Report of Te Awarua-o-Porirua Whaitua Committee Workshop

29 March 2018, Te Puni Kōkiri, Porirua

Summary

Contents

Overview

Workshop attendees

Te Awarua-o-Porirua Whaitua Committee:
Diane, Hikitia, Jennie, John G, Sharli-Jo, Warrick, John M, Stu (Chair)

Apologies: Dale, Barbara, David, Larissa, Richard

Project Team: Alastair (Project Manager), Suze, Jon, Grace, Brent, Jon, Sheryl, Paula, Keith (PCC), Kara (WWL)

Facilitator: Michelle Rush

Guests:

- Ned Norton, Land Water People
- Torrey McDonnell, Principal Planner, Porirua City Council
- Sue Ira, Koru Environmental
- Reuben Ferguson, Morphum Environmental
- Kristy McGregor, Mitchell Daysh
- Stephen Daysh, Mitchell Daysh

Workshop purpose

The purposes of this workshop were to:

1. Complete our analysis of the current state results and other supporting information and develop a story of the WMU as it is today.

2. Begin to work with the scenario modelling outputs, focusing on the results from the urban hydrology case studies and starting to identify the Committee's preferences for managing urban development for its impact on stream flows.

3. Debrief our two community engagement meetings with Wellington City Council and TAoP Harbour and Catchment Joint Committee, and work through our future engagement commitments.

Purpose 1 was partly achieved, with 7 of the 10 water management unit groupings being explored; Purpose 2 was completed, and Purpose 3 was partially completed with agreement of Committee member attendance at future engagements.

Committee Decisions and actions to do	
Committee Decisions	1. No specific decisions made at this workshop.
Actions	1. Committee members to attend council engagement events over the next month (details below). 2. Project team to further develop maps for use in objective setting analysis – aerial satellite maps with WMU boundaries and water body names. 3. Project team to initiate a glossary of common and traditional water body names. 4. Project team to transfer committee material to place by place summary sheets for next meeting.

Workshop Notes

Session 1 – Welcome and getting started

Stu Farrant, Chair

Agenda:

1. Welcome & Karakia *(Stu Farrant, Jennie Smeaton, 5.00pm – 5.10pm)*
2. Te Awarua-o-Porirua Whaitua: Current State of Freshwater *(Brent King, GWRC, 5.10pm – 6.30pm)*

Dinner break (6.30pm – 7.00pm)

3. Te Awarua-o-Porirua Whaitua: Urban Hydrology *(Collaborative Modelling Team, 7.00 – 8.30pm)*
4. Community Engagement Report back (Committee*, 8.30-8.45pm)*
5. Any other business (*Stu Farrant, 8.45pm – 9.00pm*)

Karakia

Meeting Close 9.00pm

Session 1 – Agenda & Introduction

Jennie welcomed the Committee, project team and guests to the Maui Room of Te Puni Kōkiri House which has only just opened and is decorated with paintings from Maori artists. Maui took risks and made good decisions - bodes well for our Committee!

Kara Dentice's (WWL, PNST) Koro set up the movement of regional Te Puni Kōkiri offices, when it was Ministry of Maori Affairs, and as such Kara undertook the karakia to start the workshop.

Michelle introduced Kristy McGregor, Mitchell Daysh, as the new facilitator.

Session 2 – Te Awarua-o-Porirua Whaitua: Current State of Freshwater – Part 2

See presentation from March 8 workshop here:
PRESENTATION Urban hydrology case study modelling for Te Awarua-o-Porirua Whaitua Committee Workshop 29 March 2018.

See fresh water current state modelling results here:
RESULTS TAoPW information for objective setting - freshwater current state 8 March 2018

See Appendix One for exercise sheets.

General commentary about identification of the streams (both traditional and common names) and the need to be confident about their origins and location.

ACTIONS:

- Aerial satellite photo with boundaries is needed for this type of detailed analysis
- A glossary of common names and traditional names is also needed to make sure references are accurate

Session 3 - Urban Hydrology

See presentation here: Urban Hydrology Case Study Modelling for Te Awarua-o-Porirua Whaitua
See cover memo here: MEMO Intro to modelling impacts of greenfield and infill development scenarios on stream flows and ecosystem health for 29 March 2018

By Brent King, (GWRC), Sue Ira (Koru Environmental) and Reuben Fergusson (Morphum Environmental)

Questions & Answers Session

- Different soils have different permeability and for the purposes of the modelling 2mm per hour was adopted
- In other parts of the country soil analysis is undertaken in order to customise best practice with regards to retention practices

- GW have done some work on Porirua Stream on stream bank erosion (which contributes sediments to harbour) which says 2 year flow events are having a larger impact than 100 year events - more frequent, so if reduce total flow and frequency it would reduce stream bank erosion
- With regards to the use of dams to slow down the water, sometimes they actually contribute to erosion because of poor practices
- Historically we've encouraged flow to avoid flood risk - but these practices can be complementary not competitive
- With regards to the costs of detaining or retaining water, private capital has been included (see Slide 28, Cost Results – urban costs), but these amounts haven't yet been split in to public and private – this information will come later.
- The estimation of dwellings for each case study are Camborne 718 and Keneperu 3800.
- It was noted that there is an opportunity with greenfield development to put more of the common costs on to the developer, with the suggestion that the maintenance of the asset becomes the responsibility of the network operators over the lifecycle of the asset.
- Agreed that if there are identified wetlands within a development area, the current practice is to protect them. This has been achieved recently to varying levels of success, and the committee may want to make recommendations to strengthen the effect of these protections.

General Discussion Points

- The purpose of the life cycle cost analysis is to be able to consider the entire economic cost and benefit and to acknowledge estimated life of an asset. A 5-year lifetime was applied as the modelling drew on the work of NIWA who uses this metric, plus the majority of the treatment interventions in this model are vegetative (rather than plastic / concrete) so 50 years is reasonable. Also to note that uncertainty increases significantly as longer life spans are adopted.
- Need to consider whether the ongoing cost of maintaining an asset falls to private or public responsibility
- A private developer is likely to consider the space taken up for water sensitive measures (for example wetlands) as lost 'lots'. Question is whether this results in decreased or increased value. This could be turned around so that the environmental features are secured as the first step of a development and the lot sizes and numbers calculated as the second measure.
- If water sensitivity - and other environmental values - are considered at the beginning of a development design, this would shift practices significantly, as it is normally the civil engineering that is initially considered
- Reduced earthworks and reduced impervious areas costs are taken into account
- At the next two meetings contaminant results will be presented which will provide a fuller cost and benefit picture with regards to the impacts of urban development on water quality
- Important to consider who will bear the burden of the costs, all land owners are not equal in terms of ability to pay, for example, Housing NZ owns 2000 dwellings in the catchment.
- In general, the presentations' take home messages were consistent that the cost benefit is really positive for WSUD.

Exercise - See Appendix Two for results write up.

Plenary
Group 1: Water quality is an integral part of all future development - looking for a stable flow which gives the best chance of maintains the ecology of the stream

Group 2: Where there are existing streams they need to be protected, including ephemeral streams.

Session 4 – Community Engagement

There was not enough time left to discuss the two engagement events held, except that they were of high value and the involvement of Committee members in both was important - think, we're doing better than Levin!

