

TAKAKA FLAG MEETING 18 NOTES: 19 February 2016

Purpose:	Takaka Freshwater and Land Advisory Group (FLAG) – Meeting 18
Date:	Friday, 19 February 2016
Time:	9.30am - 3.00pm
Venue:	Takaka Fire Station
Present:	<p>FLAG members: Graham Ball (GB) Mirka Langford (MLa) Mike Newman (MN) Mik Symmons (MS) Piers MacLaren (PM) Neil Murray (NM) Hika (Matt) Rountree (HR) Greg Anderson (GA), Andrew Yuill (AY) (co-opted member) Martine Bouillir (MB- council representative on FLAG) Margie Little (MLi- iwi representative on FLAG) Tony Reilly (TR)</p> <p>Staff: Trevor James (TJ- Resource Scientist – Water Quality & Aquatic Ecology) Joseph Thomas (JT - Resource Scientist - Water & Special Projects) Steve Markham (SM – Environmental Policy Manager) Lisa McGlinchey (LM – Environmental Policy Planner)</p> <p>Other Rochelle Selby-Neal (RSN -Independent Facilitator) Roger Young (RY - Cawthron Institute) Andrew Fenemor (AF – Landcare Research)</p>
Apologies:	Kirsty Joynt (KJ), Neil Murray (NM)
Notes taken by:	Pam Meadows (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 – under the NPS-FM TRMP = Tasman Resource Management Plan (the Plan) TWMC = Takaka Water Management Catchments SOE = State of the Environment WCO = Water Conservation Order application for Te Waikoropupu Springs and recharge area AMA = Arthur Marble Aquifer TLA = Takaka Limestone Aquifer TUGA = Takaka Unconfined Gravel Aquifer MALF = Mean Annual Low Flow TWS = Te Waikoropupu Springs l/s = litres per second
<i>Note: records of discussion points have been grouped into similar topics and are not necessarily in the order discussed at the meeting. Notes in square brackets [] have been added post meeting for clarity.</i>	
FLAG MEMBERS PLEASE NOTE: If you have any questions or need anything between meetings, then please contact Lisa McGlinchey by email: lisa@tasman.govt.nz or by phone ddi 03 543 8409.	

Purpose of Meeting

- To consolidate group approach for 2016 to meet latest EPC directive.
- To make decisions regarding allocation and water quality for Motupipi and Takaka township zones.

Welcome and Karakia

RSN welcomed the group and advised outline of the day. MLI led the group in the Karakia.

Check-in

No check-in issues raised by the group.

Session 1 – Timeline and Approach to Deliver Plan Change to EPC

EPC Directive and Suggested Approach to Deliver a Plan Change

LM and SM updated the Group on the Environment & Planning meeting held on 4 February and handed out the timeline.

Key points:

- Report updated Council on the programme for Environment Policy and Planning.
- A large number of Plan changes working through the various processes, however this subject probably the largest Plan Change in scope, extent, complexity, etc.
- Still endeavouring to recruit for Mary-Anne Baker's position.
- Recommended status and sought Council's agreement to have FLAG provide Council with a report by early September, with recommendations for later Plan drafting.
- Council had some concerns with the time and process to deal with various water and land issues. They have requested FLAG and staff to report with a recommended draft Plan change. Council want appropriate management package converted into a draft Plan Change. Need good discussion this morning on how we (both staff team and FLAG) can deliver best set of management proposals.

LM, SM and RSN gave a presentation on the revised project programme and timeline. This also included a proposed change in the approach to FLAG meeting procedures and a need for trust, by the FLAG, in the staff team.

Key Points:

- Iwi engagement will start sooner.
- Bulk of public consultation after draft Plan Change.
- Do review of interim decisions.
- EPC workshops March, August, September.
- Final date for EPC approval is 1 September. (Councillors need to get the plan change one month before this, so FLAG & staff need to have it ready by 1 August)
- Issues in next few meetings would be Clifton-Pohara and Waikoropupu TWS
- RSN: Need to focus on the core decisions without getting bogged down in too much detail. You need to do a good job on the really important things. May not be perfect but it will be better than what you have now and it will be the best you can do in the timeframe Council has set. Need to prioritise the key issues that require regulation via a plan change; not every issue you want to manage – some of these will be picked up in the implementation plan, and some can be addressed later if you want to.
- Schedule 1 statutory review process involves formal public notice of the Plan change, submissions, staff assessment reports (for a hearing), decisions and, possibly, appeals.
- RSN: Still plan to recap TWS conclusions in March meeting so you all know what you are presenting to Council on this. Remember that although you are waiting to get more information, that information may not help you make your decision anyway.
- SM: Need to get agreement from iwi of dates for one or more hui - FLAG reps and councillors hopefully as well. Anticipate need to explore flow, nitrate, etc. and receive iwi views. An exchange of information required.
- RSN: Need to hear from iwi what's important to them. You will also need to advise them of what you've been working through and ask them to respond to that.

