

Christchurch West Melton Water Management Zone Committee MINUTES ATTACHMENTS

Date: Thursday 24 February 2022
Time: 6pm
Venue: West Melton Community Centre, 1163 West Coast
Road, West Melton

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Christchurch City Council Comprehensive Stormwater Network Discharge Consent

Rangitata River, Canterbury



Background

- Christchurch City Council (Council) / Environment Canterbury (Ecan) Stormwater Management Protocol 2005, revised 2010.
- Protocol sets out how Council and ECan work together to manage stormwater in a more integrated and effective way.
- Three interim consents existed before December 2019, when the Comprehensive Stormwater Network Discharge Consent (CSNDC) was granted for Christchurch City and Banks Peninsula settlements.

CSNDC Purpose and Location

- Authorises stormwater discharge onto or into land or into surface water which enters the network.
- Designed to achieve **integrated catchment wide stormwater management** – not just point source control.
- Responsible for all discharges to the network unless there are significant risks associated with a site. (ECan has better enforcement tools under the RMA to deal with sites that pose an exceptionally high risk to the environment).
- 65 Conditions
- 6 Schedules

How is Stormwater Defined?

- Means runoff water and entrained contaminants arising from precipitation on the external surface of any structure or any land modified by human action, and that has been channelled, diverted, intensified or accelerated by human intervention.
- CSNDC definition does **not** exclude construction-phase stormwater and sediment-laden water which is different to that in the Canterbury Land & Water Regional Plan.
- Excludes discharges of groundwater, spilled or deliberately released hazardous substances, and/or wash down activities.

Summary/What has Changed?

- Council is now responsible for quantity and quality of **all** stormwater directed to and conveyed by the reticulated network.
- Designed to achieve **integrated catchment wide stormwater management** – not just point source control.
- Council is responsible for sediment laden discharges from building and development sites.
- ECan's response to pollution events has changed. When receiving notifications of potentially contaminated stormwater, our team decides if it is passed on to Council.

Erosion and Sediment Control

- CSNDC requires a Sediment Discharge Management Plan.
- All development sites must have an Erosion and Sediment Control Plan, checked regularly and no sediment laden stormwater discharge allowed.
- Council inspectors monitor sites during certain rainfall events.
- Draft Stormwater and Land Drainage Bylaw.
- Traffic Bylaw requires removal of sediment and tracking from roads within 24 hours.
- ECan deals with discharges from ECan consented earthworks sites, and where the source is unknown.



*Taking action together to shape a thriving and
resilient Canterbury, now and for future generations.*

Toitū te marae o Tāne, toitū te marae o Tangaroa, toitū te iwi.

www.ecan.govt.nz

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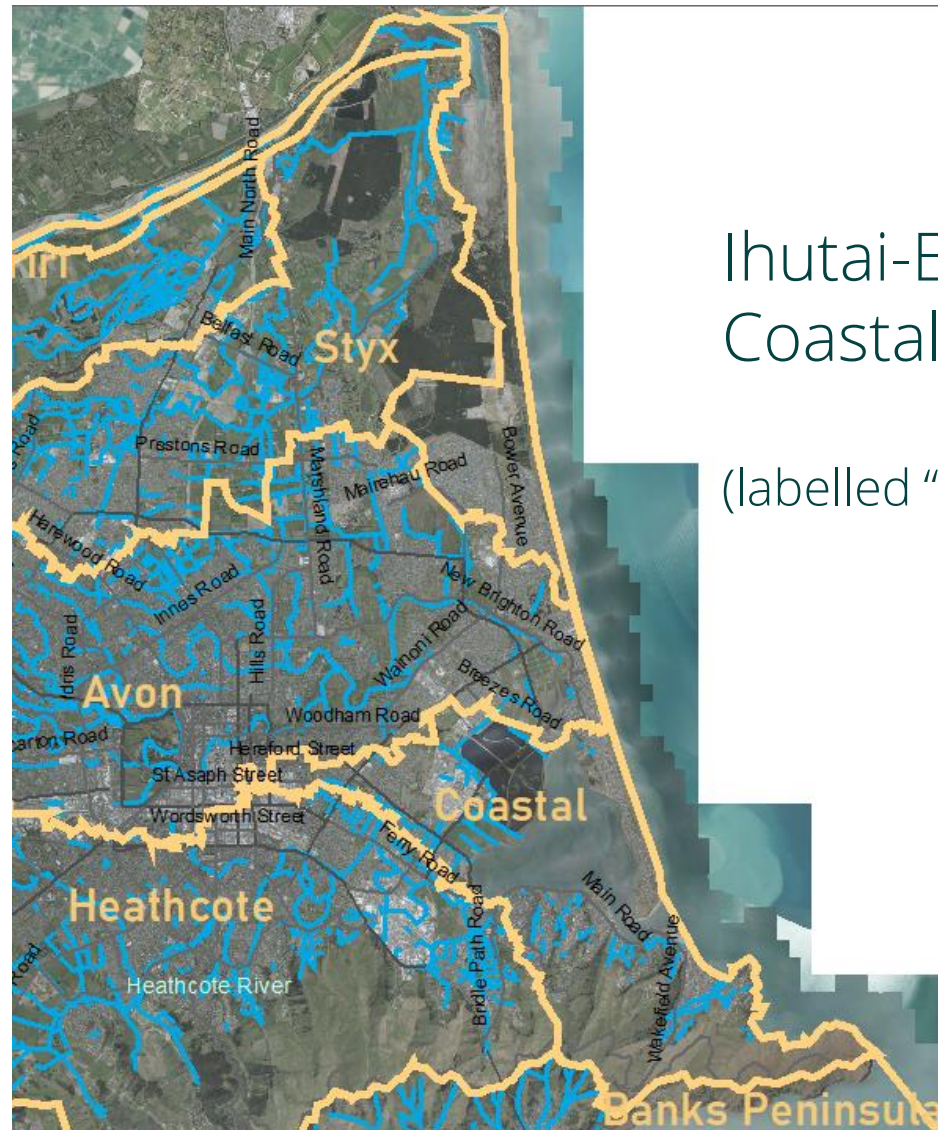
Ihutai-Estuary and Coastal Stormwater Management Plan



