

**MINUTES** of the Raglan Wastewater Treatment Plant Discharge Consenting Process meeting (public) held on **Wednesday 29 March 2021** commencing 7.00pm through **ZOOM** Video Communications.

**Present:** Cr Aksel Bech (Chairperson), Ian Cathcart, Special Infrastructure Projects Manager (WDC), Carole Nutt, Waters Contract Relationship Manager (WDC)

Steve Howard, Richard Pullar (Watercare)

Chris Rayner, John Lawson, Edward Prince, Tony Oosten, Charlie Young

**Apology:**

**1. OPENING MEETING**

1.1 Cr A Bech, Chairperson, opened the Raglan Wastewater Treatment Plant Discharge Consenting meeting (public) at 7.00pm.

The Chair outlined protocols for the Zoom meeting:

- The meeting would be recorded and posted on Council's web page.
- Chats can be seen by all meeting attendees. Use the chat function to record questions, and Steve would answer at the end of the presentation or offline at a later date if not appropriate to answer at the meeting.
- To get the Chair's attention, use electronic hand function.
- If asking a question, have camera on as courtesy to Steve.

1.2 The purpose of the meeting was to hear Steve Howard's presentation on the Raglan Wastewater Treatment Plant (WWT) Discharge Consent Application Project.

**2. PRESENTATION/TOPICS - Steve Howard, Watercare**

2.1 Matters to discuss:

- Part A – Draft MCA Scoring – Working through methodology
- Part B – Public Land Option Update
- Part C – Additional consenting elements
- Part D- Wrap Up/Questions

## PART A: DRAFT MCA SCORING METHODOLOGY

### Slide 1

### PART A: Scoring Progress

**Raglan Wastewater Consent Project**

**Expert scoring – Public Health Quantitative Microbial Risk Analysis (QMRA)**

**Project Objectives**

The aim of the project is to identify the best practicable option to provide wastewater services for the Whāingaroa community. In doing this we aim to:

- Keep communities healthy
- Protect the environment, particularly the water quality and ecology of the Whāingaroa Harbour
- Recognise the significance of the Whāingaroa Harbour to hapū and support the kaitiaki management of customary fishing
- Protect the community use of the area, along with the visitor experience
- Work in partnership with the community and hapū
- Retain flexibility for future, sustainable, long-term solutions including potential reuse of treated wastewater
- Keep the overall costs of the wastewater solution to affordable levels

**MCA Assessment Criteria**

Criteria	Issue/Topic	Description/Explanation
Public Health	Microbiological quality of treated wastewater	Risk of public exposure to waterborne pathogens through: - Direct contact with the conveyance or treatment process - Direct contact with the receiving environment, for example through contact recreation - Indirect exposure, through food gathering (such as shellfish, fish, watercress, etc) and groundwater use.
	Health effects from irrigation	Risk of public exposure to pathogens from irrigation.
	Treated wastewater re-use	Risk of contamination from treated water for non-potable re-use.

### Slide 2

**Health Risks Assessment of Raglan WWTP treatment and Discharge Options**  
*QMRA Data Experts 29 March 2021*

**Raglan Wainui Options**  
*DHI Water & Environment Ltd 23 March 2021*

Calibrated harbor model (2019), enhanced to consider FW option

**Analysis:** Comparison of options consider:

- Predicted risk (reported as Individual Illness Risk (IRR) at recreation and shellfish gathering sites)
- Scenarios can be summarised as magnitude beyond the 'no observed adverse effects level' (NOAEL),

