## Notes of Te Awarua-o-Porirua Whaitua Committee Meeting 16.6.16

### 5-9pm at Judgeford Golf Club

#### Summary

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#### Workshop

#### Te Awarua-o-Porirua Whaitua Committee:

Attendees Barbara, Bronwyn, David, Jennie, John G, John M, Naomi, Richard, Sharli-Jo, Stu (Chair), Warrick

Apologies: Diane, Larissa

#### **Project Team:**

Alastair (Project Manager), Brent, Grace, Isabella, Nicci, Sheryl, Hayley, Shelley, Tracey, Jonathan Gulland, Jon Gabites

CMP - MLG: Ned Norton, Jonathan Moores, Chris Batstone, Jenni Gadd

Wellington Water working group members: Ben Fountain, Ryan Rose, James Green

#### Members of the Public: none

#### Meeting purpose

The purposes of this meeting were:

- 1. Committee get a sound understanding of the essentials of how water moves in urban catchments
- 2. Committee review and discuss initial highlevel objectives and decide to confirm or work further
- 3. Committee are informed about GW's planned approach to continuing communications, endorse them (and any further ideas/issues are

- captured)
- 4. Committee is updated on V&A WG's work on attributes (economic value(s) & social values)
- 5. Committee get familiar with the CMP WG's SoW and make decision to confirm or rework.
- 6. Committee are up to date with latest thinking on UD and SW&WW working groups
- 7. Committee make a decision about merging Sedimentation WG

By the end of the night we aimed to have produced:

- Committee decision re urban water cycle information (do nothing / follow up)
- Committee decision on highlevel objectives confirm or do further work
- List of any issues for future consideration re comms
- Committee decision on CMP Working Group's SoW
- Committee decision on whether to integrate Sedimentation WG with others

All the purposes were achieved.

#### Actions and general business to do

## Highlevel objectives for TAOPW

By next meeting:

- Project team: update highlevel objectives' wording as per session
- Committee: consider reworked objectives ahead of next meeting

## Communications plan for TAOPW

#### Ongoing:

- Committee: send Tracey ideas for upcoming and future communications
- John M to investigate the GOPI copyright questions for reusing Living Waters

#### Modelling and mātauranga Māori

#### By agreement

 Project team & Ngāti Toa reps: discuss (and with CMP leadership group) the approach to modelling mātauranga Māori

#### **Meeting notes**

#### Session 1 - welcomes, introductions

Stu welcomed everyone, Jennie performed the karakia, and Stu introduced Jonathan Moores and Tracey Lewis.

Stu outlined the plan for the evening, which included several actions from the previous Committee meeting.

Brent spoke to the one outstanding action from last meeting: the Collaborative Modelling Project's (CMP's) answers to Committee questions about attributes for Hauora Kaiao - Ecological Health. Key points were:

- The CMP have considered the Committee's questions and answered at length and with a
  variety of perspectives. It is not clear yet what the most effective mechanism to feed this
  information back is, or how to make use of it to keep the conversation rolling for the
  ecosystem health attributes.
- The project team are considering this, as the overarching question (how we seek and use experts' advice to inform attribute development/selection with the committee/working groups) is relevant to all the values and attributes.
- The Hauora Kaiao Ecological Health attributes will come back to Committee at the July meeting.

#### **Session 2. Urban Water Cycle**

(Jonathan Moores, NIWA (also CMP Leadership Group))
See Jonathan's presentation on Te Awarua-o-Porirua Whaitua Committee
<a href="http://www.qw.qovt.nz/assets/Environment-Management/Whaitua/Te-Awarua-o-Porirua/Urban-hydrology-and-water-quality-presentation.pdf">http://www.qw.qovt.nz/assets/Environment-Management/Whaitua/Te-Awarua-o-Porirua/Urban-hydrology-and-water-quality-presentation.pdf</a>

#### Session purposes:

 People get a sound basic understanding of the essentials of how water moves in urban catchments like Te Awarua-o-Porirua Whaitua