Christchurch – West
Melton
Zone Committee
Briefing
Thursday 24 February 2022

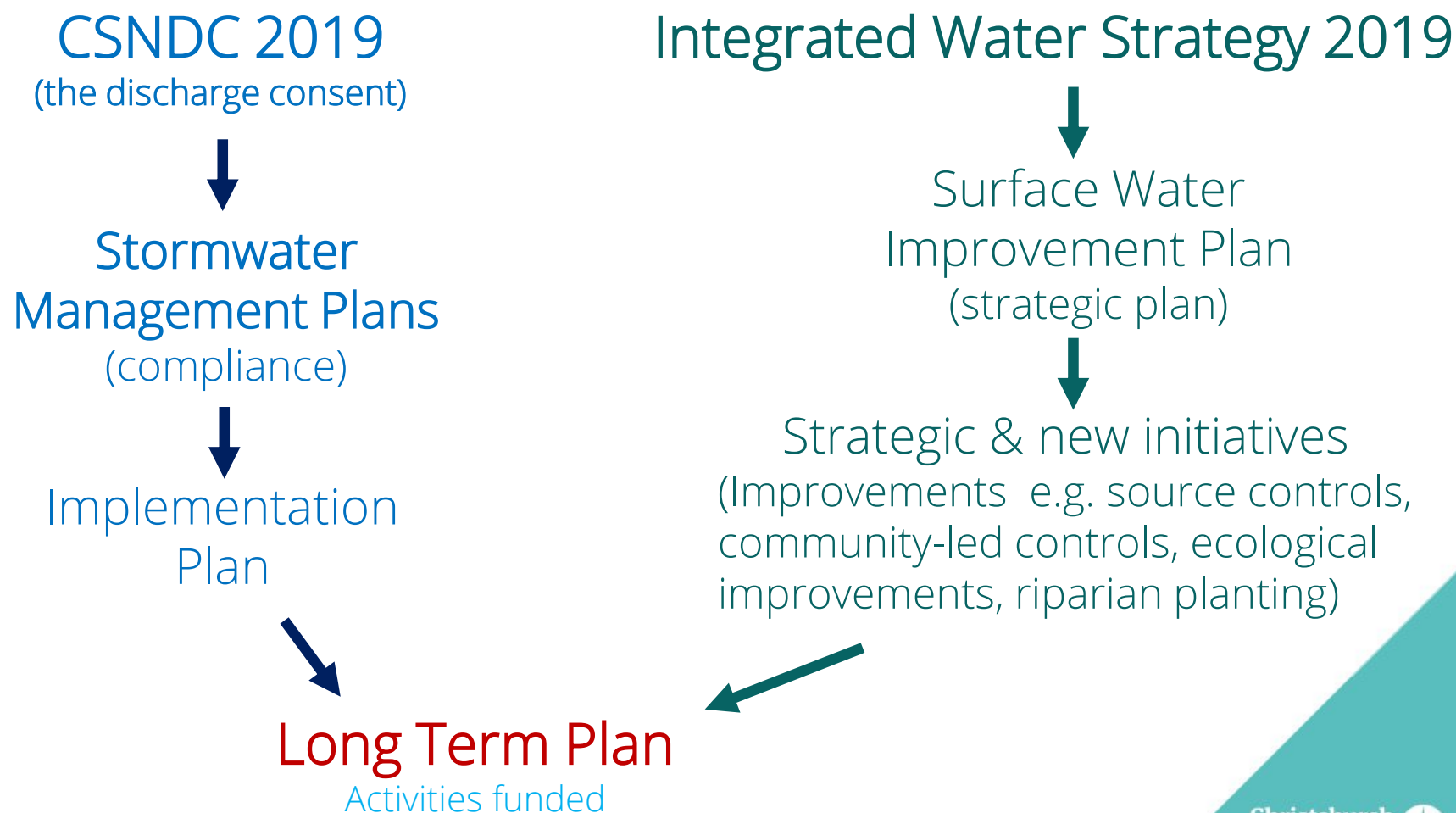
Presentation topics

1. What shapes this stormwater management plan
2. Likely matters of interest in the SMP
 - Contaminants
 - Flooding
3. Mitigations
4. Constraints



Ihutai-Estuary and Coastal Catchment

(labelled "Coastal")



Key contaminants

- Total suspended solids.
 - sediment, industrial particulates, urban particles, organic materials
- Copper
 - mostly brake pad sources
- Zinc
 - mostly roofs and tyres
- Nutrients
 - rivers, treatment ponds? (lhutai considered eutrophic)

Other contaminants

- Emerging contaminants
 - awareness increasing
- Pathogens
 - probably mostly waterfowl

Contaminant

- Suspended particles.