Watercare

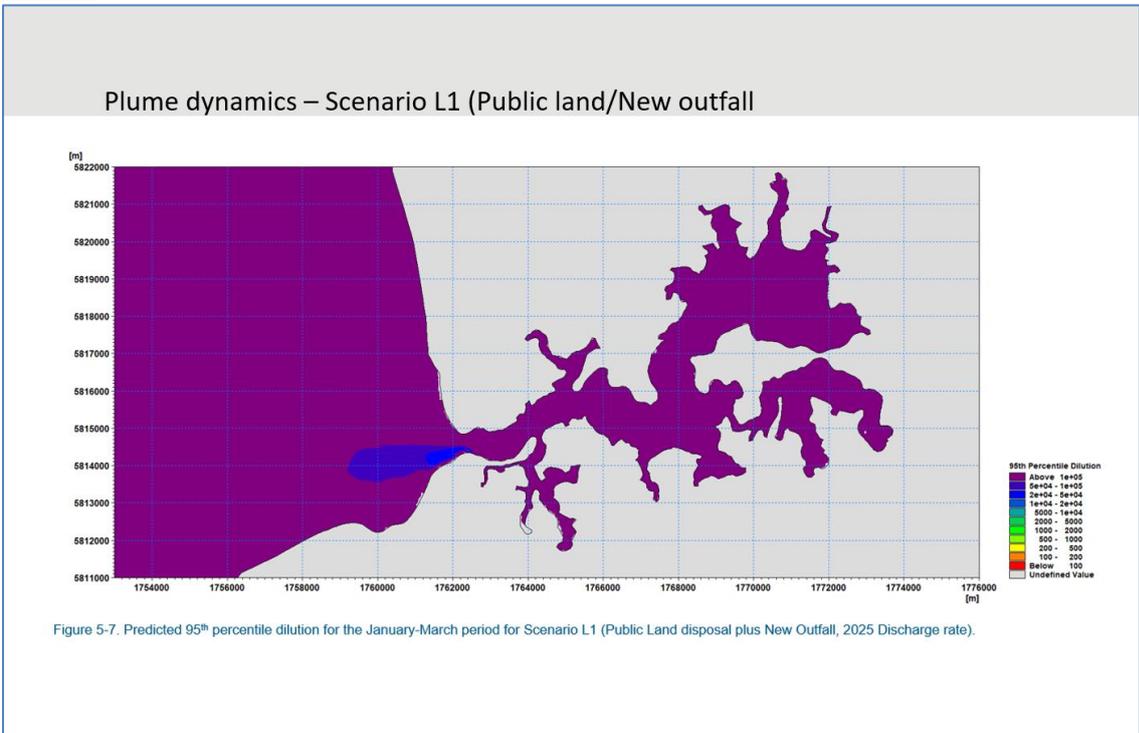
The purpose of above slides was to demonstrate how collective scoring is used within MCA methodology using the QMRA analysis as a case study (i.e. Expert advice received in March). Following slides (slides 3-5) broadly outline QMRA principles used to determine health effects of each option, particularly highlighting the low dilution achieved with the fresh water tributary discharge (Option F1).

### Slide 3



- The above locations were used by the QMRA expert to consider treatment, dilution, and risk