- RSN: Re consultation document; given the volume of work FLAG needs to get through, and the number of decisions that need to be made, suggest you put the summary document out to public as an update and consult at the end of your decision making. You can still be engaging with all of the people you know in your community, and making yourself available to talk about the work of FLAG and listen to community views and feed these back to the group. Need to prioritise staff and FLAG time to meet new deadline. Need to rely on FLAG to lead any work to get summary document out into the community and any other consultation work you want to do at this point in time.
 - MLa: In terms of summary, haven't had approval of group.
 - RSN: Will send out to whole group. Let us know if issues with it before releasing it. [post meeting note – RSN had some fact checking questions on the document, so sent these back to the consultation sub-committee who will take the lead in what happens now]
 - MS: Have to tweak the bit about public consultation - perceived by people in different ways.
- **RSN: If you want consultation with the community at this time in the process, one of you are going to have to lead it. Can you fit it in? Or put online and show contacts. Up to you.**
 - Preference to put out the document.
 - **GA: How best to put out to public?**
 - LM: Any means necessary. Can email out and provide link to Council webpage, for example.

Discussion Points from Presentation:

GB: Iwi group objected to Gunsboro application. Is this relevant to their position?

SM: There is concern by iwi for TWS. I plan to be present at the mediation.

GA: I'm concerned there may be doubts about accuracy of data. Is there any way this can be made more trustworthy? Need to develop sense of trust between all parties.

MLi: Is two months a realistic target? Do we have to accept this is the way we are going to go? Issue of complexity. Why race through to please Council?

RSN: Margie raised an important issue. Community is invested. Complex and breaking new ground.

SM: Solutions package idea is liked but councillors are thinking about costs. They have questions as to whether these collaborative processes are worthwhile.

RSN invited SM to comment on this.

SM: Seeking more time is a position FLAG could take - send a signal to tell Council directly that this is not going to be easily achieved and ask them to reassess their expectation. Difficulty with that is Council may break faith with contract with you (delegated task to work together on behalf of wider community on their behalf). Don't think they want to do that. You would be justified in feeling unhappy if that fracture occurred. Two perspectives: (1) Value that has been built given diversity of interest and seeing value of having this collective community-led process and using Council to put in place and implement; (2) Old school style of planning of 'decide and defend'. Done in past, thinking they could do it and got offside. This is the default approach where Council makes the decision but this is potentially counterproductive.

RSN asked all FLAG members to comment on proposed approach and timeline.

- HR: Trying to rush us a little bit.
- TR: Pleased to see moving on quicker. We always want more details. We are here to make a call. It will be June before we know it. Need to get on with it.
- MN: Press on
- GB: New process. Need to work together closely. Happy enough to do what they want.
- MLa: In two minds. Good this comes to decision and submission process. On other hand, hoping we have a chance to identify solutions outside the box (collaborative process). If rushed that opportunity may be lost.
- MB: In two minds too. Understand the pressure from Council. It is a hard sell. Disappointing to hear from deputy mayor that he heard the Group was wide apart but it's not true. It's not helpful as it gets into the mind of Council. Don't know what to do about that. Of course, we are coming to the difficult parts but we have a commitment to do this together. Want to prove we

are not going to be 'miles apart' – it can undermine the process. Brian Ensor was very supportive.

- AY: In favour of getting on with it at reasonable pace. Do see details holding us up but there's a lot of cohesion. Do declare feelings. They can't say they don't like the way it's going and want to take it back. That would be a regressive step. Let's do with all reasonable haste. Important to complete. Elections come and go and make no difference. I strongly ask we don't get panicked or rushed just in the interest of some admin framework.
- MLi: It puts a lot of pressure not to miss meetings and get here. Two months not long with so much to do.
- MS: We have opportunity to come up with something which is better than something we have at present. It may not be perfect. Not going to lose by getting something in place.
- GA: Be nice to come out thinking this is a 'win-win' situation. Bet we all have some idea how to speed up the process.
- PM: Views are very close together. Greatest chance of reaching a consensus. Timeline may not be between TDC and FLAG. The RMA and WCO can dictate the issue if we muck around too much.

JT: Does Council want Draft or Proposed Plan Change?

SM: Draft for notification. Not just for political reasons but there is demand for the freshwater resources – economic and social drivers. Taking level of control over resource issues. Relying on this group and process to give them these tools. March workshop will be an opportunity to get up to speed with what we are working on. Even if Plan Change adopted as proposed, they will need your assistance. Need to have workshop sessions between yourselves and Council.

Lisa: There's nothing stopping you having further consultation after notification.

RSN invited additional comments from all.

- TR: Can see problem if EPC engagement came before iwi discussions.
 - SM: Not deciding anything at EPC workshop – it is a briefing session - is to get Council prepared.

RSN: Consider possible worst case scenario:

- FLAG go for Plan Change to meet Council timeframe. What if you get to the deadline and you haven't got it all together? So I suggest:
 - Regroup at end of May to assess where you are at – if the Plan Change looks unlikely then make it a solutions package.
- Key thing is something has to be delivered to Council. If don't have anything (solutions package) it would be more of a disaster.