CCC Response

- Sediment Management Plan 2020 (Erosion and Sediment Control Plans for construction sites)
- Industrial site audits (visit, check compliance, agreed improvement plan)
- Treatment facilities with new development

- Copper

- Brake pad copper content expected to reduce over time [USA legislation]
- Educate through publicity

Contaminant

- Zinc

Challenges

- Source controls anticipated most effective
- Source controls require
 - Different materials
 - Legislation
 - District Plan rules/Bylaws
- Adequate proof needed to implement
- LWRP standards based on ANZECC steady state contaminant limits.
- Stormwater contaminants short duration (acute)
- No internationally agreed science

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Contaminant

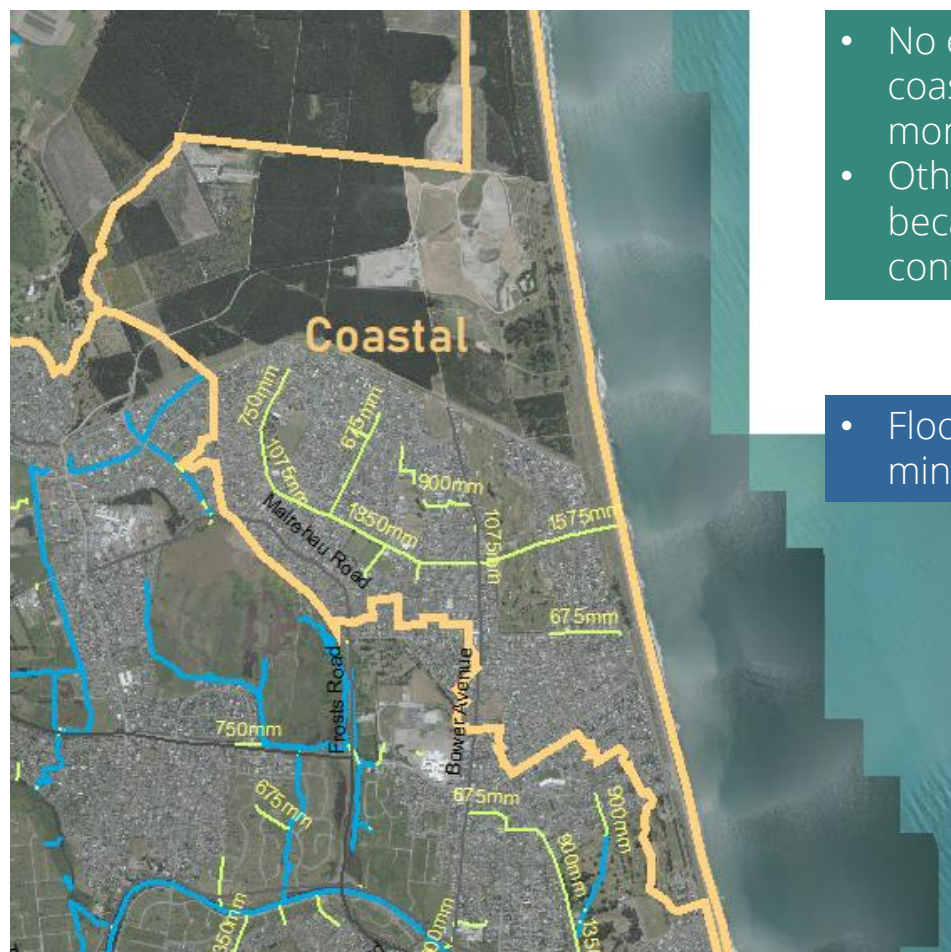
- Zinc

Potential ways forward

- Engage research institution to research acute limits [initiated thru NIWA]
- Lobby government to investigate source controls [being done – but government may experience similar constraints to local authorities]
- Educate locally by publicising the issue [Community Water Partnership]
- Partner with other local and regional councils to lobby government and publicise

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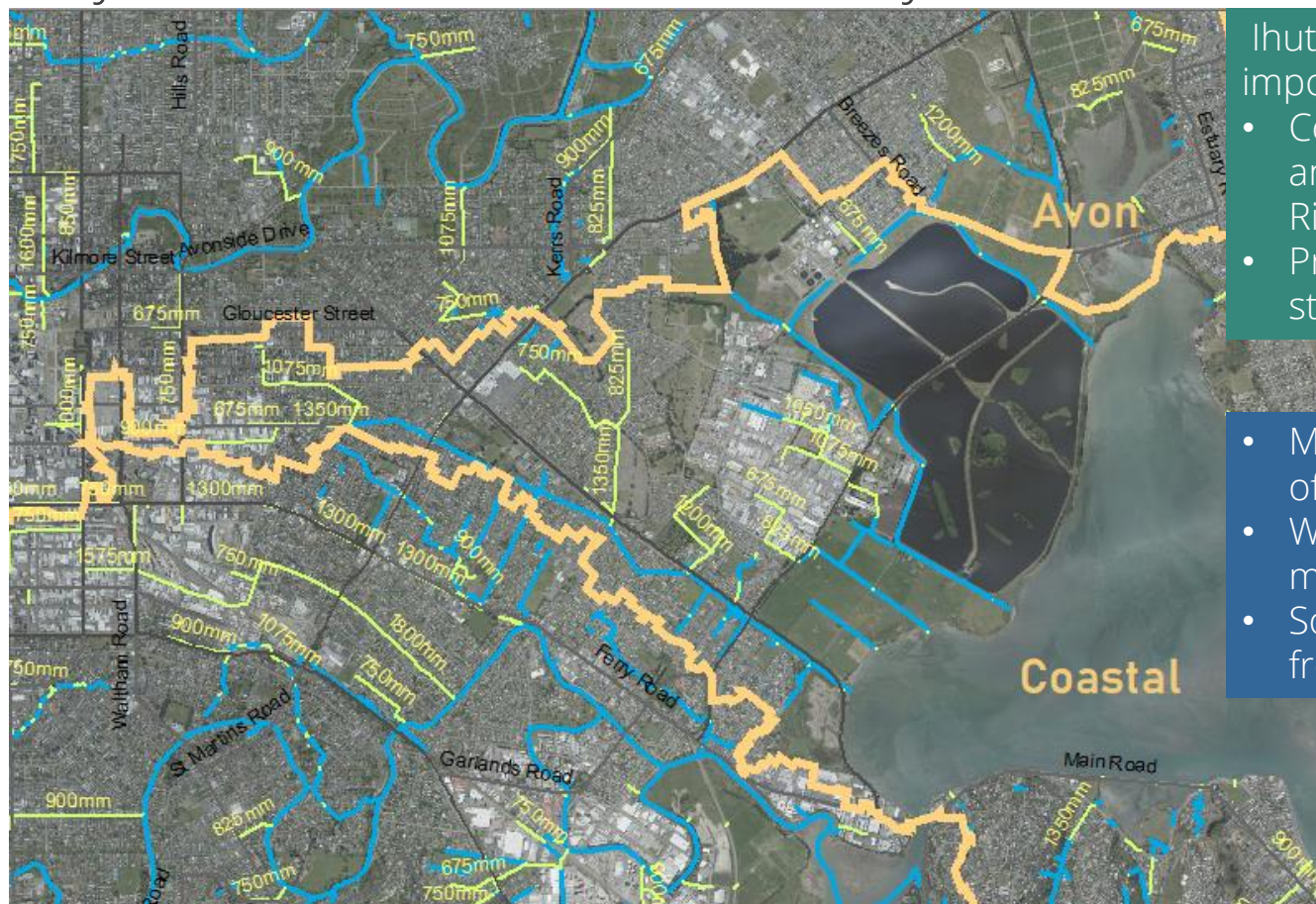
(Brooklands is omitted because is largely rural)



