



Collaborative Stakeholder Group (“CSG”) Workshop 21 Notes

**(Day one) 17 December 2015, Don Rowlands Centre, Lake Karapiro,
9.30am – 5.00pm**

Attendees:

- CSG: George Moss (Dairy), Gwyneth Verkerk (Community), Phil Journeaux (Rural Professionals), Ruth Bartlett (Industry), James Houghton – part (Rural Advocacy), Sally Millar (Delegate for Rural Advocacy), Charlotte Rutherford (Delegate – Dairy), Alamoti Te Pou (Māori Interests), Evelyn Forrest (Community), Brian Hanna (Community), Dave Campbell (Delegate for ENV/NGO), Rick Pridmore (Dairy), Graeme Gleeson (Delegate - Sheep and Beef), Patricia Fordyce (Forestry), Weo Maag (Māori Interests), Garry Maskill (Water supply takes), Michelle Archer (Env/NGO’s), Gayle Leaf (Community), Liz Stolwyk (Community), Don Scarlet (Delegate – Tourism/Recreation), Garth Wilcox (Horticulture - Delegate), Stephen Colson (Energy), James Bailey (Sheep and Beef),
- Other: Bill Wasley (Independent Chair), Helen Ritchie (Facilitator), Kataraina Hodge (Deputy Co-chair), Jo Bromley (WRC), Billy Brough (River Iwi Co-ordinator), Jackie Fitchman (WRC), Will Collin (WRC), Janet Amey (WRC), Justine Young (WRC), Emma Reed (WRC), Ruth Lourey (WRC), Ben Ormsby (WRC), Poto Davies (Maniapoto), Will Collin (WRC), Laura Harris (WRC).
- TLG: Dr Bryce Cooper (Chair),
- Other staff (part): Tracie Dean-Speirs (WRC),

Apologies:

- CSG: Gina Rangi (Maori Interests), Rosemary Dixon (Delegate – Energy), Chris Keenan (Horticulture), Alastair Calder (Tourism and Recreation), Sally Davis (Local Government), Alan Fleming (Env/NGO), Matt Makgill (Community), Jason Sebastian (Community),
- Other:

Item	Time	Description	Action
1.	9.30am	<u>Opening waiata</u>	
2.	9.35am	<u>Introduction to CSG21 process</u> CSG independent chairperson Bill Wasley opened the workshop.	

		<p>The CSG were reminded that there would be an end of year dinner held following the closure of today's workshop.</p> <p>The CSG facilitator provided an overview of the two day workshop and what the CSG should be considering. And asked the question Can we slow down pace of change to allow for more flexibility.</p> <p>The facilitator invited for River Iwi to participate in the small group work and that any input for the iwi was very much valued.</p> <p>There will no longer be a speaker during the 'Natural capital/capacity/land suitability approaches' section. The TLG wanted the technical information/material from the speaker, unfortunately the presentation was not made available until yesterday and it was felt that that the information would not have been beneficial to the CSG's current situation, because of this it was decided to ask Alex to postpone.</p> <p>TLG will work on natural capital and will bring back to the January after having input from sheep and beef</p>	
3	9.40am	<p><u>Allocating responsibility/pace of change</u></p> <p>Helen summarised where the group got to in regards to allocation at the last CSG workshop.</p> <p><u>Points that are generally agreed:</u></p> <ul style="list-style-type: none"> • Benchmarking (retrospective) is a critical step <u>but not</u> as an allocation (do not want pure grandparenting). Benchmarking is for knowledge/monitoring/accounting, not allocation • Hold the line against pressure to intensify while we provide the transition time to minimise social disruption/pain AND create the change towards agreed limit steps. E.g. 10% rule on intensification OR stop conversions. Need to create mindset for change and keep moving in transition; have ways to demonstrate change is occurring. • Bring top N-emitters down (e.g. to 75%ile). This gets some fast gain and captures those who intensified in anticipation. • Everybody does minimum GMP and meets catchment-wide rules as soon as possible (5yrs?). GMP to be defined/sector-specific practices • Property plans are put in place to address all four contaminants (5-10 years). Audit system is important. Implementation is prioritised, e.g. using heat maps. • For sediment, P, <i>E.coli</i>, actions within catchment and properties are identified that are most likely to get result (based on template/guidelines/practice 	

		<p>notes). What funding/support will there be to implement actions in property plans? (catchment-wide rate?)</p> <ul style="list-style-type: none"> • For N, a “%reduction” is put in place to: <ul style="list-style-type: none"> - Improve river - Make some headroom/flexibility. How should this be apportioned? <p>Is this the same % across the sectors, or sliding scale?</p> • And point sources make a contribution (e.g. BPO, offsets) • Plus there is an option for sub-catchments to come up with alternative solutions AND accounting systems, allocation systems/trading or transfer systems for N, including a mechanism for reallocating headroom are fully explored and put in place over the lifetime of this plan (10 yrs). Helped if science evolves/Overseer/Models stabilise • After 10 years, allocation is in place (next plan change)/but signalled in this one • Signals – allocation is likely to reflect: <ul style="list-style-type: none"> - Allocation to those excluded for historical reasons, e.g. settlement lands - An element of flexibility/design to allow more intensive farming where risk of loss is lower (land best suited) or socially important activity is wanted. - Noting that trading can promote efficiency in the economy BUT if it needs to happen in an FMU the market might be quite small • Example 1 – Don’t want a situation where on one side of a gully a farmer is ‘locked in’ at 12kgN per ha and on the other side a farmer has 30kgN per ha and can put heavy stock on the land. • Example 2 – In some circumstances we might want to look at a catchment and say where it is best to do certain land uses, for the common good. Growing but shrinking is about growing the right thing in the right place <p>These are outlined as suggested matters that we are sensing agreement on.</p> <p>Comments on the summary:</p> <ul style="list-style-type: none"> • Thinking about the difference between good management practices (GMP) and best practical options (BPO). What do we have as a trigger for requiring greater improvements in a farm management plan? Eventually you will hit a point where the farmer says that will cost me too much. We need to have a discussion on what do we do when people reach that point. • In regards to Environment/NGOs sector 	
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		<p>goes to the river and 2kgs goes to development, then we may never reach the target.</p> <p>Headroom summary:</p> <ul style="list-style-type: none"> • There is a big gap between our scenario 1 (and its 25, 50% etc) and our current situation. • To create headroom/flexibility and opportunity for underdeveloped land, others have to reduce more to do this, without making the transition too painful/causing too much social disruption and undermining the 'prosperous communities' part of the Vision and Strategy • We know scenario 1 is very aspirational. We could choose to take longer to achieve scenario 1. This would mean our targets and limits at 10 years and 20 years might reflect progress towards scenario 2 – where we aim for 'swimmable' and 'safe to take food' without trying to push water quality up a whole band everywhere. • We would still have to make improvement everywhere to do this, but wouldn't try and go up whole bands, unless below minimum standards at present. • Effectively we could make reductions at a manageable rate and apportion part of the gain to improving river water quality and part to making room for flexibility of underdeveloped land <p>Comments:</p> <ul style="list-style-type: none"> • When talking about the comprise between the tradeoffs relating to allocation and flexibility, and talking about N and load to come. We need to look at the aspirations around N, like Tainui and drinkability. In terms of nitrate alone, the lower river meets drinkability standard. We are thinking about only 1 contaminant. When looking at nutrients in the river P is the most important but we still need to think of N and N in the groundwater. • We are focused on N, and the N and P ratio issue. We have been looking at clarity from the chlorophyll A point of view and as a result we might have undercooked the thinking on sediment. If we look at the contributions to clarity from across the catchment, sediment plays the bigger role. Are we looking at the right thing? Have we got the balance wrong? • Land use change from forestry to pastoral systems leads to increases from all contaminants. Thought there are more mitigations for contaminants that run over the land then for N. • More thinking around responsibility for change across the different contaminants. Sheep and 	
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	10.45am	Morning tea	
4	11.15am	<p><u>Further work on allocating responsibility</u></p> <p>Following the group work each group gave their feedback.</p> <p>Group 1 –</p> <ul style="list-style-type: none"> • Aware of concerns over the proportioning any reductions and are sympatric towards this. Headroom should also be proportional. No way in which to please everyone. • Iwi are wanting to develop land, suggestion that iwi get 100% reduction over the first 10 years? 75/25% spilt between the river and the iwi as a more favoured way. • 75% to benefit the river. 25% for the iwi which could be staged over time and used to slow down the process naturally. • First 20 years go to iwi after that headroom go into a general pool. • Knowing how the land will be developed will make the decision easier. • What if iwi land is not suitable for intensification? • Should land suitability be a requirement. • Standards for new developments will be set to a higher standard and there should be a cap on the extent of these new development which should be made formal. • Should any freed up headroom be given to iwi rather than be generally distributed. • Are we willing to draw up boundaries that will be worked to for the next 80 years? Should there be a baseline drawn up today will can still be relevant in 80 years. • Aware of the hard decisions that are going to have to be made. • Best Management Practise, want to work as best we possibly can. • Should headroom be attributed in terms of time frame? <p>Group 2</p>	

