



## Collaborative Stakeholder Group (“CSG”) Workshop 14 Notes

(Day one) 10 August 2015, Don Rowlands Centre, Lake Karapiro,  
9.30am – 6.30pm

### Attendees:

CSG: George Moss (Dairy), Gwyneth Verkerk (Community), James Bailey (Sheep and Beef), Phil Journeaux (Rural Professionals), Ruth Bartlett (Industry), Stephen Colson (Energy), James Houghton (Rural Advocacy), Sally Davis (Local Government), Jason Sebastian (Community), Sally Millar (Delegate for Rural Advocacy), Garry Maskill (Water supply takes), Michelle Archer - part (Env/NGO’s), Weo Maag (Māori Interests), Charlotte Rutherford (Delegate – Dairy), Garth Wilcox (Horticulture - Delegate), Alamoti Te Pou (Māori Interests), Evelyn Forrest (Community), Gayle Leaf (Community), Gina Rangi (Maori Interests), Brian Hanna – part (Community), Liz Stolwyk (Community), Dave Campbell (Delegate for ENV/NGO), Rick Pridmore (Dairy), Alastair Calder (Tourism and Recreation), Elizabeth Aveyard (Delegate – Industry), Graeme Gleeson – part (Delegate - Sheep and Beef)

Other: Bill Wasley (Independent Chair), Helen Ritchie (Facilitator), Stu Kneebone (HRWO Deputy Co-chair), Alan Livingston (HRWO Co-Chair), Kataraina Hodge (HRWO Co-chair), Maria Nepia – part (HRWO Deputy Co-chair), Simon Bendall – part (Tuwharetoa), Grant Kettle (Raukawa), Jo Bromley (WRC), Billy Brough (River Iwi Co-ordinator), Janine Hayward (WRC), Jackie Fitchman (WRC), Jenni Somerville (WRC), Janet Amey (WRC), Bruce McAuliffe, Tony Quickfall (WRC), Jonathan Cowie (WRC), Jacqueline Henry (WRC), Poto Davies (Maniapoto)

TLG: Dr Bryce Cooper (Chair), John Quinn - part

Other staff (part): Vicki Carruthers (WRC), Emma Reed (WRC), Ruth Lourey (WRC), Justine Young (WRC)

### Apologies:

CSG: Matt Makgill (Community), Alan Fleming (Env/NGO), Patricia Fordyce (Forestry), Chris Keenan (Horticulture)

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

2.	9.35am	<p><b><u>Intro to CSG14 process</u></b></p> <p>Outline of the two day workshop.</p>	
3.	9.40am	<p><b><u>Approvals and Updates session</u></b></p> <p>1. <u>Confirm CSG13 workshop notes (DM# 3439320)</u></p> <ul style="list-style-type: none"> <li>• Noted at the last CSG workshop, the CSG received a Groundwater presentation that included a three page summary handout.</li> <li>• Suggested that going forward, any such summary handouts provided during the workshop as a part of receiving a final report should also be attached to the workshop notes (subject to agreement from TLG), so as to provide greater context to CSG discussion around the matter and avoid any misunderstanding of technical information.</li> <li>• Add paragraph to workshop notes regarding presentation by David Payne: “David Payne stated that “Recently ENVCO were commissioned to undertake flow velocity measurements for the calibration of our Forecast Inflow model for the WHS (Taupo to Karapiro). Based on the velocity measurements attained the travel time worked out to be 9 to 11 days for water to pass through the hydro system which differs from the modelled residence time of 30 days. It was noted that only two or three velocity measurements were taken at each dam so further measurements may be required to verify the difference in travel time between actual measured and modelled velocities”.</li> <li>• Amend attendees for Day one – Don Scarlet and Gina Rangī to be included in list of attendees. No comments on day two minutes.</li> </ul> <p><b>Resolution</b>  <b>The workshop notes were confirmed by the CSG, subject to the above amendments.</b></p> <p><b>George Moss/Ruth Bartlett</b>  <b>Carried</b></p> <p>2. <u>Summary of Technical reports (DM#3344942)</u></p> <ul style="list-style-type: none"> <li>• N, P, algae reports have been reviewed and approved by the TLG and will be uploaded to the portal by the end of this week. Two more studies are in final stage of peer review and will be uploaded in due course (bioassay and monitoring).</li> <li>• CSG are advised to read the reports in the correct</li> </ul>	<p><b>Amend CSG13 workshop notes – Janine H</b></p>

		<p>sequence as the reports are a story in time (TLG summary first then into specific reports for more detailed information).</p> <ul style="list-style-type: none"> <li>The updated point source discharge data has now been fed into the model</li> </ul> <p><b>Resolution</b>  <b>That once the TLG have approved the reports to go on the portal, the process for the nutrient reports becoming publicly available will be a decision for the CSG.</b></p> <p><b>Sally Davis/Gwyneth Verkerk</b>  <b>Carried</b></p> <p>3. <u>TLG recommendation on the use of dissolved oxygen (DM#3471897)</u></p> <ul style="list-style-type: none"> <li>The CSG considered a paper from the TLG which was in response to a previous request from CSG. The TLG made a recommendation that Dissolved Oxygen (DO) not be used as an Attribute</li> </ul> <p><b>Resolution</b>  <b>That DO be excluded as an Attribute.</b></p> <p><b>George Moss/Ruth Bartlett</b>  <b>Carried</b></p> <p>4. <u>TLG recommendation on Lakes FMU (DM#3465537)</u></p> <ul style="list-style-type: none"> <li>TLG recommend focussing on options 3 and 4. From a technical perspective it would be good to have a lot of data on all lakes; however not all lakes are monitored so this is an expert view based on what data is available.</li> <li>It is the intention that the catchment of the lake should be included as a part of the Lake FMU</li> <li>Discussion on whether it is easier to have one FMU that include all lakes or whether it is better for the outputs of the project to separate the lakes into different types such as peat, dune, riverine.</li> <li>From a management perspective you would likely manage by types anyway.</li> <li>Monitoring may depend on what band the lake is rated as. The council currently only monitors 13 so not practical to test against a range of attributes on all different lakes.</li> <li>Would have to adjust the application of attributes for the different types of lakes, for example wouldn't be trying to get an A grade for clarity on</li> </ul>	
--	--	---	--

		<p>a peat lake.</p> <ul style="list-style-type: none"> <li>• Noted potential issue of public perception and whether public will understand different grades particularly applied to a local lake (e.g. why is my lake only aiming for a C clarity?)</li> <li>• Will have to manage perceptions over time and inform people about realistic expectations.</li> <li>• Are we setting A, B, C, D bands across all lakes or for each type?</li> <li>• Similar to the rivers, some lakes will have more excellent (i.e. A) quality and some will never reach it</li> <li>• If we only monitor a few lakes, but apply same management, can we assume others of that type will show similar trends?</li> <li>• Mostly the management techniques will be similar</li> <li>• Can we cluster and TLG give us an idea on possible and states? <ul style="list-style-type: none"> <li>○ E.g. set an average for peat lakes, but manage different peat lakes – some to be at greater than or higher than average (cluster them to manage public expectation)</li> </ul> </li> <li>• CSG want TLG to do more work to develop attributes for lakes and see if one set of A, B, C, D will work across lake types or if we need four sets of A, B, C, D (may vary across attributes e.g. clarity may vary more than others) And bearing in mind what the natural clarity levels would be e.g. can peat lakes achieve our current 'C'? Due to natural conditions may need exemptions.</li> <li>• Start by telling us what the reasonable expectation of end state would be. noting the attributes won't change, only the bands might vary.</li> </ul> <p><b>Resolution</b>  <b>The CSG approved Option 4 - clustering on lake type with approach and regime outlined (average attributes on type).</b></p> <p><b>Sally Davis/Michelle Archer</b>  <b>Carried</b></p> <p>5. <u>Healthy Rivers Wai Ora and the Coastal Marine Area (DM#3462866)</u></p> <ul style="list-style-type: none"> <li>• The portion of the Waikato River that falls within the jurisdiction of the Regional Coastal Plan will be addressed as part of the full regional and coastal plan reviews.</li> <li>• Noted dune lakes are outside the Coastal Marine Area</li> </ul>	
--	--	---	--

		<p><b>CSG received the Healthy Rivers Wai Ora and the Coastal Marine Area (DM#3462866) report.</b></p> <p><b>Stephen Colson/Ruth Bartlett</b> <b>Carried</b></p> <p>6. <u>Process of reports being made public</u></p> <ul style="list-style-type: none"> <li>This is an ongoing process that the Chair is working on with WRC staff on behalf of the CSG.</li> </ul> <p>7. <u>New delegate for Industry Sector</u></p> <ul style="list-style-type: none"> <li>New Industry delegate introduced to the CSG, Elizabeth Aveyard.</li> </ul> <p>8. <u>Email from Environmental/NGO representative noted</u></p> <ul style="list-style-type: none"> <li>Michelle Archer noted that Al Fleming has sent an email regarding a matter raised at CSG13 (Taupo workshop), on deciding between 3 and 4 metres clarity for the threshold between A and B bands. Al noted that while he didn't speak against the 3 metres at the time, he would like to include his opposition in the minutes retrospectively.</li> <li>As the matter wasn't raised prior to the minutes being approved, the minutes can't be altered. This will however be noted in today's CSG workshop notes.</li> </ul>	
	<b>10.45am</b>	<b>Morning tea</b>	
4.	11.25pm	<p><b><u>Mātauranga Māori (DM#3466137) Antoine Coffin</u></b></p> <ul style="list-style-type: none"> <li>Antoine Coffin (TLG) noted that the Mātauranga Māori report presented today is from the most recent draft and it is nearing completion.</li> <li>Looking at more than just attributes and taking a blank sheet approach, using the current literature out of WRISS report and iwi management plans now available.</li> <li>One of the challenges in the project is to limit the focus to the four contaminants.</li> <li>The Mātauranga Māori report articulates: relationships and inter-dependencies, and factors affecting three key subject areas: swimming in rivers, the taking of mahinga kai species and special characteristics of the Waikato and Waipa rivers from a River Iwi perspective.</li> <li>Based on literature review, series of hui and a Mātauranga Māori workshop</li> <li>Identifies gaps in information</li> </ul> <p>Holistic River quality perspectives:</p> <ul style="list-style-type: none"> <li>River Iwi see the river, stream or lake as an entity in itself that includes the land, the water, the rocks, the air, the living plants and animals, and the spiritual dimension of place.</li> <li>There is a sub-set of water qualities.</li> </ul>	

