Council Briefing

Infrastructure Business
Thursday, 12 August 2021



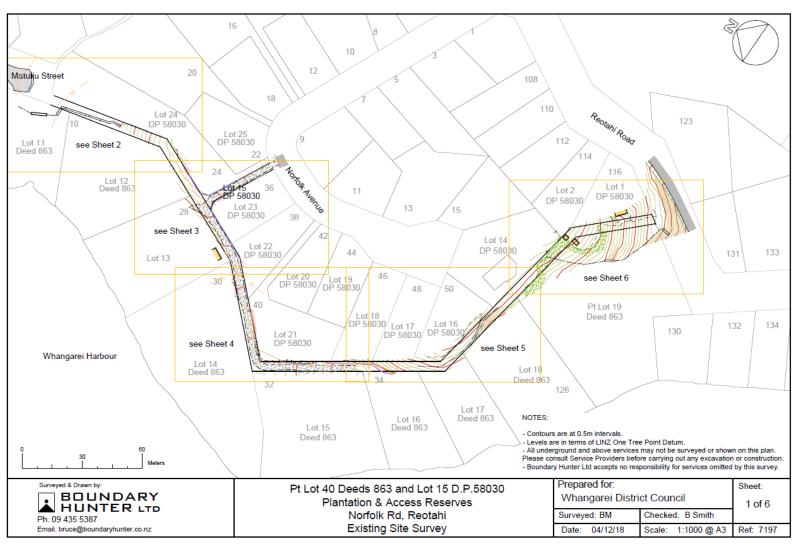
Norfolk Ave, Reotahi Accessway reclassification

Thursday, 12 August 2021











Blue Green Network Programme Update

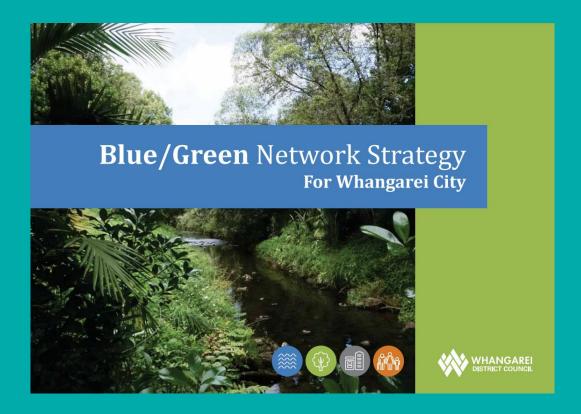
Council Briefing 12 August 2021

Shelley Wharton

Manager Infrastructure Planning & Capital Works



Background



- Adopted in 2016
- Aims to create an attractive and environmentally sustainable urban environment that also addresses threats from flooding and future climate change



Blue Green Network Programme

- Funded in LTP from financial year 2020/21
- Budget is \$19.9m over 10 years, excluding the transport (shared path) components
- Analysis of current state undertaken
 - Past and current projects
 - Land availability (ownership/lease arrangements)
 - Availability of key inputs, eg stormwater modelling
 - Level of complexity
 - Alignment with other work



Blue Green Network Programme

- Programme governance structure established
- Scope crosses over many departments
- Steering group meets regularly, includes representatives as necessary from:
 - Stormwater, Wastewater, Parks, Transport
 - Regional council climate change and natural hazards areas
 - Other Project Managers if their project scope impacts the Blue Green Network areas



Prioritised Projects (next 3 years)

- Lovers Lane Bridge, Civic Centre, Cafler Park areas
- Raumanga Stream (aligns to shared path project)
- Completion of certain paths and planting at Tikipunga
- Waiarohia Loop from the Pocket Park to Okara/Herekino, through Hihiaua and linking back to Hatea Loop.



GIS Programme Management and **Communications Tool**

Working on public facing version for website.



Blue-Green Network **Programme** Dashboard

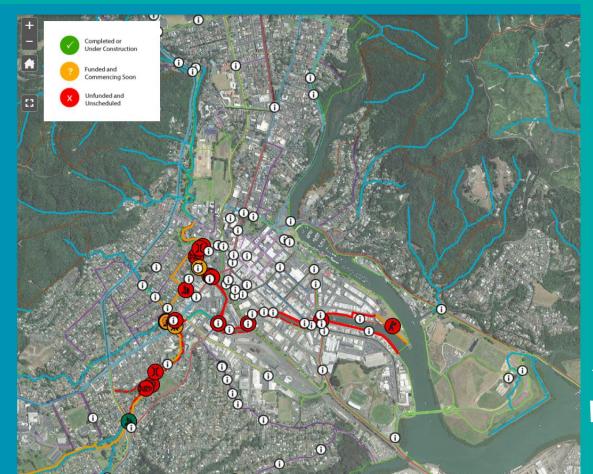
A dashboard dedicated to tracking projects around the major waterways that have been prioritised for Year 1-

Programme Outcomes

Prioritised Projects for Year 1-3

- Upper Hätea Link
- Hātea Loop Extension

- Raumanga Stream Connection • Waiarohia Recreational Corridor Coastal/River Flood Modelling





Stormwater Catchment Planning Update

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Shelley Wharton

Manager Infrastructure Planning & Capital Works



Background

Stormwater Management is

 The management of relationships between land surfaces and the quantity and quality of water to protect people, property and the mauri (life force) of water, including groundwater, freshwater and coastal water.