Call for Committee support:

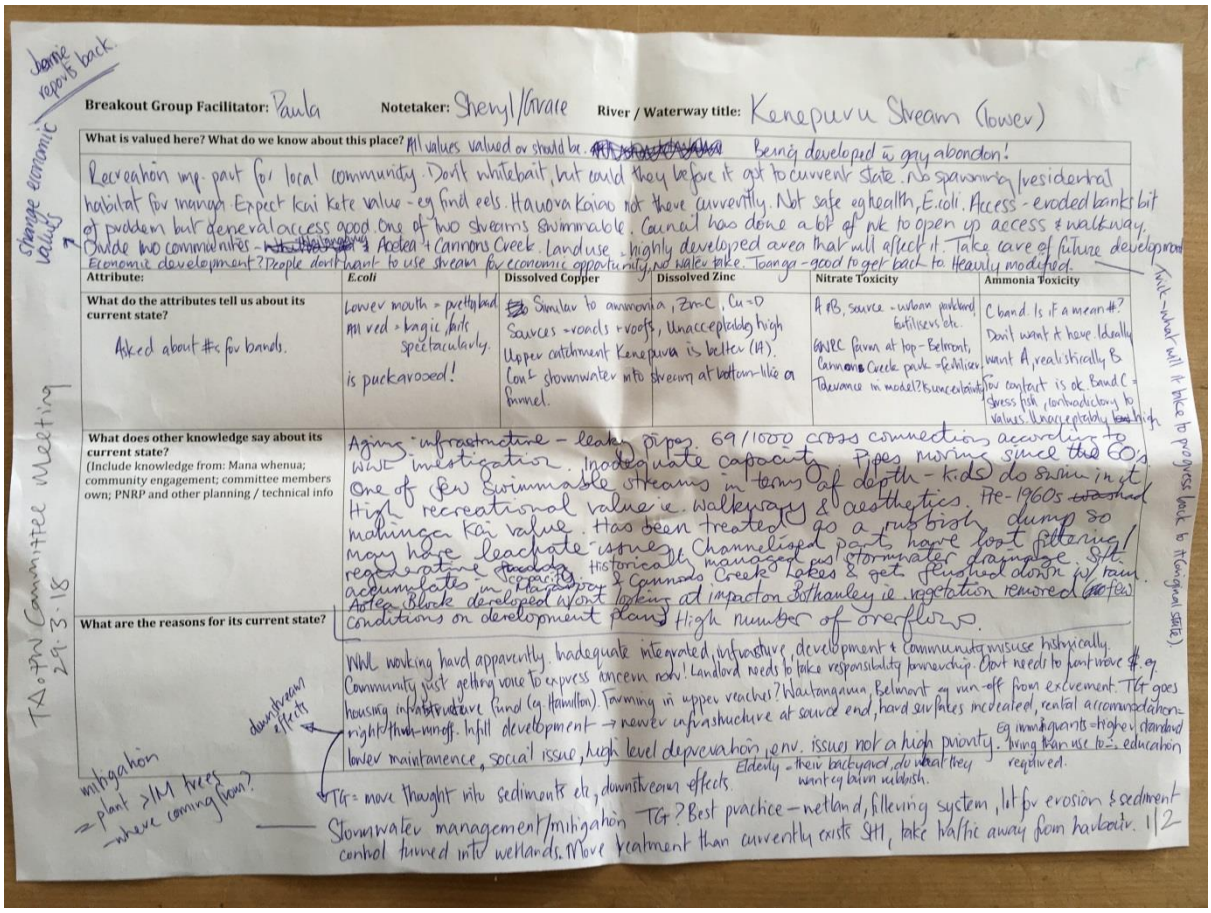
- WCC Councillor Workshop, May 10 - Stu, John M, Sharli (TBC), Diane (TBC)
- PCC Councillor Workshop, April 26 - Diane, Stu, John G, Sharli
- PCC Go Deep Developer Focus Group Meeting, April 20 - John M, John G, Diane

Session 5 - Any Other Business

- Stu away for June meeting - Sharli Jo will chair the June meeting in his absence.
- Al thanked Michelle Rush for stepping in and facilitating the workshops, giving the project team time to find a permanent facilitator.
- Stu thanked Reuben and Sue for their modelling presentations and Jennie for the venue.

Jennie then closed the workshop at 9pm with a karakia.

APPENDIX ONE – Te Awarua-o-Porirua Whaitua – Freshwater Current State Exercise



Breakout Group Facilitator: Paula Notetaker: Sheryl/Gracie River / Waterway title: Kenepuru Stream (lower)

What is valued here? What do we know about this place? All values valued or should be. Being developed in gay abandon!

Recreation imp part for local community. Don't whitebait, but could they before it got to current state. No spawning/residential habitat for inanga. Expect kai kete value - eg find eels. Hauora kaiao not there currently. Not safe eg health, E.coli. Access - eroded banks bit of problem but general access good. One of two streams swimmable. Council has done a bit of wk to open up access & walkway. Divide two communities - Aotea & Cannons Creek. Land use - highly developed area that will affect it. Take care of future development. Economic development? People don't want to use stream for economic opportunity, no water take. Toanga - good to get back to. Heavily modified.

Attribute:	E.coli	Dissolved Copper	Dissolved Zinc	Nitrate Toxicity	Ammonia Toxicity
What do the attributes tell us about its current state? Asked about #s for bands.	Lower mouth = pretty bad mid reach = bagic, pits spectacularly. is puckaroood!	Similar to ammonia, Zn>C, Cu>D Sources - roads + roofs, Unacceptably high Upper catchment Kenepuru is better (H). Can't stormwater into stream at bottom - like a funnel.		#3, source - urban parkland fertilisers etc. GWRC farm at top - Belmont, Cannons Creek park - fertiliser. Relevance in model? Is uncertainty	C band. Is it a mean #? Don't want it have. Ideally want A, realistically B for context is ok. Band C = stress fish, contradictory to values. Unacceptably high

What does other knowledge say about its current state? (Include knowledge from: Mana whenua; community engagement; committee members own; PNRP and other planning / technical info

Aging - infrastructure - leaky pipes. 69/1000 cross connections according to WWL investigation. Inadequate capacity. Pipes moving since the 60's. One of few swimmable streams in terms of depth - kids do swim in it. High recreational value ie. walkways & aesthetics. Pre-1960s ~~wasteland~~ mahinga kai value. Has been treated as a rubbish dump so may have leachate issues. Channelised part, have lost filtering/ regenerative capacity. Historically managed as stormwater drainage. Silt accumulates in transport & Cannons Creek Lakes & get flushed down in rain. Aotea Block developed w/out looking at impacts. Bothanley is vegetation removed ~~(no trees)~~ conditions on development plans. High number of overflows.

What are the reasons for its current state?

Wwl working hard apparently. Inadequate integrated, infrastructure, development + community misuse historically. Community just getting voice to express concern now! Landlord needs to take responsibility for ownership. Govt needs to part/move $ eg housing infrastructure fund (eg Hamilton). Farming in upper reaches? Wautangama, Belmont eg run-off from excrement. TG goes right/thru runoff. Infill development → newer infrastructure at source end, hard surfaces increased, rental accommodation lower maintenance, social issue, high level deprivation, env. issues not a high priority. eg immigrants = higher standard living ~~ban use to~~ = education required. Elderly - their backyard, do what they want eg farm rubbish.

TG = more thought into sediments etc, downstream effects.

Stormwater management/mitigation TG? Best practice - wetland, filtering system, lot for erosion & sediment control turned into wetlands. More treatment than currently exists Stt, take traffic away from harbour. 1/2

mitigation = plant >1M trees where coming from?

