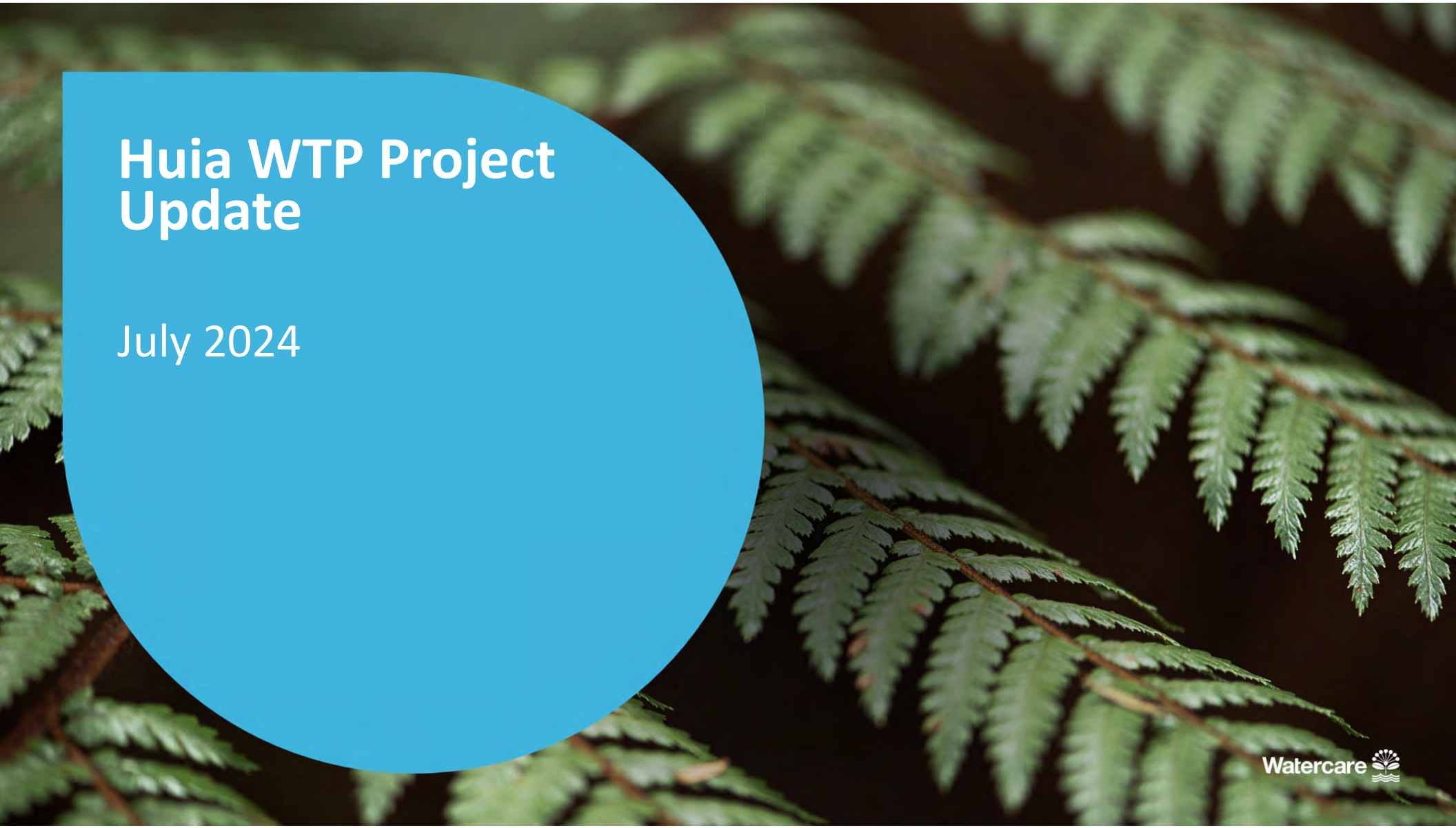