RSN asked the FLAG for suggestions to achieve Plan change goal:

- PM: Best solution. Park the only area of contention (TWS). Not insolvable but park difficult things and agree on everything else.
- GA: Concerned everyone's concerns are addressed. Like to see public opinion sooner. Like to see iwi opinion too. Asking re our bottom line would be a great thing from lots of people. Even among our own group, emotions start to govern. Can we submit unanimously?
- RNS encouraged anyone to send in email with concerns.
- GA: Would like to know from irrigators what their bottom line is, e.g. not allow that river to do a certain thing. May not be any issue at all.
- MS: Down to RSN to be hard core and get all into line.
- ML: Suggest speed up meetings with working lunches and morning teas. (MB agreed) Solutions is a big issue and it would be good to hear from irrigators. Other concern is that there's only so much water so something has got to give.
- AY: Largely unmentioned is dollars. Need discussion about how much water dairy farmers have and the effect. What about the rest of the population who have to live with the allocation decisions? There will be an impact. Would like them to declare what's in it for them or how much they have got to lose. Need to have facts in front of us of the dollar effect on farmers.
- MB: It's about community and Council perception: Suggest a media article which we could have a say in before it's sent out that would show 'roundedness' of group and how we are finding it and working together as a group. We are currently in a bubble and people don't know what's going on. Directing people to website has limited effect.
- MLa: Agree with PM. Think AY's concerns could be addressed later. Address easier issues first.

- GB: Interested in irrigators. They know limitations on what we're dealing with. We move on and deal with easy parts of the process and then we can work backwards to the hard bits. We are closer together than what we think.
- MN: AYs' questions are largely answered. Have options of doing this or not doing this.
- TR: Understand what AY is saying re dollars. Discussed effect on the environment but need to look at social and economic issues. We need to be wider-focussed in our thinking, not just looking at the environment otherwise it won't work.
- HR: Agree with everything said.

RSN went round table once more for further feedback.

- JT: Will be meeting with irrigators collective.
- TR: Going to be expectation of restrictions in 2019. We can't compare Golden Bay with other areas of the country. Our issues are not big.
- GA: I like everything all have come up with.

SM questioned the FLAG to see if they are going to be generally happy for staff to work behind the scenes and, at meetings, to have collective discipline on how time allocated is used advising that, collectively, we have it well within our capabilities to meet the deadlines.

- MLa: Trust is same as for irrigators. We are less concerned because we understand the constraints, economics, etc. – it's never going to be Canterbury because it won't happen here.
- GA: There are some perceptions that are wrong.
- GB: The main constraint is being thin on the ground (TDC staff wise).
- SM: We've been in this situation a number of times. Think we'll have an additional team member within another couple of months.
- TR: It is important to have iwi involved in consultation process.
- AY: Like to have economical and environmental impact working together alongside each other. Do we believe in limited growth? Impacts are cumulative. Got to put economic numbers to this, i.e. who is making money and how much.
- MLa agreed to lead this with, say, four or five people in the group and bring concerns/outcomes back to the Group.
- PM: Have such a group not just for dairy farming but also the tourism industry.
- MB: Bottom line of enquiry is the question of preparedness to sacrifice any environmental attributes for financial reasons. How many people are prepared to lose some environmental aspects against economic aspects. Do we have to have it as an either/or situation or can we have it as a 'win win' both ways? We don't know what the environmental outcome is going to be.
- AY: Rather than saying environment and/or farmers suffer, can almost certainly say it's a 'win win', e.g. managing farming for greater yield with less impact. Once we look at economics, we can start looking at the nitty gritty. Yes, we can keep making a lot of money but with a lot more care and control, e.g. in the Gunsboro consent, not said it can't be done but that it needs to be done with best practice.

RSN wrapped up the session asking if all were in agreement to have goal to reach a draft Plan Change for notification by September. She acknowledged the pressure with so many meetings required to get to this stage and staff resourcing constraints but TDC staff have said it is doable.

All FLAG members present agreed.

RSN also explained that bringing Roger Young (Cawthron) on board was to speed up the process and asked that these professionals be trusted as they are the best in field, acting in good faith and that all staff, in fact, were invested in supporting FLAG and doing their best.

AY: What if some do have concerns on advice offered?

RSN: Can still raise those concerns and either resolve in the group or discuss with the professionals outside of the group.

GA: Expert witness, etc. can depend on motive. It can be false reporting. Articles are completely false due to various motives. Who's behind the scientist behind the work?

RSN: Using Roger as an example, if assuming he is acting in good faith and is recognised in his field, does he have a set of motives?

SM: Decisions that are made about employing expert advice are not made by councillors but made by staff who are middle managers, technical staff, etc.

TR: Irrigators and Dairy NZ commission report from scientists. Do we get same response on motives behind science outputs?

SM: Reality is they are seasoned professionals with relative knowledge.

RY: I am here to help FLAG, using expertise and experience used in other parts of the country and to help you make decisions based on info I provide. I can be working for both sides – farmers/environmental groups. Being a small country, my career is at jeopardy if my advice is not consistent and sound.

RSN asked if AY had any further concerns.

AY referred to a trout energetics paper by Dr John Hayes regarding the importance of flows above minimum flow for feeding fish and believed that consideration hadn't been given to this scientific fact.

