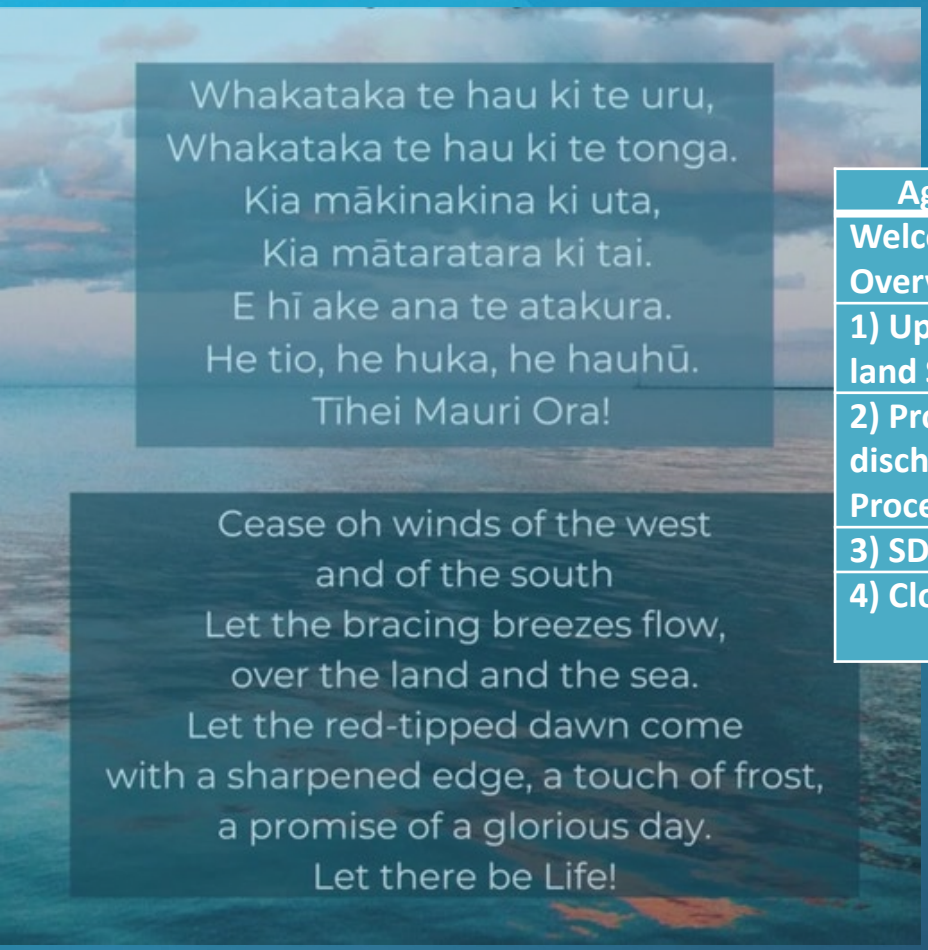
Raglan WWTP Discharge Consent Application Project

