Western Water Supply programme: Huia WTP & raw water update

Huia WTP CLG

30 January 2025

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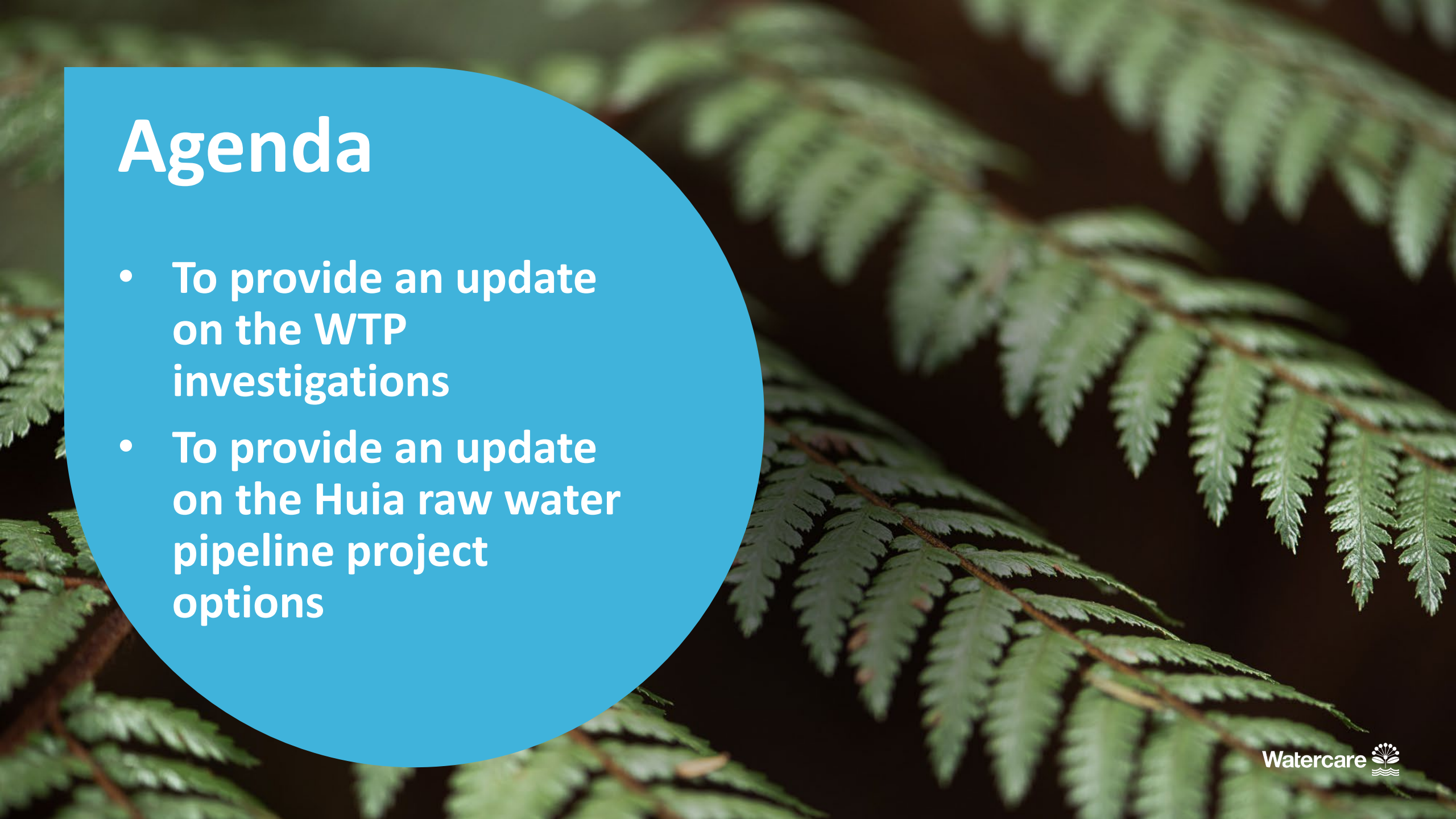
Agenda

- To provide an update on the WTP investigations
- To provide an update on the Huia raw water pipeline project options



Huia WTP update

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Huia WTP - update

1. Watercare are engaging a drilling contractor to carry out boreholes
2. Expected works starting March/April 2025
3. Comply with Kauri Dieback protocols per the approved PRMP
4. Comply with Auckland Transport traffic management permissions – estimated be approx. 2-3 weeks traffic signals.