- Roger confirmed that he had taken this paper into account and explained the difference in what the FLAG was dealing with. He stated that there were two major aspects referred to – minimum flow and allocation limit. Minimum flow controls habitat left in the river; allocation limit controls minimum flow. The two controlling mechanisms are very important and guidance had been given. Dr Hayes questions the traditional approach where optimal Weighted Usable Area (WUA) 'drops off' above a certain river flow. That is not so relevant here; more relevant for large rivers like the Clutha. Flow can get too fast for habitat. Need a conservative minimum flow.
- LM: So I am hearing that the scientists still have faith in the methodology that has been used by FLAG so far.
- RSN assured AY that the Group had been discussing these issues and taking this into consideration.
- AY had another question but agreed to circulate by email or come back to it as it has to do with allocation.
- AF: Can have faith in what Roger's saying.
- GA: People want to know and understand authority opinion.
- JT: Most of rivers here are far, far smaller than the Clutha. Got to be in context of where the study is.
- RSN: Suggest Andrew Y chat with Joseph and Roger.

RSN asked that if anyone had concerns about this, they email her. Interim decisions have been made and will be revisited. Commitment from Lisa that any changes made during drafting will be brought back to the group.

- GA: Neutrality also important.
- AF: If look at existing takes, etc., would come to exactly the allocation limit that we have done.
- SM: Now you've got a game plan we've presented, if you want it to be raised and not in the agenda or timeline, think about it offline.
- RSN: Everyone agreed that minimum flows and allocation limits expressed as percentages of MALF was a suitable approach.

LM: If you go home and decide you can't live with a decision made in a meeting, don't wait until the next meeting, make contact with me so we can address it or put it on the agenda for discussion.

Session 2 – Motupipi - Water Quantity and Quality Decisions

Motupipi – Allocation – Options/Recommendations *Presentation – Dr Roger Young, Joseph Thomas (20 mins)*

RSN encouraged the group to write questions down that might be raised during the presentation.

Roger Young presented on the Motupipi situation and his recommendations for setting minimum flow and the allocation limit.

Key points:

- Motupipi is a gaining river from around Sunbelt Crescent with spring flows adding to upstream flows.

- Motupipi river flows are difficult to measure due to aquatic plant growth so flows have been correlated to the ground water bore levels at the fire station.
- Dissolved oxygen issues experienced [due to aquatic plant growth]
- Potential for salt intrusion issues in coastal end
- Currently 43 l/s of surface takes from river
- Currently 88 l/s of groundwater takes [note this excludes takes that were moved to the Takaka Township zone previously]
- Recommendation as follows:
 - Minimum flow = 80% of MALF = 185 l/s
 - Allocation limit = 20% of MALF = 46 l/s
 - Current surface water take = 43 l/s
 - Zone appears over-allocated if taking both the surface and groundwater takes, however groundwater takes affect surface water more in the upwelling zone (around Sunbelt Crescent and downstream)
 - Recommended that only groundwater takes in the upwelling zone be included – there is only one groundwater take close to the stream in this area (1.4l/s)
 - Cease take restricted to surface takes and groundwater takes in ‘upwelling’ part of the zone at 231 l/s
 - Rationing trigger for surface takes and groundwater takes from ‘upwelling’ part of the zones = 50% at 224 l/s
- SM advised security of supply had 96% reliability.

[Post meeting clarification: JT having looked at the location of the bore suggests that cease take only be applied to surface water takes and that the groundwater take near the river in the upwelling zone be managed with the other groundwater takes as the groundwater seeps out of the limestone geology onto the overlying gravels over an areal extent. JT suggests using a cease take for the coastal groundwater takes based on salt intrusion. TR also questioned the take rate displayed on his property which seemed too high.]

Motupipi – Water Quality Presentation – Lisa McGlinchey, Trevor James

Lisa and Trevor gave a presentation on the Motupipi Zone and key water quality issues and potential options to address these:

Key points:

- The key attributes of concern are:
 - nutrients (nitrate/phosphorus),
 - disease causing organisms (with E.coli as an indicator),
 - riparian habitat loss (which has also caused temperature, excess light, bank instability and habitat issues),
 - lack of flushing flows and
 - sediment.
- Nuisance plant growth and algal blooms are also a problem, but these are caused by other issues including excess nutrients, lack of riparian shading, lack of flushing flows and high water temperatures. Nuisance plant growth is also causing dissolved oxygen sags.
- Isotope analysis suggests nitrates are coming from 50% fertiliser and 50% (human?/animal?) effluent (although the types are unclear).
- Nitrates are not at a level to be a toxicity issue, but are exacerbating nuisance plant growth.
- Relative sources of sediment are unclear, but can come from various land disturbances and river bank erosion.
- Lack of flushing flows, due to system being partly spring fed, has been exacerbated by the Takaka River bed degrading by 0.5-1.0m since flood management works were done in the 1980's.
- Options for management include:
 - Source tracking for E.coli and sediment
 - Education and warrant of fitness for on-site wastewater systems
 - Urban runoff management through the Takaka Catchment Management Planning project

- Education on, and use of good and best land use practices (rural and urban) in conjunction with industry sector bodies
- Stock exclusion from waterways
- Replanting of waterways to shade streams and stabilise banks
- River habitat restoration (eg removal of built-up sediments)
- Ongoing monitoring of water quality
- TRMP rules for allocation and water quality protection
- Fencing of waterways has already been done by some landowners, with all but the upper parts of Motupipi, some tributaries and spring heads fenced
- About 10%-20% of the river has also been planted

Motupipi – Water Quality - Q&A session

RSN encouraged group to write down questions to ask on Motupipi allocation and water quality presentation to discuss after lunch.