Background

- Regional Plan for Northland updated
- Substantially different catchment planning and consenting requirements
- Previous catchment plans are no longer fit for purpose
- New approach enabled and is required to meet new national policy and standards

District Council

 Commenced stormwater catchment strategy and planning work programme in 2018

National Policy Statement Freshwater Management 2020

- NPS FM 2020 requires local authorities to:
 - Give effect to Te Mana o te Wai;
 - Include tangata whenua and communities in developing long term visions for waterbodies;
 - Actively include tangata whenua in freshwater management (including decision making processes, policy, plans and monitoring)

District Council

- Stronger requirement than previous versions
- Time and cost implications on stormwater catchment planning work

Te Mana o te Wai

Imposes a hierarchy of obligations:

First Priority The health and well-being of water.

Second Priority The health needs of people (such as drinking water).

Third Priority The ability of people and communities to provide for their

social, economic and cultural well-

Whangarei

District Council

being.

Te Mana o te Wai

The six principles

Mana whakahaere: the power, authority, and obligations of tangata whenua to make decisions that maintain, protect, and sustain the health and well-being of, and their relationship with, freshwater

Kaitiakitanga: the obligation of tangata whenua to preserve, restore, enhance, and sustainably use freshwater for the benefit of present and future generations

Manaakitanga: the process by which tangata whenua show respect, generosity, and care for freshwater and for others

Governance: the responsibility of those with authority for making decisions about freshwater to do so in a way that prioritises the health and well-being of freshwater now and into the future

Stewardship: the obligation of all New Zealanders to manage freshwater in a way that ensures it sustains present and future generations

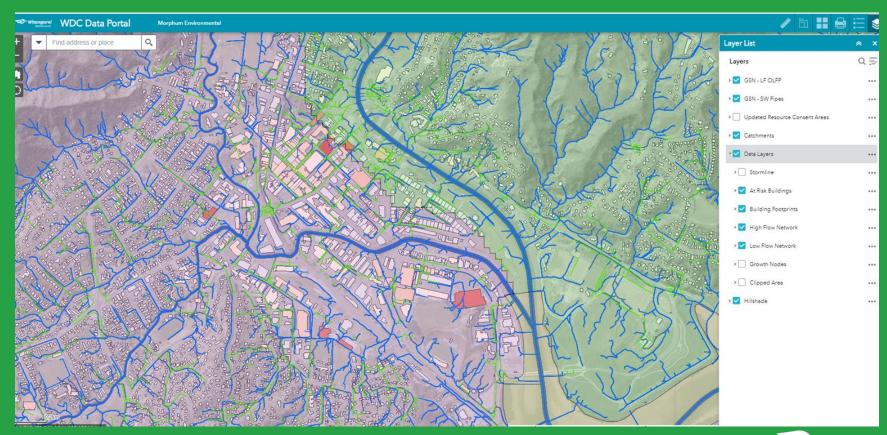
Care and respect: the responsibility of all New Zealanders to care for freshwater in providing for the health of the nation

Stormwater Catchment Planning Work Programme

- Enabling projects completed:
 - GIS Portal for easy information sharing
 - Digital terrain elevation model, and LIDAR
 - Catchments and sub-catchments identified
 - Asset data collection priorities
 - Overland flowpaths and ponding areas mapped
 - Mapped flood extents with building footprints
 - Developed a geometric stormwater network



