

### **FLAG MEETING NOTES: 21 November 2014**

Durnoso:	Takaka Freshwater and Land Advisory Group (FLAG)- Meeting 4
Purpose:	
Date:	21 November 2014
Time:	9.30am-3.00pm
Venue:	Takaka Fire Station
Present:	FLAG members: Graham Ball Greg Anderson Mirka Langford Neil Murray Tony Reilly Mik Symmons Mike Newman Kirsty Joynt Piers MacLaren Margie Little (iwi representative on FLAG) Martine Bouillir (council representative on FLAG)  Staff: Mary-Anne Baker (Environmental Policy Planner)
	Lisa McGlinchey (Environmental Policy Planner) Joseph Thomas (Resource Scientist - Water & Special Projects) Trevor James (Resource Scientist – Freshwater and Environmental Quality)  Rochelle Selby-Neal (Independent Facilitator) Andrew Fenemor (Landcare Research)
	Matt Rountree
Apologies:	(from 11.30am) Margie Little (iwi representative on FLAG)
Notes taken by:	Lisa McGlinchey (supplemented by other staff)
Definitions and Abbreviations	FLAG=Freshwater and Land Advisory Group NPS-FM 2014 = National Policy Statement for Freshwater Management 2014 NOF= National Objectives Framework TRMP = Tasman Resource Management Plan (the Plan) TWMC = Takaka Water Management Catchments Unconfined aquifer = are those where permeable strata are open to the ground surface. Surface water (rainfall and/or river flow) is able to seep from the ground surface directly to the aquifer. Confined aquifer = are those where permeable groundwater bearing strata are separated from the land's surface by an impermeable layer (such as silt or clay) that prevents surface water from directly seeping into the aquifer. Groundwater migrates to confined aquifers from an unconfined recharge area located elsewhere.
Note: records of dis	scussion points have been grouped into similar topics and are not necessarily in the order

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**FLAG MEMBERS PLEASE NOTE:** If you have any questions or need anything between meetings, then please contact Mary-Anne Baker by email: marya@tasman.govt.nz or by phone ddi 03 543 8486.

### **Purpose of Meeting**

• Review and discuss the management objectives and associated attributes

### Welcome and Karakia

• RSN gave a summary of what had been done so far with the FLAG.

### Session 1 - Water Conservation Order and EPC Report back

### **Update on Te Waikoropupu Water Conservation Order – (MAB)**

Water Conservation Order (WCO) Process:

- The Minister for the Environment has received the Te Waikoropupu Springs WCO application and has asked for further information.
- Once the further information is received they will determine if the WCO application is accepted to go through the process.
- If accepted a special tribunal is appointed to manage the process. It is not a council process.
- The special tribunal will notify the application for public submissions and will arrange hearings for submitters.
- The Tribunal then either drafts the WCO or recommends the application be declined.
- Submissions on the draft order can be made to the Environment Court.
- The Court then holds an enquiry and following that makes a recommendation to the Minister whether to accept or decline the application.
- The Minister then recommends to the Governor General that the Order be made.
- A WCO cannot be modified for 2 years from its initiation
- Any existing activities occurring in the catchment cannot be altered by a WCO

The details of the Te Waikoropupu WCO application are not public yet, but will be made public once the further information amendments to the application have been made and provided to the Minister

### Questions arising from the WCO summary:

### What is the likely time frame for processing?

Unsure – it could be years.

#### Are there other WCOs?

Yes, we have two in Tasman – one on the Buller River and one on the Motueka River.

### The process sounds expensive – who pays for it?

The government pays for the process. Submitters pay for preparation of their case including if they used consultants as part of their submissions, etc.

#### Who are the applicants?

Iwi and Andrew Yuill

Margie – the WCO was instigated by iwi before the FLAG process was begun. There is a desire to recognise the springs for what they are [a significant water body and place] and ensure sufficient protection is in place for them. Sometimes locals get complacent as they are use to the springs being there. We owe it to future generations to leave the springs as they are today. It's an icon.

#### What are the criteria the minister will use to decide on the WCO?

There are some criteria for decisions - it must be nationally significant water body.

The WCO will be a challenge in the FLAG process as they are dealing with the same issues and same water bodies. The minister may take this into account.

It would be useful for the FLAG to better understand what the WCO is seeking and this could be looked at in a future meeting perhaps if/when the application has been accepted by the Minister for the WCO process?

Yes - once it has been accepted.