The Group wanted to take info away to absorb a bit more.

PM: What is the plan for the future? What species will be planted in riparian strips etc?

[TJ: There is currently no formal plan for riparian planting. Council hopes that Fonterra will work with dairy farmers to produce appropriate riparian plans. Golden Bay Streamcare Group has worked actively in the catchment in the past with all the willing landowners, but very little planting has occurred in the last few years].

MLa: Are nutrient concentrations continuing to decline?

TJ: Yes, phosphorus continues to decline (dissolved reactive phosphorus at 10% per year for the last 17 years). However, nitrate concentrations are static at Reilly's Bridge and increasing at Watercress Creek and Powell Creek (4.1%/year and 3.4%/year respectively).

PM: What caused it to decline?

TR: A lot of riparian planting, following farming accord. Still a need to ensure ALL stock are fenced off from streams.

TJ: While fencing and planting undoubtedly has helped, the reduced loading from the dairy factory wastewater discharge to land is most likely the greatest influence. Since the loading has reduced the phosphorus concentrations in the soil (measured as Olsen P) have reduced in soils close to the waterways [(200-300g/m³ in the 1990's to 44-121 g/m³ in 2011; data supplied by Fonterra].

A Vulnerability Assessment report by Wriggle Coastal Management (for Council) has recommended some nutrient load limits for protection of estuarine ecological health.

RSN: (Put up slide of attribute drivers.) What do you think is the solution? How can you enforce? What would you do?

FLAG suggestions and questions to be addressed:

- MB: Concerned about some recidivist farmers. What do we do about getting them complying?
- TR: Definitely all stock out of rivers.
- [TJ: *There is a package of solutions which need to include installation of wetland swales at funnel points to tributaries and the main stem. This will need developing once a complete catchment nutrient budget has been updated from that produced in 2008 by AF in the Landcare Research Motupipi ICM project for TDC.*]
- MB: Are septic tanks checked? Need education on what we put down our stormwater systems etc.
- PM to MLa: What sort of pressure are you putting on farmers and what is the plan to put pressure on of not picking up milk?
 - MLa: Farmers must meet min standards. All Motupipi farms are meeting minimum standards but not necessarily good practice. If Fonterra have to come back to farm continually, there's a \$250 fee.
- PM: Another issue is environmental farm plans to show minimum standards, good practice, etc. What would it take to move them from minimum to good then to best practice?
- Dairy farming could be a permitted activity to move from good to best practice. If they don't want to do it they would have to do a resource consent.
- RSN: Do you want rules for incorporating environmental and best practices? Think about how to bring best practice about.
- GA: Roger mentioned over-allocation and saltwater intrusion. Would like more detail on this.
- MN: Any future irrigators on waiting list in this zone?

- JT: No. Important thing was to ring-fence surface water below farm bridge.
- AY: Since impact affects everyone, I wonder if quality should be made available publicly so everyone can see who is dragging the chain and who is doing well. Should everyone have information about who's doing it? Also, there is a lot of nitrate in limestone groundwater. Would like to know where it is coming from.
 - AF: So would I. Possibly from septic tanks in the hills.
- AY: Leakage from town?
 - TJ: Analysis of stable isotopes of nitrogen and oxygen from the NO₃ molecule in the spring water that enters the Motupipi at Sunbelt Crescent showed that roughly 50% was from a fertiliser source and 50% from an effluent source (human or animal)
- ML: Are water takes all metered?
 - JT: Yes.
- MN?: I've seen mention of consents to discharge stock effluent directly into river?
 - TJ: Any discharges to water have to be treated to a high standard. There are no discharges to water of untreated effluent.
 - MLa: Two farms still discharging into waterways, but none in Motupipi.
- TR: How do nutrients benchmark against NPS-FW? Nitrate leaching model would suggest not necessarily out of line.
 - TJ: Under the NPS-FW there is only a limit for nitrate toxicity, not algae growth. However, if we use the ANZECC guidelines we are over that by about three times on average and about half time E. coli breaches the level for swimming.
- TR: Like to see this accurately done.
- TR: For proposed allocation limit, keen to get map of number of dry days as an affected party.
- GB: Got to continue on good planting programme and park flushing flows. If we address river around the environment, a lot of things will take care of themselves. Potential for runoff needs monitoring a lot more. Council needs to be more proactive on that side.
- MS: Spring seepages themselves plus dairy factory discharge where spray irrigation used. Is it included as separate consent as quite high levels?
 - MLa: Quite a lot of change. Have a team in Fonterra working to put the Takaka factory discharge onto another piece of land as there's only so many times it can be put on the same land. We are moving in right direction for on-farm management. Like to see us moving from minimum standards to best practice. Households don't have pressure to conform. Need to get this sorted.
- SM: Reason why no best practice – review of wastewater rules on books for 10 years at least. Bumped down priority list by Council.
- ML: Are we looking at all rivers being swimmable?
 - LM: Yes - FLAG identified this in the management objectives – swimmable from Nov to April.

RSN: Do you agree FLAG pursue:

1. On farm management and environmental management systems?
2. Planting of riparian margins
3. Auditing of septic tank systems.

All agreed.