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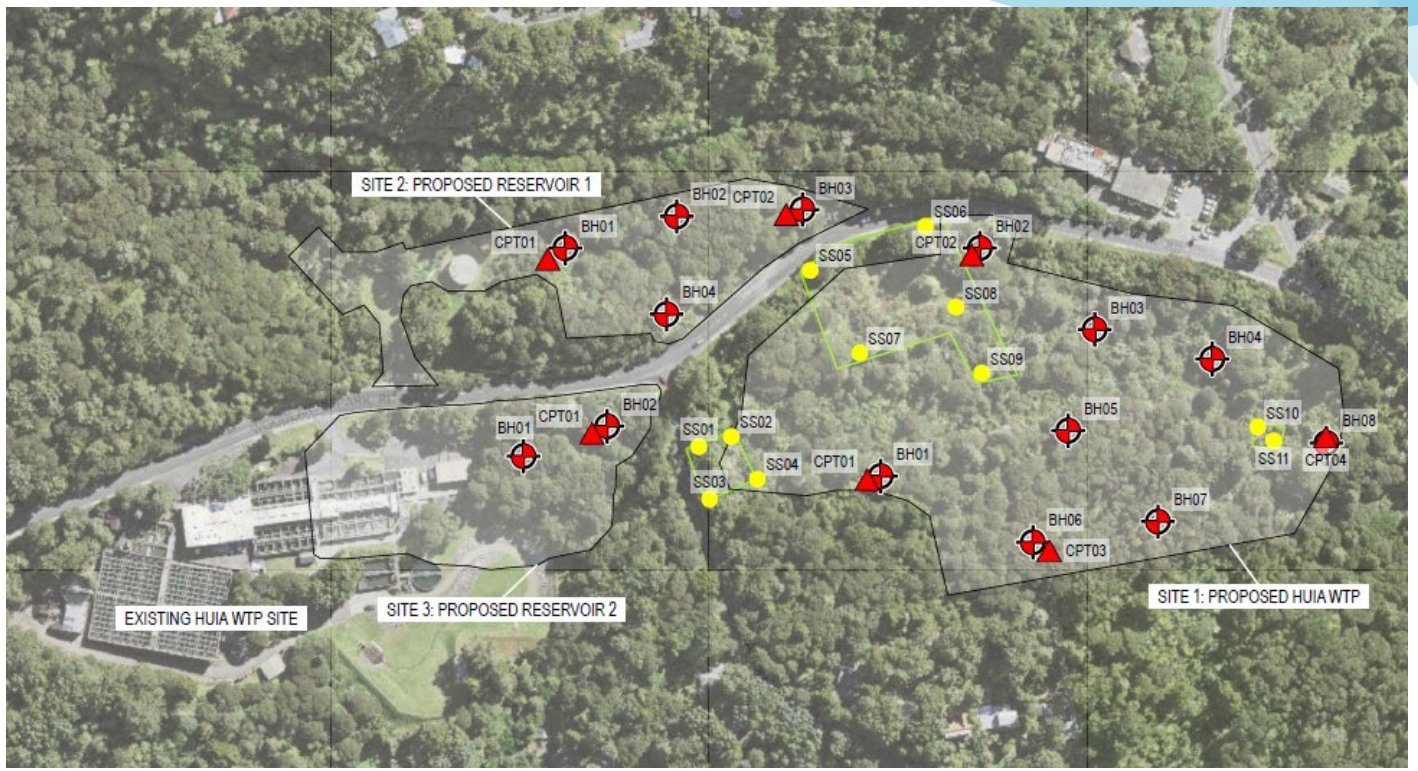
Geotechnical investigations

5. Map of proposed sites
6. Use existing historical data and new data
7. Produce investigations report
8. Design work 2025-2026
9. Contract documents 2027
10. Construction 2028 –2033.