## More urban = more impervious

- Imperviousness (waterproofness / not letting fluids pass through) is the defining feature of urban areas from a hydrological perspective.
- Above 20% impervious surface (about what you have in low-density residential areas with all original quarter-acre blocks), there are major impacts on hydrology.
- These are:
  - direct impacts (changes in the movement of water, and increased contaminants
  - o closely related impacts (infrastructure to deal with the above impacts, which typically exacerbates them)
  - indirect impacts other features of urban areas that come with increasing development, such as in contaminant loads, change in temperatures etc

#### Direct hydrological impacts

- Urban landuse significantly increases runoff over land, and significantly decreases infiltration into groundwater (so streams' base flow is lower).
- Urban streams flood harder and faster (peaky hydrograph) than streams with less developed catchments – we compared the Porirua, Horokiri, Pauatahanui and Taupo streams for the same rainstorms.
- There are various other impacts besides flooding, such as scouring within the channels.

## Direct pollution impacts

- Urban landuse means more metal contamination in streams, with acute (pulse) and chronic (long-term, sustained) effects.
- The principal contaminants are zinc, copper and lead (latter being a legacy contaminant). They can exist dissolved in the water column and as bound particles in sediment, so these should be examined together for a full picture.
- Porirua Stream at Glenside has the highest zinc contamination in the Wellington region.

 Over the ~100 years of a sediment sample (Waitemata Harbour), all three metals increased significantly in correlation with increased urban development.

### Sources of metal

- For zinc, galvanised roofing is responsible for a large proportion of most stormwater (runoff) zinc loading. One estimate (with some uncertainty) attributed over 50% of this to galvanised roofs.
- Copper spouting and downpipes have become much more popular in posh housing.
- Brake pads and the operation of internal combustion engines also contribute significant contaminants.
- Railway drains have not been sufficiently studied, but some information in a recent Council report: here
- NZTA has commissioned recent work on stormwater sources, attenuation and relative risk on which Jonathan can answer questions.

## Organic contaminants in urban areas

- Wastewater contamination in urban areas can come from wet weather overflows from the wastewater system caused by increased pressure from stormwater (runoff).
- This is caused by illegal phenomena such as cross-connections, and from designed discharge points, and from breakages.
- Dry-weather overflows can occur from mechanism failure (e.g. pumps breaking down).
- Wellington Water's programme of investigations is locating various discharge points.
- (See also the notes on the Wellington Water presentation to Committee <a href="http://gwrc\_live\_cms/assets/Environment-">http://gwrc\_live\_cms/assets/Environment-</a> Management/Whaitua/Te-Awarua-o-Porirua/Presentation-Wellington-Water-Stormwater-and-wastewater-in-Te-Awarua-o-Porirua-Whaitua-27-August-2015.pdf

## Controls and mitigations

- There are old-school and new-school approaches to mitigating the hydrological impacts of urban development.
- Old-school approaches focus on managing the water at the bottom of pipes, or once it is in the infrastructure, and includes techniques such as catchpits and settling ponds.
- New-school approaches focus more on mitigating the physical and chemical impacts of urban areas on water flow, before the water enters infrastructure. These include water-sensitive urban design (e.g. biofiltration, rain gardens and swales), and different building materials (e.g. Coloursteel roofing gives off much less zinc than galvanised iron)

### Diffuse v point-source

- There are different mitigations and management options for dealing with diffuse sources of pollutants vs point-sources
- The principal difference is that controlling landuse doesn't have much effect on (legal) point-source pollution, for which technological controls are more relevant.
- Runoff is generally classified as diffuse but infrastructure concentrates it into fewer "sources". There was some discussion about this and the nature of wastewater.