		<p>Importance of swimming:</p> <ul style="list-style-type: none"> <li>• Swimming enables people to become knowledgeable in areas of the awa and moana (wāhi tapu, rāhui);</li> <li>• Knowledge of kaitiaki, taniwha and tikanga related to awa and moana;</li> <li>• Kaukau [is] important for whanau and visitors (tourism);</li> <li>• Cleansing for hauora/healing;</li> <li>• Whanaungatanga;</li> <li>• Play/recreation;</li> <li>• 'Ko au te awa, ko te awa ko au' ( I am the river, the river is me); and</li> <li>• Improves health and well-being.</li> </ul> <p>Mahinga kai – hauanga kai:</p> <ul style="list-style-type: none"> <li>• The activity of and the place of harvesting, collection, hunting and gathering of food resources</li> <li>• <i>Hauanga kai</i> is the term used by Waikato-Tainui and refers to customary and contemporary gathering and use of naturally occurring and cultivated foods</li> </ul> <p>Special characteristics – nga tohu:</p> <ul style="list-style-type: none"> <li>• The past, the present and the future context</li> <li>• Mauri, wairua and inherent mana of the water and its ecosystems in their natural state</li> <li>• Smell, colour, feel; clarity, flow; flora and fauna; wai tapu; access; use of customary resources; special characteristics; physical change; abundance; and mana.</li> </ul> <p>Values associated with special characteristics:</p> <ul style="list-style-type: none"> <li>• The <b>look</b> of the river and its surrounds (physical and natural character);</li> <li>• The <b>sound</b> of the water;</li> <li>• The <b>touch</b> of the water (temperature);</li> <li>• The <b>smell</b>;</li> <li>• The <b>taste</b> of kai from the river; and</li> <li>• The <b>wairua</b> of the place.</li> </ul> <p>Factors affecting special characteristics</p> <ul style="list-style-type: none"> <li>• The ability to physically access rivers, streams and lakes</li> <li>• The abundance of kai,</li> <li>• Physical barriers to fish migration</li> <li>• The quality of the habitat to sustain life</li> <li>• The presence of pest plants and fish</li> <li>• The presence of '<i>te paru i te wai</i>' (dirty water)</li> <li>• The use of water for economic, social and cultural well-being</li> <li>• The flow of water</li> </ul>	
--	--	--	--

		<ul style="list-style-type: none"> <li>• Physical modifications</li> <li>• The traditions, history; knowledge and experiences of River Iwi</li> <li>• The presence of, and use of wai tapu</li> <li>• The knowledge and protection of wāhi tapu and wāhi tupuna</li> <li>• The safety of places to swim, and</li> <li>• Modification of river course.</li> </ul> <p>Key factors including water quality</p> <ul style="list-style-type: none"> <li>• The traditions, history, knowledge and experiences of River Iwi</li> <li>• The presence of ‘<i>te paru i te wai</i>’ (dirty water) -</li> <li>• The flow of water (speed and quantity)</li> <li>• The <b>sound</b> of the water;</li> <li>• The <b>touch</b> of the water (temperature);</li> <li>• The <b>smell</b>;</li> <li>• The <b>taste</b> of kai from the river; and</li> <li>• The <b>wairua</b> of the place.</li> </ul> <p>Key gaps in Matauranga Maori:</p> <ul style="list-style-type: none"> <li>• The location of all swimming places,</li> <li>• The identified and recorded location of wai tapu and wāhi tapu, and</li> <li>• Specific measures and limits for mātauranga Māori or cultural attributes and supporting data</li> <li>• ‘A model’ for measuring and monitoring mātauranga Māori attributes as a cohesive and holistic framework</li> <li>• Values related to a range of lakes</li> </ul> <p>Discussion points:</p> <ul style="list-style-type: none"> <li>• A lot of work has been done at a national level.</li> <li>• Paru i te wai – dirty water – translated as clarity. Clarity is part of that but not the only thing.</li> <li>• Treading cautiously – there is a lot of data to be drawn. The process will pull from the model the bits that it needs.</li> <li>• Lakes are an area where there is not a lot of literature.</li> </ul> <p><u>Integrated Assessment Framework – Antoine Coffin (DM#3466137)</u></p> <p>The Integrated Assessment (IA) Framework will look at what the wider implications of the work that CSG are doing. The process is now into the detail, looking at the attributes that can be used.</p> <p>The CSG sub group met with the expert panel on 29 July 2015.</p> <p>The panel aims to develop:</p> <ul style="list-style-type: none"> <li>• a list of indicators within the IA framework.</li> <li>• a matrix of the relationship between the</li> </ul>	
--	--	--	--

		<ul style="list-style-type: none"> <li>• four contaminants and the IA indicators</li> <li>• a matrix of the scenarios against impact on the IA indicators (using output from the models and other information)</li> <li>• a matrix of policy interventions against impact of IA indicators.</li> </ul> <p>The indicators that have been tabled so far are not the confirmed list. Some may still be removed as might not have a relationship or unable to measure them. It is up to CSG to decide.</p> <p>Maori cultural:</p> <ol style="list-style-type: none"> <li>1. Kaukau (Swimming): <ul style="list-style-type: none"> <li>• Te Rere - flows</li> <li>• Riparian Margin</li> <li>• Access</li> </ul> </li> <li>2. Mahinga Kai <ul style="list-style-type: none"> <li>• Edible mahinga kai - E.coli</li> <li>• Access</li> </ul> </li> <li>3. Special Characteristics <ul style="list-style-type: none"> <li>• Physical Access</li> <li>• Habitat</li> <li>• Wai Tapu</li> </ul> </li> </ol> <p>Environmental</p> <ol style="list-style-type: none"> <li>1. Ecosystem health <ul style="list-style-type: none"> <li>• MCI (in the tributaries)</li> <li>• Native Fish</li> <li>• Exotic Macrophytes</li> </ul> </li> </ol> <p>Social/community</p> <ol style="list-style-type: none"> <li>1. Employment with an emphasis on type, variety and diversity of jobs (including the opportunities from tourism)</li> <li>2. Infrastructure (which only covers energy, water and waste; taking consideration of investment decisions that will be made by industry (risk, confidence)</li> <li>3. Recreational use of the river (including access and safety)</li> </ol> <p>Economic</p> <ol style="list-style-type: none"> <li>1. Waikato contribution to national exports</li> <li>2. Regional GDP</li> <li>3. FTE by Sector</li> </ol> <p>Next steps - There will be further work to:</p> <ul style="list-style-type: none"> <li>• articulate indicators better</li> <li>• investigate state of data sources</li> <li>• look at how much work to set a baseline</li> <li>• consider sensitivities of data</li> <li>• shortlist indicators and then test scenarios.</li> </ul>	
--	--	--	--

**How did the Expert Panel get to this point from where CSG got to at their last session on this (as noted in agenda pack page 29/30)?**

Feedback from CSG sub group:

- The social/community indicators are similar/not changed.

Discussion on Environmental:

- Riparian state – was dropped discussed km's of streams fenced and planted. Harder in steeper hill country. CSG still feel this is important; Make sure it's appropriate.
- Biodiversity - took out terrestrial - as the focus is on water. It has been left there as native fish.
- Macrophytes – positive and negative effects. There is a 'clogginess' metric for streams  
Other habitat assessment currently used are Regional Ecological Monitoring of Streams (REMS) - includes MCI. And Lake SPI
- What happened to wetlands? Wasn't discussed. CSG members spoke in favour of this as an indicator.