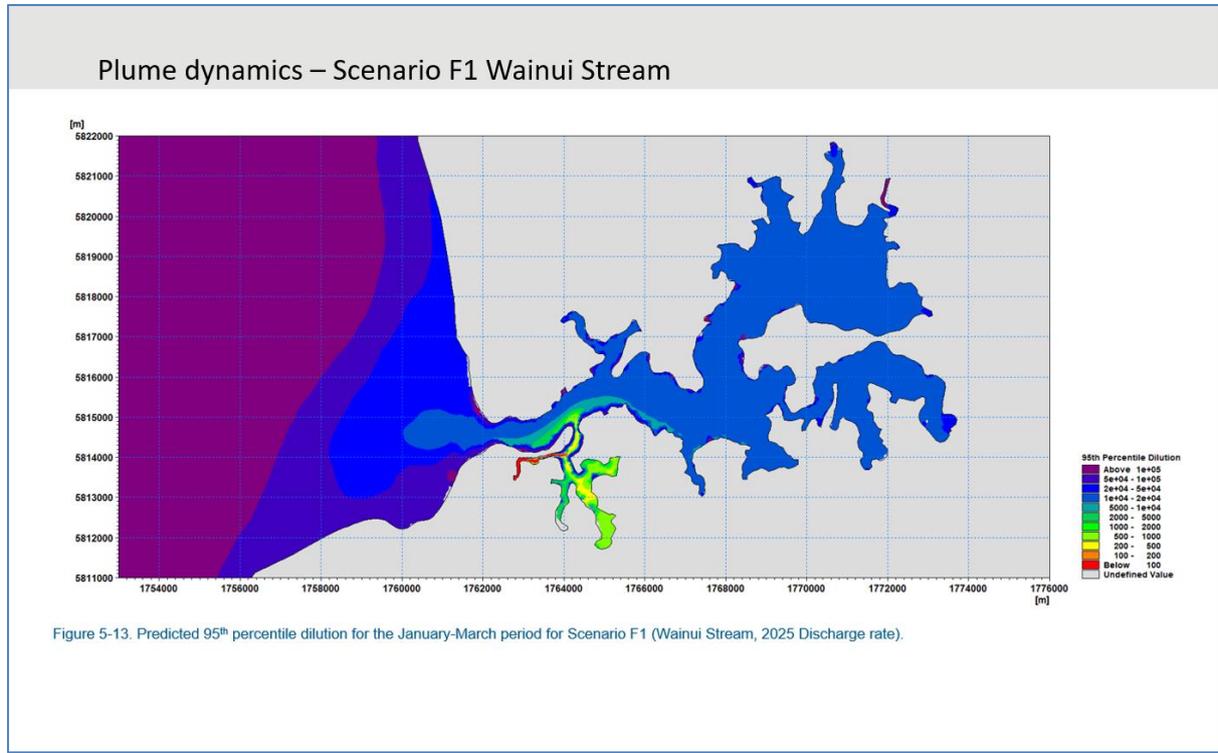
**Slide 4**



- The above slide illustrates tidal discharge with an upgraded point source discharge, where Slide 5 highlights the lingering nature of a stream discharge, which increase health risk

- Follow up actions were (i) the distribution of QMRA reports and (ii) distribution of MCA documentation with draft scoring for discussion (**ACTION 1 Steve to follow up**)

Slide 5



Slide 6

Broad Comment/MCA advice – Chris Dada

- Dilution and achievable virus log reduction associated with upgrade is the basis of QMRA
- Scenarios ranked in the magnitudes of NOAEL,
- 'Estimated IIR profiles generally varied with sites but were well below the NOAEL for most of the exposure sites across all tested treatment and discharge scenarios'*
- M2 and L4 were the best among options.

- Enteric illness risk (intestines) 700x under NOAEL
- Acute febrile respiratory illness 20x under NOAEL
- Raw shellfish consumption 20x under NOAEL

Scenario	Treatment and discharge option	Overall MCA Score	Key MCA Scale (1-10, worst -best)
L4	MBR + UV , discharge to public land/outfall	9	
M2	MBR + UV discharge to new outfall	8	
L3	Tertiary membrane +UV, discharge to private land/outfall	6	
L1	Tertiary membrane +UV, discharge to public land/outfall	6	
M1	Tertiary membrane +UV, discharge to new outfall	6	
F1	MBR + UV discharge to Wainui Stream	3	

L2 = 100% to land (MCA =10)

- The above slide highlights overall professional opinion. The MBR treatment scores highest. The joint public land/outfall obtains a 9, given that summer flow would be to



## PART C: ADDITIONAL CONSENTING ELEMENTS

**PART C: Innovation/re-use/environmental enhancement)**

**SOLAR (Innovation space) - Business case to be presented  
progression in adherence to objectives;  
Pending approval**

**JOINT Vetiver study  
To consider cultural/  
/environmental  
/erosion fit**

Additional consentable considerations are:  
 • Initiative is consistent with consenting project objectives;  
 • Could be complementary to other Region initiatives;  
 • Improved site resilience;  
 • Good emissions reduction.