## Consideration s for Committee

Issues around urban development and its hydrological impacts in Te Awarua-o-Porirua Whaitua include:

- Availability of data
- Responsibility for building and maintaining infrastructure (e.g. keeping drains clear)
- Future development in the catchment is an opportunity to do things differently
- Knowing the significance of different impacts is important

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#### Session 3 – High-level Objectives for Te Awarua-o-Porirua Whaitua

(Alastair Smaill, GW)

See handout on Te Awarua-o-Porirua Whaitua Committee webpages http://www.gw.govt.nz/presentations-and-reports-2

#### Session purpose:

 Committee review and discuss initial highlevel objectives and decide to confirm or work further)

Alastair introduced a worked-up set of high-level objectives for the Committee's consideration, and discussion followed. Key points are below.

#### Genesis of proposed objectives

- Alastair took material from the Committee's session on 19.5.16 and worked it up according to the discussion on that evening.
- There were some gaps, notably around rural landuse and Māori values, so there are two new objectives to ensure these values were covered too.
- The NRP is the source of some wording in "Te mana o Te Awarua-o-Porirua".
- The wording is deliberately high-level.

#### **Purposes**

- Recalling the session on 19.5.16 (presentation by Hayley and Alastair) these objectives are not "freshwater objectives" in the NPS sense (which in Te Awarua-o-Porirua Whaitua will need to address saltwater).
- These will be reconsidered and reworked several times over the coming months, as we progressively make them more SMART (ultimately identifying (e.g.) an acceptable rate of sedimentation
- These are high-level, direction-setting objectives with three purposes:
  - Indicate a general direction of travel for the policy package working groups
  - 2. Indicate general areas of interest for the modelling team
  - Give the Te Awarua-o-Porirua Whaitua community an indication of where the Committee believes the whaitua should be heading

#### Components

- The top line in the handout are the high level objectives. The details in the box below are things we should do to take the whaitua in the direction that the above objective indicates. These could be described as contributing objectives
- There was some discussion about this distinction and how well all the objectives followed the pattern.

#### Considerations for Committee

- There was also considerable debate about how aspirational some objectives should be, with some Committee members feeling uncomfortable with the prospect of talking to people about "improving" their practice (seen to be implying unsustainability of their current practice)
- Unsustainable landuse was noted to be ultimately unprofitable, so "sustainable rural landuse" is a direction of travel for which there would be good support.
- People noted that "achieve" and "improve" are in different places in different objectives (headline objectives vs contributing objectives)

- There was debate about the definition of "sustainable" and its relationship to steady states and to objective notions of balance.
   People observed that the contributing objectives help define terms in the headline box.
- A key issue lies at the heart of the Committee's challenge: objectives' achievability lies in the decisions about how fast to achieve them, and where in the whaitua to achieve them.

## Improvements to proposed objectives

Committee wanted the proposed objectives amended to reflect the following (see appendix 1)

- Mahinga kai has a location-specific element that's currently missing
- Taking seafood is a use of water common to all ethnicities in the whaitua
- Swimmable water quality (via pathogens) does not indicate safely edible kaimoana, so these should not be combined
- Hydrology's contribution to improved ecosystem health is important and is currently missing
- Access to the water should be added to the human health
- Amenity and wellbeing from water is currently missing and needs to be added
- The rural landuse objective needs work the top-level objective should be "Achieve sustainable rural landuse"

**Action:** The project team will rework the objectives and bring them back to Committee for the next meeting.

Dinner was held up so three short items were brought forward in the agenda to use the time.

#### Session 4 – updates from two working groups

(John Gibbs (Stormwater & Wastewater working group) (SW/WW WG); David Lee (Urban Development working group) (UD WG)

This was a 5-minute update to keep the Committee abreast of the groups' work

## Stormwater & Wastewater Working Group

- John told the Committee that key elements of the SW/WW WG's work to date have been getting a handle on the landscape and main issues, and working on their Scope of Work.
- The SoW's final draft will be presented to Committee for consideration at the July meeting.
- The SW/WW WG is focusing on learning about the status of the stormwater and wastewater networks and the implications for the whaitua. They have asked Wellington Water to inform them of the critical infrastructure issues and any easy or cheap fixes available.
- Another big question is how the two TAs' priorities and strategic plans for stormwater and wastewater infrastructure and for development fit into the whaitua work.
- The SW/WW WG are eager to keep the whaitua on the two TA councils' radars, both before and after the elections.
- The SW/WW WG gave a acknowledged the coordination and support from Nicci, Grace and Hayley.