Discussion on Economic:

What CSG had:

- Employment – total value (no of jobs x income)
- Profitability of land use
- Regional GDP

Changes:

- Waikato contribution to national exports
- Regional GDP
- FTE by sector

Discussion points:

- Limit to mahinga kai in Upper river. Not much left due to energy sector gates. Watercress only. Items have cumulated effect i.e. fisheries numbers. Interviews were conducted recently by a CSG members community. It was noted that kai wasn't eaten from the main stem anymore. More so in tributaries as it is much healthier. Activities on river have changed also. There is less fishing and more speed boats. Food gathering has been pushed back into the tributaries more. Not so public – there is limited access.
- Tourism industry stand to benefit from better water quality – can see linkages. Main item is

		<p>access.</p> <ul style="list-style-type: none"> <li>• Energy sector considering 1863 vision – problematic for their sector. <b>Looking for guidance on this issue from iwi.</b> There are long term life of structures that are on the river. How to continue conversations? Acknowledge the past. These structures are not on the whole of river – just a section.</li> <li>• Design of riparian margin can still provide access.</li> <li>• <b>Clarification of ‘wai tapu’ as this and other terms get used differently between different iwi – not clear and needs further clarification.</b> For this it’s to describe the source of water – groundwater springs and headwaters. Qualities/presence of water. Is the meaning of wai tapu diluted? Life source. It was noted that further detail is in the report.</li> <li>• <b>Clarification on mahinga kai and habitat requested.</b></li> </ul> <p><b><u>Summary points for Integrated Assessment:</u></b></p> <p><b><u>Matauranga Maori/Cultural</u></b></p> <ol style="list-style-type: none"> <li>1. Access critical but not so relevant to our scope</li> <li>2. Wai tapu – headwater and springs (presence and quality)</li> <li>3. Further conversation needed with interested CSG members.</li> </ol> <p><b><u>Environmental options (three items to focus on)</u></b></p> <ol style="list-style-type: none"> <li>1. REMS (MCI, habitat, ‘clogginess’ (macrophytes), streams habitat)</li> <li>2. Riparian</li> <li>3. Wetland</li> </ol> <p><b><u>Economic (three items to focus on)</u></b></p> <ol style="list-style-type: none"> <li>1. Regional GDP and sector breakdown</li> <li>2. Waikato contribution to exports</li> <li>3. Total value of employment</li> </ol>	
5.	12.45pm	<p><b><u>Vision and Strategy (DM#3477259 Presentation) Grant Kettle</u></b></p> <p>The following people were introduced:</p> <ul style="list-style-type: none"> <li>• Kataraina Hodge (new HRWO Co- Chair)</li> <li>• Maria Nepia (new HRWO Deputy Co-Chair)</li> <li>• Poto Davies (Maniapoto Māori Trust Board)</li> <li>• Grant Kettle (Raukawa Charitable Trust)</li> <li>• Simon Bendall (Tūwharetoa Māori Trust Board).</li> </ul> <p>Grant Kettle provided an overview of the report ‘Outcome statement and principles for implementing Te Ture Whaimana – the Vision and strategy for the Waikato and</p>	<p><b>Set up a CSG sub group to discuss the River iwi principals paper (include Ruth B, Trish F, Stephen C, Sally M) with Grant Kettle and Billy Brough.</b></p>

		<p>Waipa Rivers – July 2015’ tabled at the workshop (DM#3483800)</p> <ul style="list-style-type: none"> <li>• Focus on providing support and guidance for CSG, irrespective of this project or not, this piece of work is very important. Need to know where we are trying to get to and what success would look like.</li> <li>• Process involved discussions with iwi governors, not only with committee but also with governors on respective iwi boards. Boards made some amendments, then went through process of approval. Now all approved</li> <li>• What does success look like, irrespective of this plan change process?</li> <li>• Caveats – some river iwi may have slightly different views on some points. Come together for this process.</li> </ul> <p><u>Outcome statement:</u></p> <ul style="list-style-type: none"> <li>• The Waikato and Waipā Rivers must be restored so that they are safe to swim in and take food from over their entire length and, protected from further degradation — it is not enough to simply halt the decline in water quality; water quality must improve everywhere—.</li> <li>• Fundamental in working toward achieving Te Ture Whaimana</li> <li>• Principles are not hierarchical</li> <li>• River iwi - criteria/touchstones for decision making</li> </ul> <p><u>Nine Principles underpin the Outcomes statement:</u></p> <ul style="list-style-type: none"> <li>• The special relationship between River iwi and the Waikato and Waipā River is paramount;</li> <li>• Existing over-allocation is to be phased out; no new over-allocation above water quality limits is created;</li> <li>• A precautionary approach to setting limits and addressing water quality problems must be adopted;</li> <li>• Recognition and avoidance of cumulative effects;</li> <li>• Averaging of water quality within or between FMU is not acceptable</li> <li>• Restoring water quality is likely to be intergenerational; long timeframes are not an excuse for delay;</li> <li>• Operating in an integrated manner across catchments;</li> <li>• Recognise the potential of landowners to develop land within the water quality limits</li> </ul>	
--	--	---	--

		<p>and, incentivise voluntarily changes to fit within water quality limits; and</p> <ul style="list-style-type: none"> <li>• Avoid creating inequitable outcomes between landowners through the allocation of rights to discharge contaminants.</li> </ul> <p>Discussion points:</p> <ul style="list-style-type: none"> <li>• Tensions between last two bullet points. River comes first and River iwi don't have the answers – we want to limit as much as possible. No such thing as an equitable allocation.</li> <li>• Q: What will the process look like when drafting plan change? A: A key item will be the PSC, although there will be some trade-offs. Need to look at if we are we achieving the overall outcome. From a Governance perspective, it's important to have touch stones along the way to know that we are on track.</li> <li>• Q: Have Trust blocks been consulted with these values? A: No they haven't been consulted. Governors are mindful that these entities need to be flourishing and successful and have the ability to do what they want on their block. River iwi will engage with their land blocks going forward. Need to lead by example. Iwi have to make these changes but also need to be realistic. (Have to answer to shareholders).</li> <li>• Q: How do you think your principles affect undeveloped land? Will there be diversity? A: River iwi want to look after the land – but also conscious of examples of CNI with diversity. Where is that balance?</li> <li>• Q: With regard to allocation (quantity) has there been any consideration given to the potential for trading/markets –freeing up the efficiencies (economic)? A: Too early for this – requires more discussion.</li> <li>• Q: Averaging – in context of NPS, people talk about overs and unders and making up water quality in one place and not in others. Are you saying FMU's must be treated similarly? A: Everything is better, nothing gets worse. Want to avoid unintended consequences also.</li> <li>• Q: Explanation required for providing for the development of Maori potential land and undeveloped land. A: Potential – inequitable outcomes. Plan change and other legislation that hinder the development of Maori land.</li> <li>• Oxymoron – everything must get better etc but also allow development). The two don't go together. It is not only Maori asking for this. How do you allocate? Some developments aren't good for economic or environmental perspective.</li> </ul>	
--	--	---	--

		<p>The CSG Chair acknowledged the River iwi presentation for providing guidance and assistance to CSG.</p> <p><b><u>Resolution</u></b></p> <ol style="list-style-type: none"> <li><b>1. That the report “Waikato River Authority – Position on Resource Limits” (DM#3466074 dated 30 July 2015) be received for information.</b></li> <li><b>2. That the report “Outcome statement and principles for implementing Te Ture Whaimana – the Vision and strategy for the Waikato and Waipa Rivers – July 2015” (River iwi) DM#3483800) be received for information.</b></li> </ol> <p><b>Rick Pridmore/Michelle Archer</b>  <b>Carried</b> (Weo Maag – abstained from vote due to his role on WRA).</p>	
	<b>1.15pm</b>	<b>Lunch</b>	
6.	1.45pm	<p><b><u>Modelling outputs – what to expect (DM#3472170)</u></b>  <b><u>Tracey May</u></b></p> <p>An update was provided to the CSG on the modelling progress.</p> <ul style="list-style-type: none"> <li>• Some of the data used for the modelling is down to landowner level, so the integrity and confidentiality of the data needs to be maintained.</li> <li>• Due to the issues around confidentiality, there was a delay in the delivery of this particular data for the model</li> <li>• Tracey May, Bill Wasley, Helen Ritchie and Bryce Cooper have met to consider the impact of this delay. Important considerations with any amendments to the project timeline would be enabling the CSG to have enough time to consider the modelling outputs, and enough time for community engagement</li> <li>• Also need to consider what the delay would mean for resourcing in being able to supply the data for the engagement period, as well as what it would mean for the development of policy.</li> <li>• Options have been provided for the CSG to consider how to adjust the current timeline while maintaining the notification date in April. Would like feedback from the CSG on these options.</li> <li>• In terms of the modelling process it is very time-bound with a very detailed timeline on when things need to be done by, so there is not an opportunity to compact this further</li> <li>• Noted that the economic modelling data will likely be available in advance of the Integrated Assessment Framework (IA) outputs.</li> <li>• Suggestion that for the sector meetings in September it will not be appropriate to consult</li> </ul>	

		<p>with only the economic modelling and not the IA.</p> <ul style="list-style-type: none"> <li>• For CSG15 (26/27 August) the CSG will receive the results around three days before</li> <li>• An explanation on the modelling outputs will be provided on the first day of the workshop and then the CSG will need to make decisions on the second day if the CSG wish to have two full rounds of results before the community engagement period.</li> <li>• Noted this is not enough time to go out to constituencies and this is what the sectors and community have been waiting for.</li> <li>• To extend the engagement period would mean moving the end of October workshop to November.</li> <li>• TLG now have this data and are now proceeding with the model. This was a critical piece of data to enable robustness for the modelling.</li> <li>• Concern noted on the pressure being brought to bear on CSG to have the time to understand the modelling, then to engage with stakeholders. Would make suggestion that need to move other dates such as the Healthy Rivers Wai Ora committee dates to accommodate the delay rather than to put pressure on CSG process</li> <li>• Also concern noted on what would happen if the CSG want further adjustments and re-runs of the model. There is no tolerance in the timeline to allow for this. In addition, receiving the data two days prior to the workshop is too tight a timeframe for the CSG.</li> <li>• The Economic Modelling sub-group provided feedback, from their meeting.</li> <li>• At this point in time the sub-group would like more clarity on how the linkages work, i.e. How do we get from a load on the farm to effect in the water?</li> <li>• Also once the loads coming into the river are determined how is residence taken into account?</li> <li>• There is always a question over how closely the model will approximate the real world scenarios.</li> <li>• The sub-group were informed that the model couldn't deal with predicting timeframes for change. However some of the scenarios may be 'stepping stones' to achieving the Vision and Strategy.</li> <li>• In regards to questions around converting loads to concentrations, Bryce Cooper notes there is information the CSG haven't heard in detail yet so understands the CSG are still unsure.</li> <li>• Bryce Cooper is comfortable with the model for what the CSG want to use it for - this goes for all elements of the modelling.</li> <li>• There will be uncertainty associated with the modelling, will be things that are theoretically not</li> </ul>	
--	--	---	--