		<ul style="list-style-type: none"> • Agree in creation of headroom • Allocations need to be set that have universal applications. • Needs should be prioritised. • Look at it as a risk based approach. • Values and Strategy need to be owned by all, iwi and the wider society. Creation of headroom is not just for iwi. • A fund needs to be created in order to improve water quality. • Capital trade and consumptive tax approach are both in the S32 report, framework approach. • Looking at headroom should be within the S32 and how this will be achieved. • S32 needs to look at different mechanisms. • Should time frames be extended rather than reduce targets more sharply? • Is 80 years realistic? Issues around target that increasing rate of recovery and discussion will evolve and questions will be answered within this. • GNP would address the concerns over locking people into time frame, allocation would trigger a process. • Would new businesses have to have resource consent? Would they come in at a different point from those who have been in the process longer? <p>Group 3</p> <ul style="list-style-type: none"> • Concerned that Scenario 2 would extend the end point. Would prefer Scenario 1 and have to work harder to achieve the end point. • Should iwi land be made available for forestry? • New ideas have to be thought of to development headroom and gradually develop over time. • Land development needs to be justified and other property owners within the catchment area need to make allowance so that this can happen. • Thought has to go into how to manage new develop to the highest possible standard and what consent are needed for this to be possible? • There needs to be land changes at the bottom in order to achieve land changes at the top. • Although development of land needs to take place a lot of thought must be put into suitability. • Is 10 years enough time for change of land use? 	
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		<ul style="list-style-type: none"> • Comfortable that a strong signal is being put out there on what needs to be achieved. • Relationships between containments needed to be looked at more closely. • Would agree to sharper reductions to allow for more headroom, looked at on an area by area basis. • Time frames and milestones must be realistic. • Until we have specific catchment areas to look at it is not easy to create realistic goals. • Need a priority and risk based approach. <p>Group 4</p> <ul style="list-style-type: none"> • Importance of the creating headroom, 90% of whatever is brought back should go to the river and the remaining 10% can be utilised for further development. • Could headroom be tradable? There should be allocation system needs to be in place. • In favour of scenario 1, even it did mean a delay in reaching targets. • If development alone can manage all other contaminants, do we still have to concentrate on N? • When looking at N it doesn't matter if it comes from headroom it is whether it is coming into the main water bodies. • Majority want to stay with Scenario 1 and have set times frames and methods of redistribution to work to. • If not 80 years than how much longer is acceptable? 10%? • Discuss aspirations with information gathered from computer modelling showing change, and being able to break down the 80 years and what it could look like. • Is there room for more tolerance of N so the other contaminants can be looked at more? • Why was 80 years decided on? Represents a lifetime not a scientific reason. • Questions over how the level of attention on nitrogen affect the management of headroom • Are we looking at natural capital as we go forward and what opportunities will this provide • Some iwi aspirations are not attainable. • If land owners are not using their land in a way that will make targets attainable then changes will have to be made. • Try to be realistic and achieve something between GMP and BMP. • How will enforcement work? • Balance between what we are trying to achieve and what is economical. 	
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		<ul style="list-style-type: none"> • If people are going to be bought out how will this be funded? • Timing and farm plans needed to be linked to catchment areas. • Mitigation is reliant upon advancements in the future, don't want to be too idealistic. <p><u>Summary</u></p> <ul style="list-style-type: none"> • Not in favour of extending time frame or moving away from Scenario 1 • Majority of headroom to go to the river, remaining 10-25% available for allocation. • Proportioning reallocation • Want economic growth on one side but will still have to make properties owners pay taxes. • Assuming that everyone wants intensification. • Carry out new developments and intensification to a very high standard that can still manage all by N to a responsible level. • May not have as much of an impact on N as hoped for. • Currently don't know what the route of the problem so can't solve, all opportunities are there to fix the problem. • Won't know the amount of headroom until we look at the benchmark exercises. • For first 10 years there will be hardly any, even no headroom whilst we are still trying to figure out the best solution. • Figures of the attributes in the river available? • Scale of under developed land? • Don't want to move current target • Clarification on what the CSG want, do we hold to the 100% in 80 years on all 4 contaminants being treated equally? Do we give N longer to reach its 10% target? • 10% of scenario 1 in 10 years, what does this mean in terms of reduction? • Complications in calculations, different factors to consider their effects on the different contaminants e.g. travelling through dams, settling of sediments. Cannot just go to the bottom point. First 1% change may be even more difficult than the 10%. 	
5.	12.15pm	<p><u>Technical input on setbacks</u></p> <p>This session was presented by TLG chair Dr Bryce Cooper as a verbal presentation. This information was put together by TLG members Dr John Quinn and Dr Mike Scarsbrook</p>	

