



Te Waikoropupu Springs – Water quality overview

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Outline:

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

Values and Management Objectives



Te Waikarepupupu Springs
(and recharge areas)



3

Wahi tapu.
Waiora - Health
Our well being is
reflected in the state
of Te Waikarepupupu
PA

Ecological health
3b

Safe to drink
Economic Cultural
Environmental.
3b

that water is managed
as a taonga treasure
and respected
It is not a right.
3b

Non
Commercialization
3c

COMMUNITY
WELLBEING
3c

PROSPERITY
CONNECTEDNESS
SPIRITUALITY
PLAY/RECREATION

Tourism
3c

Swimming
3d

rec | family

Swimming
3d

Fishing
rec | family
3d

Balance between
extraction - economic
purposes + ecological
sustainability.
3d

- Wahi Tapu
- Waiora - health
- Safe to drink
- Ecological health
- Water is managed as a taonga
- Tourism
- Fishing
- Balance - economics and sustainability
- Community wellbeing
- prosperity
- Swimming
- Connectedness
- Spirituality
- Play & Recreation
- Non commercialisation

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

Management Objectives

• 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**.

Management Objectives

• 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.**

Management Objectives

- **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.

Management Objectives

- **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.**

Management Objectives

- **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