

*HCA 3W SUB-COMMITTEE
7 JULY 2021*

HĀWEA WASTEWATER INVESTMENT

This material is draft and subject to change. It is representative of a point in time, and may include content that is intended to generate thinking and debate. Unless otherwise validated through formal decision channels, this material is not to be considered representative of QLDC's (and by extension any support service providers') accepted/formal position on this investment.

HĀWEA'S EXISTING WASTEWATER SCHEME

Established in 1988 and upgraded in 2000

Wastewater is discharged to land via spray irrigation

A low-pressure disposal trench is used as required

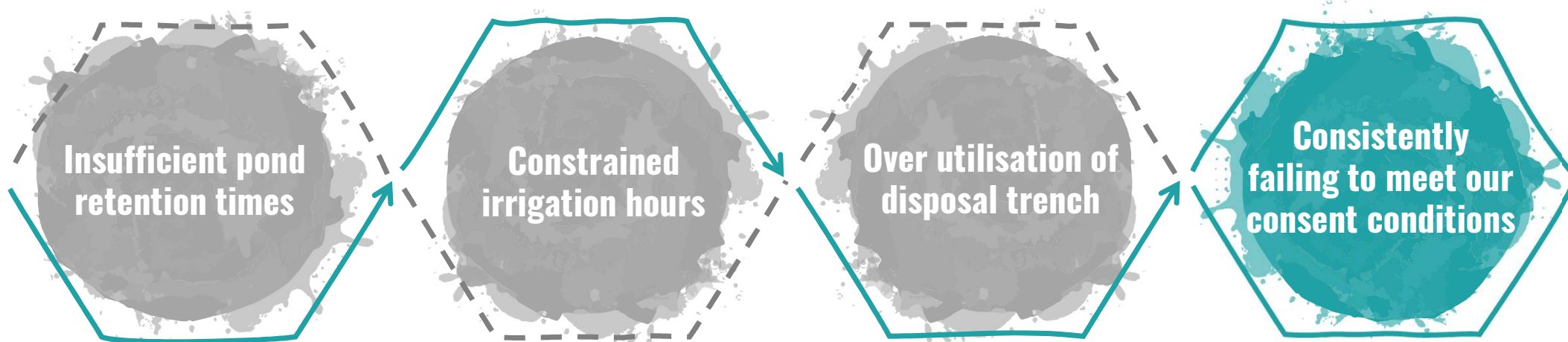


The Hāwea township is serviced by our existing scheme

The campground is self-managing

Hāwea Flat residents utilise septic tanks

WE CANNOT SATISFACTORILY RESPOND TO DEMAND



THE DEMAND CHALLENGE
[average day]

EXISTING TOWNSHIP

▲ 75.7% by 2031
(to 2,460 people)

▲ 183.6% by 2051
(to 3,970 people)

HĀWEA FLAT

▲ 20.3% by 2051
(to 710 people)

SPATIAL PLAN

3,635 dwellings
(ultimate capacity)

WE ARE RESPONDING WITH SHORT AND LONG TERM INTERVENTIONS

An interim upgrade to the existing wastewater treatment plant is planned to alleviate immediate operational issues

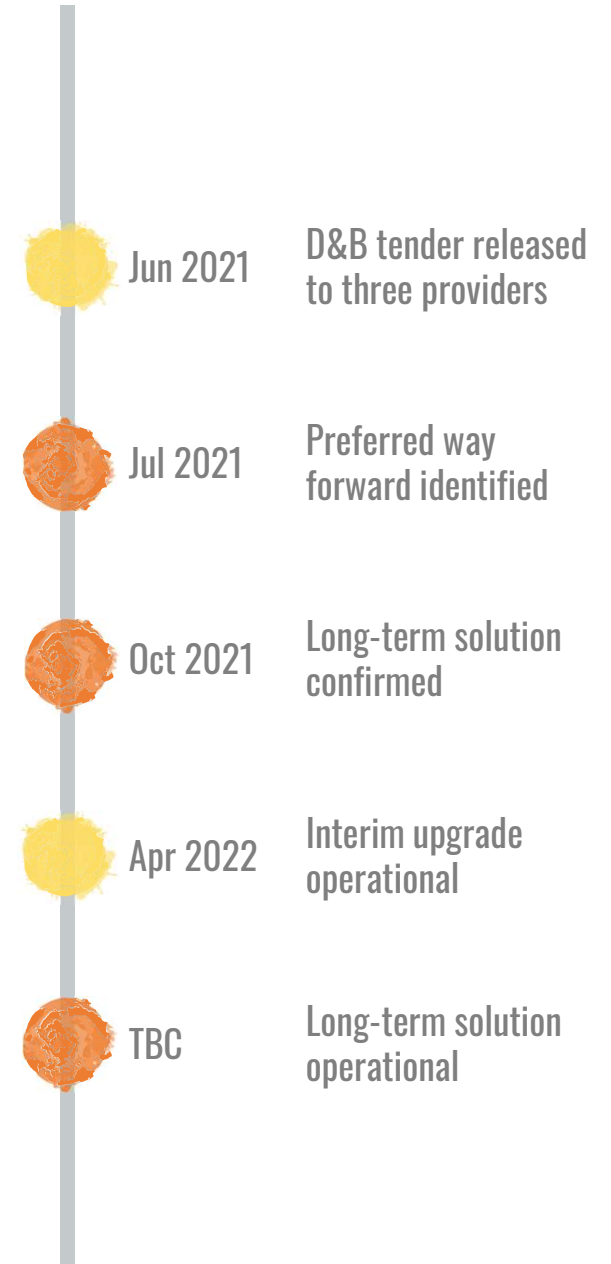
Desired outcome is to manage maximum allowable volumes within existing consent conditions