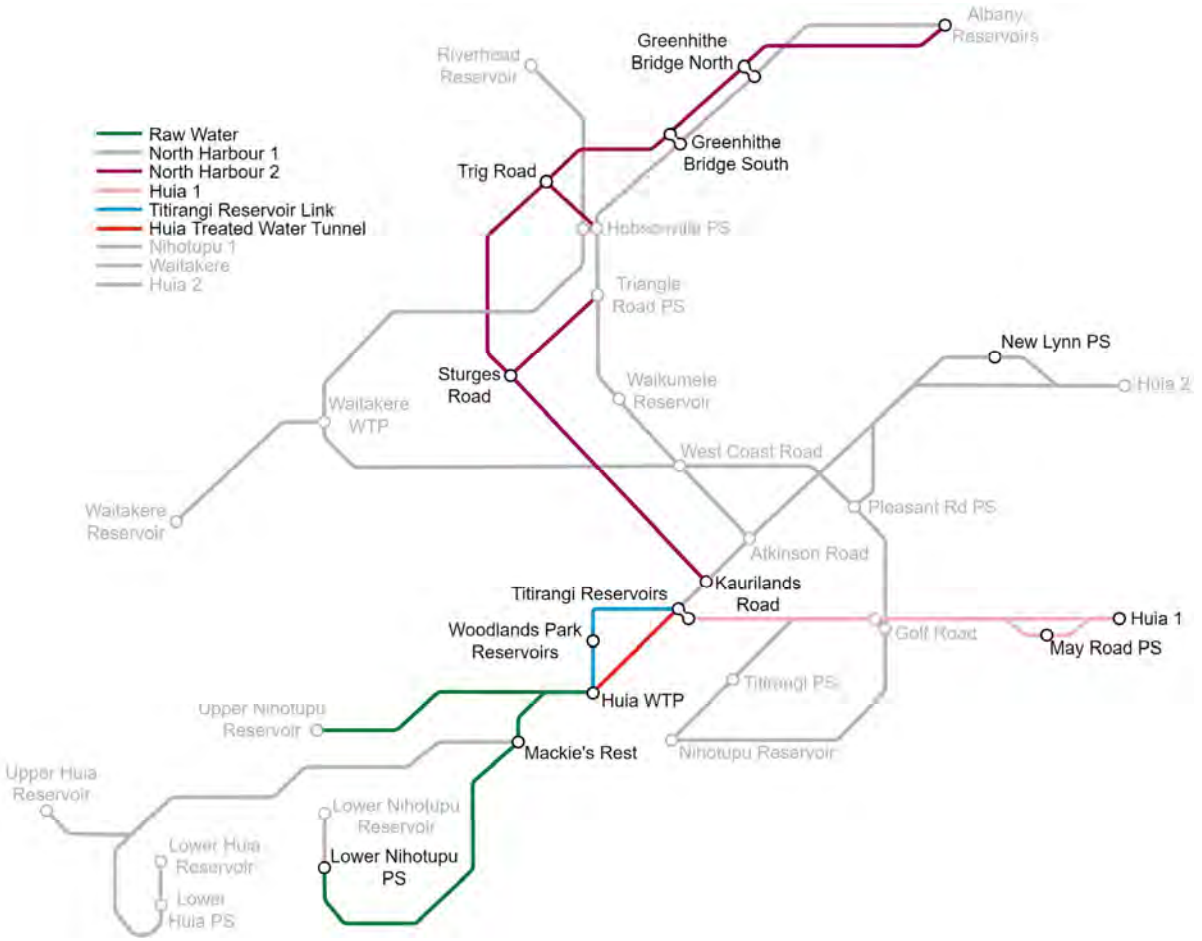

