspondence between WDC and WCRC as a result.
- 2.5 There is a history of enforcement action being taken by West Coast Regional Council against Westland District Council as a result of breaches of the resource consent. Since 2010 Council has been issued with a formal notice for non-compliant discharge, 3 abatement notices, 2 infringement notices and an Environment Court Order in October.
- 2.6 The Order from the Environment Court in October 2016 requires Council to have a new wastewater treatment plant commissioned for Franz Josef and fully operational by 30 April 2018.
- 2.7 The Franz Josef/Waiiau Future Planning Working Party have base key assumptions which include:
 - 2.7.1 Maintenance of flood embankments at the current height;
 - 2.7.2 Oxidation ponds remain in current locations with ongoing upgrades to meet the existing levels of service.

3 THE CURRENT SITUATION

- 3.1 The bed of the Waiho River is continuing to aggrade, and its current level is close to the level of the land upon which the ponds are located.
- 3.2 The infiltration gallery needs to be upgraded and enhanced.
- 3.3 South Island Plant Hire Ltd has a D11 bulldozer in Greymouth which is currently being prepared to return to Christchurch. Plant of this size is required to undertake the proposed work in a cost and time efficient manner.

4 RECOMMENDATIONS

4.1 Council approves the following work to be undertaken at an estimated cost of \$1.3m:

4.1.1 Develop a new infiltration gallery;

4.1.2 Maintain the flood embankment.

4.2 Council notes that this work will be funded from the \$1.5m allocated to the Franz Josef Waste Water Treatment project.

Robin Reeves
Chief Executive

Attachments:

Appendix 1: Minutes of Franz Josef/Waiiau Future Planning Working Party Meeting held on 12/06/2017

Appendix 2: Tonkin and Taylor Confidential Report of June 2017.

MINUTES OF THE FRANZ JOSEF / WAIAMAU FUTURE PLANNING WORKING PARTY MEETING HELD AT THE FRANZ JOSEF HEALTH CENTRE MONDAY 12 JUNE AT 9:00AM

1. WELCOME: Deputy Mayor Helen Lash

2. PRESENT: Deputy Mayor Helen Lash, Monique Cornish, Nick Rogers, Marje Russ, Graham Berry, Wayne Costello, Craig Rankin, Kathy Hartshorne, Grant Gibb, Dianne Ferguson, Sarah Jones, Chris Roy, Nathan Bittle, Councillor Gray Eatwell, Vicky Eatwell, Brendon Russ, Jim Ebenhoh, Christina Hanna, Alistair Davies, Alexandre Dunant, Derek Blight

3. APOLOGIES: Mayor Bruce Smith, Mike Meehan (WCRC), Jim Little (TWC), JC Gaillard (University of Auckland), Kim Smith (Scenic Circle), Claire Brown (Civil Defence), Craig Buckland (Ngai Tahu), Logan Skinner (FJWG), Mike Nolan FJWG), Mark Williams (FJWG)

4. MONIQUE CORNISH (TONKIN + TAYLOR)/NATHAN BITTLE (EY):

NATURAL HAZARDS ASSESSMENT & COST BENEFIT ANALYSIS

Since the last meeting Tonkin & Taylor / EY have held stakeholder interviews, completed hazard scenarios, built the options assessment framework, completed a base case (or a do nothing case), identified 69 options, assessed the options, developed draft packages of options and built a cost benefit model.

What comes next? Stakeholder engagement, cost benefit analysis of the preferred packages of options, ongoing discussion.

Base Case Key assumptions:

- The population will grow in line with Statistics NZ projections
- Franz Josef will grow to the north (to the north-east of the Health Centre)
- Tourism numbers are based on MBIE's regional estimates and will include a cyclical element
- Maintenance of flood embankments at the current height
- No increased levels of service for road infrastructure beyond Waiho Bridge raising
- Oxidation ponds remain in the current locations with ongoing upgrades to meet existing levels of service
- No other major investment in Franz Josef (other than what has been made public)

Hazards:

- Alpine Fault rupture – significant shaking impacts out to Lake Mapourika (and beyond)
- Potential for rock avalanche, which would have significant consequences, recognising that the probability of this type of event occurring is unknown, but likely small

- Flooding
- Flooding with river bed aggradation. If nothing is done about this, the river bed will eventually rise to be at the height of the township

If nothing is done:

Locally

- The township will flood more frequently.
 - Initially low impact on capital value at stake, and minimal impact on tourism flows
 - As the river bed continues to aggregate, losses will increase to the point that there will be significant impacts on tourism locally, moderate impacts regionally and minor impacts nationally (specific estimates are being refined through CBA process)
- In the event of an alpine fault rupture:
 - Significant capital value is at stake (~\$46,000,000)
 - Three waters, power and communications networks are all damaged and the equivalent to one year worth of tourism revenue at stake locally
 - Tourism estimates are based on a function of access into Franz Josef and ability of tourists to spend money (related to capital damage)
 - 730 days at least before Arthurs Pass will be open again¹
- Tourism rebuild would be at the same proportion as the building rebuild

Regionally

In the alpine fault rupture scenario, it is assumed that:

- Some tourists would go elsewhere
- Regional displacement factor of 15% considered a lower bound and investigation into an upper bound for the purposes of the modelling will be undertaken
- There will be some balancing effects playing out in the numbers based on loss traditional tourists but increase in an inflow of people for the capital rebuild.

National Level

- During the Canterbury earthquakes, the world looked at New Zealand. International tourists dropped by 250,000 (between 2010 and 2012). At a national level, international tourists dropped by ~100,000. If the same logic is applied to Franz Josef, an alpine fault rupture event could cause a reduction in New Zealand tourist numbers of between 20,000 and 40,000.

¹ Note that the project team mis-spoke in the meeting. NZTA reports that *Arthurs Pass* would likely not open for 730 days. At 90 days it is expected that there would be access of the standard appropriate for tourist to return from the north.

Approach to determining the packages of options

- Identify “major projects” options that best respond to the challenges
- Avoid nature’s challenges
- Manage/defend against nature’s challenges
- Accept and transfer-live with nature’s challenges
- Understand the “supporting” options that are required to give effect to these major projects
- Develop packages of options: short, medium and long term
- Need multi criteria assessment as first filter. Options are in their initial form
- 69 options are included in the long list: 12 avoid, 53 manage and 4 transfer
- 7 major projects/options which include moving the town centre north and relocating to
 - a. Lake Mapourika
 - b. Lake Wombat
 - c. Stoney Creek

OR

- d. manage long term by using engineered stop banks with either gravel extraction
- e. or no gravel extraction

OR

- f. allow the Waiho to flow naturally to the north
- g. or south

A major intervention is the only effective way to mitigate the risk and create investment certainty in the longer term.

Living with nature’s challenges:

- There were 18 options to manage flooding risks assessed.
- Options to remove engineered solution to the north were found to be effective in the short term only.
- Allowing the river to follow along the natural course to the south below Franz Josef is considered the preferable course for the long term.
- Allowing the Waiho to go north would involve relocating the school, Kidsfirst, Top 10 Holiday Park, realignment of SH6, WWTP, Heliport, removing the town’s stop banks and placing a new town stop bank **OR** adding a secondary stop bank behind the school and enhancing the stop bank beside SH6 to protect the existing section of SH6.
- Allowing the Waiho to go south would involve removing the south stop banks, relocating the airstrip **OR** adding a new stop bank to maintain the existing airstrip.

- Another option is to add a new stop bank on the crest of the hill overlooking the township but uphill of the Waiho Bridge.
- For central and local government there are impacts on existing investments to be considered, ongoing stop bank maintenance and management, District Plan Amendments and support needed for a transitional management approach.

Avoid nature's challenges:

Relocating the township to Lake Mapourika is the highest rate "avoid" measure for flooding, earthquake risk and rock avalanche risk. It would involve the selection of a new growth area, a masterplan, have very high costs but very high benefits, have reduced flooding risks and be off the fault line. This option changes everything. It would involve the acquisition of land and will be tested through the cost benefit analysis, but would need a detailed business case as part of the path to implementation.

Defending against nature's challenges

This package involves continuing to build stopbanks and implementing a gravel extraction programme to allow the Township, and the businesses and residents in the wider Franz Josef area, to remain in their current location with reduced flooding and earthquake-related risk. Gravel extraction would need to occur in perpetuity in order for this option to be feasible.

No regrets resilience measures:

- Finalise and implement the community resilience plan and refresh the CDEM plan.
- Amend the District Plan to promote the selection of lightweight, low-rise buildings with appropriate foundations.
- Test the idea of using float planes on Lake Mapourika as part of an emergency response²

Where to from here:

- Continue the conversation.
- Finalise packages
- Complete the model and run the cost benefit assessment
- The report becomes the basis for ongoing discussion with stakeholders.

6. DATE OF NEXT MEETING: TBA

² Note that this idea has subsequently been tested with the CAA by the project team and have been advised that Lake Mapourika may be suitable for commercial float plane activity (if there was demand), but that it would not be appropriate for emergency response.