	<p>Key points from his presentation and the resulting discussion included:</p> <ul style="list-style-type: none"> • The key benefit of a barrier to enter the waterways is that there is a barrier. It is the same for keeping stock out of waterways and off stream banks. • It is a modelling assumption that when setbacks are put in and there would be exclusion and 5m everywhere. The reason for this was to be able to say an amount of land that is lost, as a result of setbacks, and the cost of that lost land. The model goes through putting setbacks on only accord streams and then to all perennial streams. • There are co-benefits of a setback margin that might be important in certain subcatchments in terms of their biodiversity. These shouldn't be ignored. • When thinking about setbacks you have got to take account of the local circumstances. This includes looking at what's practical, the terrain, the farming system, the nature of catchment and the soil type. Typically this involves preparing an assessment and there are courses to train people to deliver those assessments.. • From a technical perspective a 5m catchment wide rule wouldn't be able to support that. They can support a stock exclusion rule and a tailored approach to setbacks. • Different functions that you may want out of the setback come with different setback lengths. For biodiversity you would want wider lengths. • If you did 5m everywhere you would get some benefits. It is technically difficult to justify 5m everywhere and from a policy point of view in the s32 it is hard to justify. <p><u>Questions</u></p> <p>Q – The paper the TLG has provided on setbacks is it in regard solely to streambank fencing and not on forestry and horticulture?</p> <p>A – Yes. That was the interpretation of the brief</p> <p>A2 – Much of the input of sediment into streams is generated by stock getting onto the stream bank and the sediment lost as a result, rather than sediment moving across the land and getting lost. The major gain is from stock exclusion.</p> <p>Q – So is there no need to do a setback?</p> <p>A – No there is a need for setbacks.</p> <p>A2 – Where there is high country land then would recommend a larger setback. Need to look at the location and the setback could be greater or lesser than 5m as a result. Is it possible to develop rules that encompass this wisdom?</p> <p>A3 – Can see a situation where everyone will go for a 0m</p>	
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	<p>setback and this rule will be gamed in the interim. If they have got a fence in place then it will be more difficult to move them back.</p> <p>A4 – Streambank erosion can erode your setback, e.g. you may start out with a 5m setback but after several years of streambank erosion this may go back to 1m. Need to consider this.</p> <p>A5 – All we are talking about here is animals. We also need to look at rules for other things such as disturbance of the land adjacent to water.</p> <p>A6 – Currently the WRP rules say that you can't cultivate within a 2m setback and forestry is a 5m setback.</p> <p>A7 – In spite of whatever the science says about it being site specific it is up to CSG to decide whether a setback is a good idea. For example for clarity or implementation purposes it might be better to have a setback width that is a certain number.</p> <p>It was clarified that from a technical perspective there is definitely value in having setbacks.</p> <p>Statement (S) – It was noted that the mitigations report describes why mitigation options were chosen.</p> <p>S – If we can't use a single distance then we will need something that is formulaic to establish where we will apply variable distances. It was noted that it is not easy to write those kind of rules.</p> <p>S – Bryce noted that it should come down to a risk based approach. Look at the factors of slope, rainfall, drainage etc. Look at a farm on this basis to see if it has a higher risk in terms of its overland flow and/or its erosion on its stream banks.</p> <p>S – If setbacks are going to be variable, most consultants putting farm plans together won't have a good understand of where setbacks should be different widths. In terms of implementation we need good guidelines around how to implement this rule.</p> <p>S – It is a dynamic thing; land and water.</p> <p>S – Perhaps we will need to require people to get a resource consent and then come up with what the setback distance is. Farm plans couldn't be a permitted activity. If you have someone doing all this assessment then it is close to not being a permitted activity.</p> <p>Q –Do we have any science that tells us the effectiveness of a 5m strip of pasture vs a 2m strip that has been planted in sedges?</p> <p>A – Short answer no, what you would need is paired catchments or side by side comparisons. If you look at different catchments then you get variability.</p>	
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		Effectiveness depends on local circumstances.	
	1:00pm	Lunch	
6.	1:45pm	<p><u>Approvals and update session</u></p> <p>The updated technical reports have been added to the portal under the 'Technical report' section.</p> <p>TLG update Dr Bryce Cooper gave the CSG an update on the TLG and what they have been dealing with.</p> <p>Summary of points</p> <ul style="list-style-type: none"> - Scion report follows up from their visit and report. This is not a TLG report but they have asked for TLG comments following it being externally reviewed. - Two modelling reports, these look at the justification for the modelling approach. - Trying to source reviewers before the report comes before the CSD. - One report looks at structures, this has already been reviewed and is currently being finalised. - Probably will not be received by CSG prior to the planned sector consultation in February. - Modelling and results data already available on the WRC website - Reconfirmed the reasoning for today's speaker being withdrawn. TLG are there to review and process the information that the CSG receive and that it is correct, appropriate, fit for purpose and useful to where the CSG are at this moment. Due to the timeframes the presentation was not deemed suitable for the CSG needs and could not be supported from a technical point of view. - There is still a need for this information and the TLG will look for something to come to the January. - Useful to receive the Sheep and Beef perspective tomorrow which will build on the discussions that have already taken place with the CSG. - An expert on 'natural capital' would be beneficial to group, maybe a panel provide information and answer the CSG's questions. Both pros and cons. More than one person would give a balanced approach. - Pro and cons of each approach. - TLG will give this consideration and come up with suggestions for a panel. 	

Section 32 report – Ben Ormsby (DM #3631813)

- Recommendations, confirming some past rationale and the approach going forward to make the Section 32 its most effective. It will be a large document which will be a work in progress.
- Staged approach, is prosperous the right word to use? Should it just be communities? What is in the Values and Strategy is slightly different, don't have to use the same wording.
- The Policy team have taken extensive notes however this cannot capture all opinions and occasionally staff will need to come back to the CSG and clarify thoughts and ideas.
- Need to include the arguments as to why the CSG are excluding the other options, was there enough information provided on the other options. Should there be further clarification on what the options were for the other scenarios. What was the rationale for not choosing them. Justification of why some aspects have been included. Need more clarity.
- Need to be clear if all the CSG are in agreement or not. Recording of when there is not 100% agreement. The Section 32 is more about the decision making process not what the decision actually are.
- Members of the CSG had concerns over the 2nd recommendation on the report, which was to 'confirm their rationale for past decisions listed in the report' Sometimes there is disagreement within the CSG. Does the CSG agreeing to this mean that we are happy with the timeframes being discussed. Bill assured the CSG that this was not the case as it was still in the proposal stage. The S32 is a changing document up until the scheme is finished.
- Other options to consider: should there be a fee or charge of some kind?
- Things need to be tackled now as well as the consideration of long term actions.
- Both staged approached and rolling changes, have to be adaptable.
- Have to give reasons why the CSG are proposing the current timeframe? Need reasons. Get to a place where you can say confidently that the CSG want one option over another.
- Bring it back as a more formal way to the meeting.

Resolution:

- Amend recommendation 2 in section 32 report

		<p><u>DM #3631813</u> to pick up the matters raised in the discussion over concerns with the wording on rationale for past CSG decisions outlined in the report.</p> <p>George Moss/Phil Journeux Carried</p> <p><u>Property management plans - Ruth Lourey (Report DM#3631098)</u></p> <p>The CSG received a presentation on property plan rule.</p> <p><u>Summary of points from presentation and CSG discussion:</u></p> <ul style="list-style-type: none"> - The presentation was to provide clarification on information for further discussions on catchment wide rules, property plans, rule drafting and excerpts from the LAWF report. - Feedback from the CSG is crucial to being able to write an effective property plan in catchment wide rules. - The rules must be clear enough that land holders realise what applies to them. - PA shouldn't rely on additional approval and it should not be solely at the discretion of the council. - If consent is needed or permitted activity then we need solid legal opinion for industry scheme and examples are provided to the CSG. - Looking at property plans as permitted rather than consented, cannot have confidence without regulations. - How far do we want to go with these? Do we want to make people behave differently? How big a role should the council be playing in this? - Does the CSG want there to be a template in which property plans are written from and then the council say yes or no? If it can be done as a simple approval than can it still be done under permitted consent? This can be done and there is an example rule in the agenda report. - Are the CSG happy moving forward in this direction? - Good management practice plus a little bit more - Negotiated reduction on a farm by farm basis - Catchment wide plans have to come before property plans and although exceptions can be made the rules in the property plan can't be too different from those for the entire catchment. Some may be allowed a little more time but it is not an open forum to negotiate. 	
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		<ul style="list-style-type: none"> - How far do you want property plans to go? - If you want to leave the choices up to a property management plan it becomes difficult to still go under permitted activity. - Are we still looking at setbacks of 5m or are we now considering consider individual risk factors? - Policy has talked to Canterbury Regional Council about their similar scheme. - Issues with public confidence in the monitoring of the scheme - Permitted activities would be monitored framework in place in order to help with this. - Councils acted as an enforcer. - Level of scrutiny and how can it be achieved - Plans as permitted activity have been tested and now leaning towards consented route. - If consented than would the Council charge for monitoring? - If permitted then can we ask for some to be paid for? A targeted rate to cover costs. - There are issues around timing and resources but the different options still need to be kept alive as we are still unsure of where we are going and difficult conversations need to be had. - Should there be yearly checks/reviews? This would be a way to monitor without too much cost. - Could a cap on one contaminant cover the other three? - Would consented activity provide further business security? - Once a scenario is decided upon present all the information, what is involved in consented? In permitted? What is the cost breakdown for each? What are the quantifiable and non-quantifiable risks? - Look at results over the first 10 years and then changes can be made if things are not working. - Someone applying should have already completed a property plans and have had it audited so the only job of the council would be to look over the plan and pick up the monitoring and auditing from there on. - A sub-group of the CSG will meet on 15th January to discuss property plans in more detail and come back to the January meeting although we are not at the point of deciding on the finer detail. - Staff now need to know how the CSG want to move forward. What are iwi views on property plans? Is there any agreement? - Seems as though a regulatory approach is 	
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		<p>preferred</p> <p>Resolution: To receive the report (<u>Report DM#3631098</u>) and acknowledge it. George Moss/Stephen Colson</p>	
7.	2:45pm	<p><u>Catchment-wide rules on intensification</u></p> <p>Helen provided an overview of where the group had got to so far on this matter. In the intensive engagement period we asked public about a rule involving no being allowed to intensify further than 10% past your benchmark</p> <p>Interim intensification rule (Report DM3631568, presentation DM#3645498) Policy workstream lead Justine Young and policy workstream team member Ruth Lourey provided a presentation on the interim rule to manage intensification.</p> <p>They gave an example of how you could use an intensification definition to write a rule on not going over a benchmark figure and an example of a rule about preventing land use change.</p> <p>The definition of intensification from the policy workstream provided was “Intensification is about where discharges leaving a farm enterprise have increased. Increases assessed using OVERSEER. A rolling five year average of the total kilograms of nitrogen leached per year from the farm enterprise will constitute an increase in discharges.”</p> <p>An alternative approach is regulating by way of defined land use change, for example preventing forestry conversion to dairy. This only focuses on one type of land use change. How the rule is written is important. This would rely on knowing peoples intent re changing land use. As it stands (example rule provided) until an enterprise started operating as dairying you couldn’t take enforcement action against them.</p> <p>The report sets out issues in regards to both options.</p> <p>Some councils allow land use change to occur (conversion), but not the increased adverse effects.</p> <p><u>CSG comments on the various approaches</u></p> <ul style="list-style-type: none"> • Support the intent of this type of rule. But how do you collect the data if it is retrospective, you could find after 5 years that they have increased. • If you are going to have a blanket rule around forestry conversion then it should be for all other land uses from forestry, not just dairy conversion. 	

		<ul style="list-style-type: none"> • A shift in capital stock numbers could be good as a better approach as opposed to Overseer which is retrospective. • Every way you try to tackle this issue has its own problems. • Ecotourism lodge in remote location, small but positive N discharge come from that. Got to include a provision to provide for that. • Consider forestry to dairy. Conversion to dairy or more intensive type land use. From trees to something more intensive to trees. <p>The group then broke into small groups to talk about this topic.</p> <p><u>Report back from small groups:</u></p> <p>Group 1:</p> <ul style="list-style-type: none"> • We need to capture increased loads. Perhaps by using a proxy like increased stock units or numbers. Most people keep stock numbers for tax purposes. But how would that manage a sheep and beef to dairy conversion? <p>Group 2:</p> <ul style="list-style-type: none"> • Being able to have a 10% increase of discharges doesn't make any sense. It gives the wrong message and means we are going in the wrong direction. • Use a 5 year rolling average out into the future. • Iwi who have recent settlements have been caught by the timing and this group thinks that we should give the ability to iwi to increase losses on their land. GMP via the farm plans creates the downwards directory. <p>From Sheep and Beef member:</p> <ul style="list-style-type: none"> • Wanting to know what the whole policy mix and what the end point is. This could be grandparenting by default. More comfort if there was strong recognition of land use suitability • No more than a 10% increase is problematic. A lot of sheep and beef farms wouldn't have nutrient budgets for the last few years. <p>Group 2:</p> <ul style="list-style-type: none"> • No conversions up to a more intensive land use with an exemption for iwi land. • However for any intensification of iwi land in the future would need to meet land use suitability. • We need something that captures the biggest changes • If someone wants to go up then they should have to prove they can deal with any increased adverse effects. Put the onus on them and they go through a consent process. 	
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In this first 10 year period we are benchmarking and holding the line. However meanwhile lots of other people who are moving up, we need to stop this gaming. Currently they can do whatever they like if they have enough water. What are we going to put in place to stop the bigger increases? We need a catchment wide rule that is temporary and then the property plans take over to deal with intensification.

Group 3

- Question about when the 5 year average begins
- Discussion around 10%. Overseer + or - 30% anyway. However 10% does give flex for noise.
- Over 10% should trigger a consent.
- One group member was convinced of the 10% option due to flaws in the alternatives, such as the opportunities for perverse outcomes and to game a proxy type approach.
- The 5 year rolling average rule is effects based. This gives flexibility around managing ones business.
- We know that the N is coming. Not having an approach that is capping at the moment makes job harder later on and keep going.
- As a principle this group was agreed that they don't want to see lower N leaching activities convert to higher N leaching activities.
- Concerns around 10%, why would you allow any increase? However, recognise seasonal variability. How do you have that but not move up 10%?
- Need to weigh up pros and cons for if you have 10% rule and they choose not to intensify vs a prohibited activity where then it is not accepted at all. Could have a prohibited activity as a moratorium. Farmers would like this. People looking at doing conversions won't. Would send clear signals. However there are two views here.

Group 4

- 5 year rolling average. Best measure but should do a statistical review of its effectiveness.
- When should the starting point of this average be? Should it be from now or the time the plan change comes in or retrospective.
- Retrospective could result in some people being caught by something going backwards.
- In regards to Overseer error, it is the relative change that's important.
- So far we are focussed on N. Principles approach should look at no further increases across all contaminants. For land conversion, whatever you are converting land to the first step is land

		<p>clearance. Sediment comes from this. Other contaminants come later. There are issues when it comes to benchmarking this, for example, leaching from forestry could still be coming through.</p> <ul style="list-style-type: none"> • Relativity of 10%, 10% of 10 is 1, 10% of 100 is 10. Seasonal variability seems to be punished for lower emitters rather than higher emitters. <p><u>General comments:</u></p> <ul style="list-style-type: none"> • Having stock numbers as proxies is not a good representation. There are a range of factors such as soil, climate as well as stock numbers and other things. If stock numbers were a good proxy then we wouldn't have built Overseer. • With 10% it is understood that it gives you the opportunity to get up to that. However, if you do that then the message should be that eventually you will to reduce even more. • Could we go to a straight out number for a contaminant instead of 10%? For instance say 4kgs of N per ha. This would still make it hard to convert, would be the same for everyone (easy to understand), be an interim rule until everything is in place. Would make it easier for variability for low emitters. • Should we first just take 25% down on each contaminant? 	
	3:45pm	Afternoon tea	
8.	4:00pm	<p><u>Catchment wide rules – discussion on stock exclusion – Emma Reed (Report DM#3633631, presentation DM#3645498)</u></p> <p>The CSG received a presentation on stock exclusion.</p> <p>Summary of presentation</p> <ul style="list-style-type: none"> • First part report is the summary of the information that the CSG have received so far, catchment wide rules, policy information that had previously been discussed, community engagement feedback, the recently published LAWF which had quite a few recommendations. • The table with the comparisons between what other councils are currently trying to achieve with similar schemes and how they are dealing with stock type, exclusion, setbacks, terrain/ intensity/water body type. • Activity class – what do we want to achieve? What do we want to manage? What behaviours do you want to manage or change? Different councils chose different approaches (as seen in table). Breaching permitted and consented should 	