- No effects detected in the coastal zone (but limited monitoring)
- Other areas higher priority because more contaminated

- Flooding issues relatively minor

City Centre East, Linwood, Bromley



Ihutai-Estuary culturally important

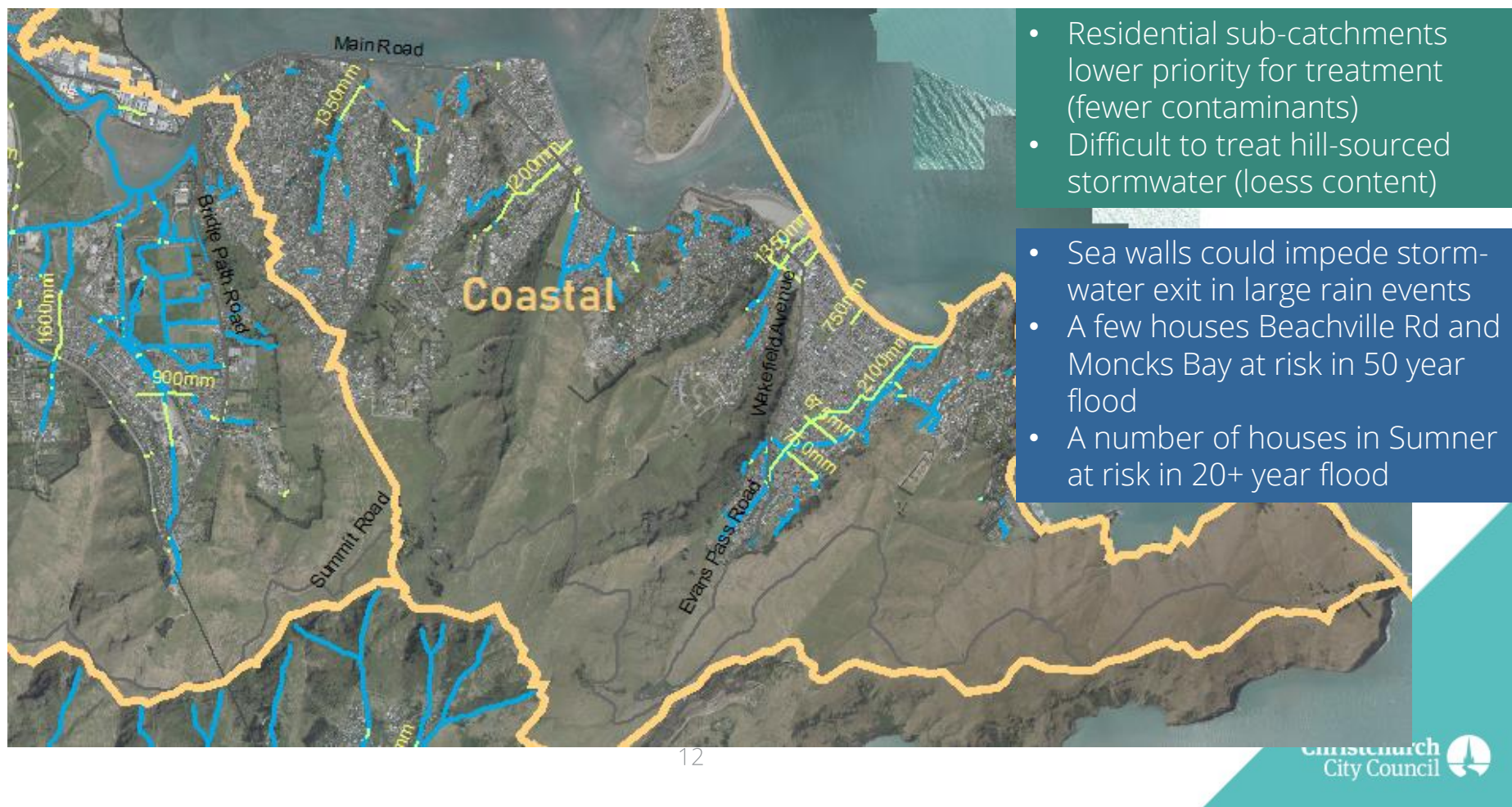
- Contaminants from Bromley and central city as well as Avon River and Heathcote River
- Provision in LTP for some stormwater treatment

- Minor flooding risks north-east of Eastgate.
- Waiting for completion of a more detailed flood model
- Southshore – surface flooding from rain with high tides