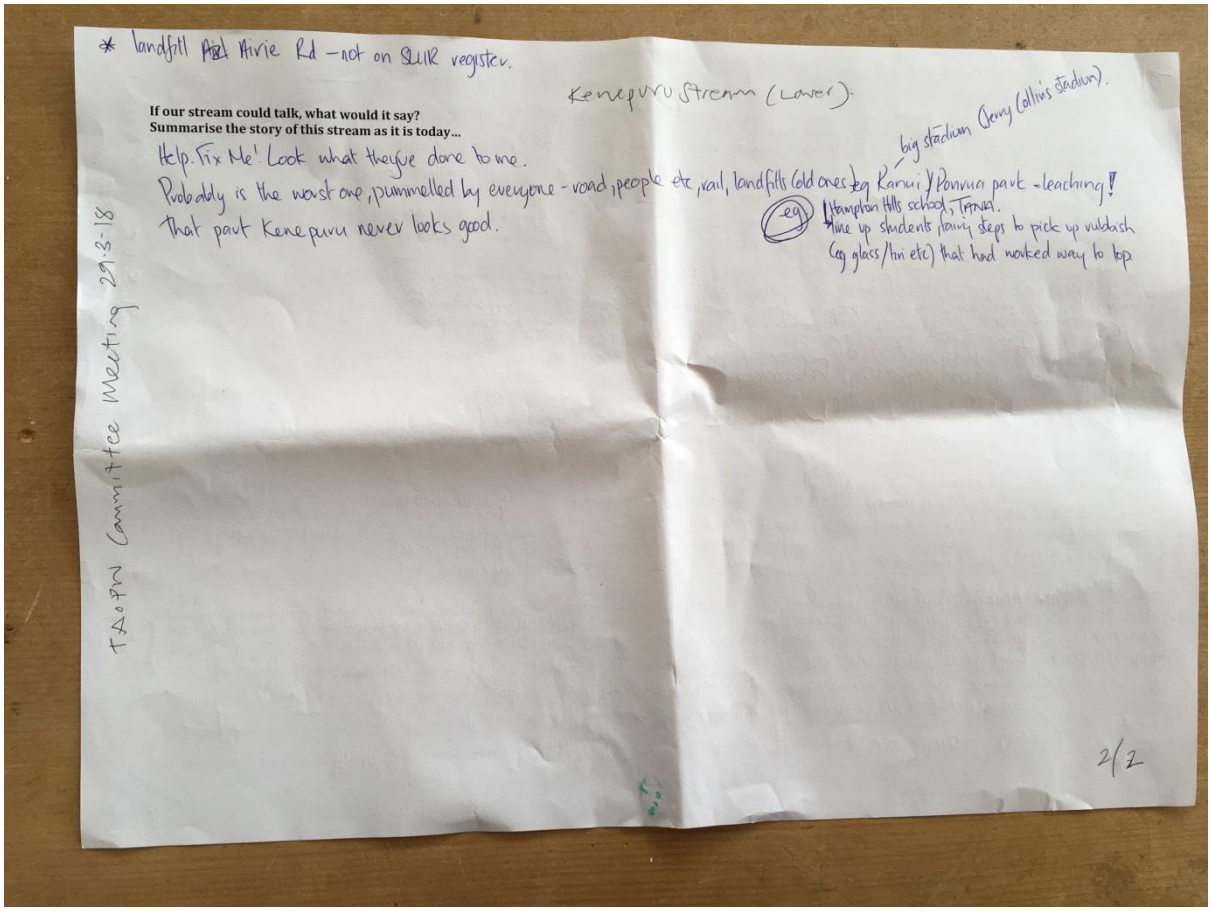
downstream effects

Stage economic values

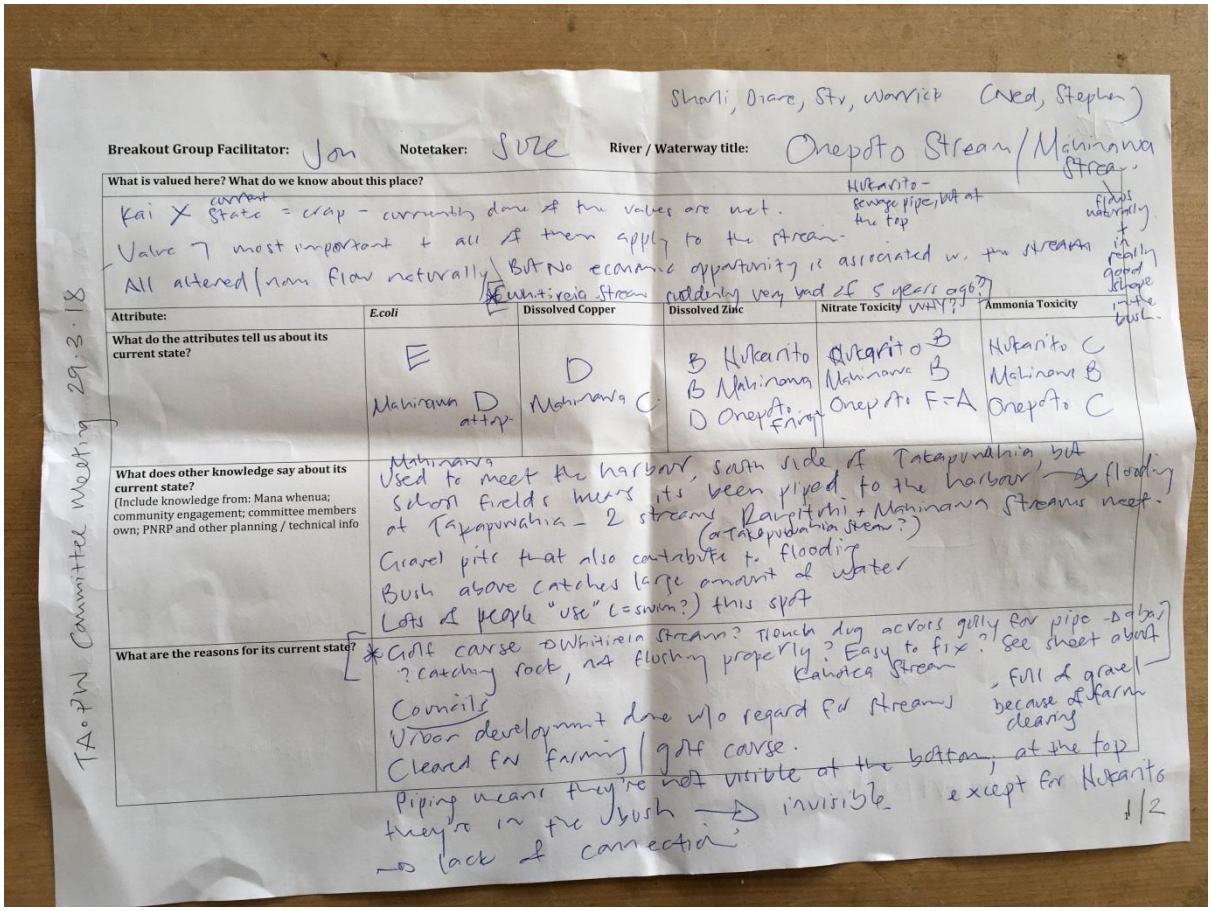
Jamie reports back.

TAoPW Committee Meeting 29.3.18

Final - what will it take to progress back to (Original State)



KENEPURU STREAM (LOWER) Page 1 of 2



Shorli, Grace, Stv, Warrick (Ched, Stephen)

Breakout Group Facilitator: Jon **Notetaker:** Suze **River / Waterway title:** Onepoto Stream / Mahinawa Stream

What is valued here? What do we know about this place?

Kai X current state = crap - currently done if the values are met.
Value 7 most important + all of them apply to the stream.
All altered/non flow naturally / BUT No economic opportunity is associated w. the streams
Hukarito - sewage pipe, but at the top
flows naturally + in really good shape in the bush.
Kumitoria stream suddenly very bad (5 years ago?)

