



## Collaborative Stakeholder Group (“CSG”) Workshop 18 Notes

(Day one) 13 October 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), Jason Sebastian (Community), 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), Tim Harty (Delegate – Local Government), Weo Maag (Māori Interests), Garry Maskill (Water supply takes), Elizabeth Aveyard (Delegate – Industry), 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), Janine Hayward (WRC), Jackie Fitchman (WRC), Will Collin (WRC), Janet Amey (WRC), Justine Young (WRC), Emma Reed (WRC), Ruth Lourey (WRC), Jonathan Cowie (WRC), Michelle Hodges – part (WRA), Grant Kettle (Raukawa), Alan Livingston (HRWO Co-Chair), Alice Barnett (Tuwharetoa), Dave Marshall (Raukawa), Ben Ormsby (WRC), Simon Bendall (Tuwharetoa), Poto Davies (Maniapoto)
- TLG: Dr Bryce Cooper (Chair), Graeme Doole
- Other staff (part): Vicki Carruthers, Tony Quickfall, Patrick Lynch, Jon Palmer

### Apologies:

- CSG: Gayle Leaf (Community), Gina Rangi (Maori Interests), Rosemary Dixon (Delegate – Energy), Chris Keenan (Horticulture), Alastair Calder (Tourism and Recreation), Liz Stolwyk (Community), Michelle Archer (Env/NGO's), Sally Davis (Local Government), Alan Fleming (Env/NGO), Matt Makgill (Community),
- Other:

Item	Time	Description	Action
1.	9.30am	<u>Opening waiata</u>	

2.	9.35am	<p><b><u>Intro to CSG18 process</u></b></p> <p>Apologies for the workshop were noted and introductions made by CSG Chair Bill Wasley.</p> <p>CSG facilitator Helen Ritchie provided an overview of the two day workshop and noted a focus on the policy options – the ‘how’ we are going to achieve the changes required.</p>	
3. and 4.	9.40am	<p><b><u>Policy orientation and timeline and Overseer subgroup report back – Emma Reed, Justine Young, Ruth Lourey (DM#3572653/ 3577947)</u></b></p> <p>Key points from their presentation and the resulting discussion included:</p> <ul style="list-style-type: none"> <li>• The CSG had put a lot of work into policy options since June and has developed a range of policy options</li> <li>• The policy workstream wanted to check that they were on the right track and identify what the CSG wants to ask their sectors and communities about these matters</li> <li>• The project timeframe was discussed including the proposed additional CSG meetings</li> <li>• It was noted the 2016 Healthy Rivers Wai Ora committee dates have not been set</li> <li>• There could be a window in Feb 2016 to talk further with sectors</li> <li>• All roads lead to the Vision and Strategy; there will be stages along the way and how fast we will get there is a key question</li> <li>• We are looking at a staged approach but we only have current knowledge to go off and things might change in the future, such as with new innovations</li> <li>• There are 3 broad categories of policy options that are currently being explored; property plans, catchment-wide rules and a property level limit</li> <li>• Property plans are an option that has been discussed a lot at CSG workshops. For property plans to work the community will need to have confidence that this policy option will lead to the achievement of our goals</li> <li>• Catchment-wide rules are another option that refers to rules that will apply to everyone</li> <li>• The last option was explored further by a CSG subgroup that looked into managing nitrogen and phosphorus at a property level, and looked into using Overseer to set a limit</li> <li>• The group was tasked with figuring out the potential implications of using Overseer and</li> </ul>	

		<p>allocating responsibility</p> <ul style="list-style-type: none"> <li>• There are different ways the CSG could go out to the community with these policy options. The CSG could ask the community to either choose between different policy options or say they have a preferred option and get feedback on that option</li> <li>• One option this group discussed is to reduce nitrogen using a numerical Overseer limit. This would involve holding people to an absolute number that is generated by Overseer. They would also need a Nitrogen management plan.</li> <li>• Overseer is constantly being updated and it is limited in terms of what it can model. For example it can't model inputting a constructed wetland.</li> <li>• There is an issue with Overseer that you can have different people use the model and get varying results. Protocols have been developed in Taupo to deal with this issue.</li> <li>• A further limitation of Overseer is that as new versions come out, the same property and practices may get a very different result from Overseer</li> <li>• There are also some strengths for this option. For example it allows transfers to occur. This allows for more innovation and flexibility and a lower total cost overall.</li> <li>• This option may also give the community greater confidence that when limits are set they will be met</li> <li>• There have only been limited discussions regarding forestry and how this land use can be represented with this policy option</li> <li>• Another option is still using Overseer but not holding someone to an Overseer number.</li> <li>• Instead of holding a landowner to an Overseer number the landowner is held to an action plan to achieve a calculated reduction.</li> <li>• Overseer would be used in conjunction with other technical knowledge about mitigations that are not currently in the model</li> <li>• In practice this would work as a 'cap and then reduce' policy using tailored property plans. There could be varied rates of reductions/ people could be required to meet a certain level of good practice first (higher emitters have to do more). And there is still the possibility of some areas being able to increase if the CSG decides on that. Allocation of responsibility is still to be discussed.</li> <li>• An assumption for this policy option is that the property plan and the associated actions would be prepared by a certified professional and the plans and associated actions could be audited</li> <li>• Extra resource is needed for either of these</li> </ul>	
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		<p>options, if you are going property by property. Simply giving people a number is not as effective as working with people to help them implement change</p> <ul style="list-style-type: none"> <li>• Benchmarking against current practice would need to be undertaken under either option to know what is currently happening.</li> <li>• A second step would be needed to decide on an agreed percentage reduction over an agreed timeframe.</li> <li>• One advantage of a property plan type approach is that you can talk to farmers about multiple contaminants at one time.</li> <li>• Subcatchment loads are a really important piece of information that the CSG will need to consider further with either of these options, in order to determine how much change is required, where.</li> </ul>	
	<b>10.45am</b>	<b>Morning tea</b>	
5.	11.00am	<p><b><u>Property plan with industry support and regulatory backstop – Justine Young, Emma Reed and Ruth Lourey (DM#3563987/ 3577947)</u></b></p> <p>The Policy team have had conversations with individual sectors and staff on how to design. Report brings together info from differing viewpoints and some options on how this option might look in reality.</p> <p>Key points discussed:</p> <ul style="list-style-type: none"> <li>• Forestry has its own audited international schemes, e.g. FSC (Forestry Stewardship Council) – not proposing another industry scheme here – deal with effects through rules.</li> <li>• If it's a Permitted Activity, how does it get paid for? <ul style="list-style-type: none"> <li>○ Could be a general rate</li> <li>○ Permitted activity rate</li> <li>○ Charge for monitoring (Auckland does this)</li> </ul> </li> <li>• Can the same principles apply to point sources? (PA if it meets certain conditions). No. Has to meet Section 70.</li> <li>• Benefit of requiring consent is that the process lets applicant tailor and provide specific information, can also give the property owner certainty.</li> <li>• Could still be an option to make farming a consented activity.</li> <li>• Will a property plan stay with the property if it changes ownership? Resource consents go with the land. PA conditions would still need to met.</li> <li>• Appealing idea of a property plan is being able to bundle things. Would still need consent for certain activities e.g. pond effluent, and still need to meet catchment –wide rules.</li> <li>• A tailored property plan might allow farmers to find a different pathway than a catchment-wide rule.</li> </ul>	<p><b>Section 70 information to be provided to CSG – Justine Young</b></p>