Expect to secure a new short-term consent of three to five years

May provide sufficient capacity to meet demand generated by stage 1 of the SHA

A detailed investment case is underway to identify the best long-term investment solution

This work is supported by PwC (general advisory), Beca (technical advisory), and Meredith Connell (legal and planning advisory)



INVESTMENT INTENTIONS GUIDE

OUR PLANNING

As soon as possible, implement a solution that can respond to Hāwea's wastewater needs for a minimum period of 30 years

FUTURE PROOF

Minimise contaminants from entering the natural environment over the life of the investment, promoting regenerative activities where possible

ENVIRONMENTAL WELLBEING

Minimise degradation of visual and social amenity over the life of the investment, promoting amenity improvements where possible

SOCIAL WELLBEING

INTENTIONS ARE UNDERPINNED BY GOALS AND OBJECTIVES

OBJECTIVE
(must do)

FUTURE PROOF

By the end of FY25/26, have a solution in place that will manage wastewater demand generated by the existing Hāwea catchment (incl. SHA) for a minimum service period of 30 years.

GOAL
(could do)

As above, with the inclusion of surrounding areas that are currently beyond the existing catchment.

ENVIRONMENTAL WELLBEING

Take best practicable steps to reduce contaminants from entering the natural environment over the life of the wastewater treatment and disposal solution.

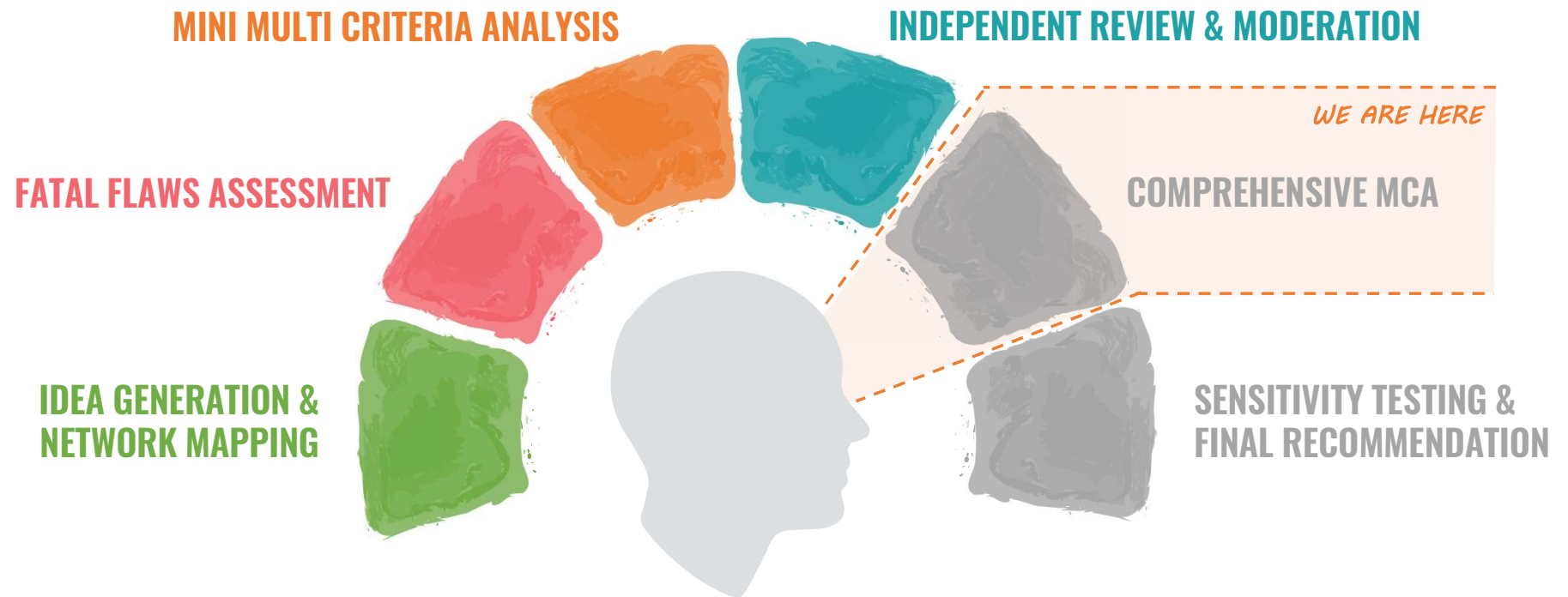
If possible, actively or autonomously enable regeneration of the natural environment during the life of the investment.