Attribute:	E.coli	Dissolved Copper	Dissolved Zinc	Nitrate Toxicity (WHY?)	Ammonia Toxicity
What do the attributes tell us about its current state?	E Mahinawa D at top	D Mahinawa C	B Hukarito B Mahinawa D Onepoto, Fringe	Hukarito B Mahinawa B Onepoto F=A	Hukarito C Mahinawa B Onepoto C
What does other knowledge say about its current state? (Include knowledge from: Mana whenua; community engagement; committee members own; PNRP and other planning / technical info	Mahinawa Used to meet the harbour, south side of Tapapuwahia, but school fields means its been piped to the harbour → flooding at Tapapuwahia - 2 streams Rangitahi + Mahinawa streams meet. (at Tapapuwahia Stream?) Gravel pits that also contribute to flooding Bush above catches large amount of water Lots of people "use" (=swim?) this spot				
What are the reasons for its current state?	* Golf course Whitireia Stream? Trench dug across gully for pipe - Arbor ? catching rock, not flushing properly? Easy to fix? See sheet about Kaiwaka Stream Councils Urban development done w/o regard for streams Cleared for farming / golf course. Piping means they're not visible at the bottom, at the top they're in the bush → invisible → lack of connection				, full of grave because of farm clearing except for Hukarito

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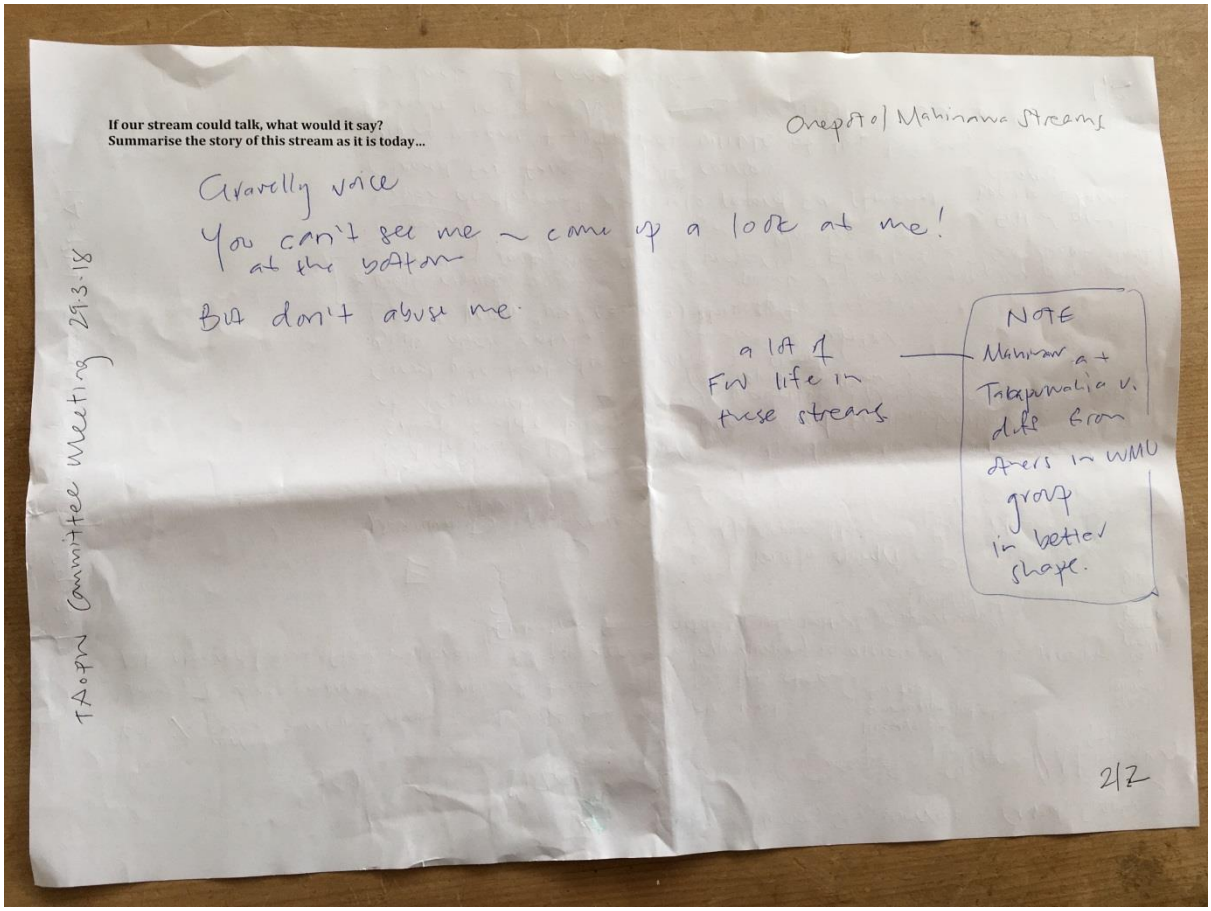
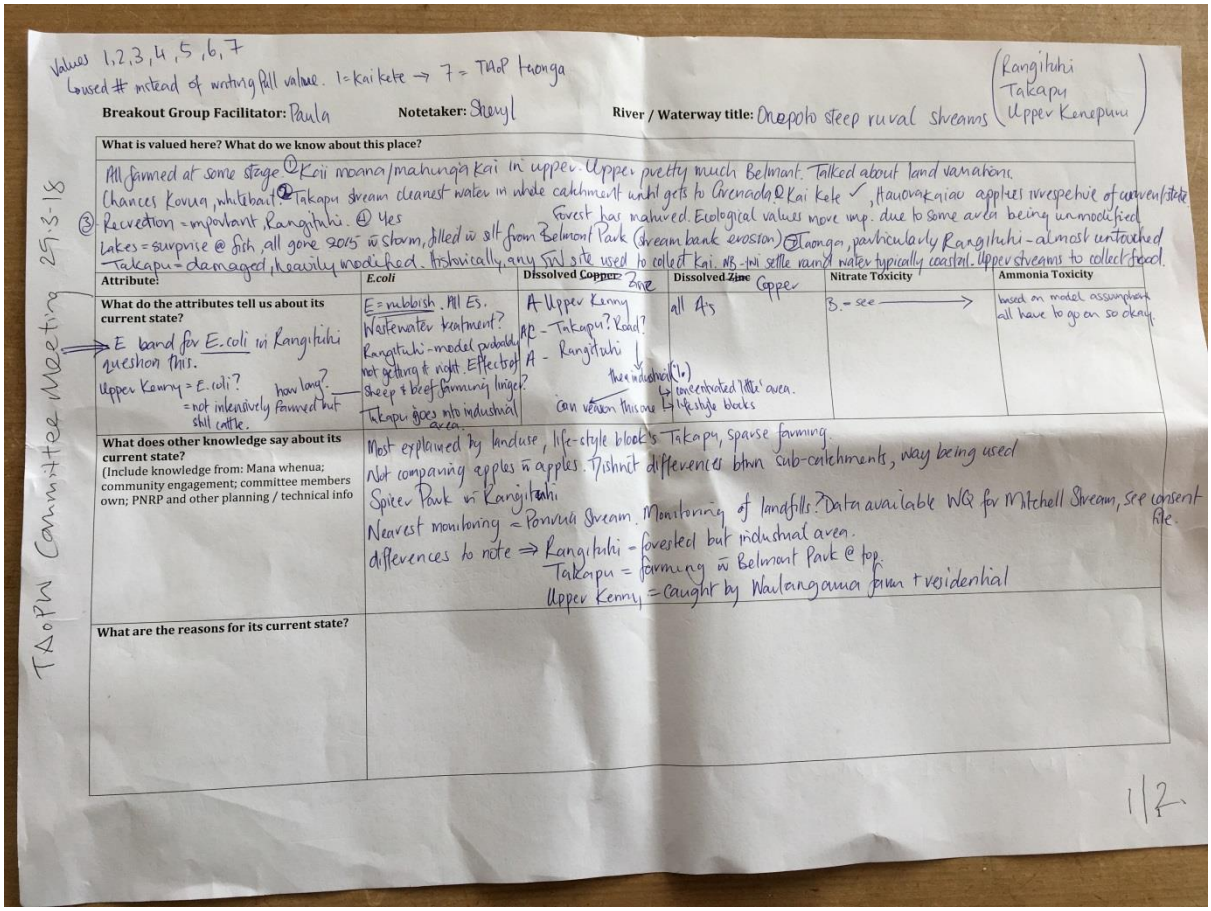

If our stream could talk, what would it say?
Summarise the story of this stream as it is today...
Onepoto/Mahinawa Streams
Gravelly voice
You can't see me ~ come up a look at me!
at the bottom
But don't abuse me.
a lot of
Fw life in
these streams
NOTE
Mahinawa at
Tatapuwaiia v.
diff from
others in WMU
group
in better
shape.
TAOTN Committee Meeting 29.3.18
2/2



Values 1,2,3,4,5,6,7
Used # instead of writing full value. 1=kai kete → 7= TMoP taonga

Breakout Group Facilitator: Paula **Notetaker:** Steryl **River / Waterway title:** Onepoto steep rural streams (Rangituhi, Takapu, Upper Kenepuru)

What is valued here? What do we know about this place?

