

Takaka Water Management Catchments Values and Objectives Summary

October 2014

DRAFT – starting point document for FLAG members to work with

Important notes

- These slides have been developed to assist FLAG discussions
- The term 'values', as used in this summary, includes all values, uses and activities related to freshwater – the things that matter to the community
- We must provide for Ecosystem Health in all water bodies and Human Health for secondary contact recreation in rivers and lakes, but otherwise the FLAG can define any other aspects for the Takaka Water Management Catchments
- The slides have been developed from FLAG discussions and feedback to date, as well as direction from the National Policy Statement for Freshwater Management (NPSFM and NOF) and staff knowledge
- If you don't agree with something please change it.

Outline of development process

 Values from values sheets and post-its from group sessions were grouped into values categories

(Some 'values' were included in multiple categories eg 'Well being' & 'flow')

- The FLAG values are summarised into a value description
- The value descriptions used in the National Objectives Framework (NOF) are quoted for comparison as options
- Staff developed draft management objectives based on FLAG feedback, NOF requirements and water resource information
- The attributes from the FLAG values sheets were used to help identify the 'important characteristics' for each value
- Based on these characteristics, staff are identifying possible attributes for monitoring – these will be discussed at the next meeting
- All comments are welcome key questions staff want you to consider are in red text

The slides have the following format for each value identified:

- Description of the value from FLAG group session feedback
- The value descriptions from the National Objectives Framework (NOF)
- The DRAFT management objective for the value
- Applicable water bodies only done for those values where specific sites or water bodies are identified
- Important Characteristics for the value identified from group session feedback
- Table summarising the important characteristics and monitored attributes (to be discussed).

Slide Format



Recreation

DRAFT Management Objectives

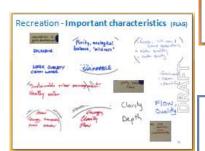
- All surface waters are safe for swimming during the months Nov – April
- All surface waters are safe for secondary contact recreation.
- All surface waters used for a specific recreation
 activity are suitable for that use at the relevant time
 (refer next slide for list of uses and locations)

Do you agree with these objectives and the waters they should apply Are there other objectives?

Recreation – Types and Locations

Specific Recreation Types	Applicable Water bodies	Time Recreation Occurs
Kayaking	Parts of the Anatoki, Takaka, Waingaro and Cobb Rivers	She/flow dependent
Sulmming	Bleet Talaska Bleet or stockers at, focting, the rest, Fam. Nevi, Lindows Bridge Blee Holly, Anaboli Bleet (of the Spee Ad, Hopey Seria) Beaches/Eduaries (potentially affected by freehinster Flouigh Tukurus, Patons Rock, Pohara, Ranghasata, Oneska Wharf, Michopli.	-Nov-April
Recreational fishing (either for food or release)	7	,

watching? Where does recreational fishing occur in the Takaka catchments



Recreation - NOF

(compaisory for secondary contact under it

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in [firshwater] where a ammunity value man frequent immersion in the wate such as swimming, white-water rafting, or water-sking, the risk of infection will be no more than moderate, in some (firshwater), the risk of infection to people undertaking any activity would be no greater than what would exist there under national condition."

is the NOP definition suitable - or is a combined NOP-PLAC description prefer Note: staff have suggested removal of the term "vater skiing" unless this occusementhers in the Takaka satch meets

Recreation – Attributes

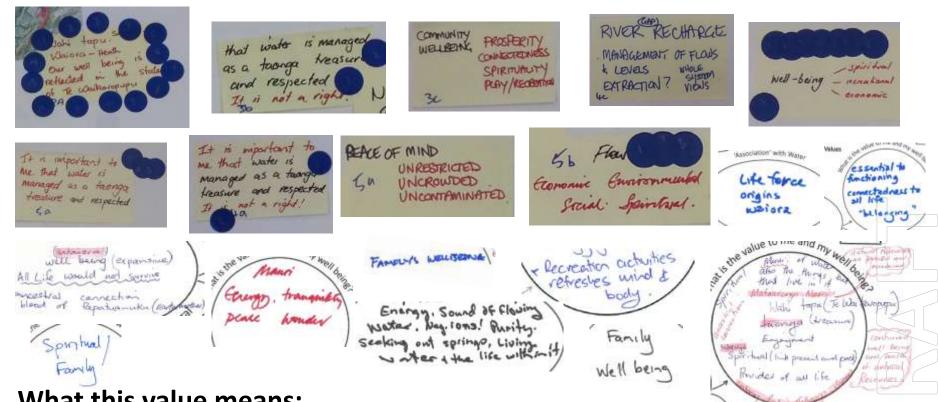
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Questions for you to consider:

As you read through this document please consider these questions and provide us with your feedback before 14 Nov

- Have all the values, uses and activities been included?
 - Are there other values/uses that should be added?
 - Note: the NOF also includes 'Transport & Tauranga Waka' is this relevant?
- Do the values descriptions adequately reflect your meaning of the value/use/activity?
 - Is the NOF description suitable to use?
- Do you agree with the draft management objectives?
 - Have the values/objectives been applied to the correct water bodies? – are there specific sites that should be included?
- For each management objective are you wanting to maintain current uses/values or to improve them in some way? - What does this mean for specific values?
- Do you agree with the characteristics of water for each value – are there others?