PM: Also how planted out? Shade river or just riverbank itself?

RSN: Suggest we focus on what to do and then talk about how when drafting Plan Change. Details to come out then, otherwise, because of the time constraints, you may not get to make all the key decisions you need to.

LM: A lot already happening. There is currently a Council subsidy fund that provides fencing materials and plants. No rules require it.

RSN: Do you agree on a rule regime for riparian planting? Is this the best way or is education/incentives better? If don't agree, now is time to say

All agreed.

GN: What about sheep and beef sector to address water management issues?

LM: Waimea FLAG looked at this. They didn't want to double up on existing industry audit systems as this added cost to farmers and added compliance costs to Council. Wanted to let industries continue auditing and let Council be auditor of auditors. Now looking at industry audited systems to see which fit Council's needs – ie What does NZGAP consider for nutrients and irrigation management. Look at what's out there and then what's fit for our use.

SM: Self-management leads; RMA rule framework cleans up where necessary.

RSN: You will need to look further at what is good and best management practices.

SM: Farm runoff, stock access and riparian included as part of (1) – on farm management/ environmental management.

MLa: Riparian planting is part of that.

RSN: Suggest Mirka and Lisa (plus anyone else who'd like to) come back with a proposal for FLAG, e.g. these are the systems we recommend and why and how FLAG approach it.

All agreed and Tony agreed to check as landowner.

RSN: We will look at this on the 18 March meeting. If any thoughts in meantime, send in. Meeting on 29 February with TDC and Fonterra. Work going on behind the scenes.

TR: Different industries involved. Big leap for industries other than dairying.

GA: If want swimmable quality, is *E. coli* really where we need to look. Is it achievable?

TJ: I am sure we can improve the percentage of samples complying with the standards but we will not get to 100% compliance during dry weather due to wildfowl etc. Wildfowl are known to be a source of faecal bacteria along with ruminant animals in the Motupipi at Reilly Bridge.

RSN: Is there a sense of general agreement on which properties are causing the issue and what's required to address that?

ML: If they don't meet conditions, then they don't get allocation.

AY: Feel lack of certainty where main problems are coming from. If we do catchment budget for these things, does it all add up? If we know these are the things that are causing the main problem, e.g. household, then we'd know what to tackle first.

AF: In the nutrient budget developed for the catchment in 2008, farms were found to be about 80% of the load.

TJ: That nutrient budget was useful but there was one significant farm that refused to provide data to develop the nutrient budget. The report averaged areas for properties but some parts of paddocks can be a big part of the problem. We don't know those details at this stage but there are models (eg "Mitigator") which are very useful for this.

AF: Less than 10% of nutrients are likely to be coming from septic tanks and sewer overflows.

MB: Does Council have requirement for cleaning out of tanks.

JT/TJ: No

PM: Surprised if 90% of *E. coli* is coming from farms.

MB: What would be the budget for cleaning septic tanks?

TJ: We would contract a plumber/drainlayer (\$70-\$80/hour) and about an hour per household.

AY: If small portion of problem, educate community first.

[TJ: The work Landcare Research (Andrew Fenemor et al) did made assumptions about septic tanks that they were discharging to land and not directly into a limestone conduit that feeds directly to the river. While this may not happen, if it did, it could represent a significant load.]

[Post meeting clarification: Following table is from the Landcare Research 2008 report¹ on Motupipi catchment estimated N and P losses for the Motupipi Catchment from all known inputs (with an estimate made for the one farm that did not participate)

Land Use/ point discharge	Area in Catchment (ha) (% of catchment)	Estimated Nitrogen loss kgN/yr (% total loss)	Estimated Phosphorous loss kgP/yr (% total loss)
Pasture	1517 (55%)	49 147 (80%)	1829 (81%)
Gorse & Broom	88 (3%)	4402 (7%)	9 (<1%)
Silage pits (7 @ 100 tonnes DM/pit)		2000 (3%)	80 (3.5%)
Native Vegetation	1100 (40%)	1938 (3%)	97 (4.3%)
Septic Tank discharge to land		1800 (3%)	70 (3.1%)
Dairy Shed discharge to Motupipi R		1300 (2%)	150 (6.7%)
Cropping	9.2 (<1%)	367(<1%)	7 (<1%)
Exotic forest	54 (2%)	168 (<1%)	6 (<1%)
Town Sewer overflows		2.4 (<1%)	0.6 (<1%)
ROUNDED TOTAL	2768 ha	61 124 kgN/yr	2249 kgP/yr

MS: As long as it works.

RSN: Park for now. Finished water quality. Lisa has captured the questions.

Motupipi - Water Allocation Issues – Q&A session

RSN: Any questions/comments on Roger's presentation (allocation)?

PM: If allocation is as you suggest, how does it match up with what farmers applied for?

The catchment is almost fully allocated.

Whiteboard Summary of Recommended Regime:

- 80:20 is okay ecologically [as per Roger's assessment].
- Existing surface water takes = 43 l/s
- Proposed allocation limit = 46 l/s (including the 1.4l/s groundwater take near the river) then 1.6 l/s is available – nearly fully allocated.
- Existing groundwater takes =88 l/s; proposed there be no more allocation. Stay as are.
- For entire zone only 1.6 l/s available.
- Adding cease takes to surface water based on flows (correlated to the fire station bore water level) but not applying to groundwater takes.
- Cease take to groundwater only in response to salt intrusion to aquifer – based on salt levels.

