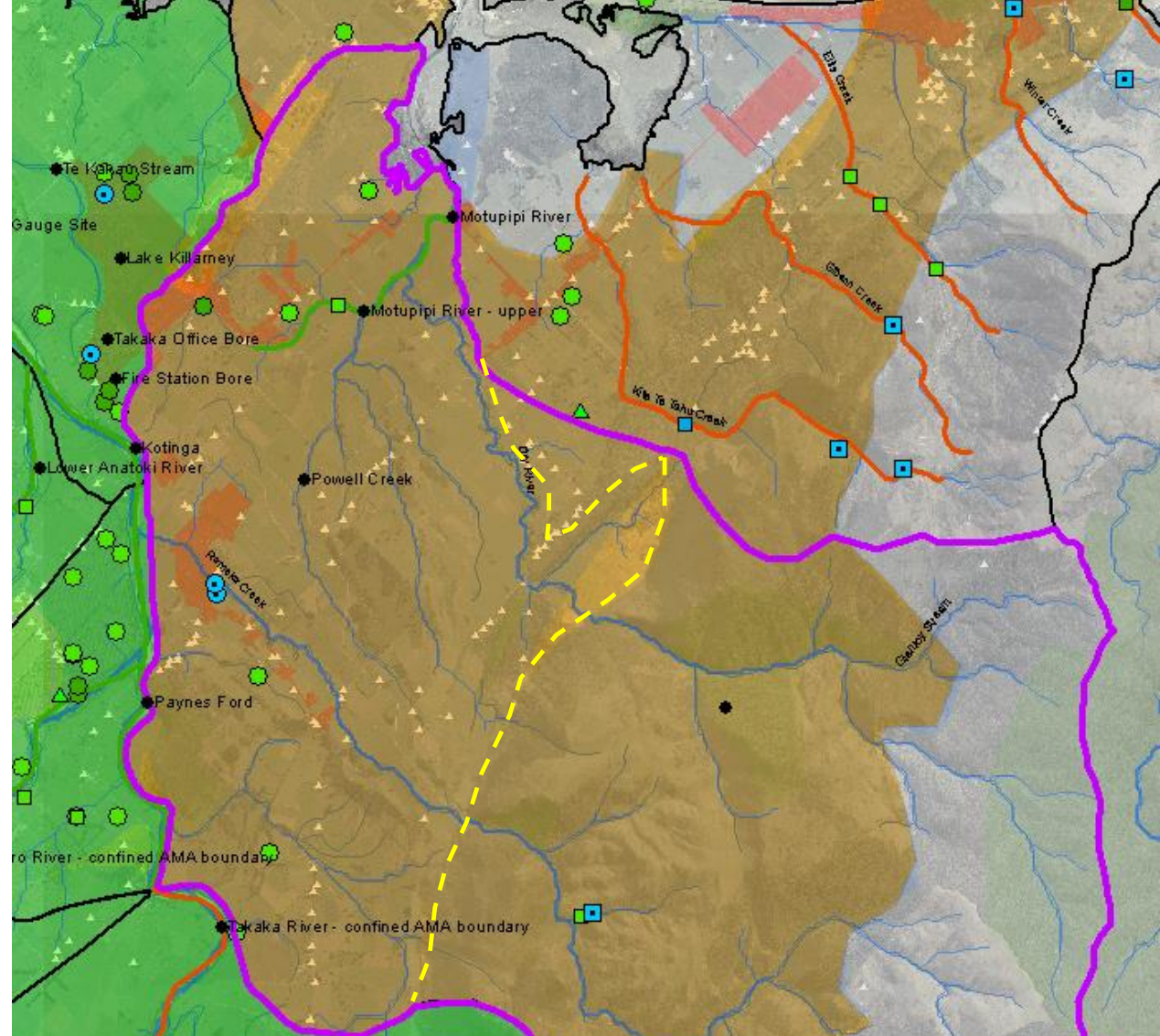




Takaka FLAG Motupipi Allocation Summary

15 April 2016

Motupipi Zone



Key:

- Surface water take
- Groundwater take
- △ Take from storage
- Community supply
- Irrigation take
- Industrial take
- Domestic/stock use