		<p>ideal but there is a need to be realistic about what is achievable.</p> <ul style="list-style-type: none"> <li>• The model will allow for relative comparisons between the scenarios, and allow for ballpark numbers to be produced. There will also be a sensitivity analysis to give the CSG some further understanding.</li> <li>• Point source discharges are included in the model. Model does not however, have the ability to include the effect of extreme events.</li> <li>• Full explanation on why the model was chosen by the TLG is included in a paper that is currently in the final review phase.</li> <li>• Suggestion to wait to discuss any amendments to the timeline until the CSG get the full modelling data</li> <li>• The agenda to focus on the outputs of the model and nothing else at next CSG. Spend morning and early afternoon of the first day on the model then agree on questions for TLG to respond to on the following day.</li> <li>• Range of desires expressed by CSG members on how much detail they want to see. Hope to see a summary up front and then as much detail as TLG can include.</li> <li>• The TLG can provide more information once the CSG discuss what questions they have and what they want to know more about.</li> </ul>	
7.	3pm	<p><b><u>Plan template (DM#3469316/3448854) Justine Young</u></b></p> <ul style="list-style-type: none"> <li>• Plan change sub-group recommendations on new structure/headings were presented to the last CSG and these have now been included in the template</li> <li>• Attributes that were agreed on last time have been added into a table in the freshwater section.</li> <li>• CSG policy template sub-group agree the policy staff have reflected the discussion of the group.</li> <li>• Suggestion to mention the RPS in the background and explanation page.</li> </ul> <p><u>Feedback on objectives:</u></p> <p><u>Objective 1:</u></p> <ul style="list-style-type: none"> <li>• Question about the definition of 'abundant' in this context.</li> <li>• Within the wording a timeframe is essentially imposed ('generation'). Not sure if the CSG want to decide on that at this point in the process.</li> <li>• 'Increased' is a vague term and non-specific.</li> <li>• Suggest 'improve' instead of 'increase'.</li> <li>• 'to enhance natural qualities' was more aspirational</li> <li>• no other major comments.</li> </ul>	

Objective 2:

- Should be different heading to Objective 3, but keep the beginning, “Mana Tangata”, for both.
- Objective 2 is tangata whenua values. Doubling up of language. Tangata whenua values are integrated
- *Tangata whenua values are integrated into the co-management of the rivers and other water bodies within the catchment such that:*
- *Tangata whenua connection with the rivers and other water bodies in the catchment is strengthened,*
- *Improvement in the rivers water quality increases the spiritual and physical wellbeing of iwi and their tribal and cultural identity*

Objective 3:

- Passive is one of the values. Suggest writing this in more inspiring way.
- Issue over wording in second paragraph – ‘Pressure’ is not an objective or outcome.
  - Suggestion to delete second paragraph up to or Drop ‘working rivers’ & replace with catchments
- “...any changes to restores and protect...”
- Question around word ‘indigenous’ (noted not just indigenous specified that are valued, also species such as trout). Suggest amend to ‘indigenous and valued species’

Overall comments on objectives.

- Note when referring to two rivers, should be ‘rivers’, with lower case r.
- The examples provided are detailed objectives. How do we deal with the interplay of the 3 objectives? Too early to say
  - Can it be wrapped into 1?
  - Use ‘while’ like RMA
- Would be useful to have a holistic objective – a broad outcome statement which is still succinct and to the point and says what needs to be achieved - a touchstone that the other objectives are linked into.
- Suggestion to have an objective that reflects the scenario the CSG settles on
- Issues and policies should be very focussed on achieving outcomes. Shouldn’t be trying to do all things for all people. Should be focussed on what the project is trying to achieve.
- Objectives should be measurable. When monitoring and reporting they should be reasonably measurable – the draft objectives are not at this point yet.
- Noted need to be aware of the terminology used

		<p>in the Regional Plan. The Plan Change wording should line up with what is used already so as not to be confusing. If they are called Objectives 1, Objectives 2 etc, and have titles that delineate between them, then this lines up in with the Act in terms of having polices, objectives and rules</p> <ul style="list-style-type: none"> <li>• Noted there is currently a lot of legislative change and that also the full regional plan review project is in early stages. As long as the Plan Change terminology is kept within the RMA framework, it shouldn't be constrained.</li> <li>• A new sub-group to work on wording in the plan change was established with Ruth Bartlett, Trish Fordyce, Stephen Colson, Sally Millar as well as Grant Kettle and Billy Brough from river iwi staff, to be members</li> <li>• The sub-group will look at river iwi paper outcome statements and integrate into outcomes/objectives.</li> </ul>	
	<b>3.30pm</b>	<b>Afternoon Tea</b>	
8.	4pm	<p><b><u>Feedback from networks</u></b></p> <p><u>Sheep and Beef sector</u> (DM#3477260) – Update provided regarding three meetings in July – Ohinewai, Putaruru and Otorohanga where 120 farmers were consulted.</p> <p>Key feedback questions</p> <ul style="list-style-type: none"> <li>– Good Management Practice</li> <li>– Stock Exclusion from Waterways; and</li> <li>– General Feedback.</li> </ul> <p><u>Dairy:</u></p> <ul style="list-style-type: none"> <li>• Feedback regarding reduction of payout across industry. Concern with next engagement period. Some farmers have exited industry.</li> <li>• Some herds are going to once-a-day milking. Flow on effects to community and other sectors.</li> </ul> <p>Further information included in the Master Template for Feedback from Stakeholders DM#3080587.</p>	
9.	4pm	<p><b><u>Community Engagement (DM#3483605) Janet Amey</u></b></p> <ul style="list-style-type: none"> <li>• This item is difficult to discuss in too much detail in the absence of further discussion on timeframe options, given the delay in delivery of the modelling data</li> <li>• For the open stakeholder forum, would like to cover off a number of things. Suggestion to use the following as the purpose for the large forum, and the next round of consultation in general (attachment 1 page 126 of CSG14 main agenda pack):</li> </ul>	

		<p><b>Workshop (and engagement in general) purpose:</b>  To update you on the project and involve you in discussions with the Collaborative Stakeholder Group on:</p> <ol style="list-style-type: none"> <li>1. the CSG's long term vision for the Waikato and Waipa river catchments that involves the restoration and protection of the rivers in order to achieve our community's values</li> <li>2. possible limits for nitrogen, phosphorus, E.coli and sediment in the Waikato and Waipa river catchments, to ensure community values are achieved</li> <li>3. possible timeframes (or 'targets') for achieving the limits</li> <li>4. possible cultural, economic, environmental and social impacts, both favorable and unfavorable, of achieving the limits</li> <li>5. preferred policy options (including both regulatory and non-regulatory methods) for achieving limits and targets</li> </ol> <p>The CSG will ask you for your thoughts on the likely effectiveness, implementability and acceptability of their preferred limits, targets and policy options. They will use your feedback to finalise their recommendations to the project partners.</p> <p>Discussion points:</p> <ul style="list-style-type: none"> <li>• CSG agreed on the purpose (as above) for the final round of consultation.</li> <li>• Regardless of when the community feedback period falls, need to take as many details as possible to the community who are desperate to know what the changes will be and what they will have to do.</li> <li>• CSG discussed two options: <ul style="list-style-type: none"> <li>○ to run community/sector sessions prior to the Open Stakeholder Forum</li> <li>○ or to use the Forum as more of a launch for the community engagement period.</li> </ul> </li> <li>• Noted that the current date of 13 October for the Forum is not achievable. Agreement to move that back to 27 October – but this will need to be confirmed.</li> <li>• Most CSG favour launching at Stakeholder Forum to give everyone the same information, and then each sector having separate meetings to look at what it means for them (including the detailed FMU discussion).</li> <li>• Noted some sector meetings are already booked in calendars for some sectors in September. An option would be to instead use these dates as preparation/briefing sessions for sector leaders however noted people really want to see the details.</li> </ul>	
--	--	--	--

		<ul style="list-style-type: none"> <li>Noted there will be a community engagement planning session in all workshops through to end November.</li> </ul>	
10.	4.20pm	<p><b><u>Allocation and cost sharing (DM#3466069/3109567)</u></b> <b><u>Justine Young</u></b></p> <p>This session was to start considering an allocation option.</p> <ul style="list-style-type: none"> <li>The Policy Selection Criteria with relevance to allocation were picked out as starter principles.</li> <li>There may be other allocation principles that may arise out of this session.</li> <li>The group noted it was hard to carry out this exercise when they don't know the size of the problem but the session was to start the thinking around this.</li> </ul> <p>Forestry sector representatives were absent for this day due to their sector conference, but had forwarded their concerns:</p> <ul style="list-style-type: none"> <li>There is a lot of emphasis on farms but not large forestry estates that are in the Waikato.</li> <li>Discussion on the allocation process for Taupo and Rotorua do not always mention the high cost for benchmarking.</li> </ul> <p>The CSG workshopped four allocation options against the PSC (historical/grandparenting, average per ha, average per sector, natural capital) and tried to identify the best and worst options for achieving each PSC, or any other ways.</p> <p>Summary - Allocation ideas</p> <ol style="list-style-type: none"> <li>Recognise efforts made. Another way – capped grandparenting up to average.</li> <li>Realistic to implement, monitor, enforce. Averaging cheaper than rest.</li> <li>Flexibility for future. Natural capability – no presumption of current land use. Another way – trading, allocation set aside for this.</li> <li>Minimise social disruption. Best – historical grandparenting. Worst – average/ha. Another way – grandparent and good management – Hybrid that recognises natural factors. Plus % ramp back – except those who can't – could do extra for new entrants. Plus market to trade.</li> <li>Exhibits proportionality. Not a grandparent or average per hectare. Maybe average per sector or natural capital. Another way – need to bring in GMP's.</li> <li>Cost effective – as per minimise social disruption.</li> <li>Take account of complexity</li> </ol>	

