

# Allocation in the AMA Recharge Zone

Joseph Thomas /Trevor James /Monique Harvey 24 July 2015

### **AMA Recharge Zone - Current Status**

- AMA Recharge Zone is a large area.
- Multiple significant rivers/streams.
- The Takaka River goes dry, as do many small streams.
- Complex interactions of recharge source water to Te Waikoropupu Springs.
- Upper Takaka River is an important driver of recharge.
- Current water take consents in Takaka River have had cease take limits for many years.
- Consideration of existing consents and impacts is necessary in considering allocation limits for this zone.



#### **Upper Takaka River – Above Drying Zone**



#### Water to Storage Plan Provision – Upper Takaka



## **Ecological Values of Takaka River from Harwood's to Lindsay's Bridge**

- Brown trout "regionally significant"
- Native fish
  - IBI = 38 ("very good") & RiVAS = "moderate significance"
  - surveys over the last 10-20 years show low native fish abundance and diversity

#### Takaka River at Harwood's Invertebrates and trout



#### Plotted variables



#### Takaka River at Harwood's Native Fish



۰.

## Takaka River at Lindsay's Bridge

#### **Invertebrates and trout**



Plotted variables

х

Invertebrates Brown trout adult Brown trout yearling Brown trout fry

Brown trout spawning



## Takaka River at Lindsay's Bridge

8 native fish

#### **Upper Takaka River Flow Losses Scenarios**



#### **Upper Takaka River Flow Losses Scenarios**