Cultural and Spiritual Values - FLAG



What this value means:

Healthy water is vital for our well-being, energy and peace of mind. We respect and treasure our waters and wahi tapu (sacred places). Our well-being is reflected by the health of our waters. The purity and health of our water supports our connection with nature and Papatuanuku. It imbues peace of mind and revitalising energy and allows for cultural and spiritual rituals and uses. Individuals and families are able to enjoy and connect with our water bodies now and in the future. Does this adequately capture your view?

Note: don't invest too much time trying to get a 'perfect' description of the values – this is an iterative process where we can clarify and edit statements as we go through the process.

Cultural and Spiritual Values - NOF

The National Objective Framework includes the following description:

"Wai tapu – Wai tapu represent the **places** where rituals and ceremonies are performed.

Rituals and ceremonies include, but are not limited to, tohi (baptism), karakia (prayer), waerea (protective incantation), whakatapu (placing of raahui), whakanoa (removal of raahui), and tuku iho (gifting of knowledge and resources for future generations).

In providing for this value, the wai tapu would be free from human and animal waste, contaminants and excess sediment, with valued features and unique properties of the wai protected to some extent. Other matters that may be important are that identified catchments have integrity (there is no artificial mixing of the wai tapu) and identified taonga in the wai are protected."

Is the NOF description suitable, or is a combined NOF-FLAG description preferred?

Cultural and Spiritual Values **DRAFT Management Objectives**

Our water bodies and wahi tapu (sacred places) are respected and treasured. Our water bodies have healthy Mauri and imbue a sense of cleansing energy. Surface and ground water is suitable for cultural and spiritual uses and rituals (tikanga). Those water bodies which do not have a healthy mauri are restored.

Applies to: All surface and groundwater

Wai Tapu (sacred places) are free from human and animal waste, contaminants and excess sediment. Valued features, taonga and unique properties of water at Wai Tapu are maintained and protected.

Wai tapu applies to: Te Waikoropupu Springs

Do you agree with these objectives? Are there others management objectives needed for this value?

Are there any other specific areas Wahi Tapu needs to apply to?

Cultural and Spiritual Values Important characteristics (FLAG)



Cultural and Spiritual Values – Attributes

The characteristics of water that are important for cultural and spiritual values:	Measured Attributes:
The water is appealing (look, smell, taste). The water is clear and naturally coloured. The water smells and tastes pleasant.	[To be discussed at meeting]
The water does not contain human or animal wastes. The water is suitable for immersion (ie primary contact).	[To be discussed at meeting]
The water does not contain contaminants.	[To be discussed at meeting]
There are no unpleasant slimes or overgrowth of aquatic plants and algae.	[To be discussed at meeting]
There is good natural flow, good depth and movement of water.	[To be discussed at meeting]
There is diverse life in the water. There is healthy life in the water.	[To be discussed at meeting]
The water has healthy Mauri.	[To be discussed at meeting]
The water is accessible and available for use.	[To be discussed at meeting]

Do you agree with the characteristics? Are there others you think are important for cultural and spiritual values?

Note: defining terms like 'good' and 'healthy' will be a mix of value and science that we will need to work through later in the process

Municipal & Domestic Water Supply - FLAG



What this value means:

The water used for drinking is plentiful and safe to drink. Groundwater is suitable for drinking without treatment.

Does this adequately capture your view?

Note: 'treatment' in this context is taken to exclude the normal screening and bore and pump maintenance required when taking groundwater for drinking purposes 11

Municipal and Domestic Water Supply- NOF

The National Objective Framework includes the following description:

"Water supply (Wai Māori) — The [freshwater] can meet people's potable water needs.

Water quality and quantity would enable domestic water supply to be safe for drinking with, or in some areas without, treatment."

Is the NOF description suitable, or is a combined NOF-FLAG description preferred?

Note: the New Zealand Drinking Water Standards provide clear guidance on minimum requirements for community and small rural drinking water supplies and domestic users. This will be discussed further at the meeting.

Municipal and Domestic Water Supply DRAFT Management Objectives

Surface water bodies that are used for drinking water are sufficiently abundant to meet the domestic needs of users and are easily and affordably managed or treated to meet the New Zealand Drinking Water Standards.