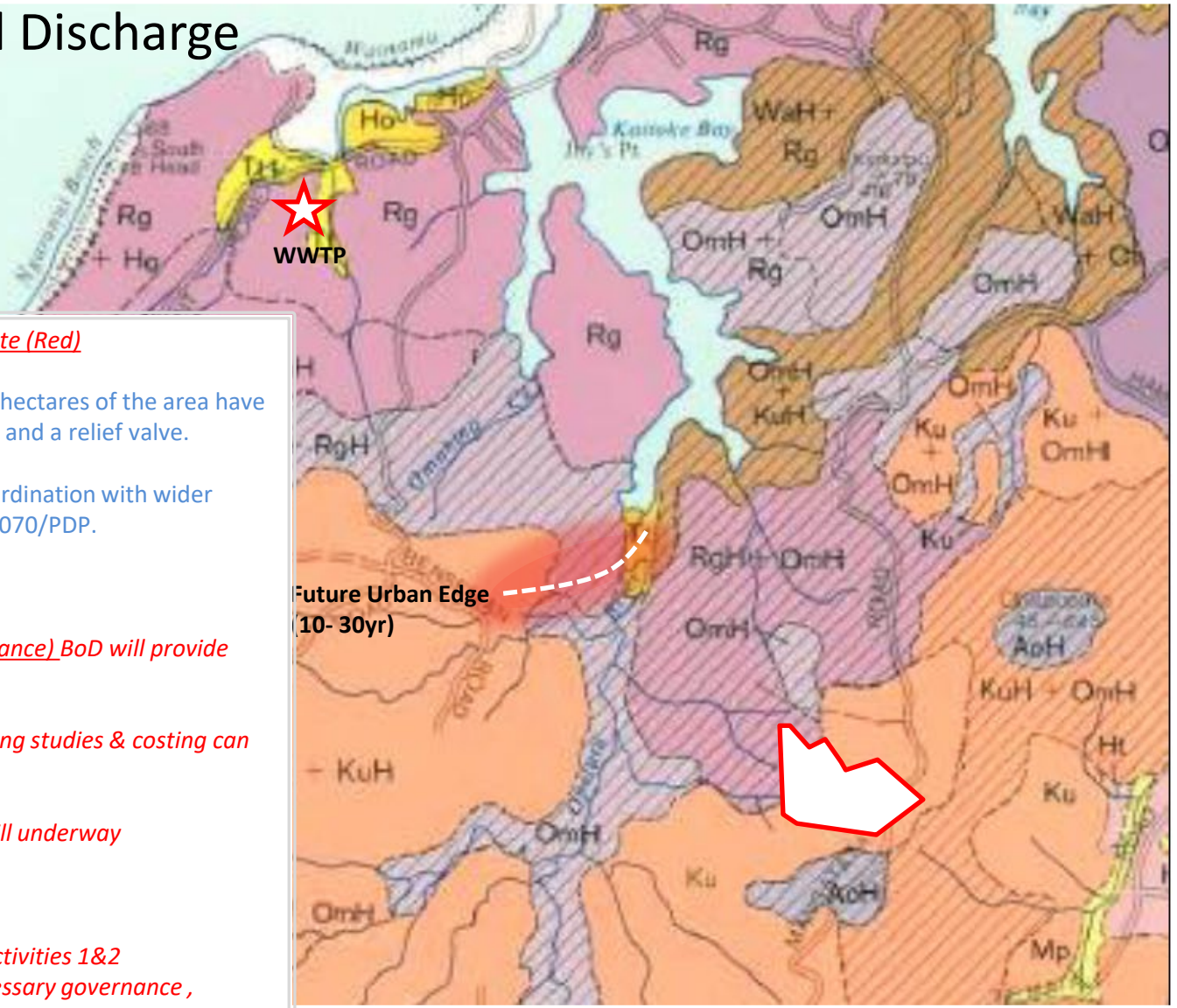
March 23 – Technical update



Agenda		
Welcome/ Introductions/ Overview	Cllr	5m
1) Update Studies (private land SDI)	Steve	5m
2) Project Scenarios for discharge (i) Governance (ii) Process	Steve	10m
3) SDI Concepts	Steve	10m
4) Closing	Cllr	10m

Waikato DISTRICT COUNCIL
Te Kaunihera aa Takiwaa o Waikato

1) Private Land Discharge Optioneering



March update (Blue) with *April update (Red)*

Summary: the Investigation site : 20 hectares of the area have suitable soil pockets, winter storage, and a relief valve.

Activity 1: conveyance studies in coordination with wider corridor planning, such as Waikato 2070/PDP.
Still underway
Critical work packages are:
(i) WWTP Basis of Design (BoD)
(ii) infrastructure planning (conveyance) BoD will provide final flow data

***ETA** End of April. Conveyance/pumping studies & costing can then be finalized*

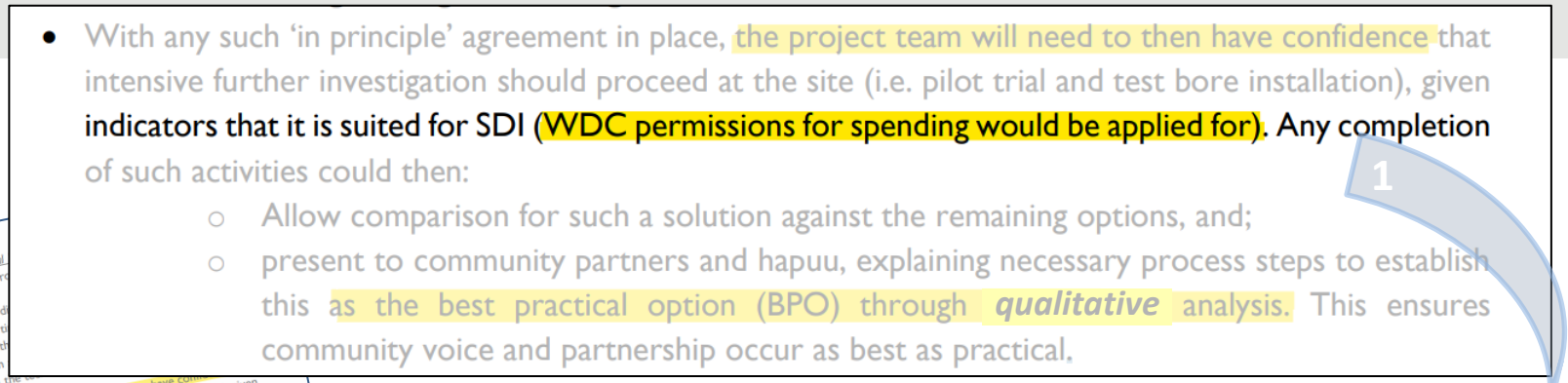
Activity 2: WDC led activity: MOU *Still underway*
***ETA** TBD*