Huia WTP Project Update
July 2024
Watercare

Western Water Supply Programme



Watercare

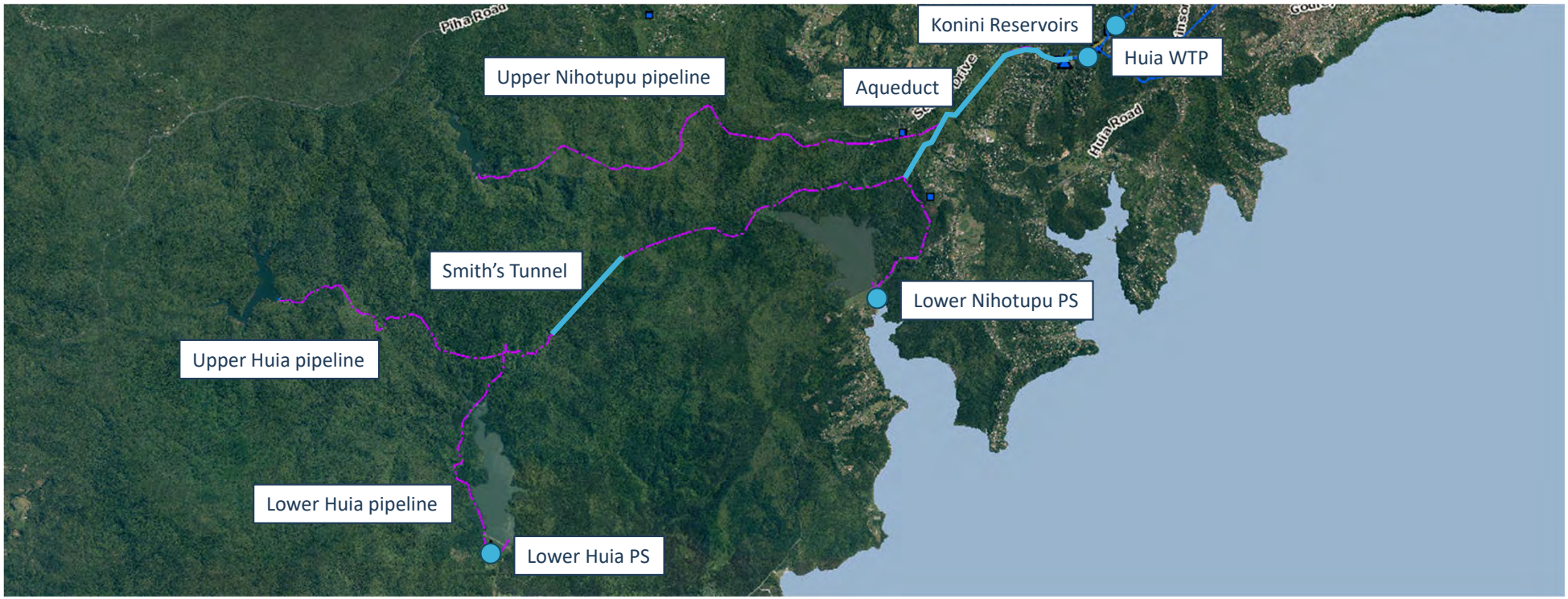
Resilience of water supply to the West and North