#### Urban Development Working Group

 David told the Committee that similarly to the SW&WW WG, key elements of the UD WG's work to date have been getting a handle on the landscape and main issues, and working on their Scope of Work (SoW).

- The SoW's final draft will also be presented to Committee for consideration at the July meeting.
- Key considerations for the UD WG are:
  - The impacts on sedimentation and water quality of different urban development approaches, particularly noting their cumulative nature
  - The micro- and macro-economic impacts of environmentally friendly controls and requirements on development (noting the Committee's mandate to push in favour of these against the traditionally dominant elements)
  - The interplay between new developments (greenfield) and retrospectively improving existing areas
  - Political pressures including from councillors and also from the government, to be "open for business" and build more houses, and also from developers and other accustomed lobbyists
- The UD WG is charged with developing its policy package by Christmas 2016 and is also eager to brief the two TAs' governance

#### Session 5 - Values and Attributes working group update

(Sheryl Miller, Greater Wellington, and John McKoy, V&A WG)

Session purpose: This was a brief update to bring the Committee up to speed on the V&A wg's latest work.

#### Work update

- Identifying attributes for the economic use value has been parked for now, with the V&A wg seeking advice from the CMP Modelling Leadership group (MLG).
- Work is now underway for identifying attributes for the social values, being done with the CMP working group (a combined meeting was held prior to this Committee meeting) and facilitated by Jim Sinner (a member of the CMP-MLG).
- Members acknowledged Sheryl's work coordinating and supporting the working group.

## Nature of the work & new approaches

- Attributes are really tricky!
- Hauora Kaiao Ecological Health was by far the most straightforward.
- The V&A wg is now seeking more advice from the modellers for example the CMP-MLG will undertake a "doability and usability" exercise looking at the attributes for Hauora Kaiao - Ecological Health. Similar advice will be sought for other values' attributes.
- The modellers have been providing advice, but will provide more steering/direction if asked by working groups.
- This will be accompanied by lots of information on the assumptions, uncertainty and implications.

### Mātauranga Māori and modelling

There was a discussion about the approach to identifying attributes for mana whenua values and for incorporating mātauranga Māori into modelling. Some key points were:

 More clarity is sought on which of several possible approaches will be used for Te Awarua-o-Porirua Whaitua:

- build up and test some of the cutting-edge (but untested) models that have been developed
- and/ or build these into or operate them alongside the other modelling architecture
- feed mātauranga Māori into the more orthodox modelling somehow
- It was noted that Ngāti Toa will also be involved in the Wellington/Hutt whaitua.

Action: Greater Wellington and Te Runganga o Toa Rangatira, and the CMP-MLG, will have a discussion about the approach for incorporating mātauranga Māori, to clarify this.

#### Session 6 – Te Awarua-o-Porirua Whaitua Communications Plan

(Tracey Lewis, Senior Comunications Advisor, Greater Wellington)

See Whaitua Comms Plan and presentation on Whaitua Committee webpages

http://www.gw.govt.nz/assets/Environment-Management/Whaitua/Te-Awarua-oPorirua/Communications-plan-Porirua-Whaitua-June-2016-FINAL.pdf

http://www.gw.govt.nz/assets/Environment-Management/Whaitua/Te-Awarua-oPorirua/Presentation-Comms-Plan-2016-17.pdf

#### Session purposes:

Committee are informed about and happy to endorse the Communications Plan, and any further issues / ideas captured.

Tracey spoke to the proposed Plan and there was a brief discussion. Key points are below. (See also Appendix 2 for A1 notes).