Potential Stormwater treatment wetland

Hill catchments



ŌPĀWAHO HEATHCOTE RIVER NETWORK

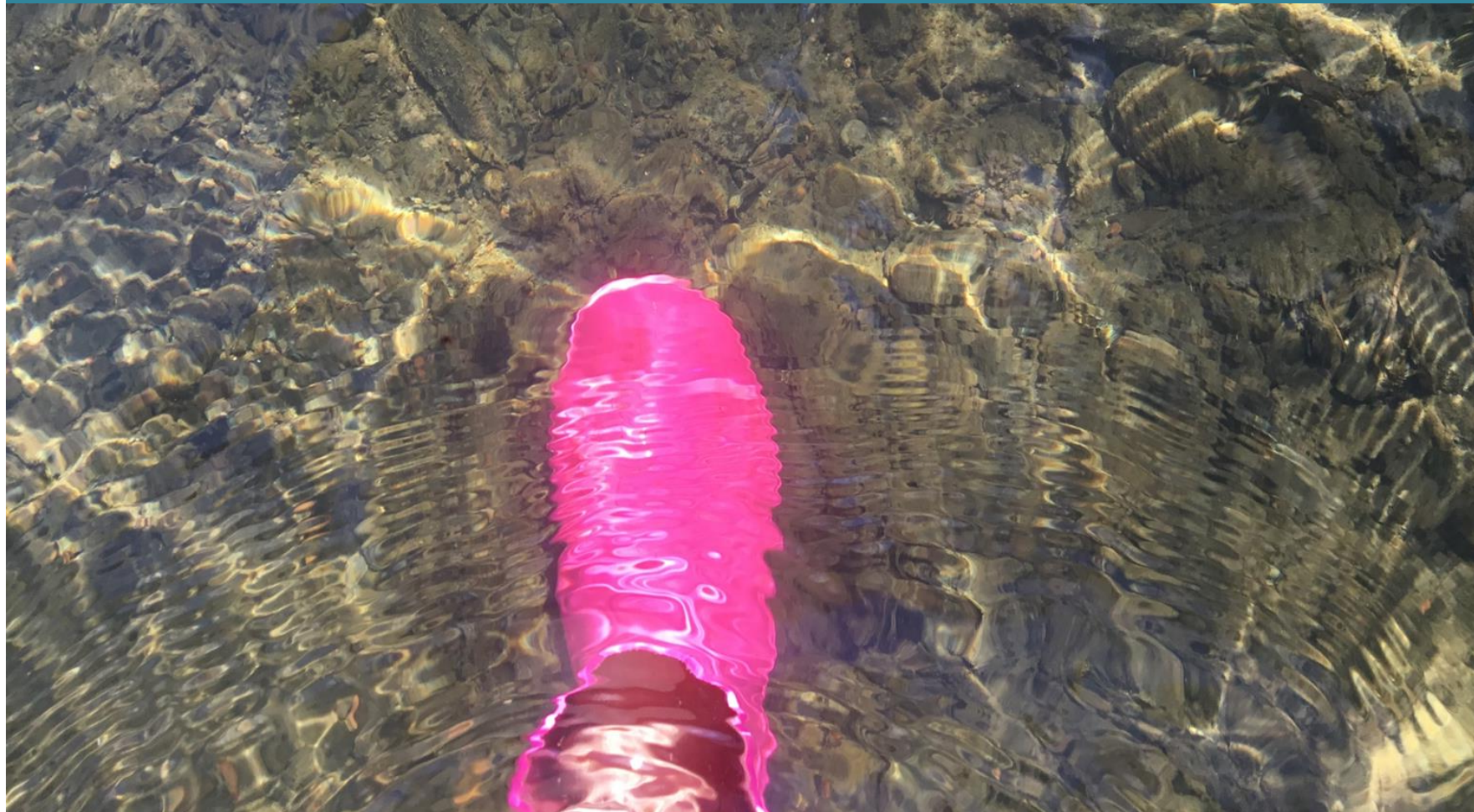


Rachel Barker

OHRN Committee
24 February 2022

Proposal to the Christchurch West Melton Water Zone Committee

Cashmere Stream freshwater springs project Stage 1





Aim is to protect Cashmere Stream's freshwater springs \$6,000 for Stage 1

- The OHRN applied to ECan's WAI fund in 2021. Invited to reapply.
- Our original purpose was to identify and protect headwater springs of both the Ōpāwaho Heathcote River and Cashmere Stream
- Revised our proposal to focus on Cashmere Stream (length 4.5 km)



Parts are crystal clear
But... the catchment is
under pressure



- Lack of understanding of natural and human pressures on springs
- Pressures from change in land use and development in the catchment
- Potential loss of freshwater springs
- Limited research on springs (e.g. biodiversity and quality)
- Without better knowledge about freshwater springs, they may diminish or decline

Stage 1

- Collate all information on Cashmere Stream's springs
- Seek mana whenua perspective/s (OHRN to organise)
- Review all literature on urban springs
- Identify common issues affecting freshwater springs
- Include threats, health, management, protection
- Prepare and present report to Zone Committee



Site visit with OHRN and Cashmere Stream Care group members Oct 2021

Enhanced
freshwater spring
near Bunz Rd





Restored wetland near Bunz Rd



A spring needing enhancement



Needing enhancement

Stage 2 (later)