		<ul style="list-style-type: none"> <li>• Need to think about how catchment-wide rules work with a property plan. Concern if too much gets left to plans i.e. is it everyone does CWR and dairy, dry-stock, and horticulture have property plans.</li> <li>• Or can you prepare a property plan instead of complying with certain rules?</li> <li>• Connects to question about loads and extent of reduction required</li> <li>• Also need to think about how we put a hold on intensification</li> <li>• LEP's and Arable – industry not resourced to provide these for all farmers – scope for it to be a combined effort?</li> </ul>	
6.	11:30pm	<p><b><u>Discussion on property level limits/ plans</u></b></p> <p>Discussion in small groups on property level limits/ plans. Questions:</p> <p><u>A – Property limits – do you prefer</u> Option 1: Hold to an overseer generated number and a nutrient management plan OR Option 2: Hold to actions in a property plan</p> <p><u>B - Property plans – permitted or consented?</u></p> <ul style="list-style-type: none"> <li>• Can it be used instead of complying with catchment-wide rules? OR</li> <li>• Is it on top of the rules?</li> </ul> <p>Ideas from group discussion</p> <p><u>Property limits:</u></p> <ul style="list-style-type: none"> <li>• Lean towards Option 2 but how do we know we've changed enough to meet the V and S?</li> <li>• Concerned those benchmarked high aren't rewarded.</li> <li>• Uncertain about timeframes</li> <li>• In some sub catchments will be more change required – set a limit so those contributing more N reduce sharper</li> <li>• Saw pro's and con's of both – concern not to punish those with neutral/ positive impact.</li> <li>• Clarity for community - would still try and quantify all the reductions and aggregate those</li> <li>• Pros and cons of trading</li> <li>• Investment – property plan can help plan for later steps</li> <li>• Both options need auditing</li> </ul> <p><u>Property plans:</u></p> <ul style="list-style-type: none"> <li>• Still need some rules to meet community expectations/ minimum standards as a bottom line; opportunity for property plan to allow innovation</li> </ul>	

		<ul style="list-style-type: none"> <li>• Some absolute rules – not draining wetlands?</li> <li>• CWR – if you can achieve outcome in a different way – may be ok.</li> <li>• Need to deal with those outside ‘normal’ industries</li> <li>• How do we set up QA standards? (Third party audit, role of WRC?)</li> <li>• Specific rules for FMU's?</li> <li>• How to deal with big polluters?</li> <li>• Approvals process – less onerous than consenting.</li> <li>• If you can't write a rule that can apply everywhere, maybe deal with through a plan.</li> <li>• Will be a lot of places could apply cattle exclusion but some tricky areas.</li> </ul>	
7.	12.15pm	<p><b><u>Allocating responsibility for change/ right to discharge contaminants</u></b></p> <p>This session was deferred to CSG19.</p>	
	<b>1:00pm</b>	<b>Lunch</b>	
8.	1.45pm	<p><b><u>Approvals and updates session</u></b></p> <p><b>a) CSG17 workshop notes</b></p> <p><b>The CSG17 workshop notes were approved subject to the following changes:</b></p> <ol style="list-style-type: none"> <li>1. Remove Stephen Colson and add Tim McKenzie as attending for the two days</li> <li>2. Page 85 – Model paragraph: Note that there are some issues with confidential information that need to be worked through. Remove the words ‘usual practice.’</li> </ol> <p><b>Phil Journeaux/ Jason Sebastian Carried</b></p> <p><b>b)TLG Update - model information release – Dr Bryce Cooper)</b></p> <p><u>Discussion points:</u></p> <p>Model release:</p> <ul style="list-style-type: none"> <li>• Won't the model (itself) need to be released as part of the Schedule 1 process? Some information is confidential, some parts of it have never been reviewed e.g. Overseer. Code has been to the peer reviewers.</li> </ul> <p>For release end of November:</p> <ul style="list-style-type: none"> <li>• Reports on model structure and framework</li> </ul>	