Applies to: All surface water - with treatment if required

Groundwater is sufficiently abundant to meet the domestic needs of users and meets the New Zealand Drinking Water Standards without the need for treatment.

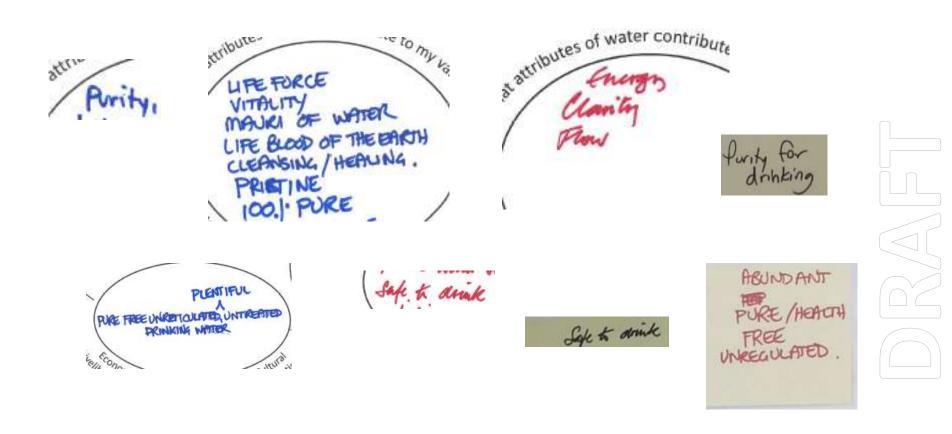
Applies to: All groundwater - without treatment*

(*Note: 'treatment and management' in this context excludes the normal screening and bore and pump maintenance required when taking groundwater for drinking purposes)

Do you agree with these objectives and the waters they should apply to? Should they just apply to specific/defined areas?

Are there other management objectives required for this value?

Municipal and Domestic Water Supply Important characteristics (FLAG)



[and meets the minimum requirements under the New Zealand Drinking Water Standards]

Municipal & Domestic Water Supply – Attributes

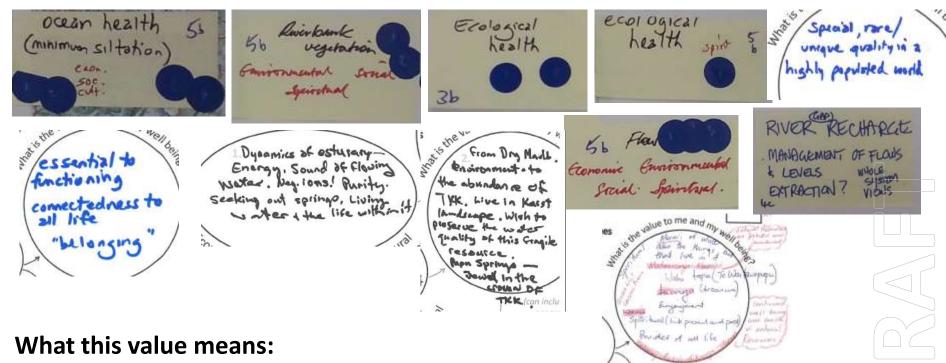
The characteristics of water that are important for municipal and domestic water supply:	Measured Attributes:
The water is appealing (look, smell, taste). The water is clear and naturally coloured. The water smells and tastes pleasant.	[To be discussed at meeting]
The water does not contain disease causing organisms.	[To be discussed at meeting]
The water does not contain contaminants.	[To be discussed at meeting]
There is sufficient water to meet the reasonable domestic needs of users.	[To be discussed at meeting]
The source water meets the New Zealand Drinking Water Standards (NZDWS) or can be affordably and readily treated or managed to meet the standards.	[To be discussed at meeting]

Do you agree with the characteristics? Are there others you think are important for community and private water supplies?

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Ecosystem Health – FLAG

(compulsory under NOF)



The Takaka catchments have a special environment with rare and unique qualities. From the dynamic estuaries, to the karst and marble areas, water is essential to functioning and provides for all life. It is vital that our natural resources, including rivers and streams, springs, coastal areas and river bank vegetation, are protected and maintained in a healthy state, with healthy mauri. Te Waikoropupu Springs is an especially special place and is Wai Tapu.

Does this adequately capture your view concerning ecological health of freshwater?

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Ecosystem Health – NOF (compulsory)

The National Objective Framework includes the following description:

"Ecosystem health (Te Hauora o te Wai) – The [freshwater] supports a healthy ecosystem appropriate to that freshwater body type (river, lake, wetland, or aquifer).

In a healthy freshwater ecosystem ecological processes are maintained, there is a range and diversity of indigenous flora and fauna, and there is resilience to change.