Watermains on Auckland Harbour Bridge

Albany reservoir and pump station

Tirohanga Whanui Bridge and watermain

Western Water Supply Programme – Waitākere Ranges infrastructure



Watercare

Catchments and assets at risk from extreme weather

Slips in the headworks

Raw water mains under threat from slips

Tracked carrier for repairs

Watercare

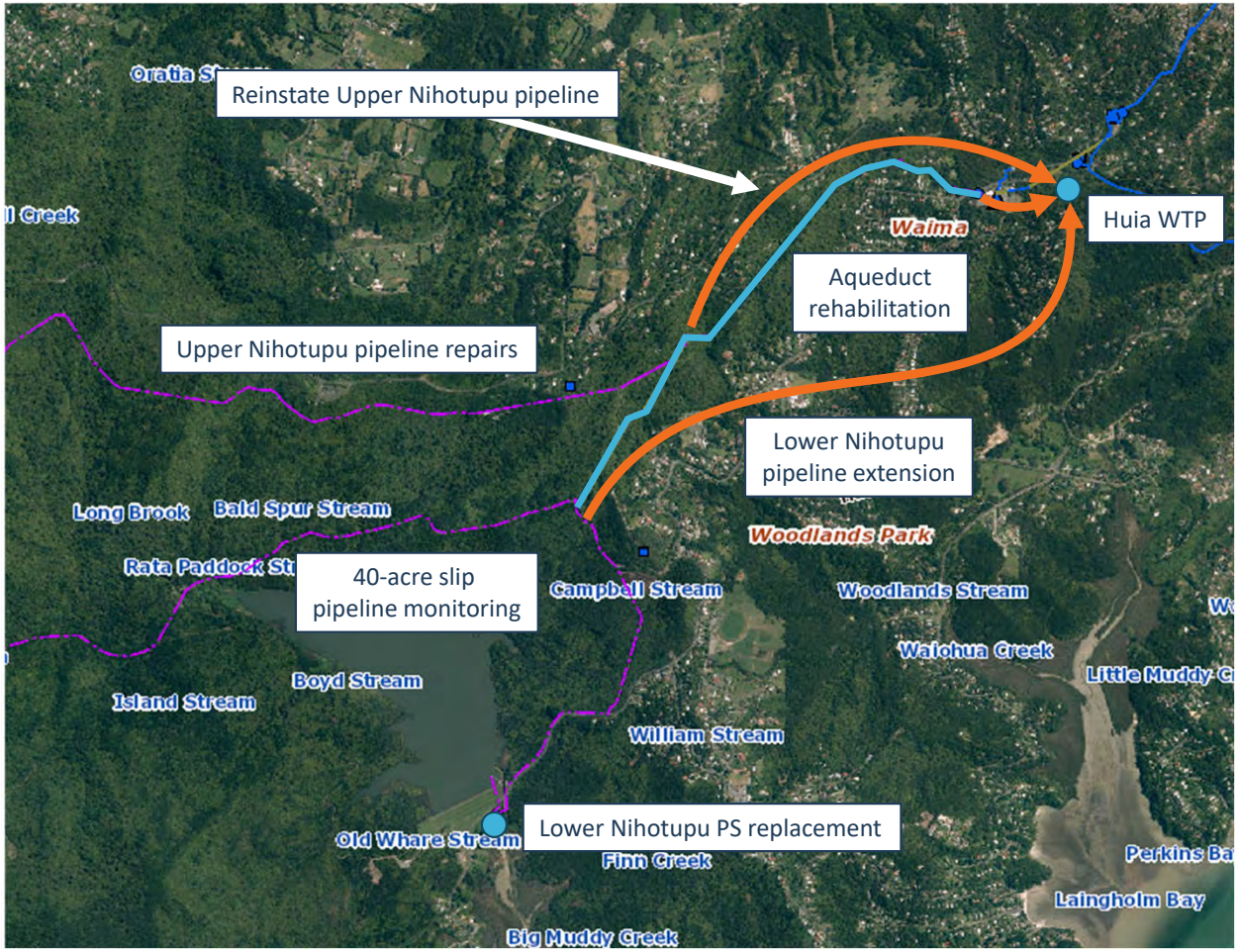
Raw watermains

The raw watermain rehabilitation and replacement will:

- Increase resilience and reliability of supply to the plant
- Reduce risk of failure from extreme weather events
- Supply existing and new Water Treatment Plant