		<p>For community engagement:</p> <ul style="list-style-type: none"> <li>• Two modelling results reports and integrated assessments</li> <li>• Mitigations report</li> <li>• Underlying water quality models - sediment, E.coli, nutrients and nutrient-chlorophyll model and clarity model.</li> <li>• Historical land use change report (links to load to come and attenuation)</li> <li>• Note - How much P is lost from forestry? Still need this data.</li> <li>• Load data – will be available (numerical) next week – Wednesday <ul style="list-style-type: none"> <li>For the current situation plus the steps in the scenario: <ul style="list-style-type: none"> <li>○ Kg’s coming from each catchment</li> <li>○ Kg’s/ ha coming from each catchment</li> <li>○ Kg’s that need to be removed</li> <li>○ Kg/ha that need to be removed</li> <li>○ Kg’s/ ha of non-native bush land (or non-forested land?)</li> </ul> </li> </ul> </li> <li>• Numbers for Scenario 1 by next week and a covering report (10% + 25%)</li> <li>• Maps showing quantum change for community engagement</li> <li>• What is the best way to show the load to come?</li> <li>• Could show how much more N would be in water if it was equilibrated to today’s land use? <ul style="list-style-type: none"> <li>○ As a %</li> <li>○ As actual amount/ conc.</li> </ul> </li> </ul> <p>Al Fleming, who was not present at the workshop had sent a comment to note that an action had not been completed yet (Phosphorus from forestry). This will be completed at CSG20)</p> <p><b>Phil Journeaux/ Jason Sebastian Carried</b></p> <p><b>c)Redrafted numerical objectives with limits and targets from last workshop Emma Reed and Billy Brough (DM# 3572646)</b></p> <p><u>Steps to achieve the Vision and Strategy:</u>  The question was raised for CSG to consider: What can the CSG do to try and safeguard the longer term change?</p> <ul style="list-style-type: none"> <li>• The only legislation that could change is the Vision and Strategy and that’s the key – it is unlikely to change, be renegotiated.</li> <li>• This group’s Terms of Reference is an RMA ToR.</li> </ul>	
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9.	2.30pm	<p><b><u>Feedback from our networks</u></b></p> <p>Feedback received from the following sectors:</p> <p><u>Dairy:</u></p> <ul style="list-style-type: none"> <li>• Handed out flyers (Putaruru and Tokoroa).</li> <li>• Good feedback/ responses from people overall at recent meetings.</li> <li>• Check district councils involved in project (Sally is feeding back to them).</li> </ul> <p><u>Drystock:</u></p> <ul style="list-style-type: none"> <li>• Focus group meeting held in Hamilton. Keep them updated</li> <li>• Feedback received</li> </ul> <p><u>Forestry:</u></p> <ul style="list-style-type: none"> <li>• Feedback from sector that they are opposed to</li> </ul>	



		<p>grandparenting. Concern regarding locking in land use (distortion occurring). Prefer equal allocation – high allocation for more productive land.</p> <ul style="list-style-type: none"> <li>Concerns about the model – concern that the mitigations hadn't looked at phosphorus for forestry.</li> </ul> <p><b>Action: CSG members to place feedback into feedback template.</b></p>	
10.	2.45pm	<p><b><u>Catchment-wide rules– Justine Young, Emma Reed and Ruth Lourey (DM#34944533)</u></b></p> <p>Discussion on catchment-wide rules.</p> <p>The CSG went through the tables provided to look at what current thinking is on rules (included CSG feedback in previous workshops).</p> <p><b>Action: If any sectors have any information that can help populate the industry columns/ what do they currently do? Please contact Justine Young.</b></p>	
	<b>3.30pm</b>	<b>Afternoon Tea</b>	
11.	3.45pm	<p><b><u>Catchment-wide rules – what do we want to test with the community/ sectors?</u></b></p> <p>Group exercise to look at the following questions:</p> <ul style="list-style-type: none"> <li>Which are truly catchment-wide (apply to everyone, everywhere)?</li> <li>Which would be better suited to address via a farm plan clause?</li> <li>Any extra detail you suggest?</li> <li>Applying differently in FMU's?</li> </ul> <p>Summary:</p> <p><u>Stock exclusion – key points/ ideas</u></p> <ul style="list-style-type: none"> <li>Consistent with national regulation from LAWF</li> <li>Catchment-wide or if outside national regulations – farm plan</li> <li>Prohibited activity too severe – non complying</li> <li>Permanently flowing streams (Accord)</li> <li>Wetlands identified in WRP</li> <li>Include pigs? Horses?</li> <li>'Excluding places identified in a certified farm plan'</li> <li>All perennial water?</li> </ul> <p><u>Intensification – key points/ ideas</u></p> <ul style="list-style-type: none"> <li>Would be dealt with through change in activity</li> </ul>	

		<p>from a benchmark</p> <ul style="list-style-type: none"> <li>• Catchment-wide rule</li> <li>• Threshold that would trigger rule</li> <li>• Discretionary - show you can put in place mitigations to address</li> <li>• Raises allocation issues</li> </ul> <p><u>Setbacks – key points/ ideas</u></p> <ul style="list-style-type: none"> <li>• 5m from larger lakes and rivers?</li> <li>• Otherwise through farm plan</li> <li>• Basic rules but variation for high risk e.g. cultivation – high risk – 5m. Smaller buffer if grazing – 2m?</li> <li>• Distinctions for FMU's - sediment risk?</li> <li>• 5m – all perennial water (excluding drains), same for grazing, cropping, forestry</li> </ul> <p>Reporting back from the small group discussions on other rules was left until Day 2.</p>	
	5.00pm	<b>Close</b>	