		<ul style="list-style-type: none"> <li>• Best - natural capital</li> <li>• Worst - average/hectare</li> <li>• Another way - trading</li> <li>• Pragmatic approach, different farm systems have different issues – hybrid</li> </ul> <ul style="list-style-type: none"> <li>- Innovative ideas to look at: <ul style="list-style-type: none"> <li>o Capped grandparenting within sector</li> <li>o Grandparenting transitioning to a natural capital approach</li> </ul> </li> <li>- Ask TLG to think about suitable natural capital measures for an approach like this and how closely matched current land use is to that</li> <li>- Noted that if you want flexibility, must have trading <ul style="list-style-type: none"> <li>o Then the allocation to high class land under a natural capital system may move</li> </ul> </li> <li>- Need to have a GMP/efficiency element</li> </ul> <p><u>Important additional principles:</u></p> <ul style="list-style-type: none"> <li>• Transition from where things are to where you want to get to (to meet the limit)</li> <li>• Be cautious about compensating for lost future opportunity - Make exception for special cases separately</li> </ul>	
6.30pm	<b>Workshop closed. Dinner</b>		



## Collaborative Stakeholder Group (“CSG”) Workshop 14 Notes

(Day two) 11 August 2015, Don Rowland Centre, Lake Karapiro  
8.30am – 4pm

### Attendees:

#### CSG:

Garry Maskill (Water supply takes), George Moss (Dairy), Gwyneth Verkerk (Community), Phil Journeaux (Rural Professionals), Ruth Bartlett (Industry), Stephen Colson (Energy), Garth Wilcox (Delegate – Horticulture), Patricia Fordyce (Forestry), Sally Davis (Local Government), Michelle Archer (Env/NGO’s), Weo Maag (Māori Interests), Charlotte Rutherford (Delegate – Dairy), Sally Millar (Delegate – Rural Advocacy), James Houghton (Rural Advocacy), Evelyn Forrest – part (Community), James Bailey (Sheep and Beef), Gayle Leaf (Community), Dave Campbell (Delegate – ENV/NGO’s), Matt Makgill (Community), Alamoti Te Pou (Māori Interests), Jason Sebastian (Community), Rick Pridmore (Dairy), Alastair Calder (Tourism and Recreation), Gina Rangi (Maori Interests), Graeme Gleeson – part (Delegate – Sheep and Beef)

#### Other:

Bill Wasley (Independent Chair), Helen Ritchie (Facilitator), Janine Hayward (WRC), Jenni Somerville (WRC), Jackie Fitchman (WRC), Janet Amey (WRC), Tony Quickfall (WRC), Jonathan Cowie (WRC), Patrick Lynch (WRC), Jo Bromley (WRC)

#### TLG:

Mike Scarsbrook, John Quinn, Graham McBride (NIWA)

#### Other (part):

Tracey May (WRC), Alan Livingston (HRWO Co-chair), Billy Brough (Iwi Co-ordinator), Justine Young (WRC), Vicki Carruthers (WRC), Alan Campbell (WRC), Brent Sinclair (WRC), Emma Reed (WRC), Ruth Lourey (WRC), Kataraina Hodge (HRWO Co-chair)

### Apologies:

#### CSG:

Graeme Gleeson (Delegate – Sheep and Beef), Brian Hanna (Community), Chris Keenan (Horticulture), Liz Stolwyk (Community), Alan Fleming (Env/NGO), Bryce Cooper (TLG), Elizabeth Aveyard (Delegate – Industry)

Item		Description	Action
	8.30am	Waiata	
11.	8.35am	<b><u>CSG-only time</u></b>	
		Reflect on day one.	

		<p><b>Decision-making Framework</b></p> <p>Where disagreement occurs, the decision-making framework is used with those disagreeing have their name(s) and reasons noted. This is formally recorded in the workshop notes and contained in reports to the HRWO committee when formal endorsement is sought on matters.</p> <p>As agreed by CSG at its workshop this week, the decision, once made is a collective CSG one and it is the decision moving forward.</p> <p>CSG does not wish to see re-litigation of the disagreement at the HRWO committee, nor is it appropriate to do so.</p> <p>All CSG members at the workshop agreed to this approach.</p>	
12.	9.15am	<p><b><u>Microbes (DM#3469083/3465551)</u></b></p> <p><b><u>Sources of Faecal Pollution in Selected Waikato Rivers – Mike Scarsbrook (DM#3469083)</u></b></p> <ul style="list-style-type: none"> <li>• Brief overview of the study presented to the CSG prior to receiving the full report which is currently with the TLG for review</li> <li>• The study was about looking at the sources of faecal contamination at five sites in the catchment. ESR have developed a methodology based on DNA testing to identify source species associated with different strains of E. coli (indicator bacteria)</li> <li>• Limitations of the study include a need for a high amount of E.coli present to be effective and for good live material for the lab. Sites had to therefore be accessible</li> <li>• Five sites were identified <ol style="list-style-type: none"> <li>1. Komakorau Stream at Henry Rd</li> <li>2. Mangawhero Stream at Ohaupo-Cambridge Rd</li> <li>3. Mangaonua Stream at Hoeka Rd (SH1B)</li> <li>4. Karapiro Stream at Hickey Rd</li> <li>5. Mangaone Rd at Annebrook Rd</li> </ol> </li> <li>• Sampling was conducted over a period between 13 April and 11 June (this included three dry weather and three rain impacted samples)</li> <li>• All sites are rural and have a mix of water fowl population, farming and human occupation.</li> <li>• In terms of method, this involved extracting total DNA from a water sample and examining the sample for DNA from source-specific organisms</li> <li>• Eight assay markers were applied to identify: <ul style="list-style-type: none"> <li>○ Human</li> <li>○ Avian (Duck, Swan, Seagull, Geese, Chicken) + specific markers for ducks</li> <li>○ Ruminant (Cow, Sheep, Deer, Goat) + specific markers for Cows and Sheep</li> </ul> </li> </ul>	

### Results

- Ruminant and avian pollution was detected in almost all samples
- Ruminant pollution was generally more dominant following rainfall
- No human pollution was detected at any of the sites
- ESR also noted the samples were older (i.e. have broken down over time so may have come from higher up in the waterway for example)

### Health risks associated with faecally-contaminated freshwater: Background, History, Issues - Graham McBride (DM#3465551)

- Animal and human faecal wastes contain pathogens that can cause disease.
- 7 of 10 top notifiable diseases can be contracted by water (as one of the ways they are transferred) – most common is illness from Campylobacter
- Reported rates probably only 10% of actual infections
- As poultry processing has improved its processes, the proportion of water-borne Campylobacteriosis transmission has increased; may be 10-20% of total burden
- E.coli is an indicator that there is a presence of faecal material. There is a moderate correlation to the organisms that commonly cause disease like Campylobacter
- There are new national microbiological water quality standards for secondary (and primary) contact recreation in the National Objectives Framework
- Graham explained how these were derived using dose-response curves from US trials (where people were dosed with a known number of disease organisms to see if they contracted the illness) and relating these to the time of exposure (.25 to 2 hrs in water) and likely ingestion of water (10-100ml per hr) and therefore likely numbers of bacteria ingested.
- The dose-response curve is initially steep, meaning that even at low doses a third of people will become infected
- The risk calculation is that health risk is below 1% when E.coli is <260 per 100ml at the 70%ile; use of the 95%ile for swimming standard is precautionary.
- This is an extremely tough standard for agricultural areas (because it is based on 95%ile, not median)
- Some arguments for revision of the current standard because cattle exclusion rates have increased, so pathogen to indicator ratio will be lower (not so much fresh faecal material in water)
- Dominance of wild bird Campylobacter sources in flowing water – less infective than ruminant or poultry strains
- Mahinga kai – work to be done on assessing 'edible' standard for kai – current thinking is that if swimmable

standard is met, cooked kai should be safe to consume but possibly not raw freshwater shellfish – more work required on this.