Site survey could look like this

Photo acknowledgement
Cashmere Stream Care Group



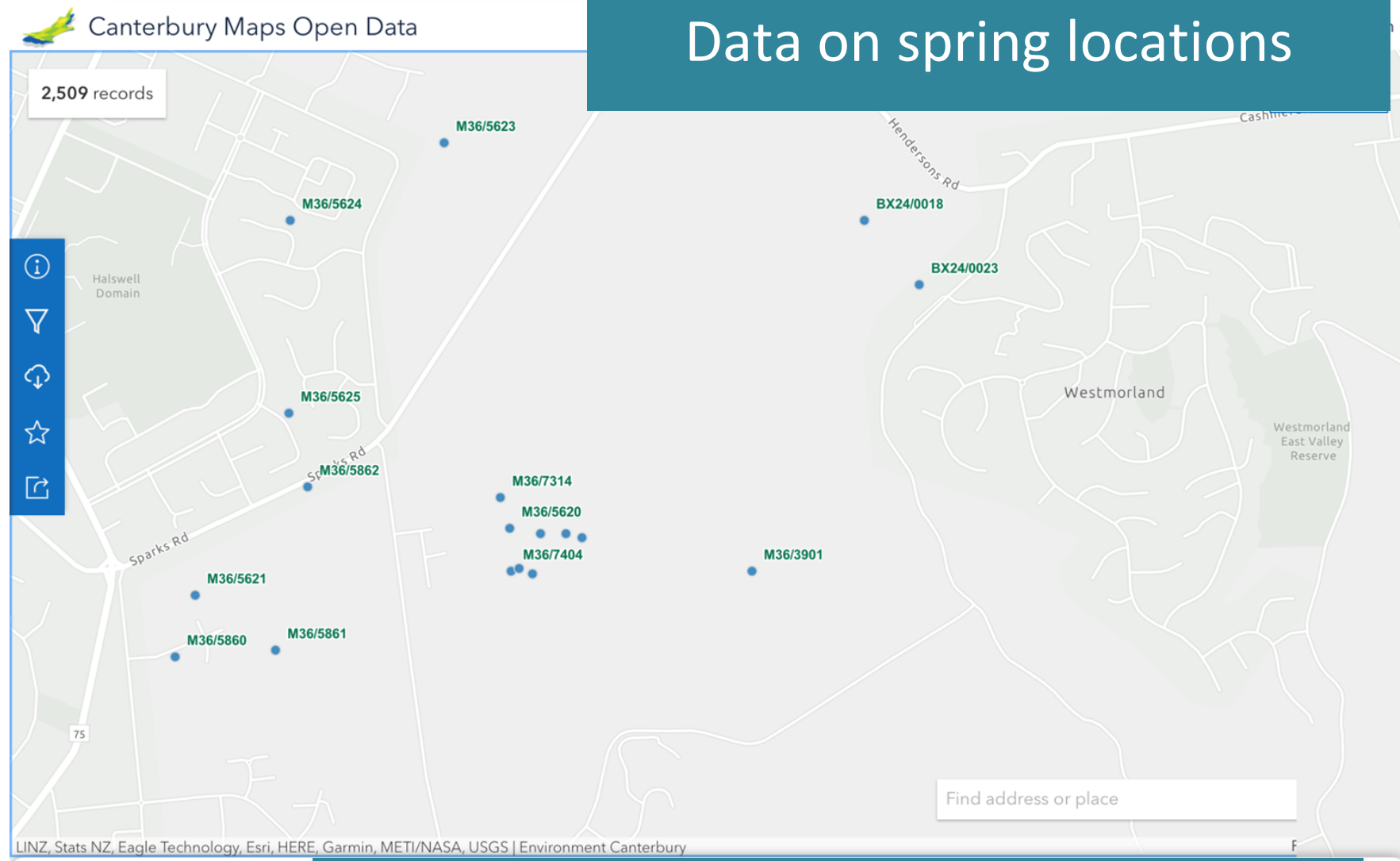
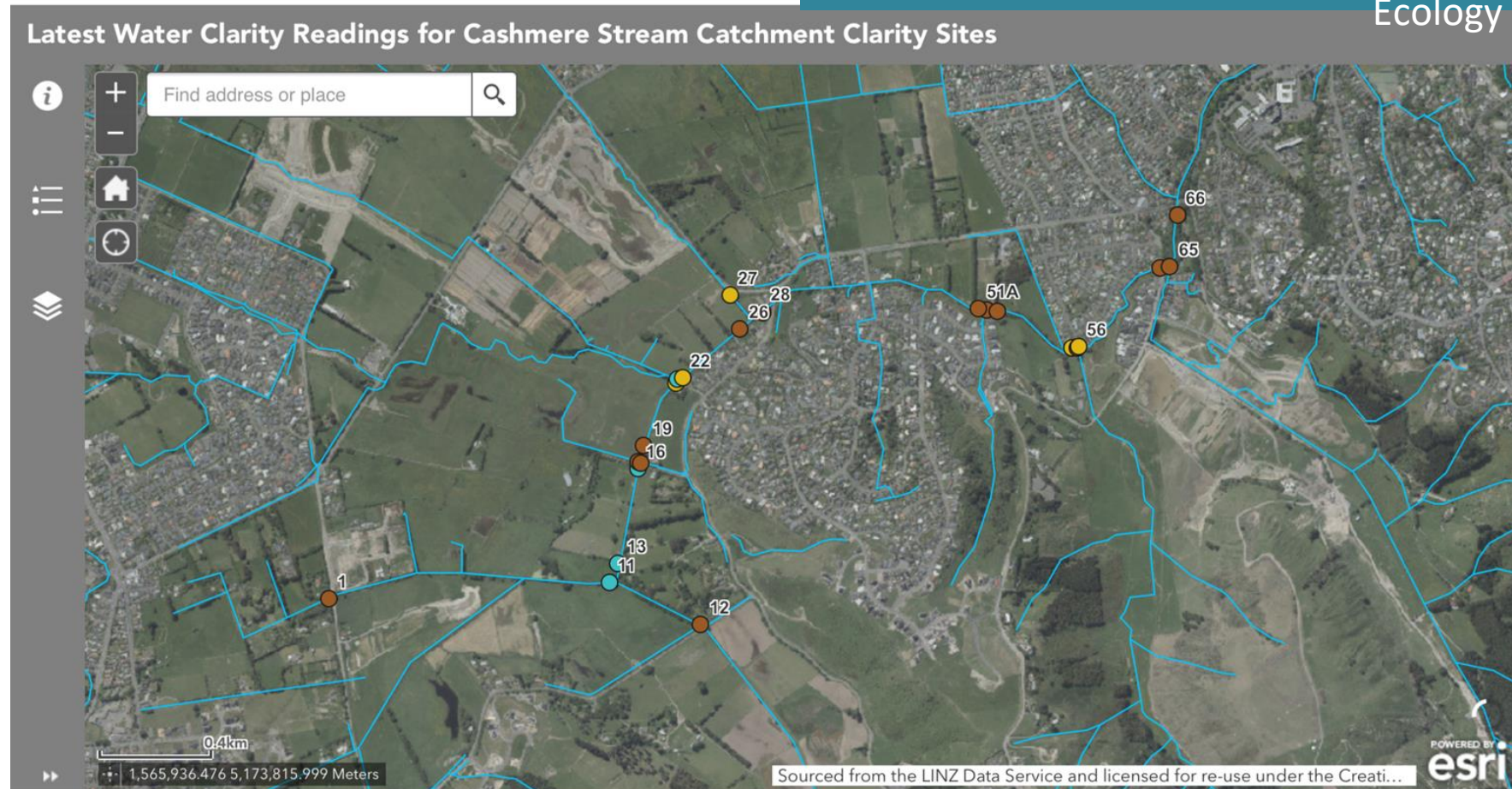