# If the WCO process will 'trump' [over-ride] the FLAG process – we don't want to waste the FLAGs time - should the FLAG hold off until the WCO is progressed or not?

We could let the FLAG and WCO processes both run and let applicants see if outcome of the FLAG meets the requirements sought by the WCO.

The WCO will only be covering one part of the Takaka Water Management Catchment so the FLAG process will need to continue.

The WCOs are also high level and we have more options with regulatory solutions with the TRMP/FLAG process.

#### Isn't the WCO complementary to the FLAG?

No – it is a different instrument, but can be looking at the same things. The WCO has a narrower focus on specified outstanding values.

### There seems to be duplication – perhaps the WCO needs to hold off until the flag process is progressed before it goes through the national process.

What gets submitted and accepted to the Minister does not have to contain a lot of detail. It should be fine for the WCO and FLAG processes to continue in parallel as WCO take a long time – much longer than the FLAG process.

**Action**: Margie to talk to Jo and report back to FLAG on progression of WCO in conjunction with FLAG process.

[Martine] Don Mead has developed a long term values effect paper which has been peer reviewed. Don now has an amended confidential draft which he is happy to be distributed to the FLAG members [note to our knowledge the paper is still confidential for FLAG members only]. The paper covers the water chemistry aspects for the springs and has some good information on long term land use changes in the catchments.

Action: MAB to send copy of amended Don Mead draft to FLAG (double check if still confidential)

# There can be unintended consequences of legislative process - do we end up with a 'gold rush' mentality if the WCO is accepted for processing – before it is passed. At the moment people seem to be standing off until things are progressed.

There are some water take applications currently. Council has struggled with resources to set limits previously and we have an informal approach to a waiting list in Takaka as there is no allocation limit in the plan. So far this has worked, but the pressure and opportunities have changed the stakes and people are less inclined to wait. We have one application that has been put on hold and another talking about lodging one. Once they are lodged they are locked into a legal process and must be processed. There is guidance in the TRMP on sustainable resource use – these have to be worked through by the applicant to provide sufficient info to the council. The other option is for the council to do this work for all applicants to use.

Currently as there is no allocation limits in the TRMP and the significance of the applications, it is likely that the applications will be notified and attract lots of submissions.

# Can Council not stop anyone from lodging applications while the FLAG process is proceeding?

Only if a moratorium was put into the TRMP to stop this. The TRMP/consents can put in triggers and restrictions. Currently water takes are controlled individually by their consents. At the moment it is a risk to applicants to go through a notified process at potentially a large cost.

# Some users aren't using their allocated amount – the Council should be taking this and reallocating it.

There are already some aspects in the TRMP for this and the plan change should consider and address these aspects.

### So the plan change the FLAG come up with can address all the previous allocations? Yes it can.

There is some frustration on the waiting list – some delay is due to lack of science and some applicants are willing to help pay to get this done to progress things.

Could the FLAG end up being a submitter against a water take application?

Yes, it could be possible - especially if notified and it was against FLAG discussions.

[Margie] I had a meeting with Ngai Tahu – I told them I can't see the pathway forward – they said don't worry about water underground – worry about the surface water and setting minimum flow in rivers and then above this level you can allocate water.

This is exactly the process the RMA outlines and the process we are aiming to get to – on one level it is easy to describe – but it is complicated to get there.

### **Update on TDC – EPC report back (Mik & Martine)**

Mik reported back to the Environment and Planning Committee of Council on the 13 November 2014. Key points from the report back were:

- Councillors are more concerned about the Waimea FLAG due to water take consent renewals occurring in the next 2 years and the over-allocated situation in Waimea.
- Council is nervous of timeframes, but feel that the Takaka FLAG is working well with facilitation.
- If Council can see progress they will be happy to keep supporting the FLAGs.

### Session 2 – Values and Management Objectives

# Presentation 1 - Amended Values and Management Objectives Summaries - Lisa McGlinchey

Lisa McGlinchey (Environmental Policy Planner) gave a presentation on the amended version of the values and management objective summaries including feedback from staff and the FLAG members.