Matters to take into account for a healthy freshwater ecosystem include the management of adverse effects on flora and fauna of contaminants, changes in freshwater chemistry, excessive nutrients, algal blooms, high sediment levels, high temperatures, low oxygen, invasive species, and changes in flow regime. Other matters to take into account include the essential habitat needs of flora and fauna, [the relationship of riparian and wetland vegetation, substrate, meander, width/depth diversity and bank shape to aquatic and riparian fauna needs and to water quality]*, and the connections between water bodies. The health of flora and fauna may be indicated by measures of macroinvertebrates."

Is the NOF description suitable, or is a combined NOF-FLAG description preferred?

*Note: Staff have suggested the addition in red to better acknowledge the importance of river form and stream side planting to overall ecosystem health - something raised during FLAG discussions.

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Ecosystem Health (compulsory under NOF) DRAFT Management Objectives

- 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 (population dynamics, feeding, growth and breeding are occurring within expected ranges for the water body type).

Applies to: All surface and groundwater – including rivers, streams, springs, groundwater, wetlands and coastal areas affected by freshwater outflows.

• There is good habitat diversity, including riparian and wetland vegetation, river/stream substrate, meander, width/depth and bank shape suitable to aquatic and riparian fauna needs.

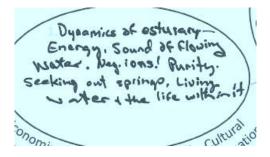
Applies to: All?? rivers, streams, springs and wetlands.

Do you agree with these objectives and the waters they should apply to? Are there other objectives?

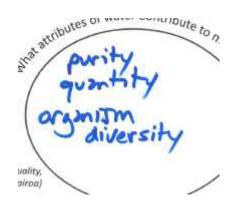
Ecosystem Health (compulsory under NOF)

Important characteristics (FLAG)

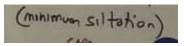
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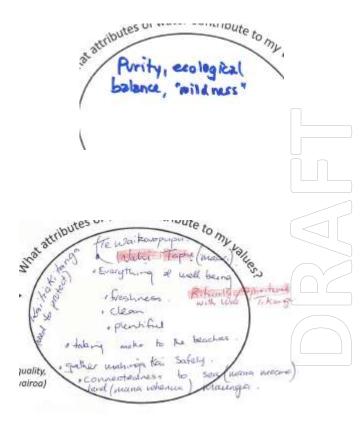












Ecosystem Health (compulsory)— Attributes

The characteristics of water that are important for Ecosystem Health:	Measured Attributes:
There is diverse life (indigenous flora and fauna) appropriate to the freshwater body type.	[To be discussed at meeting]
Ecological processes are maintained and there is resilience to change.	[To be discussed at meeting]
The water is clear and naturally coloured.	[To be discussed at meeting]
The water does not contain contaminants.	[To be discussed at meeting]
Nutrients in the water are not excessive and there is no overgrowth of algae or aquatic plants.	[To be discussed at meeting]
There is minimal siltation of the bed.	[To be discussed at meeting]
There is good natural flow, good depth and movement of water.	[To be discussed at meeting]
There is healthy and diverse riparian and wetland vegetation, substrate, meander, width/depth and bank shape appropriate to the water body type.	[To be discussed at meeting]
The water has healthy Mauri.	[To be discussed at meeting]

Do you agree with the characteristics? Are there others you think are important for Ecosystem Health and the Mauri of water?

Fishing and Food Gathering - FLAG



What this value means:

Fishing, and gathering of whitebait and coastal sea food, are important for our families, our wellbeing and our connectedness to the sea and land. Mahinga Kai must be safe to gather and eat. Being able to fish or gather food at traditional and favorite locations is important and needs to be maintained for future generations.

Does this adequately capture your view? Any comments?

Fishing and Food Gathering - NOF

The National Objective Framework includes the following descriptions:

"Mahinga kai – Kai are safe to harvest and eat.

Mahinga kai generally refers to indigenous freshwater species that have traditionally been used as food, tools, or other resources. Mahinga kai provide food for the people of the rohe and these sites give an indication of the overall health of the catchment.

For this value, kai would be safe to harvest and eat and knowledge transfer is present (intergenerational harvest). In [waters] that are highly valued for providing mahinga kai, the desired species are plentiful enough for long-term harvest and the range of desired species is present across all life stages."

"Mahinga kai – Kei te ora te mauri (the mauri of the place is intact).

For this value, freshwater resources would be available and able to be used for customary use at some places (but not everywhere). In [waters] that are highly valued for providing mahinga kai, resources would be available for use, customary practices able to be exercised to the extent desired, and tikanga and preferred methods are able to be practised."

"Fishing – The [waters] supports fisheries of species allowed to be caught and eaten.

For [waters] valued for fishing, the numbers of fish would be sufficient and suitable for human consumption. In some areas, fish abundance and diversity would provide a range in species and size of fish, and algal growth, water clarity and safety would be satisfactory for fishers. Attributes will need to be specific to fish species such as salmon, trout, eels, lamprey, or whitebait."