Pill farmed at some stage ① Kaii moana/mahinga kai in upper. Upper pretty much Belmont. Talked about land variations.
Chances Kowai, whitebait ② Takapu stream cleanest water in whole catchment until gets to Grenada & Kai kete ✓, Hauora taiao applies irrespective of current state
③ Recreation = important Rangituhi. ④ Yes
Lakes = surprise @ fish, all gone 2015 w storm, filled w silt from Belmont Park (stream bank erosion) ⑤ Taonga, particularly Rangituhi - almost untouched
Takapu = damaged, heavily modified. Historically, any flat site used to collect kai. NB - iwi settle near water typically coastal. Upper streams to collect food.
Forest has matured. Ecological values more imp. due to some areas being unmodified

Attribute	E.coli	Dissolved Copper ~~Zinc~~	Dissolved ~~Zinc~~ Copper	Nitrate Toxicity	Ammonia Toxicity
What do the attributes tell us about its current state? → E band for E.coli in Rangituhi question this. Upper Kenny = E.coli? how long? = not intensively farmed but still cattle.	E = rubbish. All Es. Wastewater treatment? Rangituhi - model probably not getting it right. Effects of sheep & beef farming linger? Takapu goes into industrial area	A - Upper Kenny; Ap - Takapu? Road?; A - Rangituhi ↓ three industrial (1.) ↳ concentrated 'flat' area. ↳ lifestyle blocks. Can version this one	all As	B - see →	based on model assumptions all have to go on so okay.
What does other knowledge say about its current state? (Include knowledge from: Mana whenua; community engagement; committee members own; PNRP and other planning / technical info	Most explained by landuse, life-style blocks Takapu, sparse farming. Not comparing apples w apples. Distinct differences btwn sub-catchments, way being used. Spicer Park w Rangituhi. Nearest monitoring = Porirua Stream. Monitoring of landfills? Data available WQ for Mitchell Stream, see consent Re. differences to note ⇒ Rangituhi = forested but industrial areas. Takapu = farming w Belmont Park @ top. Upper Kenny = caught by Waitangamoa farm + residential				
What are the reasons for its current state?					

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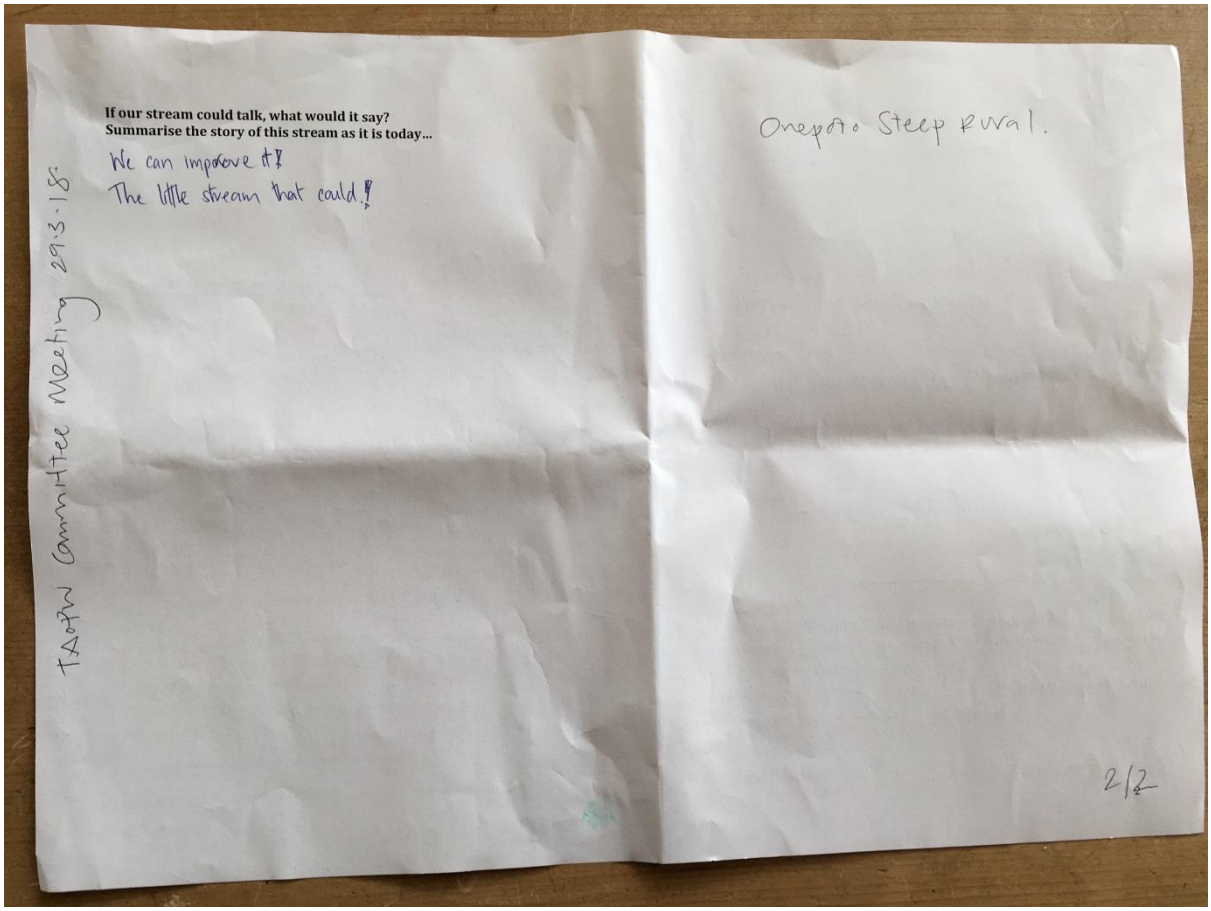
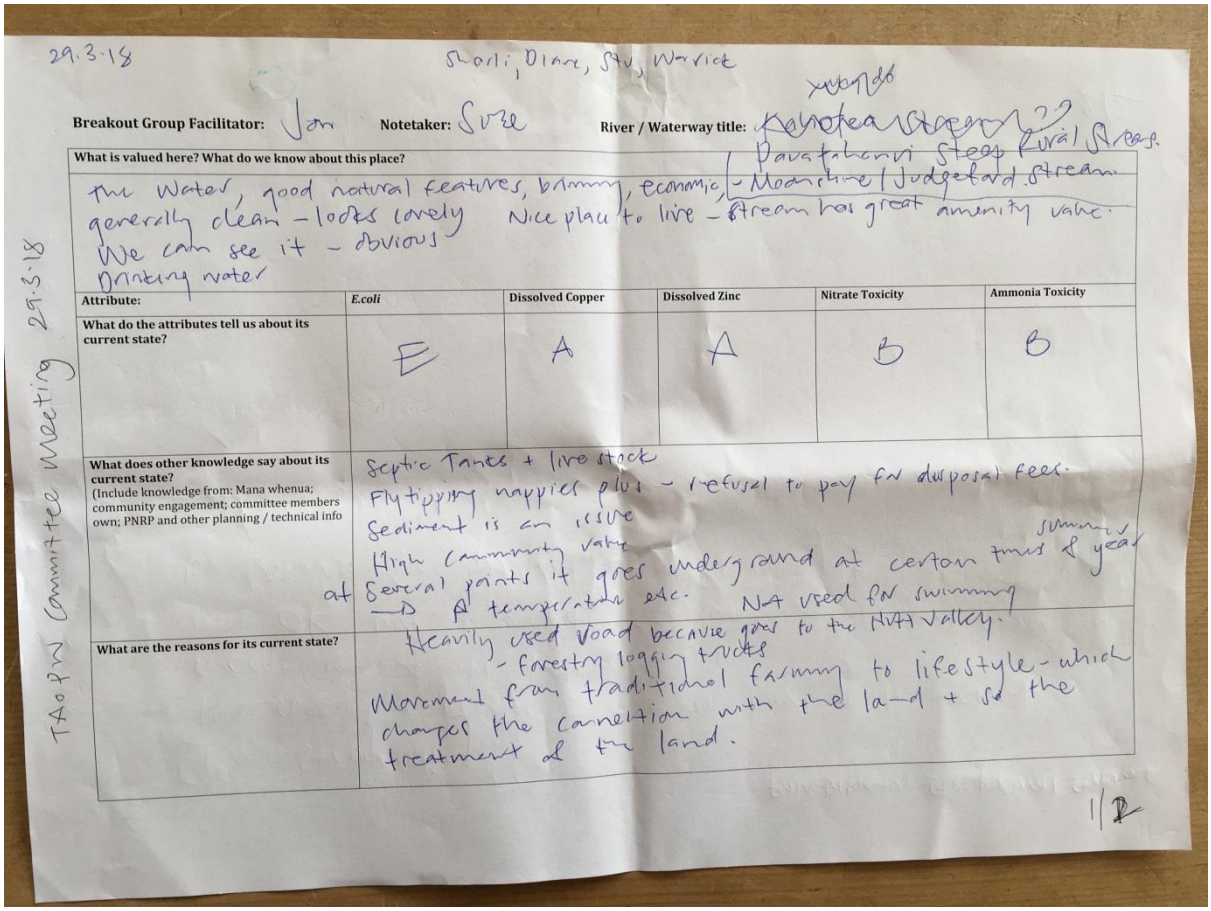