#### Questions and discussion

- CSG saw data for one site. The data for the other sites will be available as a part of the full report (once peer reviewed by TLG)
- Ruminant sources are important (at those 5 sites) - probably similar across region
- Avian populations also present but not easy to manage and some (e.g. pukeko) are native
- Farmers can manage stock deposition and run-off from farm
- Concern we still won't meet target due to wild sources
- Will be an improvement over time as farmers implement good practice
- Still no guidance from MfE on sampling e.g. excluding high flows when there is less contact
- Why was sheep material present at base flow? Sheep are present in the catchment and at some stage the material got into the water
- National study - sheep dominated catchments were as contaminated as cattle dominated catchments
- Fence and planting stream – what else can be done?
  - Dairy effluent management
  - Waste treatment ponds, will see die off of campylobacter in those
  - Manage run-off from laneways
  - Note rural children get more campylobacteriosis (also issue of calf days – kids touching stock; rural drinking water is another source)
- Do we know about human DNA types in main stem of Waikato/Waipā? No, levels in main stem of Waikato are below the levels you can use this technique on
- Note lifestyle blocks also present at some of these sites e.g. Annebrook Road
- No sanitary inspection done at these sites (assessing catchment above site)
- Is there a way of assessing the age of the material?
- Mike needs to check with ESR further on their comment re: material not being fresh.
- We know that faecal material coming off land can be stored in sediment and be reworked in the waterbody and in that case the campylobacter will die off faster than the E.coli indicator
- Do we worry about urban sites?
  - It would be good for completeness
  - This study came from dairy engagement group
  - Wanted to know contribution of cattle
- Urban waste treatment would be better to look at viruses directly (as they don't correlate with E.coli)

		<ul style="list-style-type: none"> <li>• Why do we test for E.coli? Cost, ease of technique</li> <li>• Still looking at survivability of campylobacter. Expect it will survive better in sediment than in the water column</li> <li>• Replenishment is more important than storage in bed sediments because fresh material is more infective</li> <li>• Should we be looking for the high risk sites/sources? <ul style="list-style-type: none"> <li>○ Is valuable as a catchment approach through farm plans</li> <li>○ Still will be hidden point sources e.g. drainpipes</li> </ul> </li> <li>• What about pig farms? <ul style="list-style-type: none"> <li>○ Didn't look for pig markers in this study</li> <li>○ NPS says 'manage all sources'</li> </ul> </li> <li>• What about ear infections? Is related to animals and starting to get attention in AEEs. Not notifiable</li> <li>• Is most from ruminants? Seems to be, must check in with ESR on this.</li> <li>• TLG may have some further questions for ESR, then the final report will come to TLG for their review process.</li> </ul>	
	<b>10.10am</b>	<b>Morning tea</b>	
13.	10.30am	<p><b><u>Values and Uses (DM#3451974) Helen Ritchie and Justine Young</u></b></p> <p>The CSG reviewed the feedback that Gayle Leaf provided (DM#3479863).</p> <p>Proposed changes to values and uses as per feedback:</p> <ul style="list-style-type: none"> <li>• Inclusion of 'whanau' on page 36 (page 2 of document) to second bullet point to read <u>whanau/family life</u></li> <li>• Change from mahitahi to <u>kaitiakitanga</u> (bullet 4 on page 2). Mahitahi (work as one) kaitiakitanga (a relationship and practices that will continue long after we are gone).</li> <li>• Suggested amendments around Geothermal value - delete bullet point 4 (reference to kokowai)</li> <li>• Add in Geothermal areas and '<u>various</u>' resources to bullet point 1</li> <li>• Historical relationships section – all reflected in past (were/have been). Suggest edits.</li> </ul> <p>Other edits proposed:</p> <ul style="list-style-type: none"> <li>• Change (under eco system health: flood control to 'attenuation' – add to commercial – two bullet points.</li> <li>• Take out species under eco system health</li> <li>• Use consistent language</li> </ul> <p><b>Next steps: Edits to be summarised on screen and to be confirmed at CSG wrap up session today.</b></p>	
14.	11.15am	<p><b><u>Attributes for values - Mike Scarsbrook and John Quinn</u></b></p> <p>TLG provided advice on whether attributes are set for the most stringent value. The starting point for the TLG attribute panel was achieving the key values in the CSG focus statement, which relates to the Vision and Strategy: Swimmable, safe to</p>	<b>TLG to provide summary report of Attributes for values</b>

	<p>take food, healthy biodiversity – attributes to meet these three values.</p> <p><u>Safe to take food from – raw edible kai standards:</u></p> <ul style="list-style-type: none"> <li>• Swimmable should (in Graham’s expert opinion) be ok for taking food if it’s washed/cooked.</li> <li>• No freshwater standard for shellfish, marine/estuary standard very stringent - unlikely this would be met in Waikato streams/rivers.</li> <li>• At this stage we have no applicable standard for freshwater shellfish – recommend this for further work (beyond our project).</li> <li>• Can we get further feedback from river iwi? Document says aspiration is to be able to eat kai raw.</li> </ul> <p><u>Swimmability in tributaries – role of nutrients in plant growth at swimming sites/ waterholes:</u></p> <ul style="list-style-type: none"> <li>• Periphyton (attached growth of algae) not an issue in Waikato streams due to flows, bed character and grazing.</li> <li>• Rooted plants can get their nutrients from the sediments/bed, not just water, so we can’t get nutrients to a level in water to control them.</li> <li>• Other factors are more likely to control these e.g. shade, flow.</li> <li>• There will be reductions of nutrients in the tributaries to meet mainstem band.</li> <li>• And clarity in tributaries will reduce sediment.</li> <li>• Deposited sediment depends on stream slope, flow, power, topography. It’s difficult to set a band for that, given local variability.</li> </ul> <p><u>Trout:</u></p> <ul style="list-style-type: none"> <li>• Current plan says <math>&lt;80\text{g}/\text{m}^3</math> for native fish equates to around 6cm = 0.06m clarity. Trout = 0.18m clarity.</li> <li>• So our ‘C’ band of 1m should be sufficient (much more stringent than the current plan)</li> <li>• Trout are visual feeders - clear water helps them feed. Spawning areas - require clean gravel – currently successful spawning in some streams. (High quality fisheries want ‘A’ band).</li> <li>• Q: Is the community wanting this to increase?</li> <li>• Range of attributes for trout e.g. DO, MCI, toxicity, pH, temperature, local habitat.</li> <li>• Work on meeting clarity bands will reduce sediment on beds.</li> <li>• Trout are released into hydro lakes above Karapiro. Trout in Karapiro from tributaries appear to have slow growth.</li> <li>• Our work will: <ul style="list-style-type: none"> <li>○ Improve clarity</li> <li>○ Reduce sediment on bed</li> <li>○ Improve habitat (riparian cover, insects increase)</li> </ul> </li> <li>• Noting trout are also predators of native fish especially</li> </ul>	<p><b>session.</b></p>
--	--	------------------------

		<p>in winter/spring.</p> <p><u>Whitebait:</u></p> <ul style="list-style-type: none"> <li>• Again, habitat improvements will help riparian cover, increase insects</li> <li>• Native fish have greater tolerance of sediment in water than trout.</li> </ul> <p><u>Drinking water</u></p> <ul style="list-style-type: none"> <li>• Questions for GNS about MAV nitrate in bores. (if one well exceeds, does whole sub-catchment get recorded as over MAV?)</li> <li>• Wells can be a conduit of contaminants.</li> <li>• Surface water for drinking would have to be treated.</li> <li>• Dairy wash water must be potable – most groundwater meets that.</li> </ul>	
15.	12pm	<p><b><u>Refining policy options (DM#3469326/3450520) Presentation) – Patrick Lynch, Ruth Lourey, Justine Young and Emma Reed</u></b></p> <p>Presentation on development of policy options to date.</p> <ul style="list-style-type: none"> <li>• Recommendation in two reports on agenda shows progress to date on the suite of policy options CSG is considering,</li> <li>• The staff would like feedback at this point on whether they have interpreted CSG discussion correctly and are working on the right things.</li> <li>• Essentially staff are working on two parallel streams: <ul style="list-style-type: none"> <li>○ Are there any rules that can be applied across the whole area (region wide rules). Work is being done on this in conjunction with wider WRC staff (regulatory, enforcement and catchment managers)</li> <li>○ Second matter is in regards to tailored farm plans and if this measure was in place, would council lead this or would industry lead this? How would it work?</li> </ul> </li> <li>• For rules that apply to everyone (including what the CSG develop and what is in the regional plan now). How clear are they? How will Council be able to check and know that people are complying with these rules so we are meeting the environmental outcomes</li> </ul> <p><b>Resolutions:</b></p> <ol style="list-style-type: none"> <li><b>1. That the report [Waikato and Waipa catchment wide rules to investigate as part of policy options for sediment, microbes, nitrogen and phosphorus] (Doc #3450520 dated 27 July 2015) be received, and</b></li> <li><b>2. That the Collaborative Stakeholder Group agree:</b> <ol style="list-style-type: none"> <li><b>a) That the list in Table 1 contains possible new region-wide rules, and that this list may be changed by CSG as they to continue to identify and develop</b></li> </ol> </li> </ol>	

		<p>practices and technologies that are appropriate to require across the Waipa and Waikato river catchments, to reduce sediment, <i>E.coli</i>, nitrogen and phosphorus</p> <p>b) Council staff to investigate these rules further and develop rules with advice from the CSG on detail.</p> <p>3. That the Collaborative Stakeholder Group</p> <p>a) Confirm that policy staff investigate a policy approach for managing plantation forestry operations which:</p> <ul style="list-style-type: none"> <li>i. Consists of a permitted activity rule with conditions, with a cascade into more stringent activity classes if those conditions are not met or in certain circumstances</li> <li>ii. Involves working with CSG forestry representative, WRC extension, implementation and compliance staff to develop this option</li> <li>iii. Brings back more detail to the CSG as this option develops.</li> </ul> <p>Approved Gina Rangi/Weo Maag Carried</p> <p><u>Industry led farm plans</u></p> <p><b>Resolutions:</b></p> <p>4. That the report [Exploring industry farm plans as a policy option; including industry-supported farm plan with regulatory backstop] (Doc #3454905 dated 27 July 2015) be received, and</p> <p>5. That the Collaborative Stakeholder Group:</p> <p>a. Confirm that policy staff continue to investigate a policy approach for managing sediment, microbes, nitrogen and phosphorus that:</p> <ul style="list-style-type: none"> <li>i. Consists of a permitted activity rule with conditions, where horticulture, drystock and dairy landowners work with their industry body to reduce their farm's discharges, with an alternative pathway of a resource consent from Waikato Regional Council for landowners who do not comply with rule conditions.</li> <li>ii. Involves working with CSG representatives, WRC extension, implementation and compliance staff to develop this option further.</li> </ul> <p>b. Direct policy staff to identify key elements of the implementation of this option and develop methods and rules after seeking advice from the CSG on detail.</p>	
--	--	---	--