AY: If groundwater takes affect Motupipi River flows, what do you recommend allocating?

RY: Lower groundwater level and decrease amount of water flowing into the stream. Is instantaneous effect if bore is close to river; takes longer if further away.

JT: If allocate more, got to be careful it's not by the sea otherwise may get seawater intrusion.

[TJ: Also need to be mindful to protect seagrass beds in the upper estuary. They rely on good water flow.]

RSN: Suggest take away and consider values and management objectives.

RY: Should be restricting takes from groundwater.

RSN: Suggest Joseph, Andrew F and Roger get together and resolve issue of rule for groundwater and where restrictions should kick in, including consideration of values, management objectives, risks, etc., Any questions, direct them back to Lisa.

RSN: Any last comments?

¹ Fenemor, A.D.; Fenemor, H.A.; Gaul, S. 2008. Motupipi Catchment Nutrient Management: A Landcare Research Integrated Catchment Management project with landowners of the Motupipi catchment, Golden Bay. Envirolink report LCR0809/014 <http://envirolink.govt.nz/PageFiles/353/328-TSDC32.pdf>. 43pp.

MS: When Roger talks about potential over-allocation, there's no measureable impact under the current regime.

RY: eg. Anatoki - we know what's going on and can set limits. In Motupipi, flow over surface and groundwater takes would appear to be over-allocated. But there is a lot more water flowing through the aquifer than what's flowing in Motupipi River itself. Can't make flow management decisions just on surface water alone. Recommendation is that no more water is to be allocated from this zone.

Session 3 – Takaka Township Zone - Water Quantity and Quality Decisions

Takaka Township – Allocation Recommended approach to allocation limit Presentation – Joseph Thomas, Roger Young

Roger Young presented the recommendations for minimum flow setting and allocation limit for the Takaka Township Zone:

Key points:

Displayed Consents and flow statistics

- Riverbed degradation affecting groundwater level – slight decline
- Degrading water and riverbed level. Most likely due to relocation of river mouth.
- More regular lows than in first part of this period (from 2000) – half to 1 metre; summary of zone, security of supply
- Potentially you could allocate a lot more water as large river and current takes are small.
- No river aquifer model available like in Motueka
- 135 l/s does not include domestic takes [ie residential bores] – just consented takes
- Numbers for town to be obtained from Engineering by Lisa.
- Recommending:
 - minimum flow = 80% of MALF at gravel crusher = 4417 l/s
 - allocation limit = 10% of MALF at gravel crusher = 552l/s
 - cease take at 4969 l/s (minimum flow + allocation limit)
 - remaining question of 'Do you have a 50% rationing trigger?'
- If 80/10 regime used – this would be for both surface and groundwater.
- JT: There are no existing takes from the river.

AF: FLAG does have the option of not setting a limit if the pressures and risks are perceived as low
RSN: Need to consider if there is an obvious risk that justifies regulation.

AY: If don't set a limit would there be any reason to say no to a big consent application? Would E&P say there is no limit, so we can say yes?

LM: No. There is a backstop in the default policy, and we have opportunity to review this methodology. The default is 10% up to 33% of the 5-year 7-day low flow.

JT: 10% of the 5-yr 7-day low flow would be ~450 l/s; 33% would be ~1400 l/s

RSN: What's desirable for the Plan?

SM: I think we should put in a limit.

LM: If we do want cease takes, have to have limit to calculate trigger.

ML: Do we cease take homes?

LM: Takes for drinking water/human health have the highest priority for water takes and are not usually ceased [they are permitted activities, not subject to cease take conditions], however council would cease take bores even for drinking water if there was a risk of salt intrusion into an aquifer [using Sec 329 water shortage directions].

RSN: Can we get a decision now?

- PM: For having a limit?
- RSN: Yes, and if so, for what limit?
- SM: National Policy Statement directs limits to be established in absence of risk. We don't know what we don't know. Want to see a coherent package between policy system. Incomplete without some limit.
- MB: Takaka people wouldn't be happy unless a limit.

- SM: First generation limit.
- JT: Say first level protection. Line in sand in some way. Can debate both ways.
- GA: 80:10?
- RY: 80% based on minimum flows elsewhere.
- JT: Trigger: saltwater intrusion – monitoring only along coast unless need to go further inland.
- MB: 90:10?
- AY: Too fast making a decision now. Tired and don't want to make it on something that's for 10 years. Need a week to think about it.
- GA: Do we want to keep a consistency with other rivers?
- AY: Put cut through to coast 25 years ago. What is the effect going to be? Effects could be ongoing.
- MS: We have a recommendation. Rather have something, rather than nothing.
- RSN: Go with this and if uncomfortable we'll work behind scenes to address?.
- MLa: Even if we make a decision now we are going to have it as a draft Plan Change that we can review before taking it to Council. Need to start somewhere.
- LM: We have scheduled time to review the interim decisions in June.
- SM: A different set of numbers or triggers can be involved. Something is good enough and better than what we have now.
- RSN: Degrees of agreement?
- HR: 80:10
- RY: Set cease take on saltwater intrusion or based on flows at gravel crusher.