## Collaborative Stakeholder Group (“CSG”) Workshop 18 Notes

**(Day two) 14 October 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 - part (Community)

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)

TLG: Dr Bryce Cooper (Chair), Mike Scarsbrook, Graeme Doole

Other (part): Vicki Carruthers (WRC), Jon Palmer (WRC)

### Apologies:

CSG: Alan Fleming (Env/NGO), Matt Makgill (Community), Elizabeth Aveyard (Delegate – Industry), Chris Keenan (Horticulture), Alastair Calder (Tourism/ Recreation), Sally Davis (Local Government), Liz Stolwyk (Community), Michelle Archer (Env/NGO’s),

Other: Stu Kneebone (HRWO Deputy Co-chair), Billy Brough (Iwi Co-ordinator)

Item	Description	Action
12.	8:30am <u>Waiata and CSG-only time</u>	

		Reflect on day one.	
13.	9:15am	<p><b><u>Catchment-wide rules: continuation of report back from small group work from Day 1</u></b></p> <p>Reflections from previous day's discussion.</p> <p><u>Setbacks:</u></p> <ul style="list-style-type: none"> <li>• SWDC setback 10m from named streams, 5m from others (perennial)</li> <li>• Applies to all, but farming may claim existing use rights (defined in the DP)</li> <li>• Applies to forest -to-farm conversion – Controlled Activity.</li> <li>• Should we have 2 levels of setback according to stream size?</li> <li>• Note that the model used a 5–wire fence on drystock farms – this is not considered sheep-proof by the sector– cost for a true sheep-proof fence would be ~ double</li> <li>• Sector has advocated for farm plans due to complexity</li> <li>• If there's a rule to exclude sheep and a farm plan and a nutrient limit -No way sheep farmers can get that done in 10 years.</li> <li>• Recommending anything undoable will undermine our credibility.</li> <li>• CSG agreed setbacks not to apply to sheep.</li> </ul> <p>Further report backs from small groups:</p> <p><u>Low intensity land use</u></p> <ul style="list-style-type: none"> <li>• Define how? Low leaching rate? Relate to stock units</li> <li>• CWR still applying = stock exclusion</li> <li>• Small blocks – generally should apply but should be a threshold (size)</li> </ul> <p><u>Accelerated erosion – key points/ ideas</u></p> <ul style="list-style-type: none"> <li>• Yes, as part of a property plan</li> <li>• Be consistent re: setback. Would they have to be approved? No. P.A. rule would have conditions – what has to be in the plans.</li> <li>• Property Plan would have to not be inconsistent with other conditions</li> <li>• Earthworks – CWR – existing plan complicated – simplify.</li> <li>• No new tracking within setbacks but edge of field ok (mitigations)</li> </ul> <p><u>Effluent</u> – No comments.</p> <ul style="list-style-type: none"> <li>• Noted that land based application not a panacea.</li> <li>• Could be cases an Advanced Pond System would be better. Remain discretionary.</li> </ul> <p><u>Fertiliser</u> – 60kg arbitrary – science around effluent storage – N</p>	

		<p>concentration declines. Forestry would want ability to apply fertiliser up to 60kg as a PA (subject to a NMP). 'Sharpen up' Application Standards – Recognised system Spreadmark. <u>Other</u> – Offal holes – control location <u>Drains</u> – condition to have a sediment trap as a CWR.</p>	
14.	9.30am	<p><b><u>Lakes – Mike Scarsbrook (DM#3580294)</u></b></p> <p>This session was presented by TLG member Dr Mike Scarsbrook.</p> <p>Key points from his presentation included:</p> <ul style="list-style-type: none"> <li>• Average % change based on current attribute levels</li> <li>• Biggest changes are in terms of achieving the C band</li> <li>• Levels of change for each lake range from 0-92%</li> <li>• Significant levels of change will be required to even meet the national bottom lines</li> <li>• Recommendations from the TLG: <ul style="list-style-type: none"> <li>- That there is no decline in the water quality of any lake</li> <li>- That all lakes are at least above the National Bottom Line for Chlorophyll A, TN, TP and cyanobacteria</li> <li>- That all lakes are above the minimum acceptable state for swimming (<i>E.coli</i> in B band, clarity above 1 metre)</li> </ul> </li> <li>• It is worth noting that there are many projects currently underway that involve lake restoration</li> <li>• It is very hard to restore lakes and there are very few successful examples. However there are some things that can be done in the lake catchments that can help reduce nitrogen and phosphorus loads, in addition to in-lake mitigations.</li> </ul> <p>Discussion points:</p> <ul style="list-style-type: none"> <li>• Does the reduction percentage include land use change?</li> <li>• How robust is that calculation?</li> <li>• Back of envelope, dated report – more could be done.</li> <li>• Would this imply that these catchments should have controlled activity status for farming?</li> <li>• Is it realistic to achieve this clarity?</li> <li>• Very difficult if macrophytes have been lost and lake dominated by algae. Algae block the light, it's a Catch 22 – need macrophytes to stabilise sediment, but can't re-establish macrophytes with so much algae in water.</li> <li>• Key words – 'multigenerational' and 'lake specific catchment plans'</li> <li>• Rehabilitation goes well beyond our scope</li> <li>• Plan change can do some things to reduce contaminants; Restoration strategy will need to address rest.</li> </ul>	<p><b>Put Commissioners' decision on Lake Waikare onto portal</b></p>