If our stream could talk, what would it say?
Summarise the story of this stream as it is today...
We can improve it!
The little stream that could!
TAOTW Committee Meeting 29.3.18
Onepoto Steep Rural.
2/2



29.3.18 Shorli, Diane, Stu, Warrick

Breakout Group Facilitator: Jon Notetaker: Suze River / Waterway title: Kahotea Stream ??

Pauatahanui Steep Rural Streams

What is valued here? What do we know about this place?

The water, good natural features, brimmy, economic, - Moanitine / Judgeford Stream
generally clean - looks lovely Nice place to live - stream has great amenity value.
We can see it - obvious
Drinking water

Attribute:	*E.coli*	Dissolved Copper	Dissolved Zinc	Nitrate Toxicity	Ammonia Toxicity
What do the attributes tell us about its current state?	E	A	A	B	B

What does other knowledge say about its current state?
(Include knowledge from: Mana whenua; community engagement; committee members own; PNRP and other planning / technical info

Septic Tanks + live stock
Flytipping nappies plus - refusal to pay for disposal fees.
Sediment is an issue
High community value
at several points it goes underground at certain times of year summer
→ temperature etc. Not used for swimming

What are the reasons for its current state?

Heavily used road because goes to the Hutt Valley.
- forestry logging trucks
Movement from traditional farming to lifestyle - which changes the connection with the land + so the treatment of the land.

1/2

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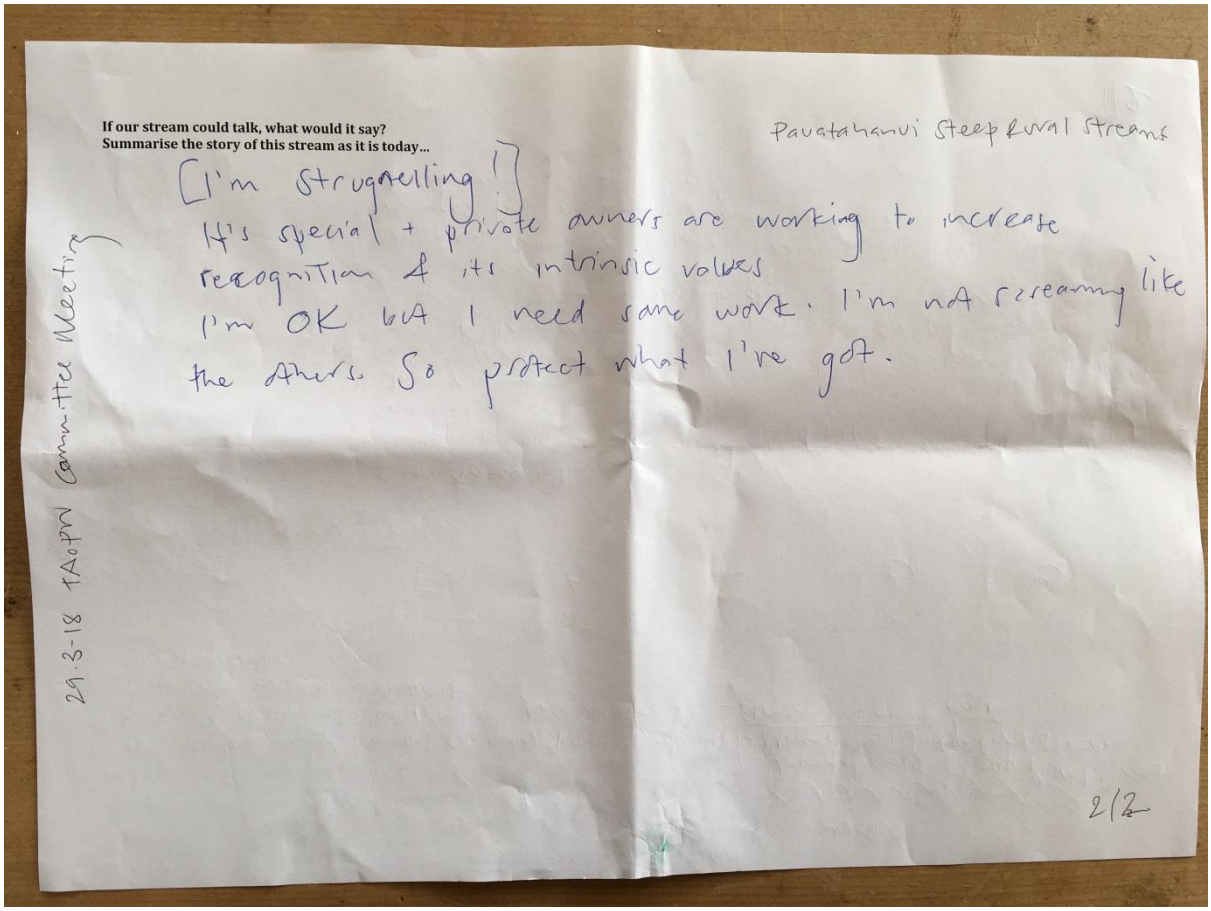

If our stream could talk, what would it say?
Summarise the story of this stream as it is today...

Pauatahanui Steep Rural Streams

[I'm Struggelling!]
It's special + private owners are working to increase recognition & its intrinsic values
I'm OK but I need some work. I'm not screaming like the others. So protect what I've got.