		<p>be treated the same.</p> <ul style="list-style-type: none"> • The more clear we are now about what we want to achieve the easier it will be to implement and from these descriptions policies can start to be written. <p>The CSG then spilt into groups to decide what the best option was for each element of the rule and discuss the reasons.</p>	
	5.00pm	Close – Note WRC staff day on tomorrow at Karapiro	



Collaborative Stakeholder Group (“CSG”) Workshop 21 Notes

**(Day two) 19 December 2015, Don Rowland Centre, Lake Karapiro
8.30am – 4pm**

Attendees:

CSG: George Moss (Dairy), Gwyneth Verkerk (Community), Phil Journeaux (Rural Professionals), Ruth Bartlett (Industry), Patricia Fordyce (Forestry), Weo Maag (Māori Interests), Charlotte Rutherford (Delegate – Dairy), Sally Millar (Delegate – Rural Advocacy), James Houghton (Rural Advocacy), Evelyn Forrest (Community), Dave Campbell (Delegate – ENV/NGO’s), Jason Sebastian (Community), Rick Pridmore (Dairy), Graeme Gleeson (Delegate – Sheep and Beef), Garry Maskill (Water supply takes), Gayle Leaf (Community), Alamoti Te Pou (Māori Interests), Gina Rangi (Māori Interests), Tim Harty (Delegate – Local Govt), Don Scarlet (Delegate – Tourism/ Recreation), James Bailey (Sheep and Beef), Stephen Colson (Energy), Garth Wilcox (Delegate – Horticulture), Brian Hanna - (Community), Tim Mackenzie (Delegate – Energy)

Other: Bill Wasley (Independent Chair), Helen Ritchie (Facilitator), Janine Hayward (WRC), Will Collin (WRC), Jackie Fitchman (WRC), Janet Amey (WRC), Jacqui Henry (WRC), Justine Young (WRC), Michelle Hodges (WRA), Kataraina Hodge (HRWO Co-chair), Grant Kettle (Raukawa), Poto Davis (Maniapoto), Tony Quickfall (WRC), Jo Bromley (WRC), Emma Reed (WRC), Ruth Lourey (WRC), Jonathan Cowie (WRC), Vicki Carruthers (WRC), Billy Brough (River Iwi Co-ordinator), Alice Barnett (Tuwharetoa)

TLG: Dr Bryce Cooper (Chair)

Other (part): Bill Vant (WRC)

Apologies:

CSG: Sally Davis (Local Government), Gina Rangi (Māori interests), Jason Sebastian (Community Representative)

Other:

Item	Description	Action
9	8:30am <u>Waiata and CSG-only time</u> <u>CSG only time notes</u> • Subgroup drafting approved	

		<ul style="list-style-type: none"> • Property plan subgroup meets Jan 15 to work up a proposal for Jan meeting. Decided not to invite CSG's planners. • Note Env't NGO's preference was to have their planner attend • Matters for that group to consider to be pre-circulated to CSG • Notes from that sub-group to be pre-circulated to CSG ASAP after • The group's proposal to be circulated with agenda for Jan meeting and debated there <p><u>CSG only notes from Bill</u> Plan subgroup – the chair outlined the plan sub-group. TOR and the proposed membership was greater than the original TOR. Resolved that:</p> <ul style="list-style-type: none"> - That the TOR for the plan subgroup be amended to provide for a maximum of nine members plus independent chair. - That the following be confirmed as members of the plan change sub-group; Charlotte Rutherford Sally Miller Stephen Colson Trish Fordyce Chris Keenan Al Fleming Weo Maag Gwyn Verkerk <p>Delegates Stephen advised that Rosemary Dixon was leaving her current role and that Tim Mckenzie would be the sole energy delegate. Garry advised that he would be advising CSG of a new delegate at the next meeting.</p> <p>Future workshop Items It was agreed that a discussion on 'the dams' be a future workshop agenda item.</p>	
	9:15am	<p><u>Catchment wide rules on intensification</u></p> <p>For the first 5 years from notification that any increase in any of the four contaminants will require a non-complying resource consent.</p> <p>(onus will be on applicant to demonstrate there will be no more than minor effect from increase in any or all of the 4 contaminants)</p> <p>Issue for forestry: harvest will increase sediment & N.</p> <p>Horticulture – will be seasonal/ rotation increases.</p>	

		<p>New tourism business</p> <p>Where do settlement lands sit with this? Are they caught in this 5 years?</p> <p>Is there a clear definition of lwi land?</p> <p>Dry stock can't support this without the other points on allocation (end point)</p> <p>Need to see the <u>whole</u>.</p> <p>Plan has to be clear and consistent or will be challenged.</p> <p>We can build in an allocation of headroom to lwi lands – if not exercised it builds in conservatism. What about point source renewals?</p> <p>Should rule focus on major land use changes? We will catch those who intensify through our benchmark, but not for 5 years. We do have the other aspects – benchmarking, % reductions, farm plans etc. And allocation/headroom.</p>	
10	10:00am	<p>CSG member James Bailey gave this presentation.</p> <p>Key points from his presentation included:</p> <ul style="list-style-type: none"> • James showed some definitions for natural capital, such as from the international institute for sustainable development and the British ecological society. • Essentially natural capital is about natures assets. The land under your feet <p>Graeme then gave a farmers perspective on natural capital:</p> <ul style="list-style-type: none"> • A farmer is unaware of externalities. But they do know about the land. When buying a farm you look at the capability, suitability, sustainability and risks associated with the land. • Due diligence = natural capital = risk assessment. • Factors to consider include the geography, geology, hydro geology, soil climate, topography/terrain and waterways. This is the landscape you are working with. • You are thinking about how wet it will be in winter and how dry in summer. Fencing and water supply, these are assets on farm. • There are tools that you can use to think about whether a farm is a good farm to buy. The LUC handbook; might not know about the science behind it but know about it intuitively. Slopes and flats. Rainfall, pasture production growth data, livestock production, Overseer, in stream water quality measurement – all of these are ways that farmers can use to assess the suitability of a farm. Use Overseer as a way to get right optimal fertiliser inputs. 	