		<ul style="list-style-type: none"> <li>• Question about achievability of NOF standards for lowland bottom lakes</li> <li>• In Europe they differentiate between deep and shallow</li> <li>• Should there be different A bands for a shallow lake?</li> <li>• Lake Waikare: consent to discharge to Whangamarino – has a sediment reduction attached – appealed by WRC</li> <li>• Get this info for CSG onto portal (Commissioners’ decision)</li> <li>• How much difference would a 100m/ 200m buffer make? Depends on how much goes in via streams/ drains vs overland; groundwater interception.</li> <li>• Do you have to kill all pest fish first?</li> <li>• Can be done for small lakes (if you use rotenone – a poison).</li> <li>• What are the influences on clarity? (Sediment/ algae or plankton/ colour)?</li> <li>• Peat lakes – peat soils changed through drainage – peat soil best practice is important.</li> <li>• Lake levels – Waikare kept at a low level for flood purposes.</li> <li>• Sediment traps on in-flows are useful where practical.</li> <li>• CSG need to recommend pest fish control to occur via other means.</li> </ul> <p><u>Recommendations:</u></p> <ul style="list-style-type: none"> <li>• “No decline” not enough – make the lakes the best they can be</li> <li>• Focus on Chlorophyll target (control inputs)</li> <li>• Total N in peat lakes overstates what is available to algae because extractant measures N in tannin.</li> <li>• Ask NOF to reconsider extractant/ TN level for peat lakes so it measures TN in a way that relates to effects in Chlorophyll.</li> <li>• Peat lakes can only ever be B for P/ Chlorophyll.</li> <li>• Should we set up a process in Plan change for catchment plans for each lake?</li> </ul>	
	<b>10:30am</b>	<b>Morning tea</b>	
15.	11am	<p><b><u>BAU and 1863 scenario results – Graeme Doole (DM#3590918)</u></b></p> <p><u>1863 scenario</u></p> <p>The objective of the 1863 scenario was to try and assess what the water quality was like at that time</p> <p>Key assumptions:</p> <ul style="list-style-type: none"> <li>• Lake Taupo – no extra water from the Tongariro scheme</li> <li>• No Dams</li> <li>• Land use was very different then and there were extensive wetlands (over 100,000ha of wetlands)</li> <li>• No point-sources</li> </ul>	

	<ul style="list-style-type: none"> <li>• No mitigations</li> <li>• Low intensity land use/ economy</li> </ul> <p>They used multiple sources of information to try and model this scenario. It is difficult to understand what it was like 150 years ago and a lot of changes have occurred since then.</p> <p>Results:</p> <ul style="list-style-type: none"> <li>• The modelling showed that Chlorophyll-A was a mix between A and B.</li> <li>• The 95% <i>E.coli</i> standard is still very hard to meet. Some sites are still in the C band/ below Minimum Acceptable Standard for swimming</li> <li>• Clarity reaches an A band everywhere</li> <li>• If we look at catchments with predominantly native bush at the moment, the median <i>E.coli</i> is reaching good levels but even in the native bush catchments the 95<sup>th</sup>ile can still breach swimming standards.</li> <li>• <i>E.coli</i> is an indicator for other microbes, like campylobacter. But in native bush whilst you might have high amounts of <i>E.coli</i> this might not equate to high amounts of other microbes. The other microbes are the issue in terms of swimmability.</li> <li>• In main stem sites the 1863 scenario shows that there was an A band right to Horotiu for the Chl-A, TN and TP attributes. Below Horotiu, TN remained in the A band with Chl-A and TP dropping to a B band</li> </ul> <p>Conclusions:</p> <ul style="list-style-type: none"> <li>• 1863 wasn't A everywhere.</li> <li>• There was low-intensity land use everywhere and lots of wetlands.</li> <li>• Microbial loads still an issue (wildlife).</li> <li>• Post-1863 intensification has led to broad-scale degradation</li> </ul> <p>Q – Is it surprising that clarity was an A band everywhere?  A – Native bush is an effective mitigation of sediment. Also there was different hydrology. The amount of wetlands would contribute to filtering water. Shows the powers of wetlands</p> <p>Q – The modelling showed large areas of wetlands. Any assumptions around tannins from wetlands?  A – There is a level of uncertainty about this. No assumptions were made around yellow substance [tannins]. Would suspect that the capacity of wetland to absorb sediment would be higher than the output of tannins.</p> <p>Q – The Waikato was quite settled by 1863. However there was scrub as opposed to forest. There were also ships trading with Australia, hence some kind of economy.  A – If we can have the information then we can build it into the model. There is a lack of information on habitation at that time.  A2 – Landcare have some information on the amount of land</p>	
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that was cleared by 1840s. Could do more work on this scenario.

#### Business as usual (BAU) scenario

- Focused on a state 25 years from now
- Tried to get info from a variety of sources including expert opinion and forecasts
- Key assumptions:
  - land-use change of 10,000ha of forest-to-dairy production in Upper Waikato, in line with recent forecasts – assumes water quantity is freed up through efficiencies
  - Municipal loadings increase with population growth
  - Stream fencing adopted at 3.5% and 0.2% p.a. on dairy and drystock farms
  - Waipa Catchment Plan enacted (farm plans and stream fencing)
- Assumptions around loadings:
  - Intensification continues at current rate, within land uses
  - N loading increases at 1.3% and 0.4% p.a. for dairy and drystock farms
  - Identified a future state for Horticulture. Horticulture will stay on same area of land but intensify production
  - Erosion rates increase by 10% over next 25 years due to climate change, implications for P
  - Microbial and dissolved P loss do not change due to mitigations being put in place

#### Catchment-level profit

- BAU total profit is less than the current state (6% drop in profit)