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Raw water update

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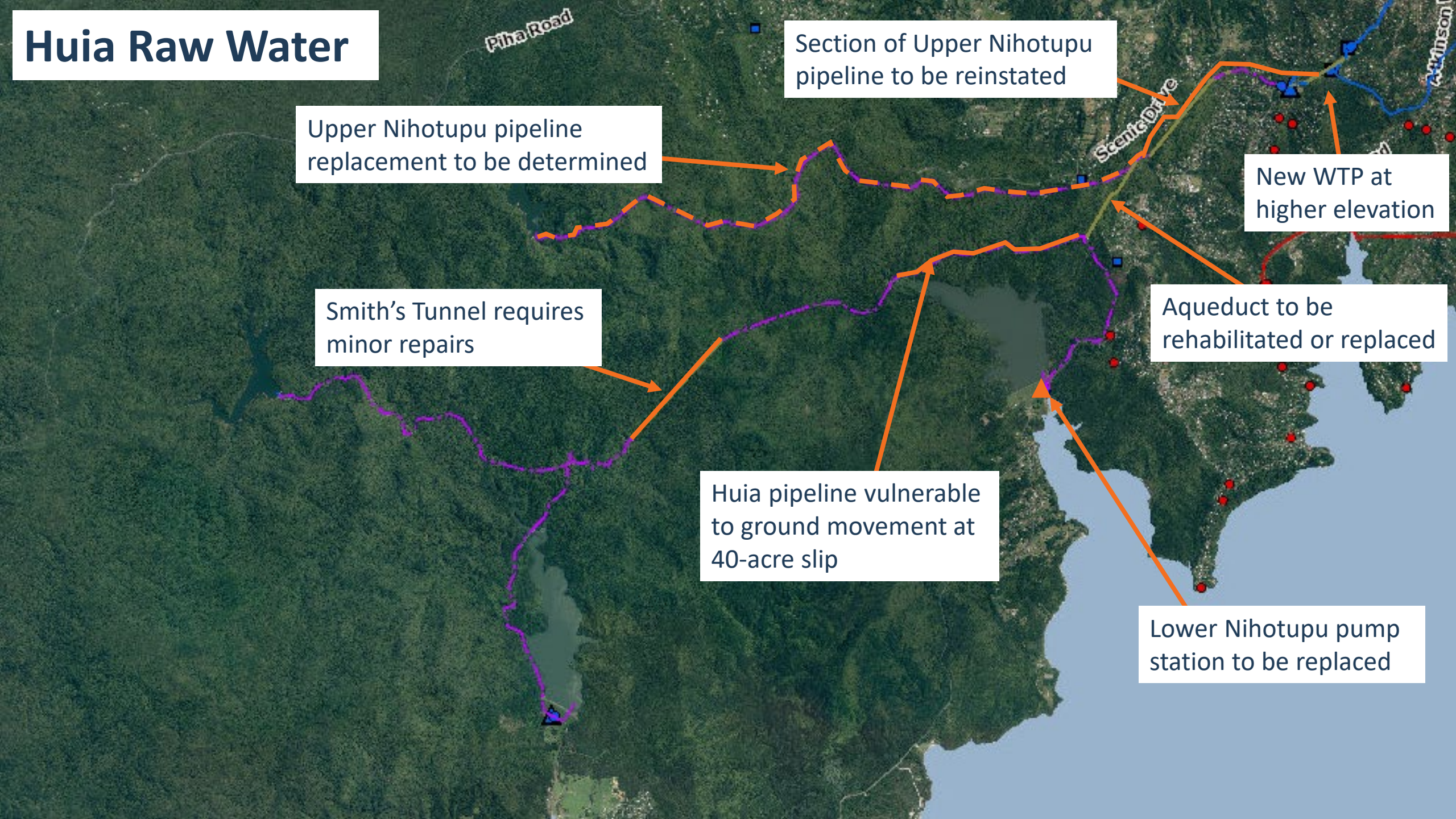
Huia Raw Water



Options Assessment

Options assessment - approach

Watercare's objective and underlying principles

1. Upgrade the ageing assets
2. Enable the new Huia WTP to be commissioned and operated
3. Contribute to a resilient, reliable, safe and efficient water supply

Approach to the options assessment

- Robustness – address risks early in project lifecycle
- Options being considered and been improved over time – and are likely to continue to do so

Options assessment – general guidance development

Developed the criteria from Infrastructure Australia and UK Water resources guidance on options assessments.