### **Key points from presentation:**

- Values descriptions have been reworked with generally a combination of FLAG and NOF descriptions. The descriptions have been refocused to cover "what the value means", and avoids management objective type statements or listing of potential attributes
- Changes were made to the management objectives for cultural/spiritual, water supply, livelihood/economic use, natural form & character, recreation and hydro-electric values
- Further discussion may be needed on some management objectives, definition of key terms and the location/extent of where some values will apply, however this can be looked at again as the attributes and implementation methods are considered
- The attribute tables where populated by staff with attributes that reflected the
  important characterises summarised from FLAG feedback it was acknowledge that
  further attributes (indicators), particularly for economic and cultural/social/spiritual
  aspects, may be needed to provide a balanced reflection of the values and important
  characteristics.

### Questions and comments arising from presentation:

### Can there be controls on how water is used and whether there is efficient use of the water?

Yes, there are good management practices defined by industry. Performance can cover a range of levels from minimum standards to good to advanced or best practice. We may need to understand the levels of efficiency provided by existing and new technology.

**Action:** Staff to add an objective on water efficiency to the Livelihood and Economic management objectives.

**Action:** FLAG members to review the amended descriptions, management objectives and location and attribute tables and provide any further comments to staff before the next meeting (23 Jan 2015).

### Session 3 – Attributes

### Presentation 2 - Key Attributes for Water Quality - Trevor James

Trevor James (Resource Scientist – Freshwater and Environmental Quality) outlined the key attributes (parameters) measured for water quality and what they tell us about the water and the linkages between some attributes.

Attributes covered: Dissolved Oxygen, Temperature, Visual Water Clarity, Disease Causing Organisms, Macro-Invertebrates, Periphyton, Nutrients, Cyanobacteria, Stream Habitat Score, Flow Regime.

### Questions and comments arising from presentation:

### What about shading – currently riparian vegetation seems to be focussing on flax – does this provide enough shading or are trees needed?

For small streams flax can provide shading, but really we need overhanging trees – also there is more insect life on trees as they have more habitat and insects fall from overhanging trees and become food for fish.

### So what tree species are good for stream side planting?

There are lists available for the catchments in Tasman district – including Golden Bay.

### Re visual clarity in the Cobb River the cob dam affects clarity – it is not like natural clarity.

Yes it does. Improved management of flow releases from the reservoir has improved clarity.

#### What source would put hepatitis A in the water?

Human sewage.

### Where are we seeing high levels of bacteria in water?

There have been some high levels in the Aorere catchment (not the flag area) and some in the Motupipi catchment.

### What bacteria levels would you find in a pristine river – ie in the Kahurangi?

Usually less than detection <5/100ml - in floods might get up to 50/100mls - this bacteria from possums, rats, pigs and people

Large spikes in first flush from karst so we turn our water tank off when it rains – even though it isn't a catchment with development/farms etc.

#### Is there work to check levels of bacteria in Takaka streams with septic tanks?

Yes –following elevated bacterial results in Tukurua we have checked systems which identified 3 failing systems which have been resolved and improved water quality.

### What about wildlife – we have a lot of birds on the Motupipi – what effect do they have?

They can have a big effect – unfortunately it is too expensive to do source monitoring alongside the bacteria monitoring.

### Are bacteria found in birds a health risk to humans?

Sometimes, but not always - eg Pukekos known to harbour campylobacter, but the strain is not pathogenic to humans

#### What is the difference between spring fed and river run invertebrates?

Yes you get different populations – there can be more stability in streams due to less flushing – we will need to treat the attributes for spring fed rivers differently from others.

#### Is there a seasonal variation in invertebrates?

This is mostly on size of the invertebrates rather than diversity – they don't migrate like fish do.

### Phosphorus seems to be the limiting factor since there are organisms that can fix nitrogen from the air.

Yes that is true, but this needs to be looked at on a catchment by catchment basis.

### Do you monitor total nitrogen or nitrate and ammonia?

Yes we look at them all, but only at key places where there is a risk or at key locations as monitoring at more sites is too expensive.

### Are there situations where areas with poorer habitat have rare species?

There are habitat preferences for different species but generally those with good habitat diversity are the ones with good fauna/flora diversity – in some cases where the natural stream substrate is not particularly good for diverse habitat, the instream habitat may be provided by woody debris in the stream.

### How do we set limits where there is a range of levels of importance and aspects such as duration?

There are ways we can do this –by choosing which units, which statistics we use eg annual means, etc and the effects we are seeking to target (eg chronic vs acute effects).

Action: Staff to send out attribute definition summary table to FLAG members

MAB: We have concentrated a lot on managing low flows but we are starting to see some demand to harvest flood flows and need to look at managing the whole flow regime

We had this in Marlborough – we had to allow for first flush – had a window between peak flow and mean flow – it worked successfully.