RSN asked everyone to state their preference relative to the regime options proposed:

MF:AL			
No limit	80:10	90:10	90:5
None	HR TR MN GB MLa MS GA PM	None (MB & MLI originally here, then moved when AY suggested 90:5)	AY MB MLi

SM: Need numbers for existing consents, urban existing, urban future, industrial future.
SM: No national stocktake of MF and AL numbers. Still learning and deciding.

RSN: We will come back to Motupipi and Takaka Township decisions next meeting. Take away and think about how consistent/inconsistent you have been. If thought of something and think it should be done a particular way, then feel free to advise. [Post meeting note – this was postponed due to other priorities on the agenda taking up the whole meeting time]

**AF: Core debate is 80:10 or 90:5 (minimum flow : allocation limit percentage of MALF).
Seawater intrusion extremely rare.**

ML: How does it affect level of river. Could be a recommendation that can check level and the salt.

AF: They are all groundwater takes not river takes – effect on river won't be measurable.

LM: Is salt intrusion the 'canary in the mine' here? - would we see saltwater intrusion before we see other ecological issues?

JT: Yes

TR: Why not use saltwater intrusion for Motupipi river?

JT: We could. May have to drill monitoring bore/s.

RSN: Left with two options to consider plus cease take trigger. Come back next meeting or email beforehand if you have some insights.

Action: Staff to email Powerpoint presentations to everyone.

Takaka Township – Water Quality Presentation – Lisa McGlinchey, Trevor James

Lisa and Trevor gave a short presentation outlining the water quality issues in the Takaka Township zone.

Key points:

- Zone includes lower Takaka river, Takaka Gravel Aquifer, Lake Killarney, Te Kakau Stream and Estuary streams.
- No known water quality issues in Takaka Gravel Aquifer.
- Catchment load for sediment and E. coli of interest in Lower Takaka River given this is the main catchment outflow.
- Lake Killarney has issues with phytoplankton and receives urban stormwater.
- Te Kakau stream has similar issues to Motupipi – only worse due to *Lagarosiphon* growth – in particular lack of flushing flows, riparian habitat loss, nuisance plant growth and associated low dissolved oxygen issues.
- The estuary streams have had issues with drying up – likely due to the Takaka River bed degradation following the cut, and localised lowering of groundwater.
- The solutions discussed for the Motupipi issues would apply equally to the Te Kakau and other waterbodies in this zone.

TR: What's the nitrogen levels in the lower Takaka and have data been collected for wastewater consent monitoring?

TJ: will need to check this.

Action: Staff to check information gathered as part of wastewater treatment plant consent for nitrogen in Takaka River.

HR: Culverts all filled-in in lower Waitapu – Waigo and Mason creeks. No more flow anymore. All starting to smell and have algae growth

Riparian plantings aren't going to clean this up.

SM: This is something we can ask our river control staff (Gary Clark, Eric).

Action: Staff to have discussion with relevant rivers staff on waterways at river mouth and report back to FLAG.

Summary of Day - Any comments or reflections on the day?

RSN: How has it gone for you? Is timeline still doable?

MB: Good. Like moving along and keeping things on track.

AY: Liked moving along. If want to make a decision in a meeting, please provide info a week beforehand.

RSN: In terms of expectation, would come out week prior. Mostly due to staff capacity – it is a huge task putting all the information together in a useable way, and preparing for meetings when co-ordinating across busy staff who are key members on a number of different projects. If we are going to meet timeframe, provision of information has to be prioritised by staff to get to FLAG on time.

AY: No criticism - it would just be quicker.

RSN: Agree.

SM: Try to maintain that level of service as best we can. Going to be a stretch. Working at level best to achieve.

GA: Staff to consider what questions FLAG might ask and provide answers.

Next meetings: 11, 18 and 23 March (EPC workshop)

Action Points – Council Staff/Facilitator/Advisor

No.	What	Who
1.	Staff to email Powerpoint presentations to everyone.	LM
2.	Staff to check information gathered as part of wastewater treatment plant consent for nitrogen in Takaka River.	TJ/J T
3.	Staff to have discussion with relevant rivers staff on waterways at river mouth and report back to FLAG.	LM

Action Points – FLAG members

No.	What	Who
4.	none	

Action Points – FLAG Sub-groups

No.	What	Who
5.	none	

Scheduled FLAG and FLAG Subgroup meetings

Date	11 March 2016 (FLAG Meeting 19)
Time	9.30am -3pm
Venue	Takaka Fire Station
Agenda Items	Pohara-Clifton

Date	18 March 2016 (FLAG Meeting 20)
Time	9.30am -3pm
Venue	Takaka Fire Station
Agenda Items	remaining issues

Date	23 March 2016 (EPC workshop)
Time	to be confirmed
Venue	to be confirmed
Agenda Items	EPC update on FLAG work to date

Information and resource documents identified during meeting

Date	Title	Author/Source
	None	

**Key documents available electronically will be added to the online PDF document bibliography.*

Issues or topics identified during meeting for future consideration

Topic/Issue Description	Requester
None	

**Issues or topics unable to be addressed at the meeting, but requiring future consideration will be recorded in the Takaka FLAG 'Information Eddy'.*