Are the NOF definitions suitable - or is a combined NOF-FLAG description preferred?

Fishing and Food Gathering **DRAFT Management Objectives**

- Kai are safe to harvest and eat.
- In locations that are highly valued for providing mahinga kai, the desired species are plentiful enough for long-term harvest and the range of desired species is present across all life stages.
- Locations that are highly valued for providing mahinga kai are accessible and able to be used to the extent desired and tikanga and preferred methods of harvest are able to be practised.
- All locations that are valued for providing mahinga kai have healthy mauri.

Applies to: Refer next slide

Do you agree with these objectives - are there other objectives?

Note: the implementation methods for such objectives will require elements outside of the scope of the FLAG project

Fishing and Food Gathering – Locations & Species

Applies to: surface water in:

- •Western coastal catchments (Tukurua to Little Onehau?)-
 - -whitebait species, tuna (eels)
- Motupipi catchment
 - –whitebait species, tuna (eels)
- Takaka River
 - -whitebait species, tuna (eels), trout
- Anatoki and Waingaro Rivers
 - -tuna (eels), salmon?, trout
- •Te Waikoropupu River
 - **—**??
- Motupipi and Waitapu Estuaries (where affected by river outflows)
 - -Estuarine shellfish??

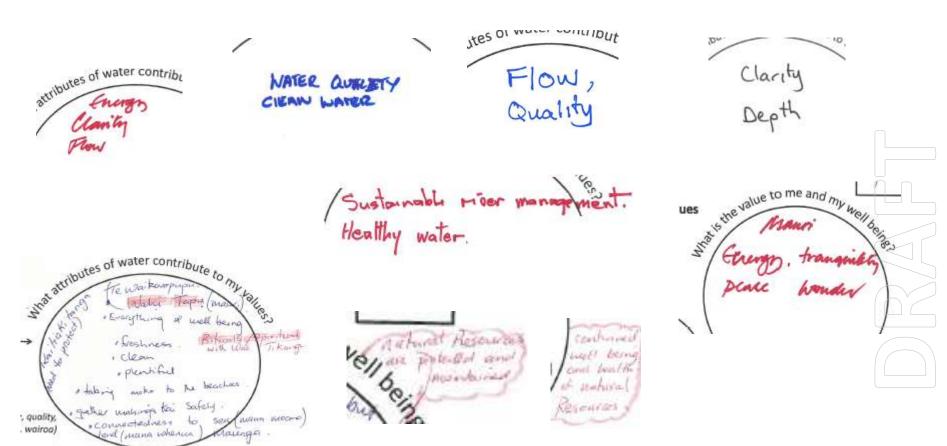
Do you agree with the water bodies and species identified?

Are there others species of interest in any locations?: adult koaro, adult inanga, adult kokopu, paraki (smelt), korokoro/piharau (lamprey), freshwater shellfish, koura, watercress? other plants? birds?

Are we seeking to maintain or improve current species/resources? – to what extent?

Are we seeking to restore historic resources? - if so, which species and to what extent? 24

Fishing and Food Gathering Important characteristics (FLAG)

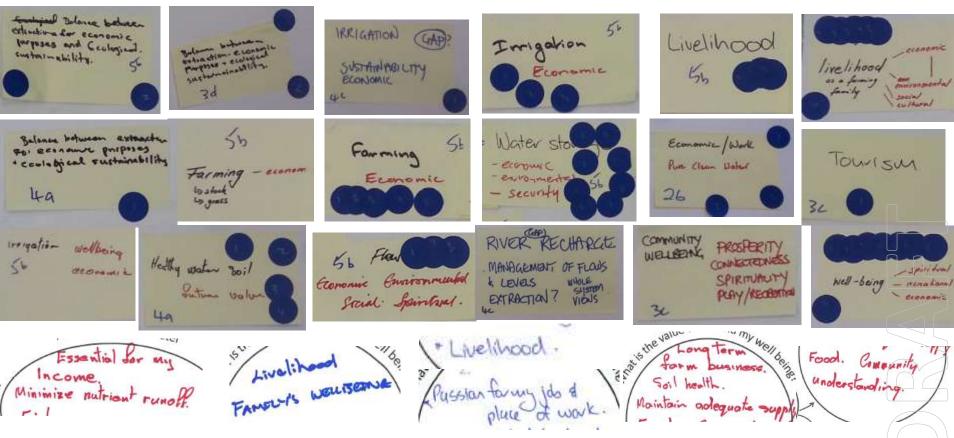


Fishing and Food Gathering – Attributes

The characteristics of water that are important for Fishing and Food Gathering:	Measured Attributes:
Fish and food are safe to gather and eat.	[To be discussed at meeting]
Traditional and valued spots for fishing and food gathering are accessible and protected.	[To be discussed at meeting]
Mahinga kai species are abundant and healthy.	[To be discussed at meeting]
There is good flow, depth and clarity of water.	[To be discussed at meeting]
The water does not contain contaminants.	[To be discussed at meeting]
The water does not contain human or animal wastes.	[To be discussed at meeting]
There is no overgrowth of algae or aquatic plants.	[To be discussed at meeting]
The water has healthy Mauri.	[To be discussed at meeting]

Do you agree with the characteristics? Are there others you think are important for Fishing and Food Gathering?