Image from Canterbury Maps Open Data

Image acknowledgement to EOS
Ecology



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Cashmere Stream Care Group

June 2 · 🌐

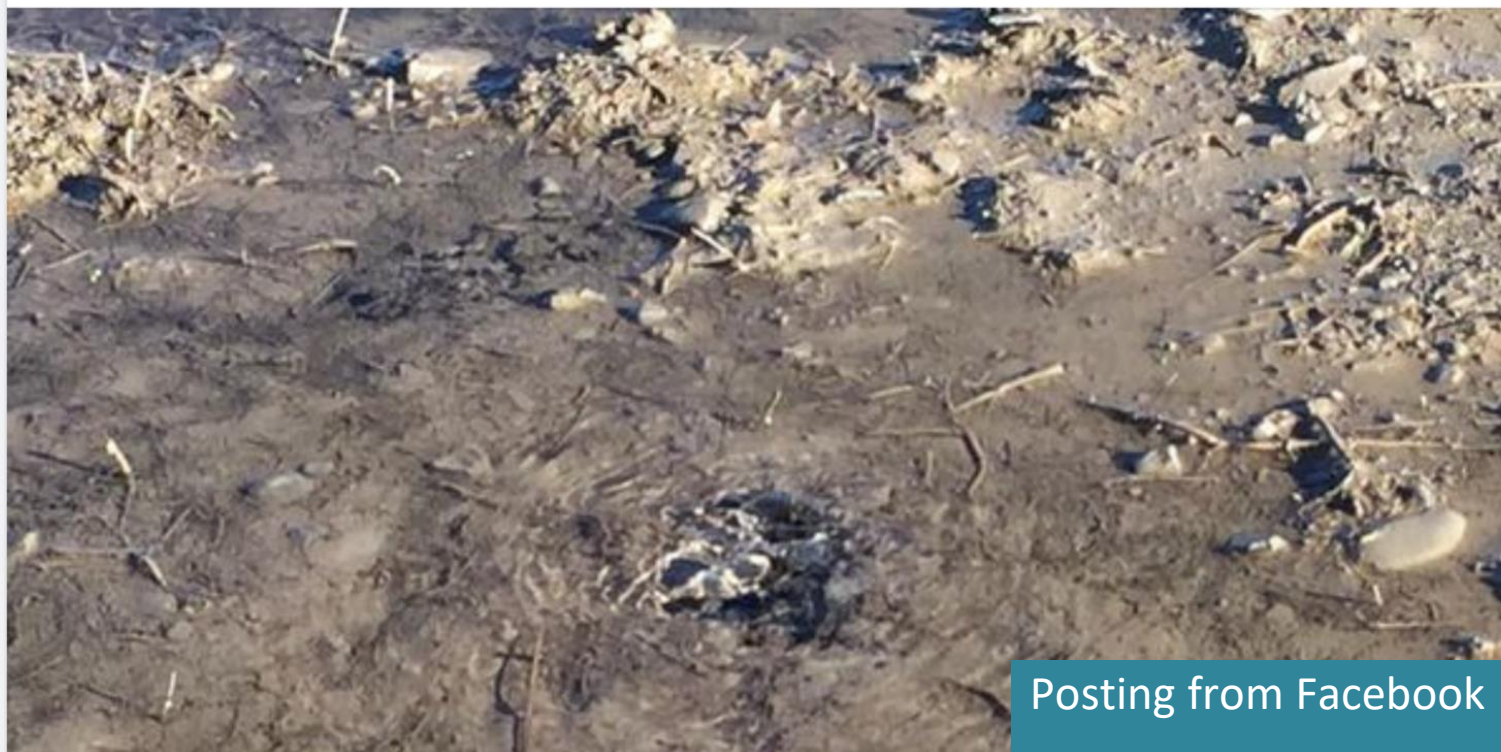
...

A fresh water spring, very close to the lights on Sparks and Henderson's Road in western side, part of the Halswell Commons environmental land mitigation.

And a permanent pond very close to the horse track near Halswell commons.

The ditch on either side of the pond is ephemeral, but the pond is always the same height regardless of drought, or winter rains.

Perhaps we need to make sure they are protected when new building developments happen.