#### Scope

- This is the plan outlining how GW's communications resources will be deployed for the whaitua.
- This does not limit the Committee from doing any of their own communications (e.g. on social media).
- The aim is to raise the public profile of the Committee and of Te Awarua-o-Porirua Whaitua project.
- It represents a doable amount of work, which is less than people may wish (e.g. in comparison with other larger scale communications campaigns like Get Welly Moving) but can be guaranteed to be delivered.
- The Plan does not include specifics about emergency or opportunistic communications, but these will be prepared for.
- There will be a separate engagement plan to outline the activities for the upcoming engagement (where the community is asked for their input).

#### Plan's genesis

- Tracey has created this plan in concert with the other work on whaitua communications – Ruamāhanga and the pan-whaitua communications strategy.
- She has used previous communications material including the original plan Donna Adlam presented to the Committee and the Committee's communicationspersona.

### Audiences & channels

- The activities outlined in the calendar are aimed at the general public and those groups with whom GW has an established line of communication.
- There was some discussion about the various audiences available to the Committee.
- An e-newletter is to be written and distributed on a two-monthly basis

- About 200 emails were gathered during the values engagement and these people will receive the e-newsletter. Committee members emphasised that it should be an e-newsletter not a (PDF) attachment.
- People commented that in the Ruamāhanga, the facebook page has become the focus of lively conversation about water. This has advantages and disadvantages, including questions about who bears the burden of managing and maintaining the conversations.
- The value of social media for Te Awarua-o-Porirua Whaitua needs to be discussed further with Committee
- Māori media were noted to be particularly keen on environmental stories, and there would be good uptake of whaitua material.
- Te Runanga o Toa Rangatira should be given signoff on any stories sent to Māori media.

# Emergency / opportunistic communicati ons

- Where there are opportunities to raise the whaitua's profile by piggybacking on a high-profile story (e.g. a stranded whale or algal bloom, local flooding, someone's dog in a stormwater pipe), quick turnaround will be needed.
- The Committee agreed Stu was the key point of contact for quotes, but not to speak on behalf of the whaitua Committee.
- Rather, his quotes would point out that the whaitua process was underway
  and relevant to the issue at hand, and to encourage people to engage with
  it

#### **Topics**

- It was noted that Transmission Gully would be a good hook for people to think about water and the whaitua, and the maintenance of erosion and sediment controls
- The *Living Waters* documentaries are a great source of video, which is great fodder for all kinds of communication.
- Tracey encouraged Committee members and PT to send her ideas for different topics to cover in the calendar communication activity, and ideas for alternative channels (e.g. alternative to Irrigation magazine for advertorial).

The Committee agreed to endorse the Communications Plan.

Action: Committee members to send Tracey content and advertorial ideas.

**Action:** Whaitua Committee member on Guardians of Pauatahanui Inlet (GoPI) Committee to investigate copyright questions for reusing *Living Waters*.

#### Session 7: Sedimentation working group proposal

(Alastair Smaill, Greater Wellington )

See presentation on Whaitua Committee webpages

<a href="http://www.qw.govt.nz/assets/Environment-Management/Whaitua/Te-Awarua-o-Porirua/SLIDE-Proposed-new-working-groups-plus-scopes.pdf">http://www.qw.govt.nz/assets/Environment-Management/Whaitua/Te-Awarua-o-Porirua/SLIDE-Proposed-new-working-groups-plus-scopes.pdf</a>

#### Session purpose:

Whaitua Committee make a decision about not having a separate Sedimentation
 WG

Alastair spoke to a proposal to merge the Sedimentation working Group with the Rural Issues and Urban Development working groups, instead of maintaining a separate working group. Brief discussion followed, and key points are below.

### Genesis of proposal

The PT is hearing that the workload for Committee members is getting heavy, and there is the real prospect of more frequent Committee meetings this year. Getting quorum at the current number of working groups is also challenging.