Planting/Vetiver investigation (Hapi/WSL)

Coastal Protection Planting Trial (Area A)

Cultural Enhancement and Environmental Planting Trial (Area B)

- A quick update was offered on solar initiative and vetiver investigations.
- The usefulness of vetiver for the project is unknown, however trial plants are in the ground to allow project partner observation
- There may be ability to utilise its characteristics (i) for cultural/mother-earth contact for any necessary wintertime point source discharge and (ii) erosion protection.
- The solar array has gained approval from the WGB (a recent advancement) so physical works are anticipated within this financial year. Solar infrastructure will support any future upgrade that is decided upon and enforces the 'self-sustainability' message of the project.



**Part D- Wrap up/Queries and Actions (initial feedback or actions in red below)**

1. **John Lawson:** MCA QMRA advice doesn't seem to cover use on land only. Is that right. **Yes. QMRA is only applicable to point source discharge at this stage, where analysis of leaching potential for land-based systems isn't part of best practice methodology.**
2. **Chris Rayner:** Is the use of the Public works act off the table to get suitable land?
  - The PWA is used to obtain land by a requiring authority, either by agreement or compulsory acquisition for a project (generally after a designation is in place over the desirable area pursuant to the RMA)
  - Clr Bech was able to offer experience with PWA for land acquisition for a project, highlighting how a 'high bar' exists in respect to confirming appropriateness for such a process. A key test is whether an alternative is available. If alternatives are available, then a successful acquisition will be seriously challenging. With roading designations, often there is no alternative and processes can be followed. With discharge of treated wastewater, there are alternatives (i.e. status quo). The project team have undertaken the investigation of private land used purely on a 'willing seller/willing buyer' basis. **ACTION 2 – WDC to solidify this principle for the private land option**
3. **Chris Rayner:** After what level of water treatment is it no longer considered wastewater?
  - The consent application will be for discharges of a contaminant (air, water, or land). The definition of a contaminant (under the WRC Plan) is:

**Contaminant** \* – includes any substance (including gases, odorous compounds, liquids, solids and micro-organisms) or energy (excluding noise) or heat, that either by itself or in combination with the same, similar, or other substances, energy, or heat –

- a. when discharged into water, changes or is likely to **change** the physical, chemical, or biological condition of water; or
- b. when discharged onto or into land or into air, changes or is likely to **change** the physical, chemical, or biological condition of the land or air onto or into which it is discharged.

- Newest technologies in treatment will still produce a flow that will have a degree of change (even diminutive). This will mean discharge of the flow will require WRC consent, to ensure adverse environmental effects are investigated, and certified as less than minor (often with accompanying mitigation). I consider the following table defines flow, through different stages:

Description	Definition
Sewage received by reticulation	Wastewater
Post Consented Treatment Processes	Treated wastewater
Post Consented Discharge Processes	Flow co-mingling with natural waters, becomes non-differentiable and part of the water cycle. No longer considered wastewater

4. **Chris Rayner:** are you guys also feeding into the Coastal reserves Management plan that is currently underway at WDC:  
 A project team submission was made, which can be viewed alongside others on the WDC website. An exert is shown in the image below, where the de-stocking of the reserve was relief sought by others also. It is understood that the next step includes a Commissioner's recommendation to Council on the Review process. Council has final say. The use of Wainui Reserve as part of a re-use/irrigation solution is core to Option LI (Public land utilisation/alternative winter discharge). Outcomes and affordability of LI make this a feasible option. It is appropriate that WDC provide a

position on matters **ACTION 3** Steve to work with WDC reps to finalise a WDC position, with reason why public land can/cannot be considered for sub surface irrigation

#### Relief Sought within this submission (in red below)

##### D.3.5 Farmed Settings - Pamu

###### Objectives

D.3.5.A Ensure the farmed areas of Wainui primary focus is on maintaining rural and heritage landscapes through sustainable farming practices, which allow for a range of recreation activities.

###### Policies

D.3.5.i Undertake farming activities that ensures reserve settings are managed and presented to an appropriate standard.