Key points:

- Clear demonstration of how the option has been developed and meets the overall objectives.
- We are comparing options against a baseline option
- We have carried out work to make sure there is sufficient information to make the assessment on qualitative data
- To avoid bias, each criteria is assessed equally

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Options assessment criteria

Topics covered:

- Cultural
- Heritage & Archaeology
- Social Impact
- Environment
- Landscape
- Sustainability
- Construction
- Operation
- Statutory Planning
- Engineering

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Options being considered

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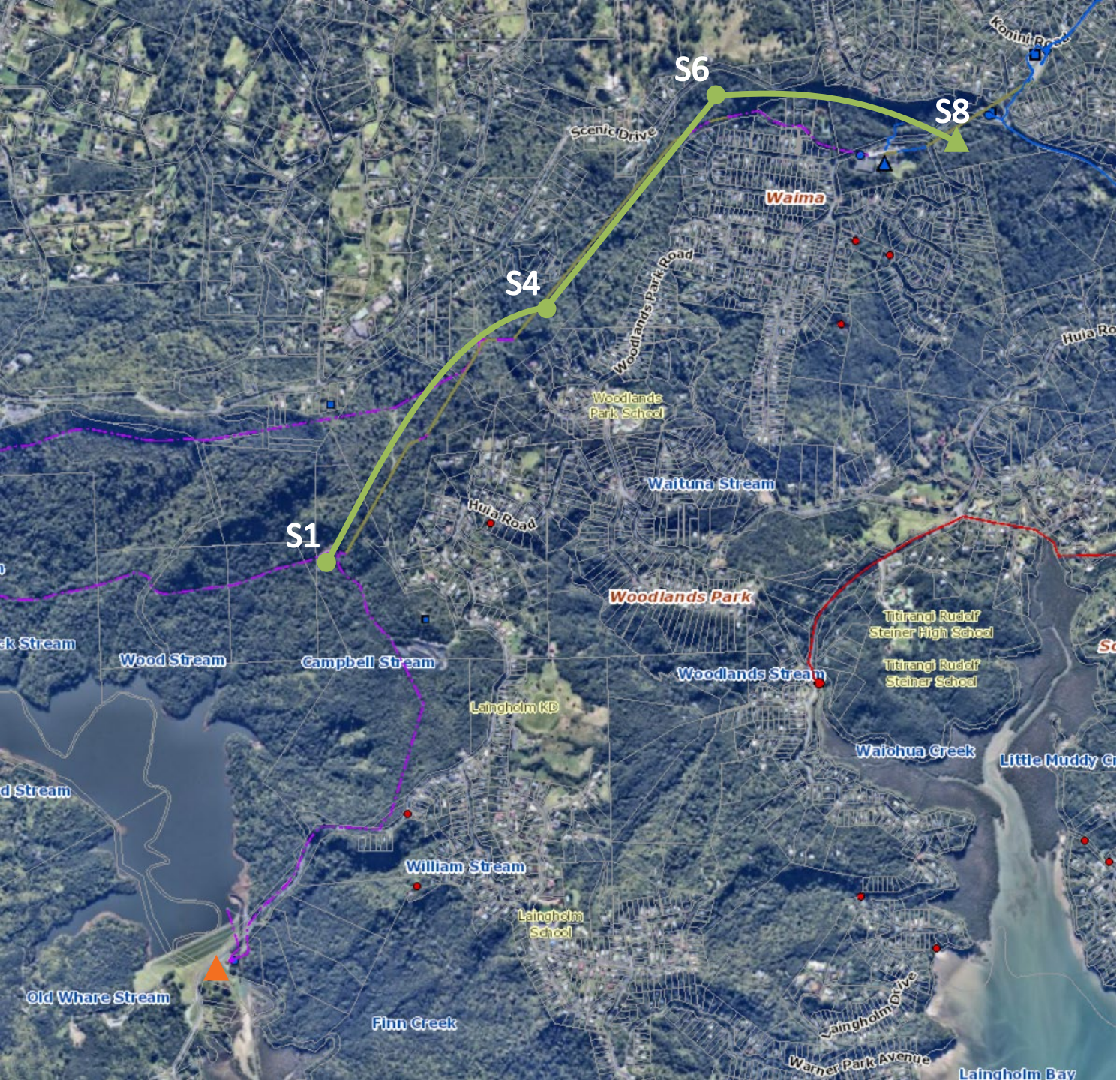