GIS Portal for Information Sharing



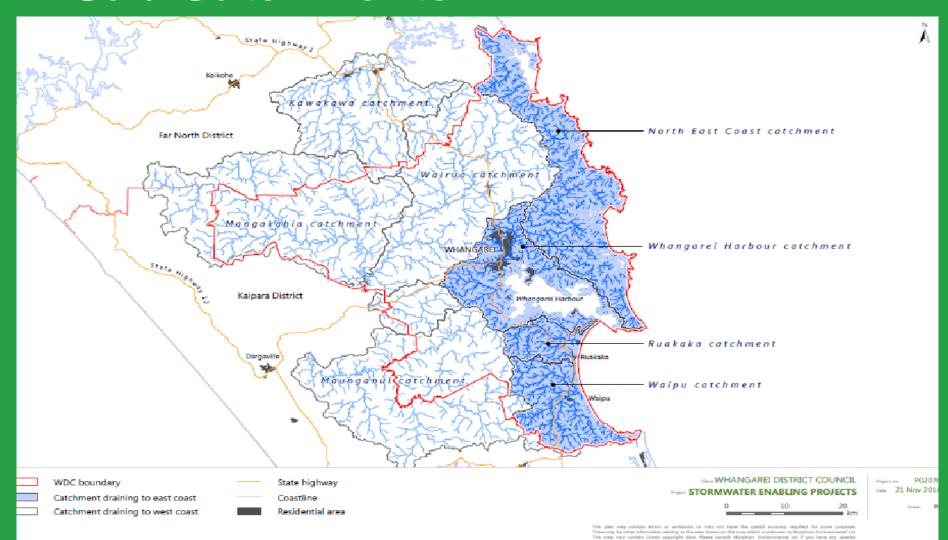


Digital Terrain Elevation Model





Mapping of Catchments & Sub-Catchments



Created Overland Flowpaths (based on topography)



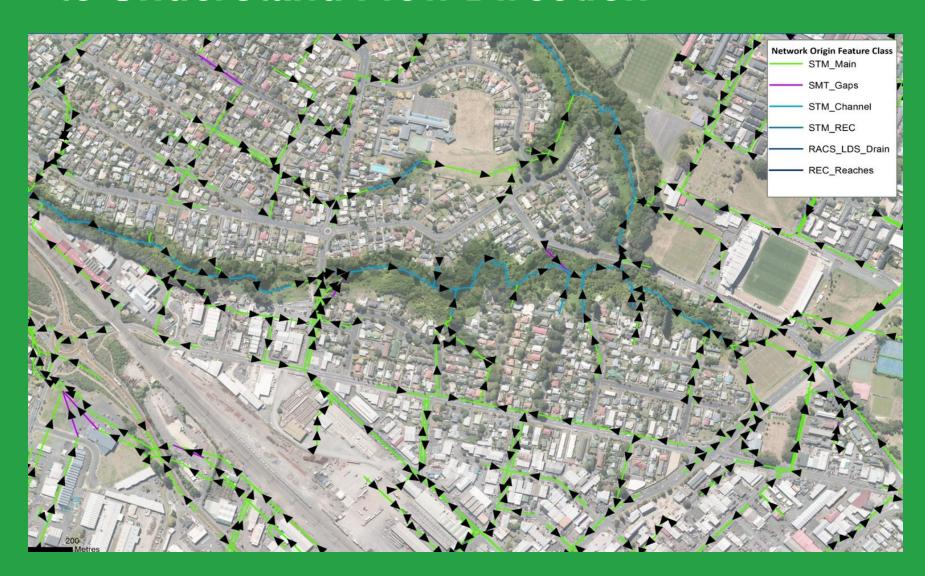


Mapped Intersection of Overland Flowpath and 2006 Flood Extents with Building Footprints





Created Geometric Stormwater Network to Understand Flow Direction



Stormwater Catchment Planning Work Programme

- Work underway:
 - Updating overland flowpaths using new LIDAR
 - Asset data collection
 - Impervious surface mapping
 - Determine type and extent of modelling needed
 - Review of Engineering Standards
 - Stream and Network typing (for analysis)
 - Continued mapping and analysis of the July 2020 flood event



Stormwater Catchment Planning Work Programme

- Future work over the next 6 months:
 - Investigate catchment governance structures that would implement Te Mana o te Wai
 - Engage communities in long term visions for waterbodies
 - Initiate stormwater modelling
 - Clarify responsibilities between WDC and NRC
 - Data collection continues
 - Prioritise areas with issues for more in-depth investigation
 - Integrating aspects of climate change adaptation into stormwater catchment planning

Whangarei

District Council

Stormwater Network Discharge Consent

- Identify further catchment planning information required to support the consent application
- Work collaboratively with NRC where possible
- Undertake an extended pre-application process
- Communications and engagement planning



Network Consent Areas

- Four urban areas:
 - Whangarei
 - One Tree Point
 - Ruakaka
 - Waipu
- Covering existing and proposed development aligning with strategic growth areas, existing networks and hydrological catchments





Technical Paper written for Stormwater Conference 2021

- Shares the journey WDC have been on so far with the stormwater industry to:
 - Increase awareness of innovative aspects of the approach, process and tools developed
 - Share our learnings
 - Gain feedback from those doing similar work
 - Identify potential collaboration opportunities and people with expertise for future workstreams



Questions...