#### Water quality:

- Chlorophyll A gets worse
- TN gets worse
- TP no change
- Nitrate at median and 95% getting worse
- Clarity only slightly worse

Key message is the under BAU there will be a continued decline in water quality

#### Region-level profit

- Value add increases
- Jobs increase
- Exports increase
- The above holds true for both for the Waikato region and for the whole of NZ

#### Conclusions:

- Water quality in Waikato and Waipa river catchments is very likely to worsen without action
- Nitrogen is particularly an issue
- Catchment level profit is likely to decline



		<ul style="list-style-type: none"> <li>• Positive impact on income, jobs and exports at regional and national scale</li> <li>• Reflects trade-off facing NZ as a whole</li> </ul> <p>Q – One of the assumptions was that municipal growth will increase contaminant discharges. In the consents it is not allowed to increase. Hence growth doesn't impact that.</p> <p>A – It was assumed that the amount of contaminants doesn't change but the costs of dealing with them increase.</p> <p>The CSG then broke into small groups to talk about what, if anything, from these scenarios would they want to talk to the community about.</p> <p><u>Group discussion summary:</u> What, of the 1863 and BAU scenario information, would you want to share with community/ sectors?</p> <ul style="list-style-type: none"> <li>• 1863 - nothing</li> <li>• High level comparison or not?</li> <li>• Just that we did a scenario</li> <li>• Requires depopulating</li> <li>• Some attributes weren't met</li> <li>• Which scenarios we did and why</li> <li>• BAU message is if we leave it later the cost gets higher.</li> </ul>	
16.	12.00pm	<p><b><u>Community engagement (refining policy) – Janet Amey and Will Collin (DM#3590922)</u></b></p> <p>CSG facilitator Helen Ritchie provided a summary of feedback on catchment-wide rules from day one.</p> <p><b><u>Property limits (policy summary)</u></b></p> <ul style="list-style-type: none"> <li>• Tending towards Option 2 (Consult on both? Or suggest Option 2?)</li> <li>• Benchmark (take average over 3 – 5 years) to know what everyone's doing</li> <li>• Who has to reduce is another discussion <ul style="list-style-type: none"> <li>○ Don't reward high emitters</li> <li>○ Those emitting less may have little room to move</li> </ul> </li> <li>• Need a system where those discharging more reduce sharper</li> </ul> <p>Could phase over time:</p> <ul style="list-style-type: none"> <li>• First years – <ul style="list-style-type: none"> <li>○ Benchmarking</li> <li>○ Establish real catchment loads</li> <li>○ Set reductions required</li> </ul> </li> <li>• Prepare the plans <ul style="list-style-type: none"> <li>○ Achieve a % reduction</li> </ul> </li> <li>• Move to a hard number over time</li> </ul> <p><b><u>Property plans</u></b></p> <ul style="list-style-type: none"> <li>• If a PA, can be paid for by general/ catchment rate, PA rate or a charge for monitoring.</li> </ul>	<p><b>Certified farm plans – volunteers required to help staff (James Houghton, James Bailey and George Moss)</b></p>

		<ul style="list-style-type: none"> <li>• Industry support – limited capacity in drystock industry bodies – would need team approach – who pays?</li> <li>• Quantify reductions and aggregate to sub-catchment level to know it's enough <b>BUT</b></li> <li>• Must be audited/ quality assured.</li> <li>• Could be less onerous than consenting.</li> <li>• Consult on: <ul style="list-style-type: none"> <li>○ What would it take to provide community assurance (if we go down PA track)?</li> </ul> </li> </ul> <p><b>Rules vs Plans</b></p> <ul style="list-style-type: none"> <li>• If you can meet same outcome in a different way, ok (by consent)</li> <li>• Consult on: <ul style="list-style-type: none"> <li>○ Can do this in a different way, or:</li> <li>○ Need some rules (community expectation)</li> </ul> </li> <li>• Concern if diluted too much by farm plan</li> <li>• Where a rule can be applied everywhere, it can be a catchment-wide rule (CWR)</li> </ul> <p><b>Catchment-wide rules</b></p> <p><b>CWR: Stock exclusion</b></p> <ul style="list-style-type: none"> <li>• Non-complying, (not prohibited). Includes pigs, horses, goats? Consult on stock types?</li> <li>• Consult on: <ul style="list-style-type: none"> <li>○ Catchment-wide for 'Accord' streams/ WRP wetlands and Farm plans for other streams and wetlands. <b>OR</b></li> <li>○ All perennial waterways <b>OR</b></li> <li>○ "Excluding places identified in a certified farm plan"</li> </ul> </li> </ul> <p><b>CWR: Intensification</b></p> <ul style="list-style-type: none"> <li>• Catchment-wide</li> <li>• Consult on: <ul style="list-style-type: none"> <li>○ Change in activity from benchmark above a trigger threshold. What threshold?</li> </ul> </li> <li>• Seek consent – show what mitigations you can put in place to address</li> <li>• Raises allocation issue</li> </ul> <p><b>CWR: Setbacks</b></p> <ul style="list-style-type: none"> <li>• Doesn't apply to drains. Or sheep. Edge of field mitigation activity and stock crossings allowed.</li> <li>• Consult on: <ul style="list-style-type: none"> <li>○ 5m for all activity – grazing, cropping, forestry, <b>OR</b></li> <li>○ 5m for high risk activity e.g. cultivation / (10 or) 5 m for bigger waterways +2m for grazing smaller waterways, <b>OR</b></li> <li>○ Deal with via farm plan.</li> </ul> </li> <li>• For three previous bullet points above – is there any distinction for FMU's?</li> </ul>	
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		<p><u>CWR: Low intensity</u></p> <ul style="list-style-type: none"> <li>• CWR still apply</li> <li>• Consult on: <ul style="list-style-type: none"> <li>○ Block size/ threshold?</li> </ul> </li> </ul> <p><u>CWR: Accelerated erosion</u></p> <ul style="list-style-type: none"> <li>• Agreement on harvest/ sediment control plans</li> <li>• Consult on: <ul style="list-style-type: none"> <li>○ Permitted with conditions?</li> </ul> </li> <li>• As part of Property plan for grazing</li> </ul> <p><u>CWR: Effluent</u></p> <ul style="list-style-type: none"> <li>• Remain discretionary (some ponds)</li> </ul> <p><u>CWR: Drains</u></p> <ul style="list-style-type: none"> <li>• Consult on: <ul style="list-style-type: none"> <li>○ Condition they must have a sediment trap?</li> </ul> </li> </ul> <p><b><u>Key question for community engagement planning:</u></b></p> <p><u>What would you consult on?</u></p> <p>Property plan approach</p> <ul style="list-style-type: none"> <li>• Definitive message on our preferred pathway on property limits (while indicating transition to other option)</li> <li>• How would you feel about us progressing down that pathway?</li> <li>• What are the implications you can see?</li> <li>• Need to be clear we're not assuming grandparenting by default i.e. benchmarking for accounting, not for allocation.</li> <li>• What would it take to provide assurance that a property plan is appropriate and actioned?</li> <li>• Property plans 'will have an NMP – Nutrient Management Plan' (include ways to address all 4 contaminants)</li> <li>• We are considering all farms should have a property plan – by when should these be in place?</li> <li>• Property plan – allows flexibility/ innovation but still some non-negotiables.</li> </ul> <p>CWR</p> <ul style="list-style-type: none"> <li>• We think there should be some CWR as bottom lines.</li> <li>• Give what we have. What do you think?</li> <li>• Specifics on stock exclusion/setbacks</li> <li>• Ask about intensification (this represents a big step change) – raise awareness and ask for feedback.</li> </ul>	
	1:00pm	<b>Lunch</b>	
17.	1:45pm	<b>Community engagement – details of plan</b>	<b>Property</b>