D.3.5.ii Sustainable farming practices are undertaken including animal welfare and husbandry

D.3.5.ii.a Future potential crop farming practices, such as food production, are undertaken in a sustainable and safe manner.

D.3.5.iii Allow for the provision of safe access for a range of recreation activities, except where farming activities pose a risk to visitors.

D.3.5.iv Identify opportunities for sustainable management, including limiting use of agrichemicals for weed control on farmed areas and encouraging the use of mechanical or biological controls.

###### Explanation

*Much of Wainui has been farmed in the past, with a result that much of the original vegetation was cleared by previous farmers to maximise grazing area. Today, cattle farming is used as a management tool to maintain landscape values and facilitate safe recreational use. Crop farming for food production may be an additional management tool that meets objectives.*

*Ongoing sustainable farming practices such as fencing off waterways and areas of indigenous vegetation to exclude stock have been undertaken. During the next couple of decades steep and unstable land will gradually be retired from farming and replanted in native species to provide bush lined streams and valleys. Where possible fence lines will be kept off ridgelines to maintain vistas and viewpoints.*

Image: Project Team Relief sought as part of the WDC Reserve Mgmt. Plan Review

5. **Chris Rayner:** Have we reached out to the Local Government minister or is it still too early days?

Below highlights feedback on matters included within February meeting minutes, with tranche descriptions also. Updated comment should be provided at the next community meeting. **ACTION 4** :Update from WDC needed

- Chris Raynor: At what point do we start talking more to Central government  
Ian C response: Through government reform processes, WDC/Councillors have been liaising with central government as local government works through Tranche 2 matters (image below). Significant WW funding challenges sit with WDC in respect to the multiple WWTP upgrades needed for consents -central govt talks cover this collective cost. For Raglan specific actions, there is intended to be Water Governance Board visit soon to the township. Chris R seeks to understand this detail and ability for appearance also.  
**Action 4:** Ian C to get back to Chris with his thinking on such an opportunity.

Image 1: Feb Minutes

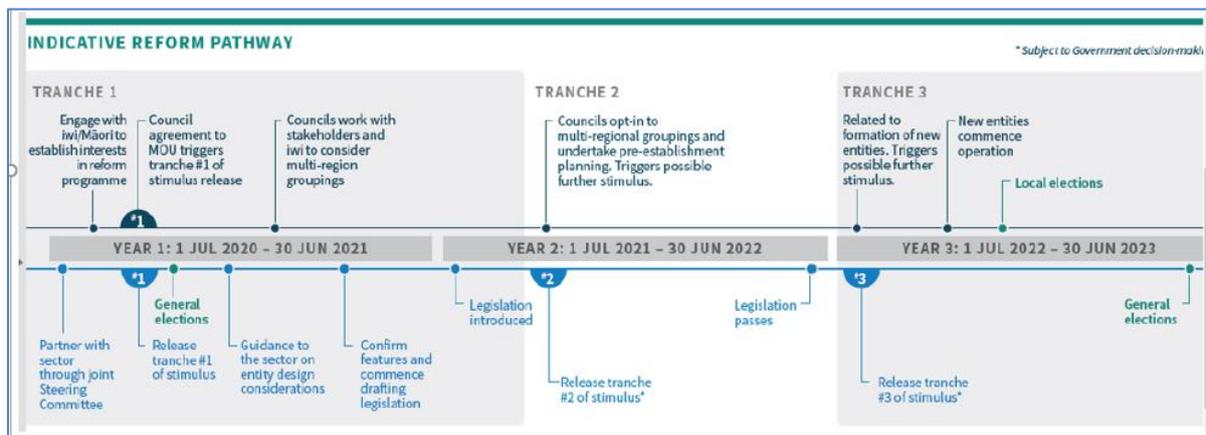


Image 1: Feb Minutes

6. **Chris Rayner:** What are you guys doing about wider community engagement?  
 Follow up on communication strategies beyond the monthly community meeting will occur, with feedback to be provided **ACTION 5** – Carol/Steve to work through methodology with appropriate staff and KSH input