Motupipi Water Allocation

- 80:20 regime recommended by Roger and Joseph
- Applies only to **surface water takes** north of Sunbelt crescent (in the upwelling zone)
- Allocation limit is 46 l/s
- Existing takes is 43, so 3 l/s available (almost fully allocated)
- Cease takes for surface water takes only
- 50% rationing trigger for surface water takes

- **Existing groundwater** takes (88l/s) to be allowed for, but with no further takes (fully allocated) due to linkage of groundwater & river
- No cease take proposed for groundwater takes, unless they are in the coastal margin which is subject to a **salt intrusion** trigger

Motupipi Allocation

- No alternatives suggested
- Recommended regime almost fully allocated
 - No further groundwater takes
 - Limited surface water (3l/s) and only north of Sunbelt Cres
 - Brings in 50% rationing and cease takes for surface water
- Is everyone happy to accept Roger and Joseph's recommendations?



Motupipi - water quality recap

- Suggesting we look at water quality questions together with other zones at the **13 May meeting**
- Work still to be done by staff on water quality:
 - Water quality data analysis and banding (report cards)
 - Developing water quality decisions table
 - Recommendations on management methods
 - Work on defining **FMU wide** management options such as regulation of land use practice (eg IEMP)

Motupipi - Water quality

- Issues in Motupipi River include:
 - Elevated nutrients (nitrate regularly over ANZECC NPG trigger)
 - *E.coli*
 - Sediment
 - Lack of riparian habitat (shading and stability)
 - Resulting in nuisance plant growth and dissolved oxygen issues
 - Lack of flushing flows
- Takaka Karst Aquifer has elevated nitrates
 - 50% effluent, 50% fertilizer

Water Quality Report Cards

- Representative site: Motupipi at Reilly's Bridge

Motupipi at Reilly Br						
Motupipi River GRADE	No. of samples	Nitrate for Nuisance plant growth (ANZECC - lowland) (annual median)	Corrected Nitrate Toxicity (Dr Hickey) (annual median and 95%)	Swimming Water (NOF - E.coli) (annual median and 95%)	Dissolved Oxygen (NOF, mg/l) 7day-minimum & 1day minimum over Nov-April	Temperature?
Desired State	4	below	A	A	B	?
2015	4	above	A	B	D	TBC
2014	4	above	A	B	D	TBC
2013	4	above	A	A	D	TBC
2012	4	above	A	A	C ¹	TBC
2011	4	above	A	A	C ¹	TBC

to be confirmed with FLAG

1. Based on unchecked data

ND = no data. There may be spot-sampling data that identifies a water quality issue, however there is insufficient annual sampling to allow comparison with the attribute grades

- Issues area: Powell Creek

Powell at 40m u-s Motupipi						
Powell Creek GRADE	No. of samples	Nitrate for Nuisance plant growth (ANZECC - lowland) (annual median)	Corrected Nitrate Toxicity (Dr Hickey) (annual median and 95%)	Swimming Water (NOF - E.coli) (annual median and 95%)	Dissolved Oxygen (NOF, mg/l) 7day-minimum & 1day minimum over Nov-April	Temperature?
Desired State	4	below	A	A	B	?
2015	4	above	A	D	ND	ND
2014	4	above	A	D	ND	ND
2013	4	above	A	C	ND	ND
2012	4	above	A	B	ND	ND
2011	4	above	A	B*	ND	ND

to be confirmed with FLAG

ND = no data. There may be spot-sampling data that identifies a water quality issue, however there is insufficient annual sampling to allow comparison with the attribute grades



Motupipi - Water quality – Management options

- Suggested management includes:
 - Education and WOF of onsite wastewater systems (89)
 - Review of urban stormwater runoff issues as part of Takaka Catchment Management Planning (programmed to start 2016-17)
 - Riparian planting for shading and bank stability
 - Stock exclusion from rivers
 - Good land use practice requirement to maintain or reduce nutrient & sediment inputs (FMU wide)
 - Investigation projects and ongoing monitoring
 - River bed restoration projects

Questions / Discussion