		<ul style="list-style-type: none"> • LUC, class 1 through 8. LUC classes that describe hills down into flats. Options available for each LUC class. Steeper terrain options become more limited. • Land suitability as a core concept. Shrinking and growing, must be done in the appropriate places. How do you identify the appropriate places. It is about a risk assessment and doing due diligence. • LUC mapping, TLG heat maps, WRC risk assessment maps for contaminant loss. Not just LUC. <p>James then gave some concluding remarks:</p> <ul style="list-style-type: none"> • Acknowledge concerns around too much pressure on high emitters. There are good people that have invested into dairy farms and they need time and options to work down to land use that is suitable. • Natural capital addresses all four contaminants. • If we can get job done without allocating then great. But LAWF recommends indicating allocation systems and if we go in without one we could be given one down the track. • CSG has agreed to the concept of land suitability and this is supported by case law • Land is a finite resource. Future generations would not thank us if we grandparented. • There are public perception issues and misconceptions of agriculture at moment. We can help bridge that gap with a commitment to land suitability for our respective farming systems. 	
11.	10:15am	<p><u>How to set limits and accounting options for attributes – what are the options</u></p> <p>There was some time remaining before morning tea and this was used to frame up the session after morning tea on how to set limits and accounting options for attributes.</p> <p>The report (DM#3626243) on this setting water body targets and limits was co-authored by the technical and policy teams with key input also from Bill Vant. Justine began the presentation.</p> <p>Key points included:</p> <ul style="list-style-type: none"> • The report included the story of what has happened so far in regards to this matter and includes everything that has been done in terms of attributes and modelling. This will be important for the s32 in order to track what has happened and why. When making a recommendation the CSG will need to state why a recommendation was made so that this can go into the s32 analysis. • In terms of the report there were separate recommendations for long term limits and short term water quality limits. • The long term water body limits in 80 years are something we can be very confident about and we can 	

		<ul style="list-style-type: none"> • put numeric limits in there for every attribute. • The intention is that when this is written into the plan change template it is essentially going to be tables with numbers in them and the numbers will have the target of being achieved by 2096. • In regards to short term water quality limits the suggestion is to not have numeric short term limits. There are technical reasons why not, such as needing to be careful about being specific about numbers in water because there is a lack of certainty due to biophysical processes. Naturally WRC will continue to monitor and report on trends and describing everything needed to regarding water quality. • The CSG has agreed that we need to relate actions on the land to water body outcomes and where possible monitor and account for those actions on the land. • During the WRISS this same issue came up – trying to show people that water quality has changed. <p>Q – Given the frequency we measure water quality, what is our ability to detect change? A – We can detect to 1% change per year.</p> <p>Comment from TLG chair Dr Bryce Cooper and WRC policy:</p> <ul style="list-style-type: none"> • In the initial period people are going to be undertaking actions. In terms of what happens on land, the response of the water to those actions may be significantly delayed, for example N in the upper catchment. • Some actions, such as protecting stream banks and so on, will get a quicker response from system. • To do actions that will achieve a 10% path to the ultimate goal and expect to see that within the water in 10 years would be unrealistic. • TLG are suggesting that because of lag times we need to be realistic about what can go into a plan change around numbers for short term limits. • For each attribute in the long term there should be a single limit for each attribute in each FMU. Upper Waikato as an example has various monitoring points. In the long term in 2096, there should be an E.coli number that all those points should be meeting. • Also no decline. Where there is a current site that is already high quality that site should not be able to decline to the bottom of that band. Long term numeric limit plus specifying that no site is allowed to decline from current state, even within a band. <p>The group broke for morning tea and continued conversations on this topic afterwards.</p>	
	10:45am	Morning tea	

12.	11:00am	<p><u>How to set limits and accounting options for attributes – what is our preferred approach?</u></p> <p><u>CSG discussion, points from questions and answers</u></p> <p>Q – How does the idea of not having limits in the short term relate to farm plans and telling people they need to reduce by a certain %?</p> <p>A1 – Need accurate accounting framework at property scale first. Horticulture is not in favour of not having a property level in first instance. Achieve management action targets that are set and give policy direction to build the frameworks needed to get to farm scale.</p> <p>Q – Need to linking property level to what is in the river. Stopped our thinking in terms of sediment. Missed a beat by shifting to clarity as measure. How do we know down the track that our sediment measures are being effective? Do we need more sediment measurement in the tributaries?</p> <p>A – In terms of attributes we have clarity. In terms of tribs, clarity is driven by sediment. In terms of a direct measure of attributes you have clarity and the relation between clarity and sediment in tribs is very high.</p> <p>A2– The relationship is good. Think of them as opposite sides of same coin. Low sediment means high clarity and high sediment means low clarity. In regards to sediment monitoring, we don't monitor sediment as such but rather measure the effect of sediment, i.e. turbidity. Very few councils still measure sediment directly.</p> <p>Q – If we start to decrease sediment would we get an increase in algal growth as a result?</p> <p>A – There is potential at the moment of sediment limiting algal growth. In terms of relative proportions, would need to think about that further.</p> <p>Some comments were made noting that what is being proposed is a more uniform approach then what is in scenario 1 and that no decline was an important aspect and the recommendation would need to be altered to encapsulate this.</p> <p>An example was talked about involving a Lake that had two tribs flowing into it and a river flowing out of it. One of the tribs is spring fed and the other is not and is affected by runoff. Take <i>E.coli</i> for example, the point is <i>E.coli</i> is determined by local characteristics. The limit for the whole FMU will have to come to a particular number – would necessitate tracking back to what is causing the limit to fail, i.e. the trib with runoff. However also need to ensure that the good trib doesn't decline.</p> <p>Q – There is no council monitoring point inside a forested part of the catchment. If we are trying to capture impacts of land then shouldn't we set one up in there? It is not monitored now and likely won't be monitored in the future. Why does forestry have to monitor themselves when everyone else gets SOE monitoring?</p>	
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		<p>that these are estimates. Do trend analysis and do review periods. Inclined to say every 15 years. After looking at trends and after reviewing we may need to amend the plan to get back on track.</p> <p>A1 – Even though there is a level of uncertainty, there are things that we know that are not the right things to do. Why don't we stop doing those things? Can't put a number to them but know they are having an effect. Technically speaking, they are no brainers.</p> <p>S – Will need to see, in the implementation reviews, a report with x number of farm plans implemented and x number of actions completed. Have this as a policy and then operationalise it. In same way you do annual plan reporting. Spell out in plan as progress measures.</p> <p>S – It could be useful to look at the report card work from the WRA in terms of the suite of indicators they are looking at. They have action indicators and there could be an ability to harmonise.</p> <p>It was decided that the property plan subgroup would look at the specifics of link actions on the land to subcatchment reduction targets from a TPP point of view.</p>	
13.	12.00pm	<p><u>Point sources</u></p> <p>CSG member Ruth Bartlett updated the group on the feedback from Industry and Energy Sector meeting held on 4/12. Ruth distributed some notes from this meeting (DM#3661129, DM# 3661130). This included discussion on modelling inputs, offsetting, allocation, Scion report, and the arranged sector group meetings that will consider the sectors input into the drafting of the plan change. The following are a draft set of principles proposed for discussion by the CSG;</p> <ol style="list-style-type: none"> 1. Allocation should in the first instance reflect consented discharge volumes rather than monitored discharge volumes. 2. There ought to be a degree of alignment between the targets set in the plan change for improvement and the consent terms for discharge consents noting that investment in alternate technologies requires significant lead times and careful business planning. 3. There should be reliance on reconsenting timeframes rather than consent review processes. 4. Consent review processes are generally to deal with unanticipated environmental effects at the time of consenting, more deliberate staging of discharge management (contemplated within a consent). 5. There have been significant reductions in point sources and the initial focus ought to be on dealing with the greater proportions of contaminants arising from diffuse discharges. 6. Any improvement in point source discharges ought to be proportional to the contribution made by Point 	