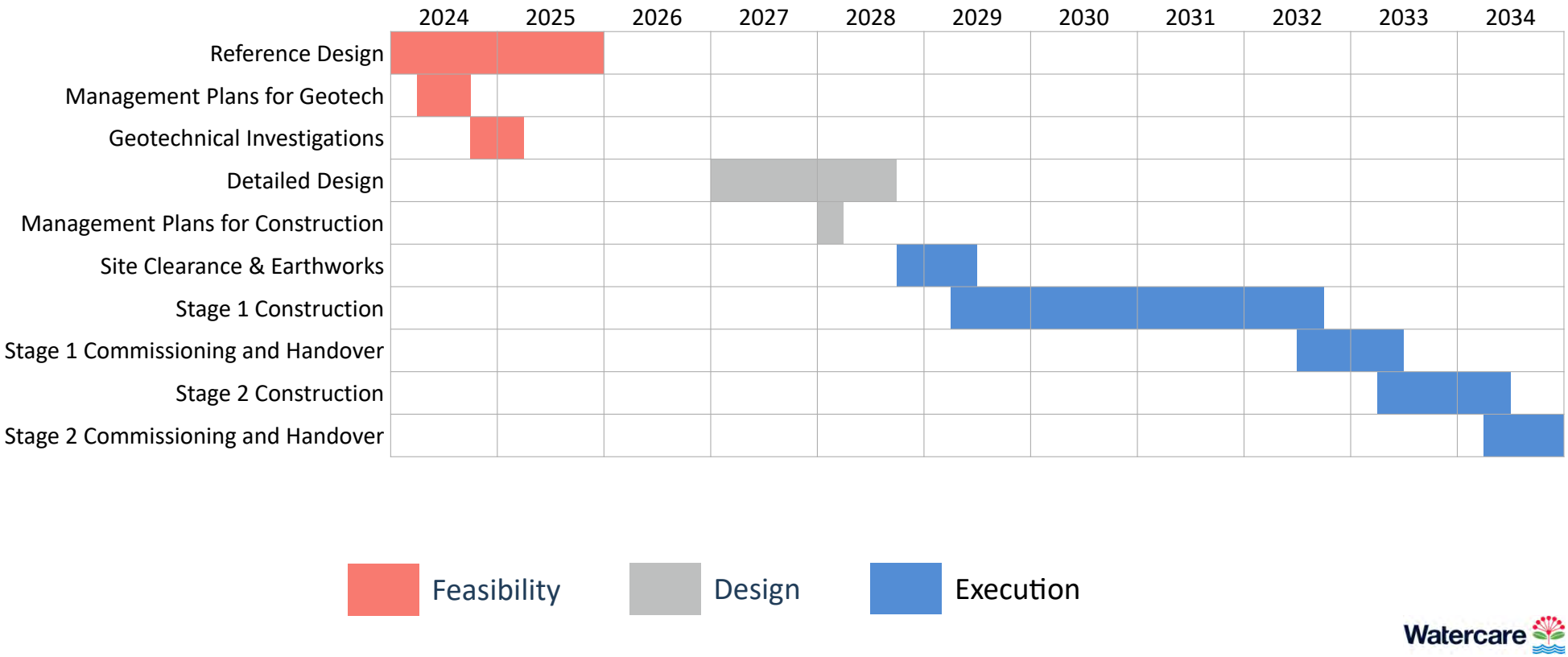
Watercare

Raw Water Supply to Huia WTP



Watercare

Huia Water Treatment Plant Programme



Watercare

Management Plans for Huia WTP

- Management plans for upcoming geotechnical investigation requiring CLG input:

Plan	Timing	Status
Phytophthora Risk Management Plan (PRMP) for geotech	July 2024	Draft Completed
Pest Management Strategy for Biodiversity Restoration (PMSBR)	Aug/Sept 2024	Draft Completed
Ecological Management Plan (EMP)	Aug/Sept 2024	Draft Completed

- Future management plans for bulk construction works:

Plan	Timing
Phytophthora Risk Management Plan (PRMP) for construction	From January 2028
Construction Management Plans (Communication, Traffic, Noise and Vibration)	From January 2028
Nihotupu Heritage Management Restoration Plan (NHMRP)	From January 2028