		<p>Continued on from previous session.</p> <p><u>What Property Plans would contain:</u> Template</p> <ol style="list-style-type: none"> <li>1. Base info in all templates <ol style="list-style-type: none"> <li>a. Map</li> <li>b. Overseer</li> <li>c. Soil LUC</li> <li>d. Split farm into manageable blocks</li> <li>e. Actions</li> <li>f. Timeframes for each</li> <li>g. How it links to achieve sub-catchment limits</li> </ol> </li> <li>2. What mitigations might be in one? <ol style="list-style-type: none"> <li>a. Covers all 4 contaminants</li> <li>b. Examples, wetlands, silt trap, stock management per block</li> <li>c. Nutrient management</li> <li>d. Changing/ appropriate land use per block</li> <li>e. If forestry, a harvest plan</li> <li>f. If cultivating, an earthworks/ sediment plan</li> </ol> </li> <li>3. Assurances to public? <ol style="list-style-type: none"> <li>a. Is the plan good enough – certified person</li> <li>b. Permitted activity</li> <li>c. Audited actions</li> <li>d. Are people doing what they said they would?</li> </ol> </li> </ol> <p>Our package:</p> <ul style="list-style-type: none"> <li>• Bottom line C.W.R plus + intensification rule (moratorium)</li> <li>• Deal with complexity via property/ farm plans – P.A.</li> <li>• Property plans and CWR start us down a track of reduction</li> <li>• AND we benchmark, for accounting, use this to set catchment and then property reductions.</li> <li>• AND move to a property level number over time (aggregated to ensure enough reduction in each sub-catchment)</li> <li>• NOTE: still need to discuss and decide allocation of responsibility to reduce and any allowance for intensifying.</li> </ul> <p>Questions:</p> <ul style="list-style-type: none"> <li>• What do you think of this pathway – what implications can you see?</li> <li>• By when should everyone have a plan?</li> <li>• What would it take to provide assurance that a property plan is appropriate and actioned?</li> <li>• What do you think of these CWR?</li> <li>• Specifics on stock exclusion</li> <li>• Specifics on setbacks</li> <li>• Plus a question on intensification rule: 10% over benchmarked Overseer number for N in a year.</li> </ul>	<p><b>plans, Third party auditing – Trish requests verification – WRC (Justine Young)</b></p>
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		<p>Lakes – one slide</p> <ul style="list-style-type: none"> <li>• Separate FMU</li> <li>• More complex</li> <li>• Work in progress</li> <li>• The other changes will contribute to 4 contaminants</li> <li>• WRRP</li> <li>• Lakes strategy</li> <li>• We can make recommendations about other issues</li> <li>• Likely to require lake- by- lake approach</li> <li>• Have to adopt NOF bands (particularly hard to achieve for peat lakes)</li> <li>• No decline and get them as good as they can be</li> <li>• Should these be a priority for Property plans?</li> </ul> <p>Policy Selection Criteria: Discussion on where the group are up to regarding policy selection criteria on allocation. The CSG has a one-page summary of what we have been working with so far. The CSG will re-visit this more in December/January once there is more information on loads. Further discussions on benchmarking. In February the CSG will talk to sectors again.</p> <p><u>Community engagement detail:</u> Will Collin and Janet Amey</p> <p><u>Feedback form:</u></p> <ul style="list-style-type: none"> <li>• Subgroup – Monday 19 Oct – 11am – 1pm for Community</li> <li>• Questions on forms:</li> <li>• One each for online survey and Open Stakeholder Workshop.</li> <li>• The CSG were then asked to give feedback and also what info would participants need in order to answer these questions.</li> </ul> <p>Discussion on the community workshop logistics and what CSG members will need to do. Volunteers were called for and identified for each part of the presentation.</p>	
18.	3:00pm	<p><b><u>HRWO Co-Chair and Project Sponsor update</u></b></p> <p><b>No update</b></p>	
19.	3:15pm	<p><b><u>Wrap up session:</u></b></p> <p>1) <b><u>Redrafted numerical objectives with limits and targets from last workshop Emma Reed (DM# 3572646)</u></b></p> <p>Emma redrafted slide from yesterday's feedback and presented this back to the CSG.</p> <p><b>Recommendation:</b></p> <p>1. <b>That the report [Re-crafted: Steps to achieve the Vision and Strategy over time] (Doc #3572646 dated 9 October 2015)</b></p>	