Posting from Facebook

ŌPĀWAHO HEATHCOTE RIVER NETWORK



More springs
protected...
Thank you

WATER AND WILDLIFE HABITAT TRUST



RIPARIAN RESTORATION PROJECT

OTUKAIKINO RIVER

CLEARWATER REACH



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and the GIS User Community
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0 0.5 1 2 3
Kilometers

Ōtūkaikino River Catchment

ŌTŪKAIKINO CATCHMENT VALUES

**GOOD TO POOR ECOLOGICAL
HEALTH, WQ GOOD/BEST UNDER
PRESSURE.**

**SPRINGHEADS, WETLANDS
STREAMS AND LAKES.**

**SIGNIFICANT ECOLOGICAL VALUES
AND RARE SPECIES.**

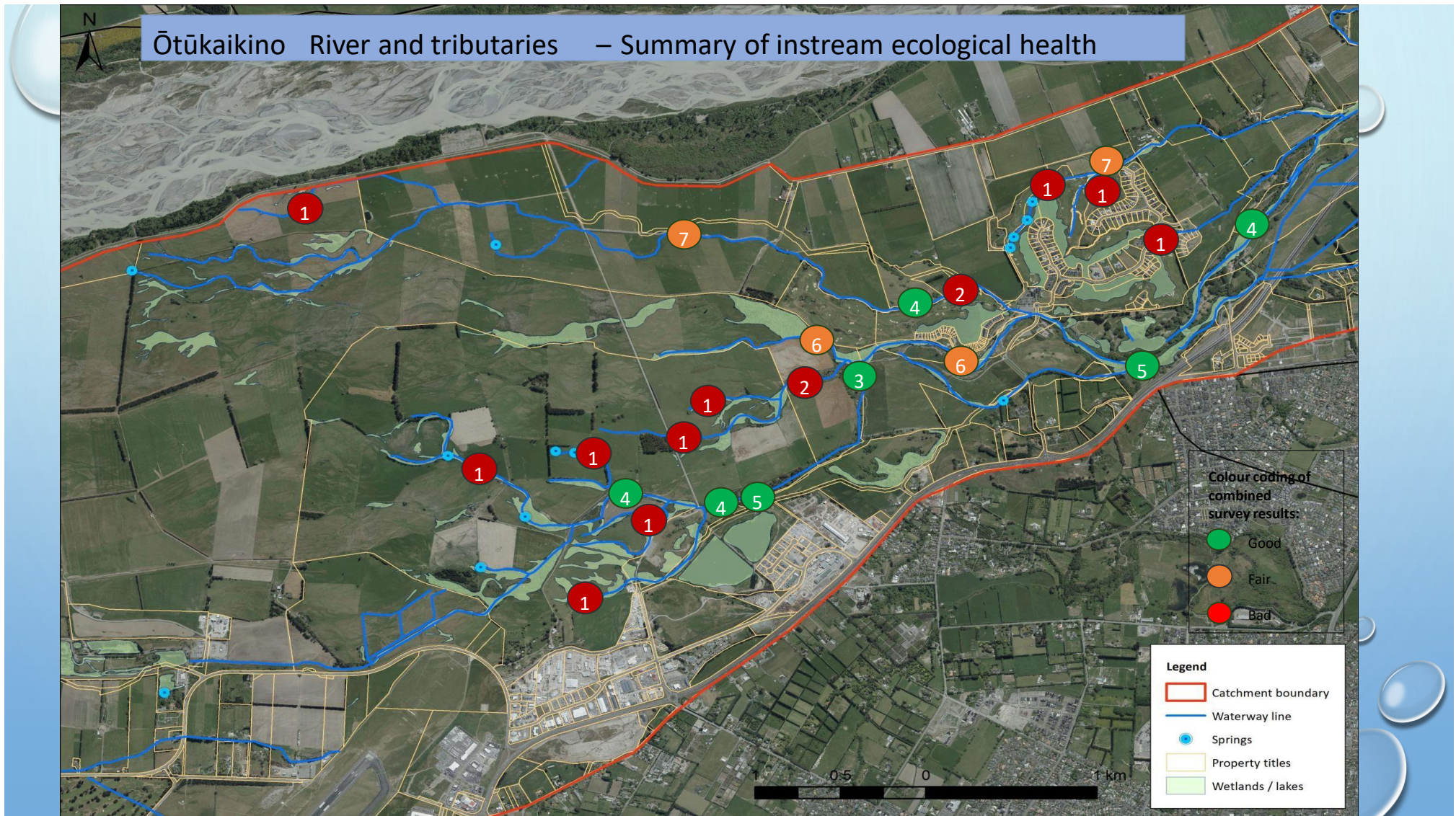
**MULTIPLE LAND USES AND
OWNERS, YET FEW. LIVESTOCK
GRAZING, CROPPING,
INDUSTRIAL/COMMERCIAL**

**NGĀI TŪĀHURIRI RŪNANGA
VALUES.**

**HIGH RECREATIONAL USE AND
ENJOYMENT.**

**WILLOW ELIMINATION AND
INDIGENOUS REVEGETATION**











CATCHMENT AND WATERWAYS MONITORING

- **ANNUAL WATER QUALITY MONITORING AT 4 SITES – 3 CCC AND 1 ECAN.**
- **5 YEARLY ECOLOGICAL HEALTH ASSESSMENT – WATERWAYS AND RIPARIAN ZONE.**
- **PROPOSED REMOTE SENSING CATCHMENT ECOSYSTEM MONITORING TOOL.**
- **PARTNERSHIP WITH THE WATERWAYS CENTRE - UNIVERSITY OF CANTERBURY.**
- **OPPORTUNITIES TO DEVELOP COST EFFECTIVE ECOSYSTEM HEALTHY MONITORING TOOLS WITH REMOTE SENSING IMAGERY/DATA , SUPPORTED BY GROUND TRUTHING .**



ŌTŪKAIKINO

EXCELLENT OPPORTUNITY FOR A HEALTHY WATERWAYS AND LANDSCAPE PROGRAM FOR WHOLE CATCHMENT