Livelihood and Economic Use - FLAG



What this value means:

Water is important for our farming, horticulture and tourism livelihoods and community wellbeing. Healthy water is vital for our short and long term economic prosperity. Economic use of water must seek approaches that ensure ecological sustainability including, but not limited to minimising nutrient runoff. Water storage is important for balancing security of supply and environmental outcomes.

Livelihood and Economic Use - NOF

The National Objective Framework includes the following descriptions:

"Irrigation and food production – The [freshwater] *meets irrigation needs for any purpose.*

Water quality and quantity would be suitable for irrigation needs, including supporting the cultivation of food crops, the production of food from domesticated animals, nonfood crops such as fibre and timber, pasture, sports fields and recreational areas. Attributes will need to be specific to irrigation and food production requirements."

"Animal drinking water – The [freshwater] meets the needs of stock.

Water quality and quantity would meet the needs of stock, including whether it is palatable and safe."

"Commercial and industrial use – The [freshwater] provides economic opportunities to people, businesses and industries.

Water quality and quantity can provide for commercial and industrial activities. Attributes will need to be specific to commercial or industrial requirements."

Are the NOF definitions suitable - or is a combined NOF-FLAG description preferred? Any comments?

Livelihood and Economic Use **DRAFT Management Objectives**

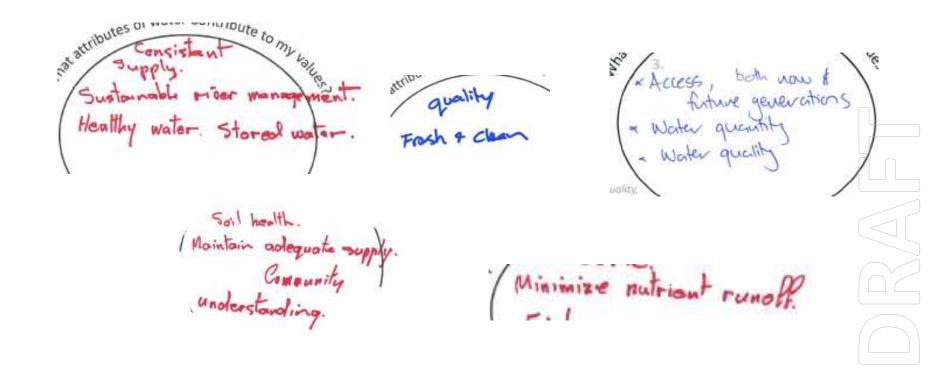
- There is an acceptable security of supply achievable for existing water users –
 in some areas and for some uses this may require water storage
- Water quality is suitable for the existing economic uses with minimal or no treatment:
 - Water used for irrigation meets the quality needs of existing farming and horticulture uses
 - Water used for stock water meets the stock water drinking standards and is palatable to stock
 - Water used for existing commercial and industrial activities meets the needs of those industries with minimal need for treatment
 - Water that is important for tourism activities meets the expectations of tourists, and meets primary contact (swimming) objectives where relevant

Applies to: All surface and groundwater currently used for irrigation, stock water, industrial and commercial uses and tourism activities.

Do you agree with these objectives and the waters they should apply to? Are there other objectives?

Should the management objectives focus on current and future use by <u>existing</u> users or for potential <u>future users</u> as well?

Livelihood and Economic Use Important characteristics (FLAG)



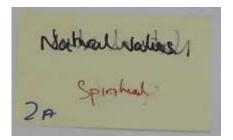
Livelihood and Economic Use - Attributes

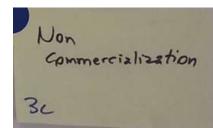
The characteristics of water that are important for Livelihood and Economic Uses:	Measured Attributes:
Acceptable security of supply for <u>existing</u> users (with or without storage)	[To be discussed at meeting]
Water quality is suitable for <u>existing or likely future use</u> with minimal or no treatment. [tourism, eco-tourism, dairying, dry stock (beef, deer, sheep, goat), orchards, viticulture, fodder crops, forestry, bottled water, fishing, aquaculture, ?others]	[To be discussed at meeting]

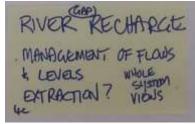
Do you agree with the characteristics? Are there others you think are important for Livelihood and Economic Use?