TJ: We can't just discharge during high flows as things like E.coli from sewage can build up in the bed sediments and be released at lower flows causing problems.

### Does Didymo behave like other periphyton?

No they are oligotrophic which means they can growth in pristine areas with very low nutrients and they have a competitive advantage in this. They are also more prolific where flows and substrates are stable. It is very difficult to manage didymo.

### Can you explain the role of willow - does it have pros and cons?

It is useful in larger rivers and can stabilise the stream banks more effectively than natives and grow faster, but in smaller waterways it takes over and blocks the channel and takes up and changes habitat. Willows are also a risk to kayakers. The insect diversity in willows is also less than native plantings. They can also have intensive management needs.

### What are the criteria used to pick the key attributes?

Catchment risks - what is important in the catchment.

### **Presentation 3 – Attribute Matrix - Lisa McGlinchey**

Lisa McGlinchey showed the FLAG an excel summary matrix of all the attributes currently identified for the values and important characteristics. The matrix summarises the attributes by value and staff have highlighted those attributes under each value that are considered to be 'keystone' attributes. These keystone attributes include attributes from the NOF for the

two compulsory values (ecosystem health and human health secondary contact) and other attributes that are particularly important to the value.

### Presentation 4 – Water Wheel / Attributes – Andrew Fenemor

RSN posed the question 'What are we going to use the Water Wheel for, and how do we choose the attributes?' for Andrew Fenemor to answer.

#### **Key points from presentation:**

- The Water Wheel should be useful for looking at tradeoffs between conflicting values.
- Criteria for choosing attributes the attributes need to relate to the management method that comes out of the process eg the rules and limits.
  - We need to have indicators that reflect what we need to manage
  - The attributes can be qualitative as we can undertake surveys in the community to define these.
  - We need to represent what is important in the system eg social vs economic, vs ecological
  - Generally we don't want more than 12 attributes, both for communication and modelling simplicity
- The Water Wheel is a tool for discussion.

[Refer also John Bright's powerpoint from Meeting 3]

Staff also showed the FLAG an example of the attributes that are included within the Cultural Health Index – a composite assessment which has been used on some water bodies elsewhere to give a score of cultural/spiritual/social health of the water bodies. There was some discussion about using a range of physical attributes that also give good understanding about the health of a water body.

Qualitative measures can be dependent on the experience of those doing the assessments.

RSN highlighted the need to identify economic and social indicators to add to the list of attributes to allow comparison of different values. Potential economic attributes could be: revenue from tourists –eg visiting national park, bed numbers for tourism, farm metrics. The FLAG members where then asked to undertake a group session to look at potential attributes (indicators) for economic and cultural/spiritual/social values.

### Group session – brainstorming of economic and cultural/spiritual/social indicators

FLAG members were asked in two groups to go through the amended values statements and management objectives and consider what might be suitable indicators for economic values and cultural/social/spiritual values. Specifically they were asked, "What is missing from the current attribute lists?"

### Report back from group session:

#### **Economic:**

#### Possible attributes:

- Tourism (swimming):
  - Eftpos data for community\*
  - Clean for swimming
  - o Tourist numbers
  - Number of people by distance travelled
  - Visitor numbers to Te Waikoropupu\* (and as a proportion of overall visitors)
- Mussel farms
  - o Faecal / E.coli
  - Harvesting days\* (number of days prevented due to poor bacterial water quality)
- Unemployment numbers
- Milk solids (land use changes)

- No of viable coffee bars and art galleries
- Percentage irrigated land and irrigable area\*
- Production per hectare x irrigated area
- Dairying:
  - Number of days of water constraints (rationing)
  - Number of days with adequate water and low flow\*
  - Drying off dates
- Future gains of future water use
- Kilowatts of electricity used (for irrigation?) (and generated?)

#### **Further information needed:**

What are the sources of other economic activity in the catchment?

### Is there potential for a university student to look at the economics in the Bay to answer this?

Yes, this is vital as we need to know this to determine the effect of different management options.

We need to consider all economic sources not just those dependent on water as need to look at economic aspects in total context.

Action: MAB to follow up with the Economic Development Agency on this aspect.