29.3.18 PAOPW Committee Meeting

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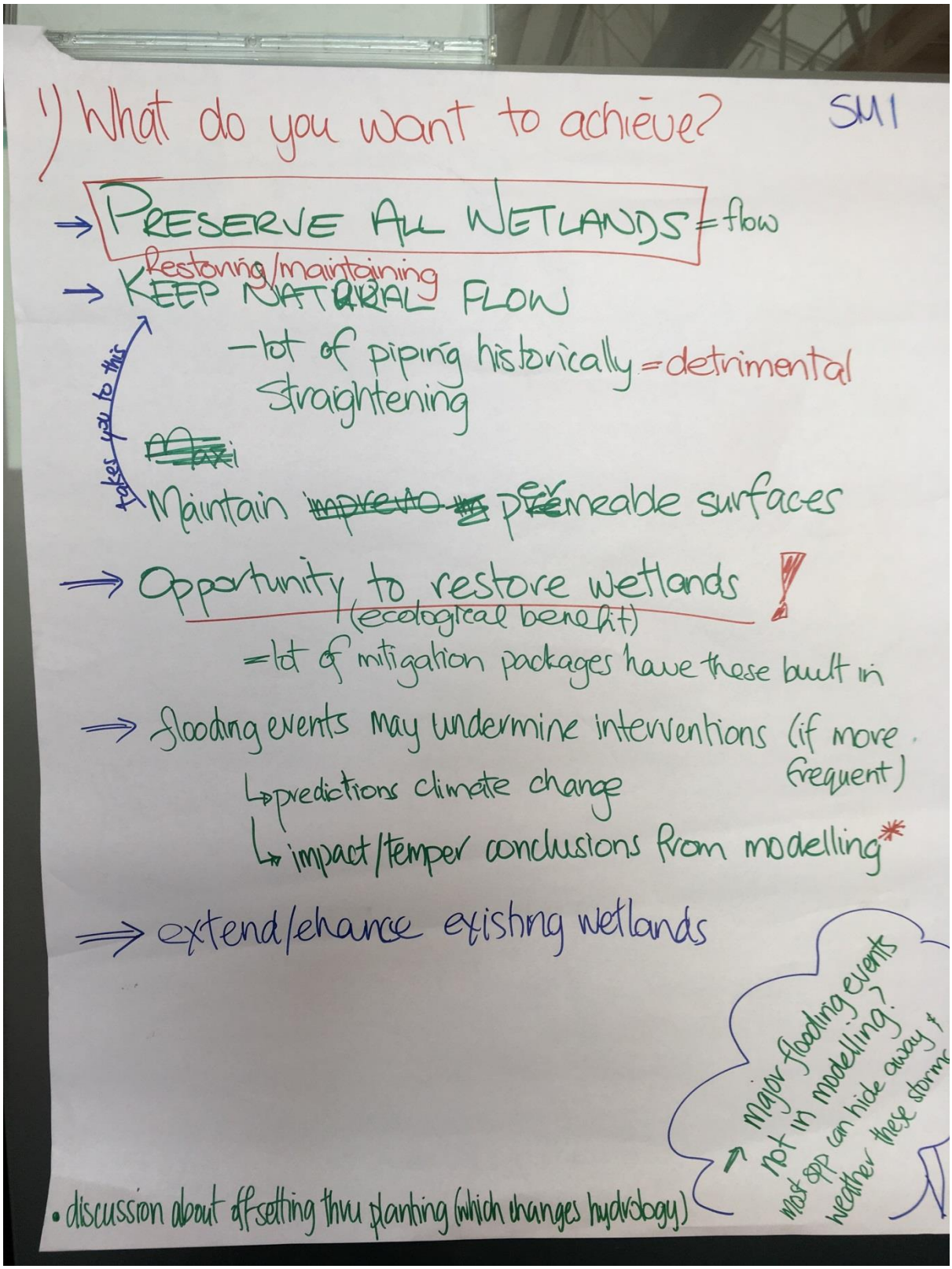
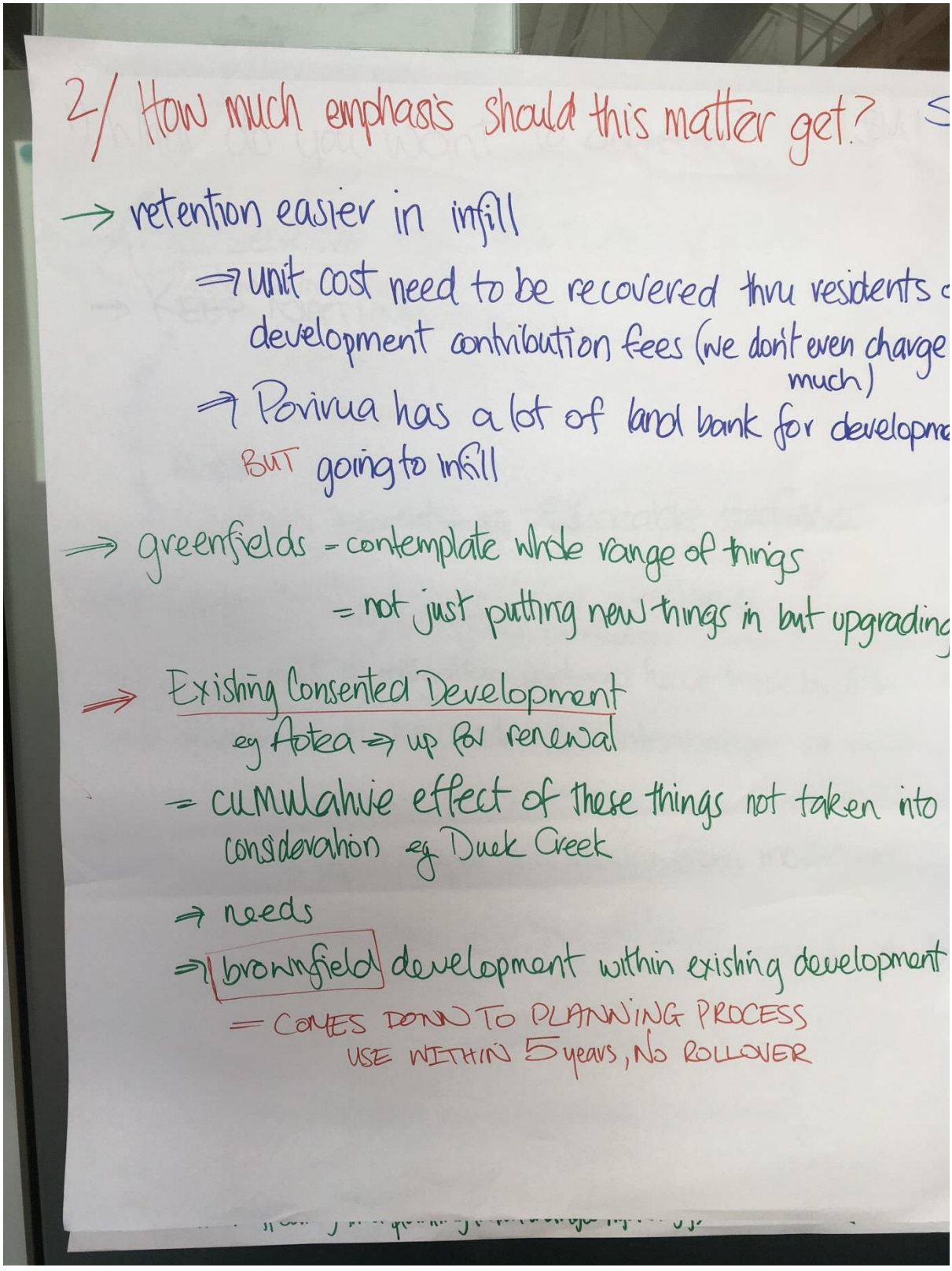
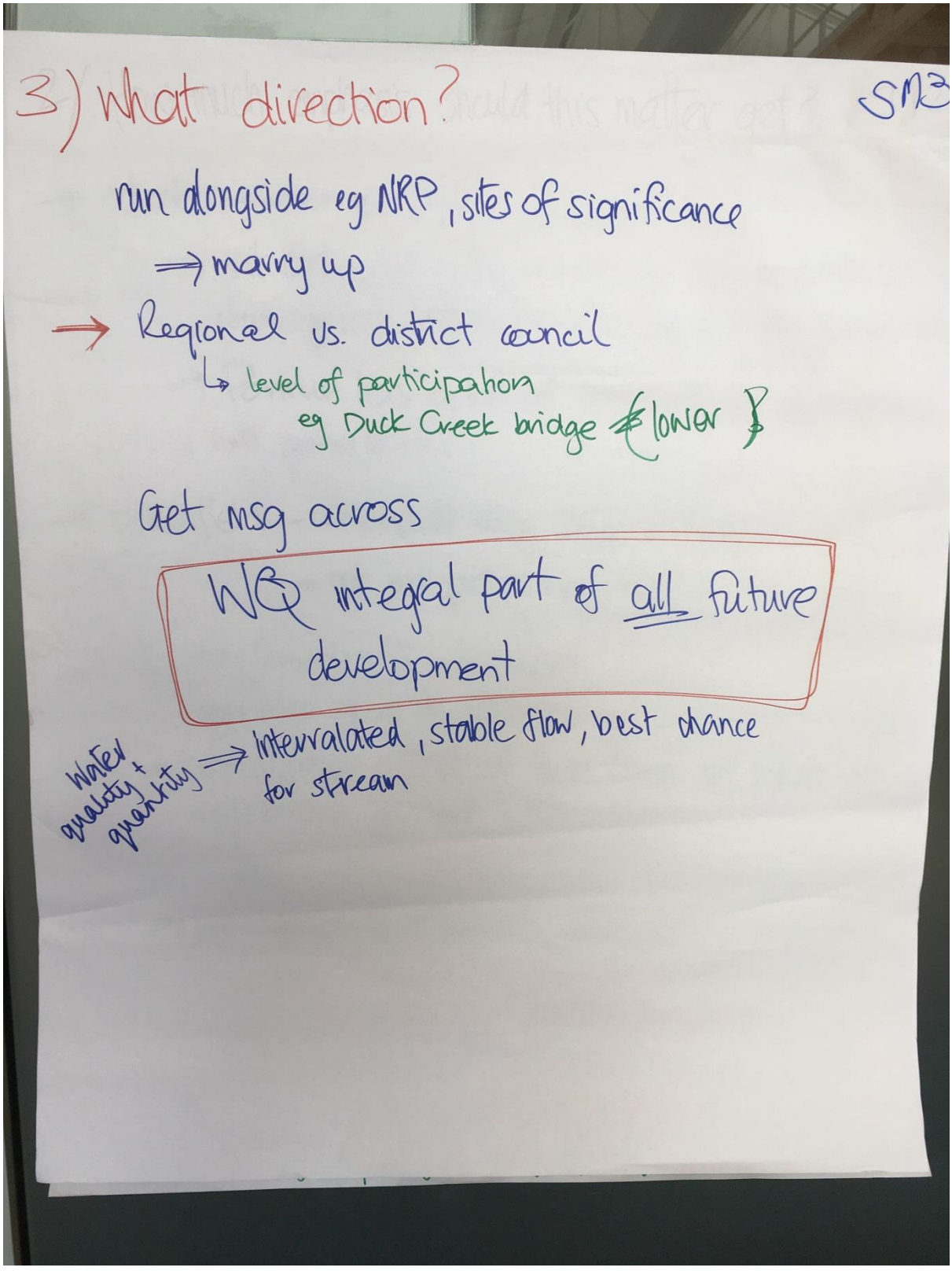
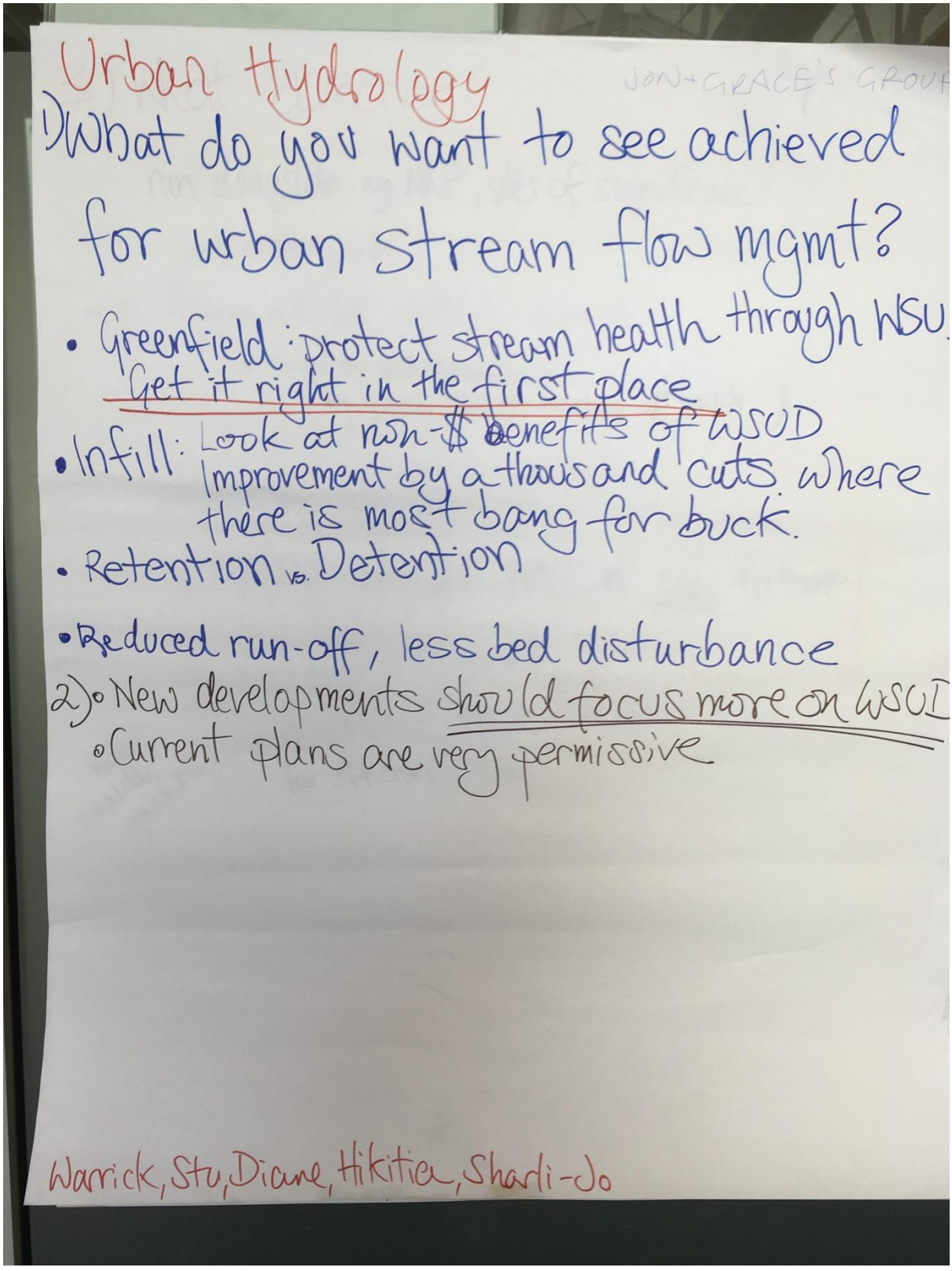
APPENDIX TWO – Urban Hydrology



Urban Hydrology write up - Group 1 Page 1 of 3


2/ How much emphasis should this matter get?
→ retention easier in infill
⇒ unit cost need to be recovered thru residents
development contribution fees (we don't even charge much)
⇒ Porirua has a lot of land bank for developm
BUT going to infill
⇒ greenfields = contemplate whole range of things
= not just putting new things in but upgrading
⇒ Existing Consented Development
eg Aotea ⇒ up for renewal
= cumulative effect of these things not taken into consideration eg Duck Creek
⇒ needs
⇒ brownfield development within exising development
= COMES DOWN TO PLANNING PROCESS
USE WITHIN 5 years, NO ROLLOVER


3) What direction?
SM3
run alongside eg NRP, sites of significance
⇒ marry up
→ Regional vs. district council
↳ level of participation
eg Duck Creek bridge ≠ lower
Get msg across
WQ integral part of all future development
Water quality + quantity ⇒ intervalated, stable flow, best chance for stream



Urban Hydrology write up - Group 2 Page 1 of 1