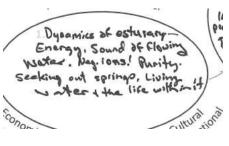
Natural Form and Character- FLAG

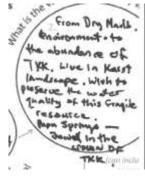




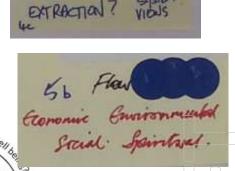












connectedness to

What this value means:

The natural values of our water bodies connect us with nature. People seek out these natural areas as they provide tranquil and spiritual opportunities away from human development. Specific natural values include the sound of flowing water, healthy water and the life within it and the wildness and dynamic nature of our rivers and estuaries. The karst/marble landscapes and springs, in particular Te Waikoropupu, provide a special and unique quality to the Takaka catchment.

balance, "wild ness

Does this adequately capture your view?

Natural Form and Character - NOF

The National Objective Framework includes the following description:

"Natural form and character (Te Hauora o te Taiao) — Where people value particular natural qualities of the [freshwater].

Matters contributing to the natural form and character of [freshwater] are its visual and physical characteristics that are valued by the community, including its flow regime, colour, clarity, morphology or location. They may be freshwater management units with exceptional, natural, and iconic aesthetic features."

Is the NOF definition suitable - or is a combined NOF-FLAG description preferred?

Natural Form & Character **DRAFT Management Objectives**

- The natural and physical characteristics of the water bodies within the karst and marble landscapes, and the spring systems (including Te Waikoropupu) within the Takaka Catchments are protected.
- Water flows from Te Waikoropupu Springs are maintained

Applies to: Te Waikoropupu Springs, ??(these could potentially be determined through RiVAS and the Golden Bay/Mohua Landscape project on Outstanding Landscapes and Features – to be discussed at meeting)

Do you agree with these objectives and the waters they should apply to? Are there other objectives?

Natural Form & Character Important characteristics (FLAG)



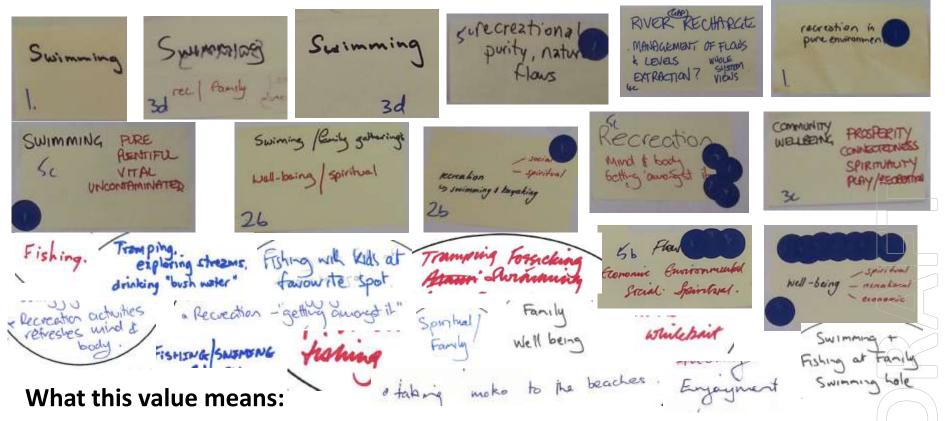
Natural Form & Character - Attributes

The characteristics of water that are important for Natural Form and Character:	Measured Attributes:
Natural characteristics are protected including: Natural flows Sound of flowing water Wildness of water bodies Physical features Karst and marble features Springs Healthy water and the life within it Dynamic nature of water bodies [from RiVAS work:(vol.2 report): Shape of river bed and channel Riparian Vegetation River Flow Water Quality Man-made structures in and adjacent to the riverbed]	[To be discussed at meeting]

Do you agree with the characteristics? Are there others you think are important for Natural Form and Character?

Recreation-FLAG

(compulsory for secondary contact under NOF)



Swimming, fishing, kayaking and tramping are important recreational activities undertaken in the Takaka Catchment. Recreation is important for well-being. It provides enjoyment and refreshes the mind and body. It is an important social activity, particularly for families and those with favoured traditional spots for swimming or fishing.

Recreation – NOF

(compulsory for secondary contact under NOF)

The National Objective Framework includes the following description:

"Human health for recreation (Te Hauora o te Tangata)— As a minimum, the [freshwater] will present no more than a moderate risk of infection to people when they are wading or boating or involved in similar activities that involve only occasional immersion in the water. Other contaminants or toxins, such as toxic algae, would not be present in such quantities that they would harm people's health.