### Cultural/Spiritual/Social:

**Possible attributes:** (\* = attribute considered key by group)

- Feeling/intuition\* (gut feeling) is important a key indicator
- Mauri
- Maori language/terms a barrier to some people and can put some people off as they
  don't understand it or don't feel it represent their values even though they can be
  very similar we need definitions in English to show that they do represent all
  cultures.
- Wai Tapu swim site
  - Feeling not right due to sewage
  - o Rototai / Motupipi estuary due to landfill rubbish eg engine block
- Sense of identity
  - Takaka town focused around river
  - Pure water renown internationally (surveys)\*
  - o Protecting for future generations becoming rare internationally
  - Water is the new 'gold'
  - Community pride
- What you would miss if water was degraded:
  - Ability to drink\*
  - Ability to swim (don't want to have to think twice about swimming)
    - Signage warning swimmers disturbing
    - Number of times signs go up\* (including shellfish warnings)
  - Ability to fish\*
    - Angler surveys
- Participation in statutory planning and restoration (catchment care)
  - Percentage of people participating in planning/restoration/school programmes
  - Number of people giving feedback eg Martine's emails
- Te Waikoropupu
  - o Flow\*
  - Water Clarity\*
  - Periphyton\* (percentage cover)
- Wholism important public surveys\*
- Abundance / water supply / sustainability
- Use of everyone's knowledge for effective decision making (survey)

**Action:** Staff to revise attribute matrix and send out to FLAG members for review and feedback.

### Session 4 – Project Management

### **Future meetings**

Next meeting dates arranged:

23 January 2015 6 March 2015 17 April 2015

### Discussion on information and potential speakers yielded the following actions:

**Action:** Staff to organise Trust Power and Economic Development Agency or an agricultural economists to meet with FLAG

Action: Martine B to follow up with Kieran Mckay (caver) and report back to FLAG

Action: Staff to send Don Mead's paper out to FLAG group

### Discussion on possible methods for wider community consultation identified:

- A summary of FLAG outputs via the local newspaper with a request for feedback from the public
- A presentation type open day following the receipt of public feedback from the newspaper summary.

### Session 5 – Invited Speaker: Andrew Yuill

### Presentation 5 - Freshwater Quality in Takaka - Andrew Yuill

Andrew Yuill gave a presentation on the water chemistry within the aquifers that feed Te Waikoropupu Spring and discussed the application for a Water Conservation Order for the aquifer.

### Key points from the presentation:

- Andrew has lived in the area for 30yrs. He is an engineer.
- Andrew found J.Thomas & M.Harvey's report on the Water Resources of the Takaka Water Management Area (2013) to be of great use. The report identifies 3km<sup>3</sup> of ground water which Andrew showed visually overlaid on a photo of the upper Takaka Valley.
- Water Clarity anywhere in the catchment you can see 12m the clearest place is Hanging Rock in the Waingaro. At Te Waikoropupu Springs you can see 63m away (a mirror was used to measure the distance).
- The aquifer that supplies the springs results in lower oxygen concentration and also dissolved organic matter – eg there are no detectable trace of humics in the water of Te Waikoropupu Springs so the water is clearer.
- Humics are removed in the aguifer by:
  - 1. Humics in the water are adsorbed onto rock eg calcite
  - 2. Bacteria feed on this source which creates a slime layer
  - 3. Snails and other stygofauna feed on the slime layer
- There are small amounts of nitrogen compared to carbon, hydrogen and oxygen the nitrogen probably gets oxidised.
- 6g oxygen can oxidise 2.25g carbon, which would be found in 4g of 'brown stuff '(organic matter).
- We don't want to be putting in more than a few grams of additional carbon into the aquifer water or we will asphyxiate the aquifer (12g oxygen goes in, 6g oxygen comes out more than 6g oxygen worth of organic material already oxidised).
- Water in Te Waikoropupu Springs is the (2<sup>nd</sup>) clearest in the world except for Blue Lake (which is at 70-80m) - people rave about 40m visual clarity in Crater Lake in the USA, but this is substantially less than Te Waikoropupu or Blue Lake.

- No one has been in the aquifer most entrances seem to be gravel/boulder blocked.
   Some have been 3-4km into the system on the eastern side and cavers have collected some stygofauna species specimens are awaiting assessment at NIWA
- Developed WCO application people know about the springs, but don't know much about aquifer. The WCO is to recognise and sustain the outstanding significant values of the aquifer.
- It is not appropriate to ask how much can we 'run this down' before it is an issue.
- The aguifer and springs are an outstanding nationally significant water body.

### Questions and comments arising from presentation:

### What do you hope the WCO will achieve?

To recognise and sustain the outstanding qualities of the aguifer.