Activity 3: Best Practical Option:
***Status:** Feasibility is dependent on activities 1&2*
***ETA:** with feasibility established necessary governance , engagement & RMA steps can occur.*

***Critical Associated Work Package:** BPO strategy alongside hapuu & community (next slides)*

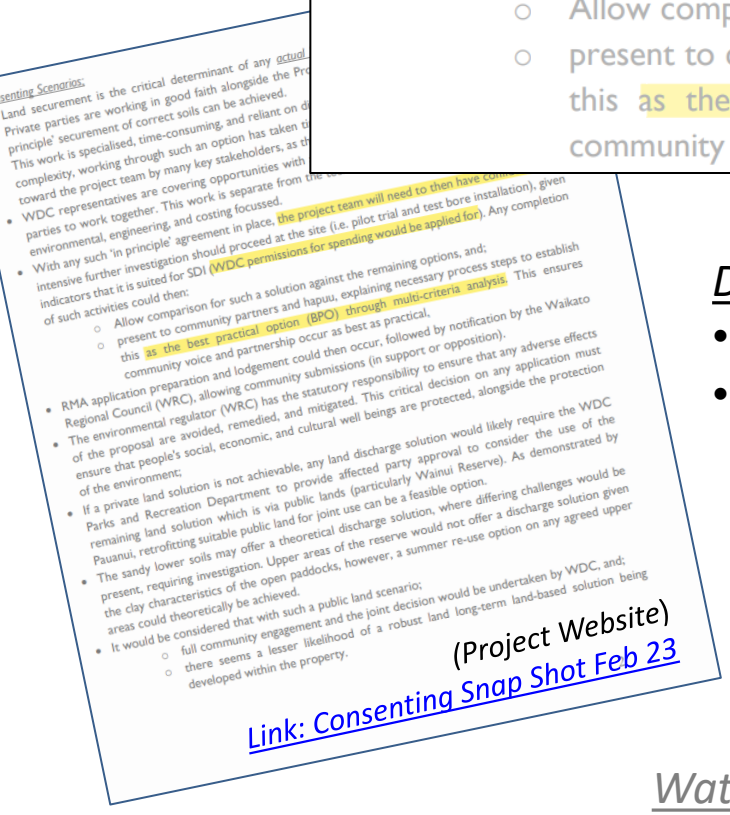
Waikato DISTRICT COUNCIL
Te Kaunihera aa Takiwaa o Waikato

2a) Consenting Scenario: Best Practical Option Determination (slide 1 of 3)



- With any such 'in principle' agreement in place, the project team will need to then have confidence that intensive further investigation should proceed at the site (i.e. pilot trial and test bore installation), given indicators that it is suited for SDI (WDC permissions for spending would be applied for). Any completion of such activities could then:
  - Allow comparison for such a solution against the remaining options, and;
  - present to community partners and hapuu, explaining necessary process steps to establish this as the best practical option (BPO) through ***qualitative*** analysis. This ensures community voice and partnership occur as best as practical.