In [freshwater] where a community values more frequent immersion in the water such as **swimming**, white-water rafting, or water skiing, the risk of infection will be no more than moderate. In some [freshwater], the risk of infection to people undertaking any activity would be no greater than what would exist there under natural conditions."

Is the NOF definition suitable - or is a combined NOF-FLAG description preferred? Note: staff have suggested removal of the term 'water skiing' unless this occurs somewhere in the Takaka catchments.

Recreation

DRAFT Management Objectives

- All surface waters are safe for swimming during the months Nov – April
- All surface waters are safe for secondary contact recreation.

 All surface waters used for a specific recreation activity are suitable for that use at the relevant time (refer next slide for list of uses and locations)

Do you agree with these objectives and the waters they should apply to? Are there other objectives?

Recreation – Types and Locations

Specific Recreation Types	Applicable Water bodies	Time Recreation Occurs
Kayaking	Parts of the Anatoki, Takaka, Waingaro and Cobb Rivers	Site/flow dependent
Swimming	Rivers: Takaka River (at Sh60,Reilly St, Kotinga, Top rocks, Paynes Ford, Lindsays Bridge, Blue Hole); Anatoki River (at One Spec Rd, Happy Sams) Beaches/Estuaries [potentially affected by freshwater flows]: Tukurua, Patons Rock, Pohara, Rangihaeata, Onekaka Wharf, Motupipi.	~Nov-April
Recreational fishing (either for food or release)	?	?

Do you agree with the recreation types and associated water bodies indentified? Are there others – dog walking, walking/tramping, bird watching?

Where does recreational fishing occur in the Takaka catchments? 40

Recreation - Important characteristics (FLAG)

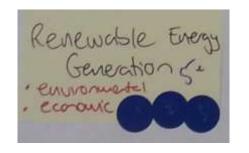


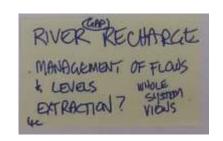
Recreation – Attributes

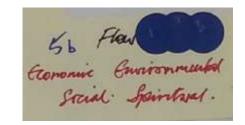
The characteristics of water that are important for recreation (as relevant to different locations/times):	Measured Attributes:
There is sufficient minimum water flows at sites typically used for swimming holes and kayaking that allow for these uses.	[To be discussed at meeting]
The water is appealing (look, smell, taste). The water is clear and naturally coloured. The water smells and tastes pleasant.	[To be discussed at meeting]
The water does not contain human or animal wastes. The water is suitable for swimming (primary contact).	[To be discussed at meeting]
The water does not contain contaminants.	[To be discussed at meeting]
There are no unpleasant slimes or overgrowth of aquatic plants and algae.	[To be discussed at meeting]
There is good natural flow, good depth and movement of water.	[To be discussed at meeting]
The water has healthy Mauri.	[To be discussed at meeting]
The water is accessible and available for use.	[To be discussed at meeting]

Are there other characteristics you think are important for Recreation?

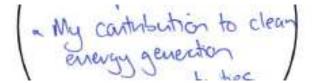
Hydro-electric Power Generation - FLAG











What this value means:

Renewable energy generation through hydro-electric use of water is important for economic, as well as environmental reasons.

Does this adequately capture your view?

Hydro-electric Power Generation - NOF

The National Objective Framework includes the following description:

"Hydro-electric power generation (au putea) — The [freshwater] is suitable for hydro electric power generation.

Water quality and quantity and the physical qualities of the [freshwater], including hydraulic gradient and flow rate, can provide for hydro-electric power generation."

Is the NOF definition suitable - or is a combined NOF-FLAG description preferred?

Hydro-electric Power Generation DRAFT Management Objectives

- Existing Hydro-electric power generation schemes are able to continue to generate electricity as needed at this time and the hydraulic gradients and flow rates required for generation are protected.
- The future potential for new hydro-electric power generation is considered when ???.

Applies to:

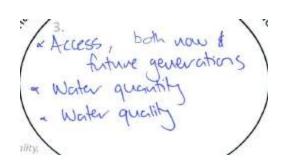
Existing: Cobb R, Campbell Crk, Waitui Strm, Onekaka R, Rameka R, Gibson Crk, Ellis Crk, Wainui R

Future Potential: ?

Do you agree with these objectives and the waters they should apply to? Are there other objectives?

Should the management objectives include consideration on potential <u>future</u> sites for hydro-electric power generation as well? – if so how/when?

Hydro-electric Power Generation Important characteristics (FLAG)



Hydro-electric Power Generation **Attributes**

The characteristics of water that are important for Hydro-electric Power Generation:	Measured Attributes:
The hydraulic gradients and flow rates required for existing hydro-electric generation schemes are protected.	[To be discussed at meeting]
Water quality is suitable for existing hydro-electric generation schemes .	[To be discussed at meeting]

Are there other characteristics you think are important for Hydro-electric Power Generation?