Option 1

- Upgrade the Lower Nihotupu pump station
- New Huia WTP pump station
- New tunnel from Mackie's Rest

Key Features

- Pipe jack tunnel of around 2m diameter.

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Option 2

- Upgrade the Lower Nihotupu pump station
- Uprated pipeline from Lower Nihotupu pump station
- New pressurised tunnel from Mackie's Rest

Key Features

- S8 on new Huia WTP site.
- Line Smith's Tunnel to operate at 135m.
- Replace first 500m of Lower Nihotupu pipeline due to higher pressure.
- No terminal pump station needed at new WTP.

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Option 3 – Along Huia Road

Not taking forward due to …….high risk of geotechnical failure, major traffic disruption and construction length.

Option 4A

- Upgrade the Lower Nihotupu pump station
- New Depot boost pump station
- New Depot pipeline from Huia pipe
- New Aqueduct pump station
- Refurbish Aqueduct

Key Features

- Huia boost pump station location adjacent to Lower Nihotupu pump station.
- Aqueduct pump station on existing Huia WTP site.
- Pipe construction in road is 1m diameter.
- Avoids 40 acre slip.

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Option 4B

- Upgrade the Lower Nihotupu pump station
- New Huia boost pump station
- New pipeline from Mackie's Rest
- New aqueduct pump station
- Refurbish aqueduct

Key Features

- Huia boost pump station location not fixed along pipe
- Aqueduct pump station on existing Huia WTP site.
- Pipe construction in road is 1m diameter.
- Within 40 acre slip extents.

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Option 5A

- Upgrade the Lower Nihotupu pump station
- New pipeline from Lower Nihotupu pump station to both Huia WTPs
- New aqueduct pump station
- Refurbish aqueduct

Key Features

- Separate pipe from Lower Nihotupu provides additional redundancy and can supply existing WTP first.
- Refurbishing aqueduct.
- Aqueduct pump station on existing Huia WTP site.
- Pipe construction in road is 1m diameter.

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Option 5B

- Upgrade the Lower Nihotupu pump station
- New tunnel from Lower Nihotupu pump station to new Huia WTP
- New aqueduct pump station
- Refurbish aqueduct

Key Features

- Separate pipe from Lower Nihotupu provides additional redundancy and can supply existing WTP first.
- Refurbishing aqueduct.
- Aqueduct pump station on existing Huia WTP site.
- Direct pipe tunnel of 1.5m diameter.

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Next Steps

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Activities

- Options still developing as better information becomes available
  - Structural assessment of the existing aqueduct being undertaken
  - Geotechnical Investigations to better understand the risks for each option
- Effects will be a combination of
  - **Ecological / landscape – if a tunnel type route**
  - **Social / transport – if a road route is taken**
- Engagement with the public about **these issues**