1



senting Scenarios

Land securement is the critical determinant of any actual
Private parties are working in good faith alongside the Pro
principle' securement of correct soils can be achieved.
This work is specialised, time-consuming, and reliant on d
complexity, working through such an option has taken ti
toward the project team by many key stakeholders, as th
- WDC representatives are covering opportunities with
parties to work together. This work is separate from the
environmental, engineering, and costing focussed.
- With any such 'in principle' agreement in place, the project team will need to then have con
intensive further investigation should proceed at the site (i.e. pilot trial and test bore installation), given
indicators that it is suited for SDI (WDC permissions for spending would be applied for). Any completion
of such activities could then:
  - Allow comparison for such a solution against the remaining options, and;
  - present to community partners and hapuu, explaining necessary process steps to establish this as the best practical option (BPO) through multi-criteria analysis. This ensures community voice and partnership occur as best as practical,

- RMA application preparation and lodgement could then occur, followed by notification by the Waikato Regional Council (WRC), allowing community submissions (in support or opposition).
- The environmental regulator (WRC) has the statutory responsibility to ensure that any adverse effects of the proposal are avoided, remedied, and mitigated. This critical decision on any application must ensure that people's social, economic, and cultural well beings are protected, alongside the protection of the environment;
- If a private land solution is not achievable, any land discharge solution would likely require the WDC Parks and Recreation Department to provide affected party approval to consider the use of the remaining land solution which is via public lands (particularly Wainui Reserve). As demonstrated by Pauanui, retrofitting suitable public land for joint use can be a feasible option.
- The sandy lower soils may offer a theoretical discharge solution, where differing challenges would be present, requiring investigation. Upper areas of the reserve would not offer a discharge solution given the clay characteristics of the open paddocks, however, a summer re-use option on any agreed upper areas could theoretically be achieved.
- It would be considered that with such a public land scenario;
  - full community engagement and the joint decision would be undertaken by WDC, and;
  - there seems a lesser likelihood of a robust land long-term land-based solution being developed within the property.

(Project Website)

Link: Consenting Snap Shot Feb 23

Discussion Point 1: Permissions = Governance

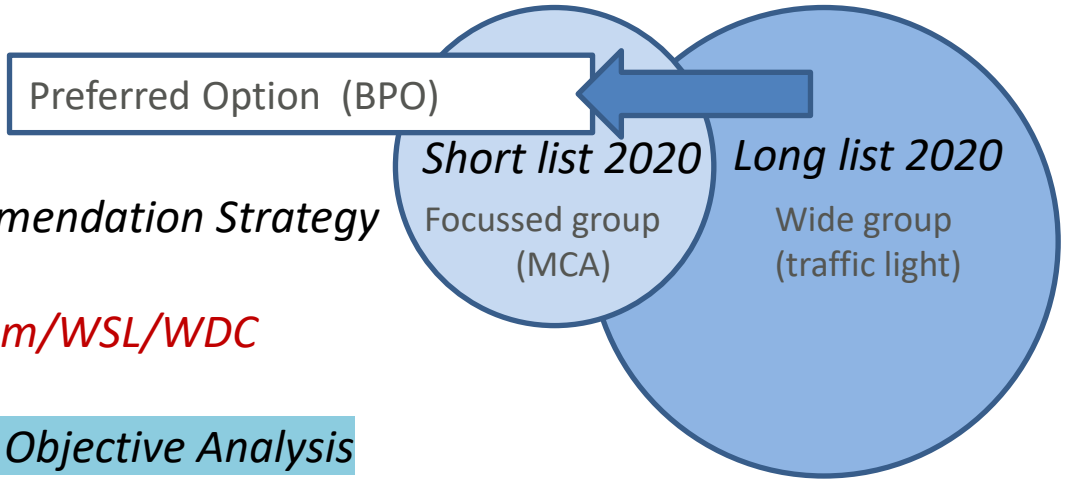
- *Water Governance Board Paper (1):*
- ***BPO Assessment & Recommendation strategy***
  - *Securement status*
  - *Project Cost: Conveyance & SDI instalment*
  - *Project Objective Analysis*
  - *Refined Engagement & Partnership Processes*

Water Governance Board = Project Owner on behalf of WDC

Consenting Scenario (slide 2 of 3)

- With any such 'in principle' agreement in place, the project team will need to then have confidence that intensive further investigation should proceed at the site (i.e. pilot trial and test bore installation), given indicators that it is suited for SDI (WDC permissions for spending would be applied for). Any completion of such activities could then:
    - Allow comparison for such a solution against the remaining options, and;
    - present to community partners and hapuu, explaining necessary process steps to establish this as the best practical option (BPO) through ***qualitative*** analysis. This ensures community voice and partnership occur as best as practical.