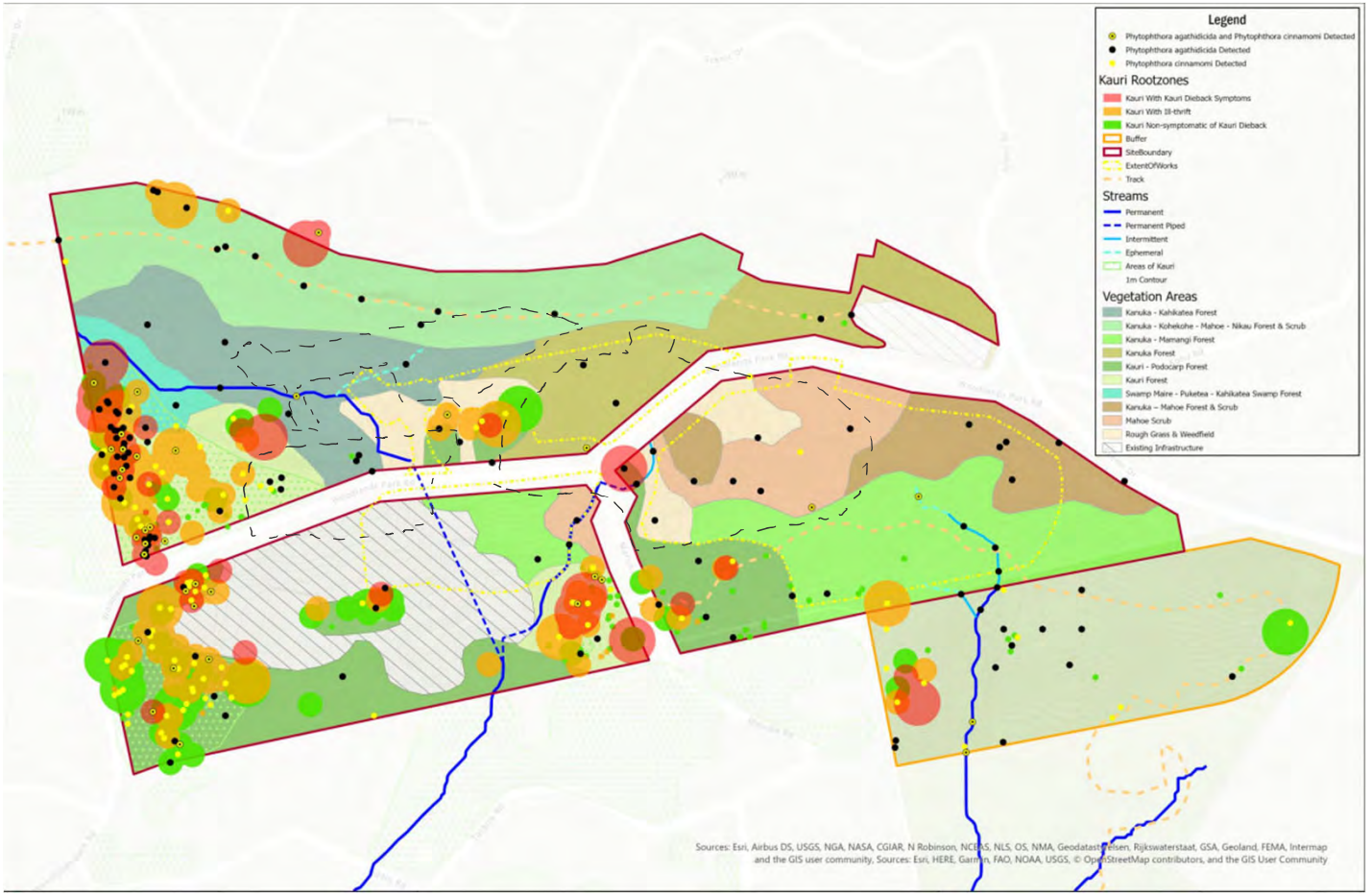
Watercare

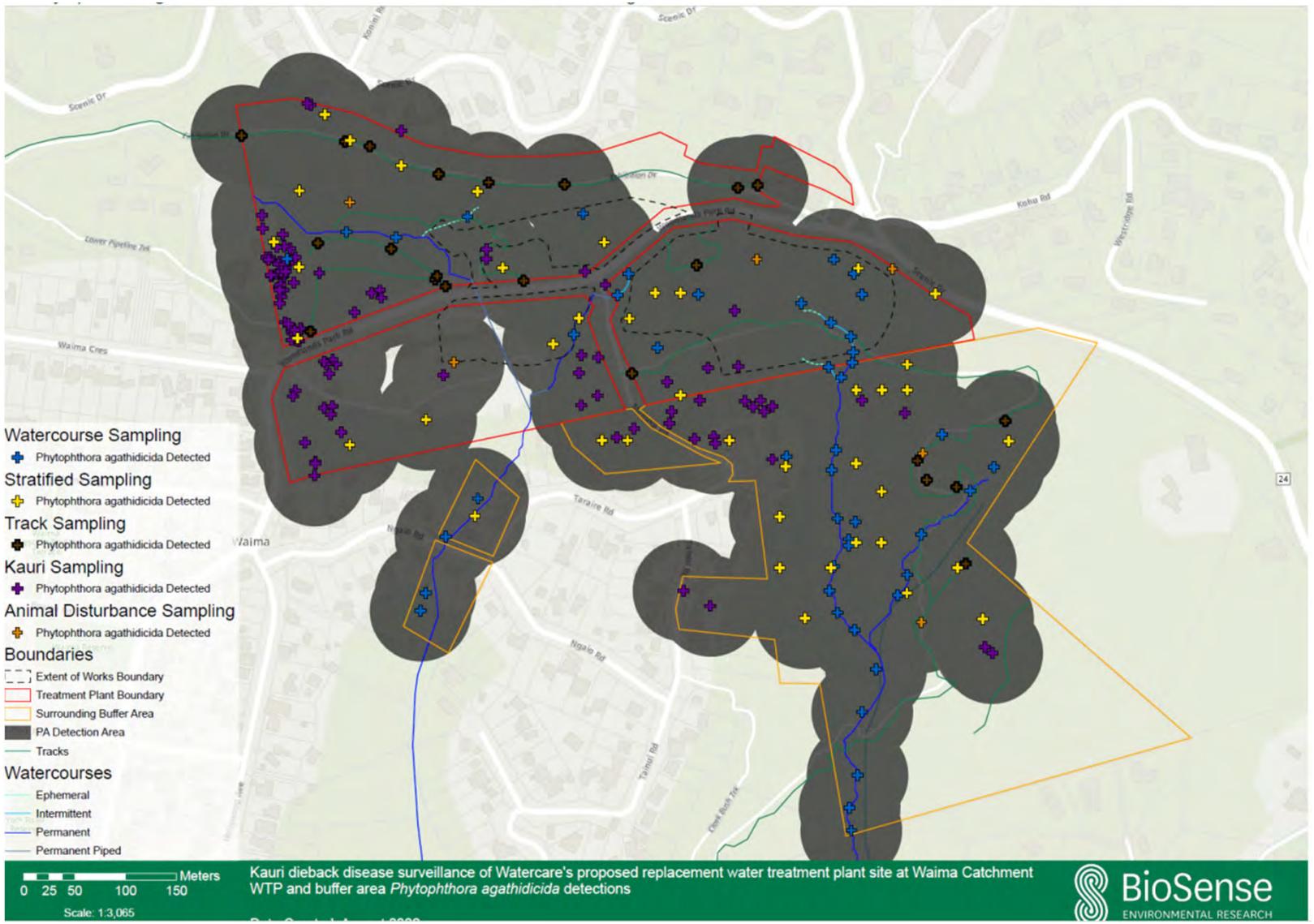
Huia WTP geotechnical investigations

Phytophthora Risk Management Plan (PRMP) and next steps

Phytophthoda agathadicida (Pa) : risks and management approach

- Pa is the pathogen responsible for kauri dieback disease
- Reproduces in root systems of kauri (and possibly other plants) and is soil borne
- Pa found in soil across the site, in infected kauri, in watercourses (on and off site), and in the wider catchment




Watercourse Sampling
Phytophthora agathidicida Detected
Stratified Sampling
Phytophthora agathidicida Detected
Track Sampling
Phytophthora agathidicida Detected
Kauri Sampling
Phytophthora agathidicida Detected
Animal Disturbance Sampling
Phytophthora agathidicida Detected
Boundaries
Extent of Works Boundary
Treatment Plant Boundary
Surrounding Buffer Area
PA Detection Area
Tracks
Watercourses
Ephemeral
Intermittent
Permanent
Permanent Piped
Meters
0 25 50 100 150
Scale: 1:3,065
Kauri dieback disease surveillance of Watercare's proposed replacement water treatment plant site at Waima Catchment WTP and buffer area *Phytophthora agathidicida* detections
BioSense
ENVIRONMENTAL RESEARCH

Risks and management of Pa

- Pa spores are motile in water and infect kauri roots (particularly at injury sites, or if tree is stressed).
- Current evidence is that infection is ultimately lethal to kauri.
- Key modes of Pa spread are via movement of infected soil and water.
- Mobilisation of infected soil and water increases the risk of contact with uninfected trees.
- Hence, containment of potentially infected soil and water is the key to effective management.

“Traffic light system” SOP

Consent conditions require a “Traffic-light system” for staging of works:

- Red: Areas of removal, disturbance and stockpile of surface soils, organic materials, water and high-risk materials.
- Orange: Bulk earthworks activities other than in ‘red’ above.
- Yellow: Areas with stabilised hardfill and localized excavations within hardfill areas.
- Green: Areas located outside the subject site and after decontamination.

Machinery can only freely progress through the traffic light system from lower to higher risk areas. To go from a higher to a lower risk area, the machinery, equipment and/or personnel must be decontaminated as set out in the PRMP.

Geotechnical investigations: A geotechnical investigation-specific PRMP shall be developed as a standalone plan [that…] requires a subset of management measures appropriate to the limited extent of physical works to be undertaken on site.

PRMP for Geotech works

Document contents:

- Project background
- Management principles and objectives
- Draft method statement (“worst case” assumptions; to be confirmed following contractor engagement)
- Map of drill sites
- Operational procedures
- Roles and responsibilities
- Environmental risk register