The application required us to:

- Identify the water body
- Identify what the outstanding qualities are
- What should be done to sustain qualities

The revised application will do this.

There are three pollution threats to the aquifer:

- Farming discharges I am impressed by how much the dairy industry have been cleaning up their activities
- Insecticides/pesticides we expect stygofauna would be susceptible to these we are lucky we are not an apple growing area as there is not much use of insecticides/ pesticides currently in the catchment
- **Heavy metals** from sewage, mining and historic sources (eg coal ash to sinkholes)

When any new activity is looking to start up – the effects on the aquifer should be looked at first and avoided (you don't kill the goose that lays the golden egg).

#### So the WCO would only affect new activities - not existing activities?

Yes. (it does not affect exercise of any existing consent or existing activities)

### What about gold mining?

The gold mining process ends up with heavy metals being complexed out of the rock ore – [the processors] may need to look at shipping out the ore and processing it elsewhere. There is estimated to be \$2-4 billion dollars worth of gold, but we are told around 90 out of every \$100M goes to expenses.

[Martine has visited the site and noted they will be looking to process on site and have clay-lined ponds].

The WCO doesn't say 'no mining' – but that the impacts on the water are avoided.

# The FLAG has been discussing the parallel process of FLAG and WCO – and questioning should they be combined or one paused while the other progresses?

I believe they serve a different function – the WCO is there to recognise the importance of the aquifer – other aspects can be addressed by the unitary authority.

[Any Plan would have to be consistent with a WCO.]

The WCO will not be put on hold – it may be declined, but it may be progressed. I believe it is good for the economy here.

### What is the residence time in the aquifer system?

There is a curve (developed by J.Thomas & M.Harvey) as it is a mixed source – 1 to 12 years – some water will be in there longer.

It is a problem - if we put contaminants in the aquifer – by the time we see impacts at Te Waikoropupu we have a big problem in the aquifer and we won't know if we have killed off the aquifer ecosystem.

### Would the WCO give a more durable protection to the spring than anything the FLAG could do?

Yes, I believe so – also the outputs of the FLAG could be watered down – the WCO will provide a baseline.

# I am concerned that the FLAG process will be negated by the WCO and it will force controls on the community without their involvement.

The process for a WCO does involve the community – it will be open for submissions.

### So why doesn't one of the processes pause?

This might be required.

The FLAG process will go into greater detail than the WCO, but it will have to take into consideration the values identified in the WCO.

Nitrate is a problem in surface waters due to increased in periphyton growth, but this is not an issue in groundwater. We are not sure what nitrate levels the aquifer ecosystems/stygofauna will tolerate.

The tribunal will be considering the values of the aquifer. The FLAG will be doing this too.

# Is it possible for the FLAG and WCO process to work together to avoid duplication? Yes.

The WCO document will be public once it has been amended.

The FLAG will then have a better understanding of what is involved and what they may have to do as a result.

### Action Points - Council Staff/Facilitator/Advisor

No.	What	Who
1	MAB to send copy of amended Don Mead paper to FLAG (double check if still confidential)	MAB
2	Staff to add an objective on water efficiency to the Livelihood and Economic management objectives.	LM
3	Staff to send out attribute definition summary table to FLAG members	MAB
4	MAB to follow up with the Economic Development Agency on this aspect.	MAB
5	Staff to revise attribute matrix and send out to FLAG members for review and feedback.	LM/ MAB
6	Staff to organise Trust Power and Economic Development Agency or an agricultural economists to meet with FLAG	MAB

### **Action Points – FLAG members**

No.	What	Who
1	Margie to talk to Jo and report back to FLAG on progression of WCO in conjunction with FLAG process.	ML
2	FLAG members to review the amended descriptions, management objectives and location and attribute tables and provide any further comments to staff before the next meeting (ie before 23 Jan 2015).	ALL
3	Martine B to follow up with Kieran Mckay (caver) and report back to FLAG.	MB

### **Next meeting**

Date	Friday 23 January 2015 (Meeting 5)
Time	9.30am - 3pm
Venue	Takaka Fire Station
Draft Agenda Items	TBC
Preparation	See FLAG action points above.

### **Subsequent meetings**

Date	Friday 6 March 2015 (Meeting 6)
Time	9.30am -3pm
Venue	Takaka Fire Station

Date	Friday 17 April 2015 (Meeting 7)
Time	9.30am -3pm
Venue	Takaka Fire Station