		<p>be received, and</p> <p>2. That the Collaborative Stakeholder Group confirm</p> <ol style="list-style-type: none"> <li>a. That Text box 1, containing a water quality outcome statement and a staged approach over time, summarises the CSG feedback from CSG17, and</li> </ol> <p>That CSG use the content of Text Box 1, including any refinements made by CSG, during the consultation period 27<sup>th</sup> October 2015 to 13<sup>th</sup> November 2015.</p> <p>Dave Campbell/James Houghton Carried</p> <p>2) <u>CSG Subgroup: Managing nitrogen and phosphorus at a property level (DM# 3574906)</u></p> <p>Recommendation:</p> <ol style="list-style-type: none"> <li>1. That the report [CSG subgroup: Managing nitrogen and phosphorus at a property-level] (Doc #3574906 dated 9 October 2015) be received, and</li> <li>2. That the CSG confirm that the CSG sub-group which met on 7 October 2015 (representatives for dairy, drystock, rural professionals, Māori interests, rural advocacy) have satisfactorily identified: <ol style="list-style-type: none"> <li>b. options for using the OVERSEER® (Overseer) model for managing nitrogen and phosphorus at a property-level, and</li> <li>c. Further information needed from the Technical Leaders Group, in order to set the CSG up for discussions in November and December on allocating responsibility for reducing nitrogen and phosphorus in a staged approach to achieving the Vision and Strategy.</li> </ol> </li> <li>3. That the CSG nutrient limit and Overseer sub-group meets again (open to other interested CSG members, with a pencilled in date of 23 October) after October 13<sup>th</sup>-14<sup>th</sup> when the catchment loads are known, to: <ol style="list-style-type: none"> <li>a. further consider options for allocating responsibility for managing nitrogen and phosphorus at a property level, and</li> <li>b. report back to the CSG at their 23-24<sup>th</sup> November meeting.</li> </ol> </li> </ol> <p>George Moss/ James Houghton Carried</p> <p>3) Policy options – CSG decisions needed to meet proposed amended timeline (DM#3572653)</p>	
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		<p>Discussion points:</p> <ul style="list-style-type: none"> <li>• Engagement period coming up</li> <li>• End November/ hear feedback, receive interim report</li> <li>• Need to consider round 3 scenarios – more things like running a simulation if everyone fenced xyz, what would happen, if everybody put in a farm plan, what would happen (could identify in November and get back December or January.) Could identify these once feedback from community is received.</li> <li>• Implications of creating headroom – Phil Journeaux</li> <li>• HRWO Committee - talk about aspirations for headroom?</li> <li>• Point source report not available for energy sector to talk to – void of info.</li> <li>• Sector meetings to work in with other engagement.</li> </ul>	
20.	3.55pm	<b><u>Chairperson closing reflections</u></b>	
	4pm	<b>Meeting closed by Helen Ritchie at 3.15pm. Afternoon tea and depart.</b>	

**Table of documents received by the CSG at CSG18:**

Document name	DM Reference #
CSG18 Agenda pack	3575620
Helen Ritchie: Summary of allocation ideas (working list from CSG14) and Scenarios based on practices or policies – from CSG15	3611964/ 3611962
Point source discharge report	3574169
Policy presentation (with pictures) orientation and timeline and overseer sub-group report	3577947
Lakes presentation - Mike Scarsbrook	3590917
1863 and BAU presentation - Graeme Doole	3590918
Lakes report (new version) – Mike Scarsbrook	3580294
Dairy sector feedback – George Moss	3590919
Explanatory note to accompany load data	3591445
Community engagement presentation	3590922

## Actions List – CSG18

	Action	From	Person / people responsible	Due date	Done ?
1	Subcatchment loads info: <ul style="list-style-type: none"> <li>○ With the things that Bryce said: kgs out of each catchment, kgs/ha out of each catchment, kgs needing to be removed, kgs/ha needing to be removed, kg/ha of productive land</li> <li>○ Ready by Wed 21 Oct with a cover report</li> <li>○ CSG have the ability to use it in the engagement</li> <li>○ Cover report contains an explanation of quantum of change</li> <li>○ Should include 10% and 25% loads in the spreadsheet</li> <li>○ Big maps for scenario 1 load numbers for the engagement period</li> <li>○ CSG questions and answers can happen at the learnings session on 21 Oct</li> <li>○ Numbers of load to come – values and percentage</li> </ul>	CSG	Vicki		Done
<b>Outcome</b>					
2	The question on how much P is lost from forestry needs to come back to the group	Trish F	Vicki		TLG has done
<b>Outcome</b>					
3	Get commissioner report on Waikare from Dave C and put on portal	Bill W	Janine		
<b>Outcome</b>					
4	Still need to get info on number of farms by farm type by area	Phil J	Vicki		
<b>Outcome</b>					