		<p>source discharges and have timeframes that also reflect the investment required to bring about incremental change.</p> <ol style="list-style-type: none"> 7. Recognise the implications of having different activity statuses for diffuse and point discharges 8. Recognising the positive contribution made by “point source discharges” to economic and social well-being 9. Options to mitigate and offset effects to enable flexibility as to how any required reductions are to be achieved. Such mitigations and offsets to be proportional to the scale of the level of contaminant load that is required to be removed (i.e. that the offset replaces) and the adverse effect of those discharges. 10. Recognition of the circumstances where best practicable option (BPO) can be applied 11. Factors to consider when determining consent duration. <p>Tim Harty gave an update from local government; effects of the roading network, environmental plan. Looking to understand the consenting process in terms of their sector, require further information on the challenges that may be faced.</p> <p>Stephen Colson gave an update from the energy sector.</p> <ul style="list-style-type: none"> • There are strong views on what was modelled and the sheer land area that is required which will cause huge capital costs. • Concerns over the difference between consented and monitored. Discussions of what the key factors that will need to be looked at when considering the allocation approach. <p>The CSG followed this with further discussions on point sources.</p> <p><u>Summary of point source discussion</u></p> <ul style="list-style-type: none"> • Consideration of BPO • Provide plans going through consenting approaches • Population growth, economy, dairy prices all have an effect. • Making sure to continue reviewing the process on consents, appreciate the example in the handout. • Monitored vs consent • Five year interim rule, never worsening the current state • Can expansion be allowed within consent? • Monitoring reflects all areas of it, concerns over using averages. • Can it apply to a consented discharge as well as full land use change? • Does the council hold enough on point sources? Every consented has to be well managed and be far more extensive and detailed than farm plans. • Normal to implement a review process, if the best option was chosen then it can continue, if not there is room to change. • Not always doing the wrong thing to get the negative 	
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		<p>results.</p> <ul style="list-style-type: none"> • Point 9 from Industry and Energy update is what we are trying to achieve here, picks up plan change, differences between GMP and BMP, consented and permitted activities. Would some have to pay more to achieve same results? • Is a fine practical? • Can the different sectors have different standards to work towards? • Could the CSG be provided with the figures of cost per kilo of each of the contaminants? • From the last point source report, resource consent load, how much is the model already doing that and can we pull out useable info or is something completely different needed? Bryce – the model is based on cost per kilo, shows the cost as the contaminants go from 10%-100%. External factors such as where it is in the catchment and what is further downstream. But can give a rough idea of cost. • The model is picking mitigations without emotion. Although those being proposed are seemingly not expensive when broken down to individual farm level for individual farmers it may be expensive. A mix of mitigations is the most cost effective. Most farms not viable because of the costs. • Modelling has no constraints. • Innovation may help, model based on what is available today. • Integrated assessment and social side need to be considered and a model with constraints may be needed but that is not what we have at the moment. • If you don't make land use change in big amounts then you could drive businesses out. • What is affordable? What type of processes can be used to managed cost? Should communities contribute towards the costs of those in their catchment area. • Changes have been made to get your 'business' to the right level. Farm's need to be at a certain level so there is no extra cost to communities and infrastructure. Have to be able to say no to people if it isn't feasible. • Cost analysis has to take place in order to justify what we are doing? • Allocation 1st point; trying to stop intensification and discharge going into the river, we need to have a deeper understand of this. • If there is no headroom are we straight jacketing the economy? • Should we be working with consents that allow certain discharges that will allow for changes over time. • What is being monitored will depend where you are within the consent process. • Should there be a plan that accommodates increases? • Does the growth in areas, such as Hamilton, become 	
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		<p>counteracted by decrease in population in other areas?</p> <ul style="list-style-type: none"> • Capital investment and plant/infrastructure in place to accommodate population growth. • What are the benchmarks? Are the current levels of contaminants our starting point? • Most people are moving in the right direction, when do we start looking at it in terms of fairness and equality. • Effect of the dairy industry, how much is being produced now to how much will be produced in the future? • Key to being successful is understanding the problems and coping with challenges. • Bear in my mind how much technology has advanced in the last 10 years and how much it will change in the next 10 years. 	
	1:00pm	Lunch	
14.	1:30pm	<p><u>Lakes – Ben Ormsby DM#3603451, presentation DM#3645498</u></p> <p>The CSG received a presentation from policy staff on Lakes policy options and water quality outcomes.</p> <p>Key points from their presentation and the resulting CSG discussion:</p> <ul style="list-style-type: none"> • As in the report the CSG need to agree to set lake attributes states as recommended by the TLG. Agree to apply the rivers FMUs policy options package to the lakes FMUs • The same options apply to the lakes, catchment wide rules and property plans but what extra factors need to be excluded? Should there be additional rules? Should time scales be different? What may be needed in the future? • The strategy is basically an action plan and what should be taking place, complimentary to healthy rivers whilst still capturing different aspects within it. • Not something that can be funded solely by WRC but can be enhanced and brought forward with the help of funding from other parties. • Pest fish and lake rehabilitation is achievable • Poor condition of lakes put into, place the actions, even with land changes will take 100s of years to recover. • Make sure everyone is aware that this is a very long term exercise, 80 years will have very little effect. • In terms of the regulatory stuff and communications plan, does the plan look at very basic elements? • Discussions on the engineering solutions that could be considered? • Under the Restoration project there is a lakes section • Start to understand what would happen if catchment wide plans were instated? What affects would these plans have? 	

		<ul style="list-style-type: none"> • Base level is so low and results would not show much if any improvement. • University of Waikato has carried out work into the scoping options, what the catchment nutrient loads look like by 30%-50%. • There is a modelling proposal that could look at specific lakes. • Forming a FMU around Whangamarino wetland. • If the catchment areas and wetlands were improved then this would in turn improve the lake's base level. • Signals point to the fact that in 10 years that we will be revisiting FMUs and have to address wetlands. • What do we need to protect the wetlands i.e., reduction in sediments. • Should wetlands be considered as a separate issue? should they be included in a new FMU? • Wetlands at times become lakes themselves and this is one of the main problem, causing them to be more sensitive at times. • Huge scale in which wetland affect the whole project, not just lakes. • More information may be needed, natural characteristics of peat need to be taken into consideration. • Different time frame may need to be considered. • Should shallow lakes have different limits due to different processes whilst still considering that there are national guidance around lakes and attribute bands to work within. Tackling shallow lakes separately is a huge piece of work and may not currently have the technology and skills to address it. • Need a broader sense of what we achieve as just controlling the four contaminants' may not give the desired result in terms of ecology. • Be aware that there are more issues to think about and be aware of than just the four contaminants'. • We should be tailoring what we want to do to get the outcome that we want for specific lakes. A vision for each lake that should inform the plan for the next 10 years. • Set values and strategy for each lake within restoration plan. • How important is it to achieve swimability with time frames as this is a community aspiration? • Time scales are crucial to the scale of the plan and how many resources will be used in the process. • Should we aim for 80 years but add a narrative that this may not be long enough. • <p><u>Resolution:</u> Remove recommendation 2c in lakes report DM#3603451 – to “consider other recommendations they could make to improve lake water quality” – and bring report back to the January CSG</p>	
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		meeting. Rick Pridmore/George Moss.	
15.	2:30pm	<p><u>Round 3 simulations</u></p> <p>Helen set the scene for this session by noting that due to other pressing commitments we shouldn't expect any round 3 scenarios by January. Therefore this session is about thinking about round 3 ideas further.</p> <p>Bryce noted that any round 3 scenarios would need to be well defined in terms of what they would comprise. Need to consider scenarios that will sit in with current discussions on allocation and policy options. Also consideration should be given as to whether any round 3 scenarios are needed at all.</p> <p>Some ideas discussed so far for round 3 include:</p> <ul style="list-style-type: none"> • Modelling a headroom scenario • Modelling a natural capital scenario • Modelling adjustments when rationalising a single band to each FMU <p>There is a lot of detail under each of these. Each would be significant running through of the model.</p> <p><u>Comments:</u></p> <ul style="list-style-type: none"> • Regarding the headroom scenario, we should look at headroom for both N and P and try and look at how much iwi land etc could be converted. • It was noted that to get this headroom you have to go a certain % further to create this certain % of headroom. • Look at all contaminants for headroom as they all affect each other. <p>Q – Does the model assume all 4 contaminants are of equal importance? Should we look at a scenario that prioritises contaminants in relation to their effect on values? A – The CSG has recommended the attributes needed to meet the values.</p> <ul style="list-style-type: none"> • Need more information – we know we have got to reduce by x amount per ha. The number of ha and what the land use change occurred is known. But we need to know where this is occurring, i.e. how much in each of the 74 subcatchments. • We need to stop making this so hard; forestry to dairy is the big concern. We know it happens mostly in the Upper FMU and we have a rough idea where. We have a rough idea of CNI in terms of total ha and it might be arbitrary but it could give a flavour of what this might mean in terms of land use change and what this might mean in terms of our catchment level profit loss. • Coming back to headroom scenario. Creating headroom and giving this to someone else is a zero sum gain. This will be the same answer in the model. • In terms of reductions we have been looking at the 	