**Rick Pridmore/George Moss  
Carried**

Regulatory and Compliance presentation (DM#  
3473858/3460661) Patrick Lynch

- There are three components to achieving the purpose of the RMA (or the aim of this project).
  - Need good facts/evidence to find out where we are and where we should be, or could be, in terms of state of environment.
  - Need the rules to be clear and easily understood and to reflect the good facts and evidence
  - Need the community to comply with the rules; an important consideration is to what degree does non-compliance impact on the facts and evidence and subsequent rules (i.e. do they rely upon 100% compliance to be effective, when 100% compliance is not a realistic outcome)
- In essence all compliance is voluntary. There are very few examples of someone being shut down completely by the courts so regulation is more about behaviour change
- It is important to have a spectrum approach to achieve the highest possible level of compliance and bring about positive behaviour change for all different parts of the community. Equally important is outside pressure from media and the public.
- Can also apply the 10/80/10 rule to compliance i.e. 10 per cent of the population always comply, 10 per cent resist the rules and do not comply. It is vital for the 80 per cent of the public to see what happens to either ends of the spectrum (good behaviour has rewards and bad behaviour has consequences)
- An example of a good rule is the 100km/per/hr speed limit. In that it is clear, easily understood, easily educated and monitored and enforced.
- However if this rule was altered, (such as if the road is a certain camber a motorist must reduce speed by 5%, if there are cyclists they must reduce by a further 10%, etc), then that will then complicate the rule - most likely to a point where that person driving the car would not know if they were compliant or not. A traffic officer would also find it difficult to prove someone was not compliant
- It complicates things very quickly when 'sub-rules' are imposed
- Really important to have accurate and helpful definitions for writing rules.
- Rules need to be simple, clear, reasonable, enforceable, accessible to know and understand, and measurable
- Assuming we have a good rule, need to consider the

expectations around compliance as a part of this process. How would compliance be monitored, what resources would be required, what would happen should there be non-compliance?

Questions and discussion:

Enforcement and compliance

- In regards to what the council currently monitors and enforces – effectively the council has a level of service agreement with the community that prioritises what is monitored.
- Noted that as there is already a prioritisation process in place, this could also be used in the future (in terms of having farm management plans in place).
- Most common serious enforcement issues are with water. More serious issues include dairy effluent with open water, earthworks in and around water (lack of erosion control etc).
- A number of factors are taken into account when enforcing. 'Who' someone is cannot be a consideration however their history relating to compliance and their attitude towards the breach are factors that are taken into account.
- Question on whether farm plans being in place is a mechanism that could work. This at the heart of debate currently at the staff level (i.e. what would the farm plans look like, what would be in it, who would check it, how could they check it).
- Debate is around the tension between being totally clear and unbending yet dealing with biological systems and diffuse discharges.
- A lot of current ideas have been based on sediment. N&P are still a part of the discussion but not a lot of work has been done on this as of yet.
- Staff have also been looking at current regional plan, what is in there, what is working, what isn't, what is really ambiguous, what might need extra wording etc.
- Going forward will include these in the appendices for CSG so they can see what staff are looking at.

Forestry approach:

- Why a rules-based approach, not a farm plan approach?
- There are existing rules in the WRP; forestry proposal is to continue this approach for Waikato and Waipa catchments.
- NES suggestion is that planting/afforestation would require consent (to ensure no overly steep land is planted).
- Existing rules are stricter/more limiting for 'high risk' erosion areas.
- Do forests on farms get captured? Comes down to the definition of forest – NES has a definition.

		<ul style="list-style-type: none"> <li>• Large companies are more aware of rules than smaller operators.</li> </ul> <p>Rules and farm plans:</p> <ul style="list-style-type: none"> <li>• Currently looking at things in current regional plan such as how much earthworks can you move without a resource consent when building a track or race, what culverts do you need to put in, what is high risk</li> <li>• If in a high risk erosion areas, there is a less amount someone can do without a resource consent There is no distinction between farming or forestry.</li> <li>• If we are going down farm plan track, where does that fit with a region-wide framework? (Are we looking at both?) Both are on table.</li> <li>• The benefit of rules that apply everywhere is that someone doesn't have to work out whether it applies or not, they are clearly understood, relevant and well thought out, so there is an efficiency gain.</li> <li>• The downside of a blanket rule that applies to everyone is that it doesn't suit everyone and it results in regulating things that don't apply to some people. This is why there is a tension between the farm plan option versus rules</li> <li>• Do not want to restrict activities so much that you impede the ability of farmers to innovate and mitigate other problems.</li> <li>• Difficult to define a region wide rule for intensive grazing near a water body as this would depend on a lot of conditions and might make the rule too complicated</li> <li>• Sediment – two things: <ul style="list-style-type: none"> <li>○ Earthworks – can be generic, existing plan has rules.</li> <li>○ Sediment from land – not currently controlled – might be different per sector.</li> </ul> </li> <li>• There are some region-wide rules that make sense but there are some situations where you might want to do a set of targeted mitigations (e.g. vegetable growing)</li> <li>• Request from staff to look further into the detail and to do this in one on one sessions with CSG and staff in the different organisations. Will much more easily be able to understand the issues and complexity (“the devil is in the detail”).</li> <li>• Note this (rule package) doesn't address land use change</li> <li>• Noted from a drystock perspective, there is support for the use of farm plans to allow for diversity (while understanding this also has issues).</li> <li>• Note fodder crop in-situ grazing – not having these activities would have impact on farm businesses, hard to enforce. <ul style="list-style-type: none"> <li>○ Could look at setbacks from water for this OR comes under an N limit modelling approach.</li> </ul> </li> <li>• Need consistency between cropping/arable and</li> </ul>	
--	--	--	--

		<p>horticulture activity controls</p> <ul style="list-style-type: none"> <li>Noted all suggestions are purely a Work in Progress at this point</li> </ul> <p><u>Overseer (DM#3470003):</u></p> <p>It was generally agreed that TLG and policy staff do more thinking on Overseer. TLG note the concerns with Overseer but understand the CSG may still want to use it as it provides landowners with flexibility.</p> <p><b>Add further work on setting property-level N and P limits on next CSG agenda. Helen R</b></p>	
	1.15pm	<b>Lunch</b>	
16.	2pm	<p><b><u>Planning community engagement (DM#3483605) Janet Amey</u></b></p> <p>Proposal for timeframe summary:</p> <ul style="list-style-type: none"> <li>8/9 September there if need it. Integrated Assessment may be ready by this date</li> <li>Keep 21 September Focus session</li> <li>Keep 1/ 2 October meeting</li> <li>Move 22/23 October to 13/14 October when round two of modelling is available</li> <li>Last week of October – 27 October LSF</li> <li>Engagement in late October/ early November</li> <li>One further meeting in December or January 2016 in order to get to HRWO. Possible dates are 9/ 10 Dec or 17/ 18 December as a back up). This means that there won't be much agenda reading time or sector consultation time.</li> </ul> <p>HRWO Committee members attend workshops before each meeting to help inform them of the project. There will also need to be a higher presence at CSG meetings of HRWO Committee members to minimise any high risks/issues arising.</p>	<p><b>Janine H to send out new CSG dates to CSG.</b></p>
17.	2.30pm	<p><b><u>Policy Selection Criteria - HRWO ideas (DM#3452927/3461160)</u></b></p> <p>While the Committee endorsed in principle the CSG's Policy Selection Criteria, it was requested that the Independent Chair of the CSG take five matters back to the CSG for discussion and consideration, and the outcomes of those discussions be reported back to the Committee.</p> <p>1. Under the heading 'Optimises environmental, social and economic outcomes'.</p> <ul style="list-style-type: none"> <li>Committee suggests replacing the term 'aim for' to 'provide for'.</li> <li>CSG notes the thinking behind 'aim for' is it gives more room to move with policy and allows for consideration of other reasons why you might choose a particular policy.</li> <li>The CSG agreed the wording should remain as it is.</li> </ul>	