2



<u>Input:</u>
Approved BPO Assessment & Recommendation Strategy
WGB
<u>Next Steps (1) Execute:</u> Technical Team/WSL/WDC
Core elements:
Short list qualitative analysis Project Objective Analysis
<u>Output:</u>
Advised BPO presented in Water Governance Board Paper

Waikato DISTRICT COUNCIL
Te Kaunihera aa Takiwaa o Waikato

Consenting Scenario (slide 3 of 3)

Project Objective Analysis

Raglan Wastewater Consent Project

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

- *Cultural Rights*
- *Community Representation & Affected Parties*

Strategies prepared in partnership

- Assessment of Environmental Effects
- Safety, Affordability, Adaptability, Resilience

Technical input

Waikato DISTRICT COUNCIL
Te Kaunihera aa Takiwaa o Waikato

Proposed way forward to met best practice

BPO Assessment & Recommendation Strategy (WGB Endorsed)

<u>Strategies</u>
prepared in partnership

- Cultural Rights
- Affected Parties
- Community representation

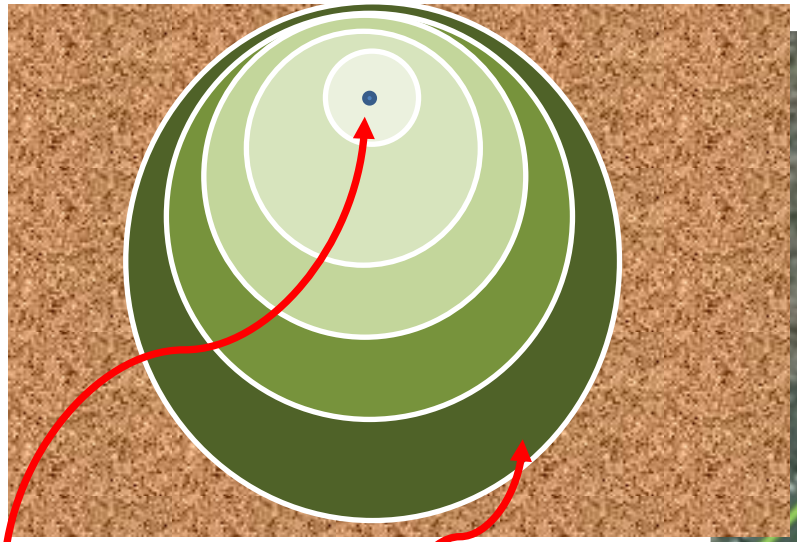
- Collaboration input

Technical Input

Project Objective Analysis through Qualitative Analysis

Output: Advised BPO presented in Water Governance Board (WGB Steering)

3) SDI Concept (Slide 1 of 2)



SDI Line
1st day of irrigation

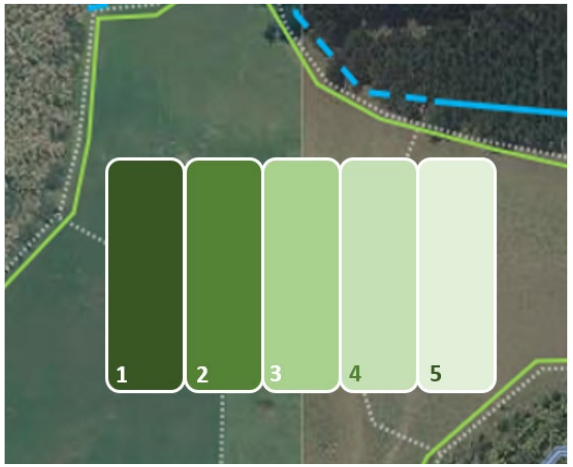
Waikato DISTRICT COUNCIL
Te Kaunihera aa Takiwaa o Waikato

	SDI Concepts (slide 2 of 2)	
A	1000 m^3 per day to SDI discharge	*Theoretical volume*
B	20 ha SDI field divided into 5 zones (fields)	*See Image below*
C	5 day return time between irrigation of each field, meaning 4 ha per day is irrigated	*A single field is irrigated per day*
D	250 m^3/ha within a day is the rate required per discharge	*1000m^3 divided by 4 (see row C)*
F	25 mm/irrigation applied per day to a field (Day 1)	*1mm equals 10m^3/ha; therefore 25 x 10m3 = 250m^3 25 x 1mm =25mm*
G	5 mm/day (average sub surface flow)	*25mm/5 days (see row F)*

Notes

- Very simplistic explanation of SDI – complex modelling, field selection (best soils reserved for season and weather), and intermittent irrigation through the day ;
- Most of the soil capacity is reserved for rainfall (90-70%)
- Sheet water does not co-mingle with SDI flow

- Link: Subsurface Drip Project Note (Project Website)



April Vlog Planned :SH/Priya – March Queries Received

Closing