SOCIAL WELLBEING

Appropriately manage visual and other amenity effects over the life of the wastewater treatment and disposal solution.

Take best practicable steps to preserve and/or improve the overall amenity (visual, landscape, and social) of the areas affected.

A STAGED ASSESSMENT PROCESS HAS REFINED OUR OPTIONS



WE HAVE FOUR SHORT-LISTED INVESTMENT OPTIONS

1 New treatment plant & irrigation

- a) all at a new site/s
- b) treatment at existing site, irrigation at a new site

3 Pump to Project Pure for treatment & disposal

- a) direct
- b) via Albert Town

2 Existing site with upgraded treatment plant & rapid infiltration

4 Maintain status quo (interim upgrades complete & maintained)

PERMUTATIONS

Management of biosolids, methods of infiltration / irrigation, and land requirements will be explored within the preferred option

WE ARE TAKING A HOLISTIC APPROACH TO VALUE



We have updated our tool to align to our investment needs and intentions. Each option will be assessed against eight criteria to provide a comprehensive view of value.

WHOLE OF LIFE COSTS

RISK

FUTURE PROOFING

ENVIRONMENTAL WELLBEING

CONSENTING

RESILIENCE

SOCIAL WELLBEING

ACHIEVABILITY

OUR VALUE ASSESSMENT IS COMPREHENSIVE

Environmental well-being: The net effect of the option on the physical environment, giving particular regard to how well the option:

- Aligns to relevant environmental strategy and policy
- Minimises expected emissions through design, technology choice, ongoing operations, and/or end of life disposal
- Regenerates (or provides for the regeneration of) the local natural environment
- Readily enables beneficial reuse of waste streams

Social well-being: How well the option delivers improvements to visual and social (e.g. active travel, recreation amenity).

How well the options mitigate effects on the human environment (i.e. noise, traffic, hazardous substances, odour, construction, acoustic, vibration, and human health effects).

How well the opportunity protects the area's culture and heritage.

Risk: How well the option manages/mitigates project/option level risks

[to be confirmed, may be accounted for sufficiently in the scoring of other criteria]

Resilience: The relative speed at which acceptable service levels can be resumed following a disaster event.

Future-proofing: How well the option could respond to changes in projected demand and quality standards for minimum 30 year period.

Achievability: How difficult and complex the option will be to implement no later than June 2026, based on the most likely (P50) project programme.

Consenting: How difficult and complex the option will be to secure necessary environmental and planning authorisations.

WoLC: Present value of total cash costs of the investment over a 30y period, calculated using the public sector discount rates. Includes monetised WoL carbon.

WE WILL UNDERSTAND AND ASSESS CARBON

 Monetised and quantitative measures will be used to assess the carbon impacts of the investment

 As QLDC does not yet have a standardised approach to carbon accounting for investment decision-making, carbon will be considered via two MCA criteria

WOLC

ETS price pathway will be reflected as monetised capex and opex project costs

ENVIRONMENT

TCO2 is a contributory measure for this criterion

An undiscounted whole-of-life cost appraisal will be completed and will include ETS costs
This won't directly impact our assessment but it will give an indication of how emission costs of different options could impact ratepayers over time



NEXT STEPS



Design deliverables received – concept design, technical advice, cost estimates, carbon calculations



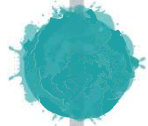
Internal and external SMEs independently score against MCA criteria. Results will be combined and a small moderation panel assembled to review notable deviations. Sensitivity testing completed.



Iwi and community engagement



Preferred option identified
Associated commercial, financial, and project delivery plans developed



Investment option confirmed by Full Council