		<p>2. Under the heading 'Acceptable to the wider community'. Amend last bullet point to include commentary regarding those benefiting from the solution contributing to the solution.</p> <ul style="list-style-type: none"> <li>• The guiding criteria in the CSG draft policy selection criteria is that the plan change will give effect to Te Ture Whaimana/the Vision and Strategy. Inherent within Te Ture Whaimana/the Vision and Strategy is that everyone will contribute to the solution.</li> <li>• The CSG discussed other ways of including the committee suggestion including using language such as 'benefactors and exacerbators share the cost thereof'. The question of 'who/what is a benefactor/beneficiary' was discussed and noted this language could result in ambiguity and increased complexity. It was noted that simply complying with legislation or going for a swim doesn't make someone a beneficiary. The concept of including the beneficiary contributions in practise will most likely mean rate-payer contributions and this may need to be an option should it be necessary e.g. Taupo targeted rate. It was noted that there has already been significant central government funding contribution through Te Ture Whaimana/the Vision and Strategy</li> <li>• There was also discussion around deleting what is in the brackets but leaving in the words 'exhibit proportionality'. However there was concern this would leave it too open for interpretation and could be confusing.</li> <li>• There was discussion around adding another bullet point to emphasise a whole of community approach (a team effort) for example "Does the policy identify mechanisms for community contributions?". CSG said that while they understand the intention, they feel this is adequately provided for in the wider framework in which we are working.</li> <li>• Overall the CSG agreed that the policy selection criteria should not be overly directive at this time and the CSG agreed the wording should remain as it is.</li> </ul> <p>3. Under the heading 'Achieves the restoration and protection of native habitats and biodiversity', consider whether the third bullet point should be wider than only indigenous plants and animals.</p> <ul style="list-style-type: none"> <li>• The CSG understood the concern raised by the Committee was regarding supporting important exotic species that assist with improving environmental outcomes.</li> <li>• It was considered that the other bullet points in this section sufficiently covered off concerns around exotic species (resilient freshwater ecosystems etc).</li> <li>• The CSG agreed the wording should remain as it is.</li> </ul>	
--	--	---	--

		<p>4. Under the heading 'Allows for flexibility and intergenerational land use'. Under fourth bullet point consider if there is sufficient flexibility of future land use <i>potential</i> as opposed to the presently terms land use.</p> <ul style="list-style-type: none"> <li>• The word 'future' was specifically chosen to cover 'actual and potential'.</li> <li>• The CSG agreed the wording should remain as it is.</li> </ul> <p>5. Under the heading 'Allows for flexibility and intergenerational land use". Add a new final bullet point 'provide for equitable outcomes between landowners'.</p> <ul style="list-style-type: none"> <li>• Reluctant to add, as this has previously been discussed at length. It was noted that what is equitable and what isn't is very subjective.</li> <li>• The CSG agreed the wording should remain as it is.</li> </ul> <p><b>Resolutions:</b></p> <p><b>1. That the report Policy Selection Criteria (Doc # 3452927 dated 14 July 2015) be received for information.</b></p> <p>That the Healthy Rivers Wai Ora Committee be advised at it's 14 August meeting that whilst the CSG have considered the suggested changes, no amendments are proposed for the reasons outlined above.</p> <p><b>James Houghton/Phil Journeaux Carried</b></p>	
18.	3pm	<p><b><u>Wrap up session:</u></b></p> <p><u>Allocation – working principles:</u></p> <p>In addition to our selected PSC... Allocation should allow for:</p> <ul style="list-style-type: none"> <li>• Transition (from where things are to where we want to get to – to meet the limit)</li> <li>• Transfer</li> <li>• Driving nutrient use efficiency</li> <li>• Protecting existing investment</li> <li>• Creating 'headroom' for undeveloped/underdeveloped land</li> <li>• Be cautious about compensating for lost opportunity (make exception for special cases separately)</li> </ul> <p>Mechanism:</p> <ul style="list-style-type: none"> <li>• Will be a hybrid or;</li> <li>• A hybrid of a hybrid.</li> </ul> <p><u>Next workshop: CSG15</u> –Amended CSG milestones document was used as a starting point to set the agenda.</p>	<p><b>Copy of allocation presentation from Sarah Mackay to be placed on CSG portal – Janine H</b></p>

- Modelling results to be primary focus
- Further work on property level limits/targets and Overseer
- Community engagement thoughts based on modelling results
- CHH /Scion research – co-funded research (CHH and WRC) on two items research – risk to Kinleith re ongoing conversions. Late afternoon on day one.
- Policy options discussion: Concept of land use change
- Leave the confirming of the narrative objectives/outcomes (next CSG16)

Timeline – new dates:

- Note change in October meeting – Move 22/23 October to 13/14
- 9/10 December 2015
- 17/18 December 2015 as back up dates

**Values and uses – amendments (DM#3479859):**

- All edits are in green, strikethrough deleted
- River is lower case, but River iwi is capital
- Inclusion of ‘whanau’ on page 36 (page 2 of document) to second bullet point to read whanau/family life
- Change from mahitahi to kaitiakitanga (bullet 4 on page 2). Mahitaha (work as one) kaitiakitanga (to continue long after we are gone).
- Suggested amendments around Geothermal value - delete bullet point 4 (reference to kokowai)
- Add in Geothermal areas and ‘various’ resources to bullet point 1
- Historical relationships section – were all reflected in past (were/have been). New bullet point added.
- Various – added in and valued and used today (CSG agree)
- Flood management – new use didn’t fit in ecosystem health or commercial. More about mitigating hazards. Separate value – flood mgmt systems – as per text: how does this relate to flood plains? Can’t achieve flood plains if you have flood banks. Happy with where it is. (economic development)
- Ecosystem health – take out word ‘control’ and make ‘flood attenuation’
- Delete the word ‘species’ under bullet 5 of Ecosystem health
- Reframing sentences – to make consistent.
- New bullet point for flood plains ‘wetlands and flow patterns provide for purification for water’ .... now new concept for flow patterns.

There are definitions of flood way, flood plain. Flood way is up to the stop banks. Flood plain includes the flood way. Issue that we are restoring flood plains – mostly linked to building.

		<p>Many modifications along river including stop banks, buildings, dams etc. Unable to have natural flows. River iwi may oppose rules that make impediments to water flowing in tributaries. Natural flow patterns.</p> <p><b>Resolutions</b></p> <ol style="list-style-type: none"> <li><b>1. That the list of values and uses be confirmed subject to the abovementioned amendments , that the CSG be provided with the final list for information</b></li> <li><b>2. That the list of values and uses be provided to the HRWO for consideration and endorsement</b></li> </ol> <p><b>Rick Pridmore/Trish Fordyce Carried</b></p>	
19.	3.15pm	<p><b><u>HRWO Co-chairs and Project Sponsor update</u></b></p> <p>Kataraina Hodge (new HRWO Co-Chair) and Maria Nepia (Deputy Co-chair) have now stepped into roles. Roger Pikia to remain on HRWO committee.</p> <ul style="list-style-type: none"> <li>• Number of people in room has increased. How do we get the message through to public – consultation, TLG, decisions making, etc – consider a video of workshop to present to show the scale of work that has been considered.</li> <li>• Widespread representation on CSG - i.e. Tourism/Recreation. Need to understand the extent of work that has been done.</li> <li>• HRWO will work in January 2016 with CSG requests – HRWO to support this process.</li> <li>• Appreciate the invitation from CSG Chair to attend the two full days of CSG workshops to get greater appreciation of what CSG are doing. Consider extending to wider committee to also gain understanding.</li> <li>• Also extend invitation to CSG to attend HRWO Committee on Friday (14 August 2015) and workshop. Provide an update on current work which won't be on agenda for Friday.</li> <li>• HRWO workshop provides for free and frank discussion. The formal committee meeting follows.</li> </ul> <p>Discussion points:</p> <ul style="list-style-type: none"> <li>• CSG pleased with representation from HRWO committee. Want to understand what is the process for accepting CSG's recommendations? HRWO like to understand the CSG's point of view (iwi are trying to be united) but will also have different points of view. Maori look at forever – don't have specific criteria. How do</li> </ul>	

you merge council and iwi views? What are your expectations? Don't want to get all the way down the track and then have all recommendations denied as it doesn't fit. Need to get as much information now as possible.

- Chain of events – HRWO also goes up to council. River iwi have fought to be where we are – want what is good for the river. Ensure the safety of the river. Iwi have all the businesses that CSG have – can understand CSG's concerns.
- Important to have members of HRWO at CSG workshops so they can understand information. Would have to be a good reason as to why something wasn't signed off.
- Review of the Vision and Strategy comes up in 2017. This plan change process is effectively carrying out the review of the V and S. Need to get it right this time.

Bill Wasley – timeline summary:

1. Absolute commitment to do a good job (by partners, sectors etc)
2. Some discussion already that unable to meet the 4 December timeframe. Pressure – need to see modelling info.
3. In terms of overall timeframe – CSG wishes to consider that at CSG16 – what comes out of modelling and comfort level. December – have a range of recommendations to go to HRWO.
4. Move out community engagement to November – still to be determined.

Project Sponsors update (DM#3476207)

- New co-chair and deputy chair.
- Rae Vie is replacing Clarrie Teparu on committee.
- Invites to go out to WRA to attend CSG.
- Media article in Cambridge News re E. coli in the Waikato and Waipa rivers. Questions asked – letter drafted by WRC.
- HRWO Committee does have a Terms of Reference. Committee is mindful of commitment to CSG. Have roles and responsibilities.
- Timeline – to be discussed at HRWO committee meeting on Friday, now that it has been discussed with the CSG.
- See what timeline looks like after CSG16. Important to then look at community engagement. Yes there will be changes – not sure what will change will look like yet – need more info.
- Councillors now want to come to CSG workshops.

**CSG agreed that MfE staff can attend a CSG workshop as observers, that a brief presentation be provided when**

		attending, and that the Chair provide a briefing to MfE on the HRWO project and CSG operation as part of their attendance (outside of workshop).	
20.	3.55pm	<p><b><u>Chairperson closing reflections</u></b></p> <ul style="list-style-type: none"> <li>• At the next CS G workshop we will continue the timeline discussion.</li> <li>• The HRWO Committee meeting is on Friday 14 August and CSG members are welcome to attend. Bill Wasley will contact those who have noted they will attend.</li> </ul>	
	4pm	<b>Meeting closed at 4.15pm.</b>	

Approved