#### Pros and cons

- One fewer working group has workload and transaction-cost advantages.
- As per the diagram on the handout, the main elements of whaitua sedimentation fall neatly into the SoW of either the Urban Development or the Rural Issues working groups.
- There is a risk that some aspect of sedimentation that's neither rural nor urban will slip between the two WGs and not be addressed.
- The two working groups covering the various sedimentation issues will need to coordinate well.

**Action:** The Committee agreed to merge the Sedimentation working group into the Urban Development and Rural Issues working groups.

#### Session 8 – Review CMP working group's Scope of Work

(Stu Farrant, Chair and CMP working group, with John McKoy, CMP working group) See CMP WG's scope of work, on Whaitua Committee webpage <a href="http://www.qw.qovt.nz/assets/Environment-Management/Whaitua/Te-Awarua-o-Porirua/Draft-Scope-of-Work-CMP-Working-Group.pdf">http://www.qw.qovt.nz/assets/Environment-Management/Whaitua/Te-Awarua-o-Porirua/Draft-Scope-of-Work-CMP-Working-Group.pdf</a>

#### Session purposes:

 The Committee can get familiar with the CMP WG's SoW and make decision to confirm it or rework it

Stu presented the CMP WG's SoW document, and there was discussion with Committee. Key points are below.

### Scope and activities

The CMP WG's challenge role is about ensuring that the actions / tasks / requests the other WGs generate for the CMP team are workable and valid. The big questions out of the CMP WG must go to the full Committee for consideration.

Like the other WGs, this one does not need (and should not try) for consensus – this is only required at full Committee.

### Governance considerations

There will be judgment calls about how to balance several competing forces:

- Retaining line-of-sight / transparency for Committee into the modelling work ("Making sure you all understand it enough",)
- o Protecting Committee's mandate to make the big decisions
- The need for the WG to do its job enable work to proceed faster than if everything had to be done with the full Committee
- The way the WG brings advice to full Committee for consideration – presenting options, without needing consensus, but supporting the Committee to reach it easily
- This SoW will be a work in progress, and it showcases many of the governance questions in the various moving parts in the Whaitua project.
- The WG will keep the Committee well informed about work and

challenges.

 The CMP WG includes members of each of the other WGs, which is a valuable mechanism for transparency (assuming attendance and regular updates).

### Example: scenario modelling

- Cost will limit the number of scenarios that can be modelled, so
  decisions will be needed about which ones we decide not to model.
- This decision must be Committee's.
- This will be a negotiation not everyone will agree. Pros and cons of various options should be brought back to the Committee, with recommendations that don't need to be supported by a consensus in the WG.

Action: Committee agreed to approve the CMP WG's SoW.

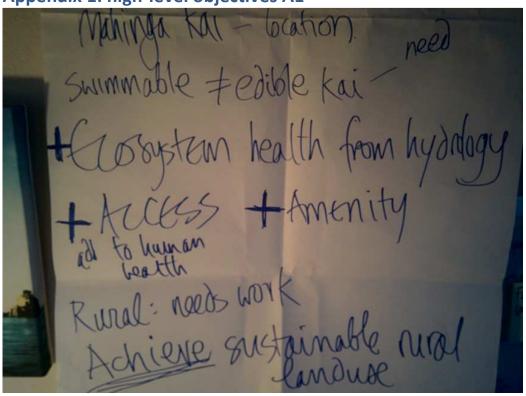
#### **Any other business**

The July Meeting agenda is:

- Freshwater Management Units (FMUs) for Te Awarua-o-Porirua Whaitua
   big session
- Information session: Catchment-scale Urban Design
- Information session: Sediment sources in Te Awarua-o-Porirua Whaitua
- V&A WG report back Attributes for Hauora Kaiao Ecological Health
- CMP WG report back
- WG Governance: SW &WW WG, and UD WG updates and review scopes of work

There was a request for an information session on flood protection.

**Appendix 1: high-level objectives A1** 



**Appendix 2: Communications Plan discussion notes** 