		<p>share between the amount 'given to the river' and others. Perhaps we need to look at reducing our standards.</p> <ul style="list-style-type: none"> • If we were going to take 1000 tonnes out of the river and instead we take 900 out want to know what is the implication of that in terms of the river? • For the natural capital scenario we would need to decide on a mechanism for determining land suitability or use an LUC approach and this would need to go into the modelling to be factored in. • Natural capital is a concept that is malleable and we could bring in what is developed in the CSG, but use LUC for modelling purposes. <p>Bryce's thoughts on modelling natural capital: What the modelling is doing currently is taking the building blocks of LUC already. Things like slope, rainfall and drainage class, coupled with intensity of current land use. All of this information forms the basis of what a representative farm type might be. Modelling is based on these representative farm types. If the model changes land use then it becomes a different representative land class. What it is also taking into account is the cost minimisation aspect.</p> <ul style="list-style-type: none"> • A natural capital approach with the end point being the V and S. Risk of contaminant loss is what is modelled. The next step beyond that is talking about allocation. We can take this to the next level with LUC. • Response – Not sure that can see the end point benefit, of this scenario in terms of how it would play out. How would that impact policy? • It also depends on what you are trying to get at by modelling natural capital. You would need to look at the leaching risk, look at soil moisture balance, look at slope etc. There is considerable work to define all of the factors you would want to consider. • You could simplify the process by using published LUC tables and manipulate them to meet the vision and strategy. • In regards to modelling a land use change we should make it as simple as possible. For example could look at a 2 to 1 ratio and land over 16 degrees. <p>Q – Are we able to simulate the effects of the hydro dams? Sandy's model does take into account the flow of the river. If we held current land use but adjusted the flow of the river to see what the effects would be on the land?</p> <p>A – In simple terms if you take them out the flow would be faster. There would be changes in the residence time of water through the sequence of dams. Our current ability to model this further is coarse at best. We have significant caveats on it primarily because we don't have a dynamic model through the system at a point in time. For the 1863 scenario assumptions were made. The difference is residence time that allows growth to happen as opposed to situation where algal growth does not happen as much. In broad terms you can do this. For example allow for the removal of several generation times of algae. We</p>	
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		<p>could make some estimates but they would be pretty crude. Q – Are they too crude for us to use? A – TLG are coming back with the refined 1863 scenario and we will see what that shows. There was some work done 15 years ago to look at a situation with and without dams. A2 – Can have a rough estimate but ideally need more dynamic data. It depends on what the question is you want to answer. If you are looking at what the difference to river would be then you could just as easily look at what would the difference be without farms. A3 – Dams exacerbate the problem and we are trying to get a handle on it. A4 – We would need a longer time to explore this. Could have a presentation on it, but if we want to explore this issue then we need to do properly <u>Further comments</u></p> <ul style="list-style-type: none"> • If there is a desire to create headroom then we will need headroom around more than one contaminant. • It has been asked before in regards the modelling predicting losing horticulture, a need to understand more about the impact of horticulture in the lower river. What would horticulture look like under current land use intensification or two different levels of intensification? Have asked for this before and it could have significant impacts. The benchmarking reports that went into producing model had a 3 tier scale intensity for horticulture. Could this be included in the headroom idea? • Industry/energy/municipal group are keen to run the model with consented point source numbers. • Perhaps this [the above idea] could be achieved with some simple arithmetic based on the concentrations in the river. • Considering we have only five meetings left has consideration been given for more hui? • Keen to explore and develop the natural capital idea further 	
17.	3:30pm	<p><u>Wrap up session</u></p> <p><u>Setbacks and Stock Exclusion summary points</u> <u>Dates</u></p> <ul style="list-style-type: none"> - By stock type: dairy milking 2017 - All dairy grazing (incl 3rd party) 2020 (LAWF = 2025) - All other including intensive deer 2025 (LAWF = 2030) <p><u>Water body types (define these terms)</u></p> <p>Rivers & lakes (perennial) – all sizes</p> <ul style="list-style-type: none"> - Intermittent to be done by farm plan <p>Natural wetlands Not farm drains – (via farm plan) (LAWF includes farm drains >1m deep & 30cm wide) <u>Stock Types (All live stock excluding sheep and goats)</u></p>	

		<ul style="list-style-type: none"> - Dairy cattle, beef cattle, domestic farmed deer, pigs and horses, exempt: sheep, (goats? Alpacas?) (all stock other than sheep and animals under control e.g. horse & rider) <p><u>Definition</u></p> <ul style="list-style-type: none"> - Strong support for exclusion = stock can't/don't go there and crossings are managed can include a natural barrier. Some like current or LAWF definition. Want to see some provision for exclusion from wet gullies especially in winter. Negotiable – storage dams/setbacks that are not practical. <p><u>Terrain</u></p> <ul style="list-style-type: none"> - No strong desire to see terrain included as a factor for exemption nor intensity. - Manage intensively grazed cattle in hill country ie. steep terrain. - Stock intensity related to slope erosion risk, season, vegetation, LUC – lots of work done here. Property plan can deal with stock exclusion in steep terrain. <p><u>Setbacks (Pastoral)</u></p> <ul style="list-style-type: none"> - Some support for 5m = permitted activity & variable setbacks – consented strong guidelines for variable setbacks (focus on contaminants, FMU, contour, land use/activity, soil climate - What about cultivation other disturbances, eg earthworks, tracking. <p><u>More to do</u></p> <ul style="list-style-type: none"> - Different date for replacement fences? - Eroding banks, removing setbacks – can anything be said regarding discretion of enforcement where actively eroding. - Non- patrol – current 5m forestry, 2m cultivation + high risk erosion rules. - Straight formula for something such as a culvert being able to be permitted. Template may be able to resolve this. <p><u>Setting water body targets and limits DM#3626243</u> CSG came back to the report which was discussed earlier, with tracked changed recommendations up on screen. Note that recommendation 2)c)1) was not agreed to and so was struck out in track changes:</p> <div style="border: 1px solid black; padding: 5px;"> <p>Recommendation:</p> <ol style="list-style-type: none"> 1. That the report [Setting water body targets and limits] (Doc #dated 1365-December 2015) be received, and 2. That the Collaborative Stakeholder Group agree: <ol style="list-style-type: none"> a. Attachment 1 of this report "CSG agreements to date on components of target and limit-setting process under the National Policy Statement for Freshwater Management " is an accurate reflection of the interim decisions made by CSG as they have progressed through the steps in the National Policy Statement for </div>	
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4pm		<p>Chair closing comments Karakia</p>	