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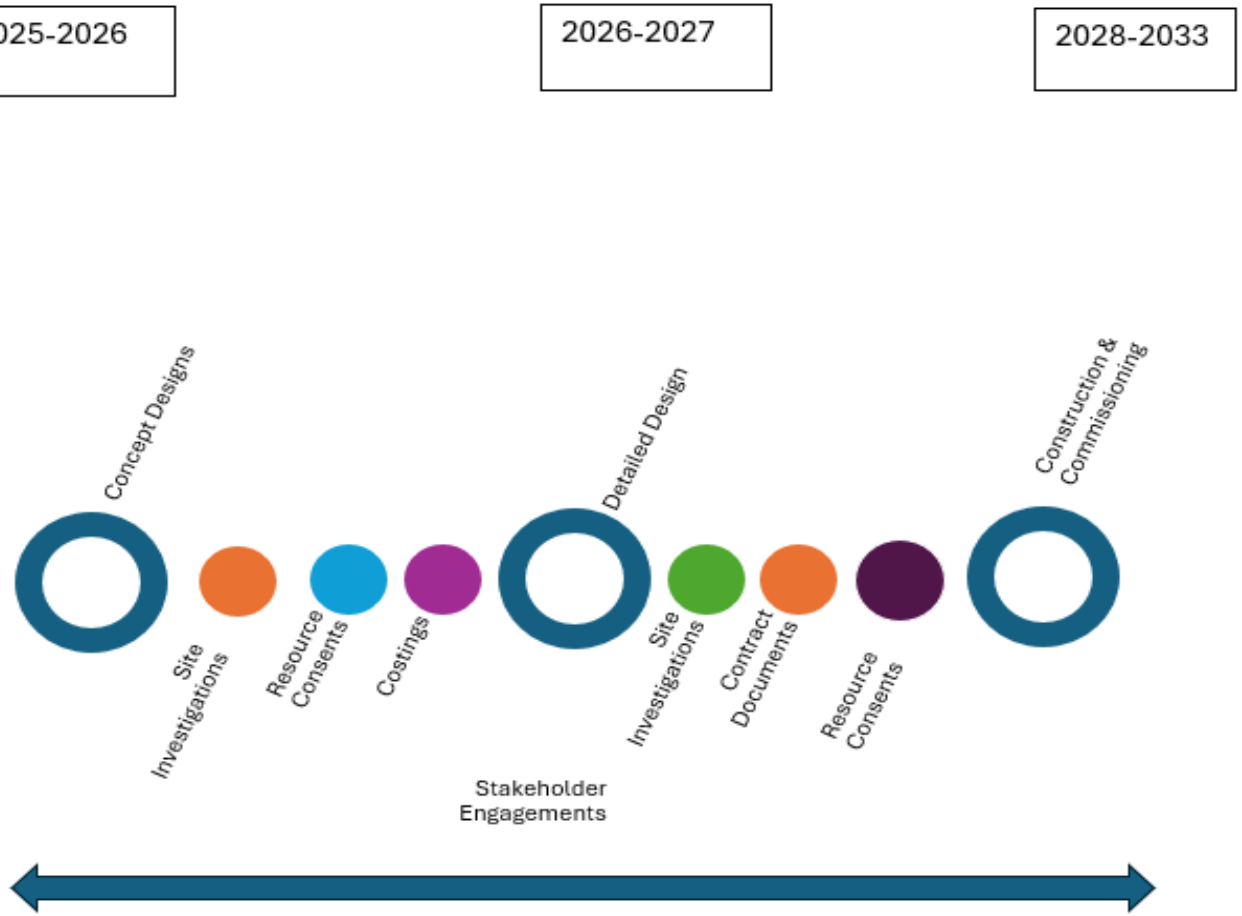
Raw water timeframe

Indicative programme



Next steps – Summary for 2025/2026.

1. WTP geotech investigations & reporting & design work.
2. Lodge Resource Consent in Feb 2025 for geotechnicial investigations for raw water options & reporting.
3. Public drop-in sessions for raw water consultation – TBC.
4. Geotechnical investigations for North Harbour 2 connection (WTP to Titirangi reservoir) - TBC.
5. Concept design on preferred raw water option starts.

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Thank you and any questions?

Western Water Supply – Community Engagement

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Watercare Customer Promise

Engage

We will:

- Involve you in decisions about how we deliver water and wastewater services
- Use your feedback to improve customer services
- Help you to value water as a taonga and to use it wisely

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Our planned community engagement activity

March - April

Communications / newsletter to local community

Community drop in session to view proposed options and ask questions of the project team

Public display of options in Titirangi Library

Online and in-person survey to consult on key priorities and concerns

Mid – Late 2025

Community town hall event to provide feedback on decision based on consultation and Geotech investigations

Communications / newsletter to local community

On-going communication with local community on next steps

2026 - 2027

Ask for feedback from community on how we deliver the project to lessen impact

Explore opportunities for environmental and sustainability initiatives and potential collaboration

Follow up communications and engagement as decisions are made

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Pātai / questions?

Feedback and suggestions of how to best reach the community are welcome.