



# Broadacres Targeted Stream Augmentation

2022-2023 Project Update and Next Steps

# Targeted Stream Augmentation – Background

- Project addresses **decreasing groundwater recharge** and resulting impacts on spring-fed aquatic habitat in **Raywell Farm tributary** of Waikirikiri/Selwyn River
- Tributary historically a lower Selwyn Waihora **stronghold for at-risk Canterbury mudfish (Kōwaro)**, but no live specimen since 2014–16 drought
- The **Targeted Stream Augmentation project** involves proof-of-concept testing of a solar-powered groundwater supply, weir, and enhanced aquatic habitat
- Project aims to **safeguard against droughts** by pumping groundwater into the spring-fed Raywell Farm Stream when flow is limited

# Targeted Stream Augmentation – Background

- Involves construction of a **bore, pump, solar infrastructure, and enhanced Kōwaro habitat** on a privately-owned working farm
- Once the habitat is established, **mudfish will be transferred** until population is self-sustainable
- A solar-powered pump will then discharge groundwater from a bore to **sustain spring flows and aquatic habitats** during droughts
- **Project partners** include the landowner, EOS Ecology, and [Ellesmere Sustainable Agriculture](#)



# Targeted Stream Augmentation – Updates

- **Solar-powered bore constructed** in 2016–17 and some **2,400 natives planted** and maintained
- Initial habitat work completed by June 2021 but **wet 2021–22 prevents required wetland lining**
- **Project on hold** until groundwater levels low enough to progress habitat improvement
- Conditions therefore **did not require discharge** between July 2022 and June 2023
- ECan's Health, Safety and Wellbeing team completed a site risk assessment in March 2023 to create an **operational Health & Safety Plan**



# Targeted Stream Augmentation – Next Steps

- **Finalise an integrated management plan** to ensure effective long-term operation
- Continue to **collaborate with project partners** to progress **construction of the aquatic habitat** and **mudfish transfer**
- Continue to **work with the landowner** to maintain the site and plan next project steps
- **Review project learnings to date** to evaluate the future strategic role of similar environmental infrastructure





# **Environment Canterbury Regional Council**

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resilient Canterbury, now and for future generations.*

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