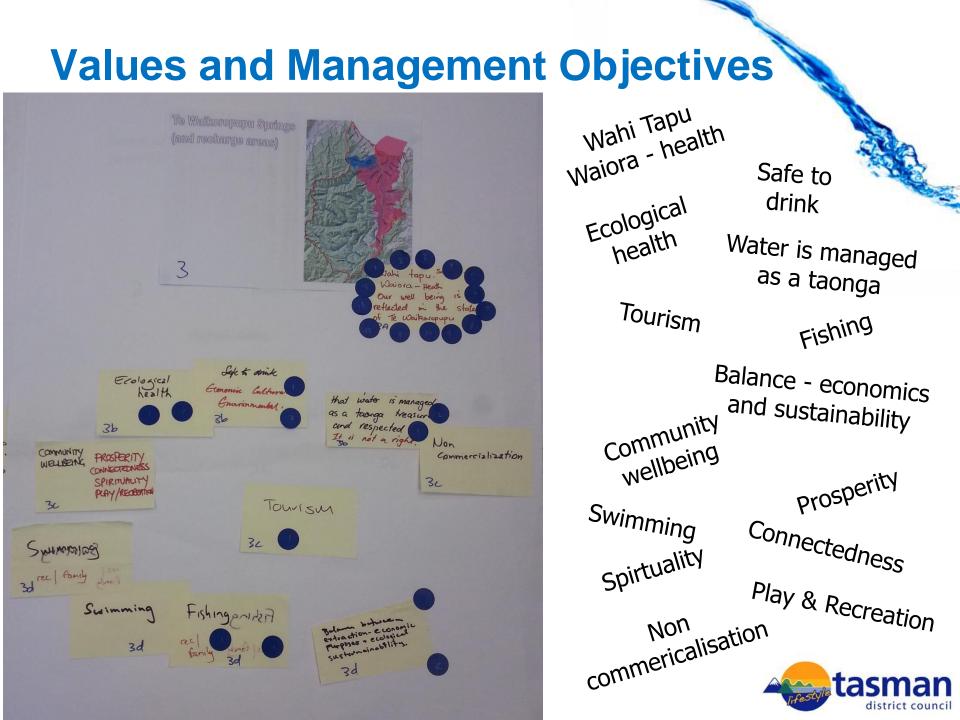
Te Waikoropupu Springs – Water quality overview Mary-Anne Baker 27 November 2015



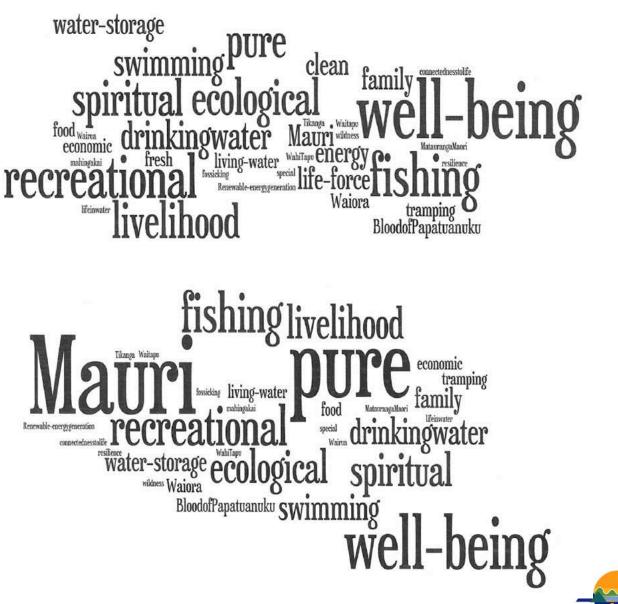
Outline:

- Values and Management Objectives
- Attributes, states and attributes bands
 - Nitrates and Phosphorus
 - Periphyton
 - E.coli
 - Cultural/Spiritual metric





Values and Management Objectives



district council

Values

- Te Waikoropu Main Spring
 - Cultural and Spiritual Values
 - Ecosystem Health (compulsory)
 - Natural Form and Character
 - Livelihood and Economic Use (tourism)
 - Recreation
- TWS contributing catchments
 - Municipal and Domestic Water Supply
 - Fish and Food Gathering
 - Hydro-electric power generation



Cultural and Spiritual Values

- Our water bodies have healthy mauri (vital energy).
- Those water bodies which do not have a healthy mauri are enhanced over time.
- Surface and ground water is suitable for cultural and spiritual uses and rituals (tikanga).
- Wai Tapu (sacred waters) are not degraded by human and animal waste discharges, contaminants and excess sediment.
- Valued features, taonga (treasures) and unique properties of water at Wai Tapu (sacred waters) are maintained and protected.



• Ecosystem Health

- All surface and ground waters have healthy mauri
- There is a diversity of indigenous flora and fauna and a range of life stages expected for the water body type.
- Water quality provides at least the minimum requirements for healthy, functioning and resilient aquatic populations
- There is good habitat diversity, including riparian and wetland vegetation, bed/bank substrate, meander, width/depth, floodplain connectivity and bank shape suitable to aquatic and riparian fauna needs.



- Natural Form and Character
 - The natural and physical characteristics of the water bodies, especially within the karst landscapes, national parks and spring systems within the Takaka Catchments are maintained.
 - Water flows and quality from spring systems are maintained.



- Livelihood and Economic Use
 - Water quality is suitable for the economic uses with minimal or no treatment: - Water that is important for tourism meets the needs of tourist activities and meets primary contact (swimming) objectives
 - Water is used efficiently and water quality is maintained or enhanced to meet the needs of future generations.



Recreation

- Surface waters are safe for swimming during the months Nov – April (excluding times of flood flow)
- Surface waters are safe for secondary contact recreation.



Key attributes for springs

- Key water quality attributes:
 - Water Clarity
 - Nitrate
 - Nitrate : Phosphorus ratio
 - Periphyton
- Others yet to be defined
 - Mauri / Cultural Health
 - ? Fine sediment



