

	<b>Comments left on follow-up board</b>	<b>Phil's responses</b>
1	Mauri - How does life work here? How are we nourishing the Mauri of these waters? Our people? Ko au te awa, ko te awa ko au - I am the river and the river is me.	This is something for us to work through together.
2	Acknowledge that we are co-evolving - We as people (council, community, professionals, etc), we as water beings. How will we work whole?	This is something for us to work through together.
3	Regarding Ecomatter surveys – did the community express concerns about costs and their ability to pay?	Cost has certainly been raised as a barrier, but hasn't come through as a major theme.
4	Artistically inspired sign – Activating and inspiring wonder living system	Agree that this would be a good idea to explore. The Waitakere Ranges Local Board have a grants fund that could help fund artistically inspired signs.
5	Is the Mill Camp system to be upgraded?	The Mill Camp system is being reviewed along with the others that are owned by council in these catchments. No decision has been made on whether an upgrade is required, but it is likely that changes to the management of the existing system will be recommended at least.
6	Issues – lack of community	This is a challenge that this project can't solve by itself, but it would be great to develop some community connection to the lagoons and the actions needed to bring them back to health.
7	How to design the process	We will do some more work on designing a process to involve the community in decision-making on how to best clean up the lagoons.
8	Interactive process - Purpose bellet principles - potential / concepts ideas strengths - investment \$ / action evaluate care - investment	Not sure how to follow this up – get in touch if you'd like to discuss further.
9	Local board catchup. Development of local group – R&R. Use of council staff contacts.	These ideas were captured in the workshop too and we will be looking at how we can best support a group (or groups) that want to be active in this area.
10	Water quality sign and source - fencing	I think this refers to the idea that a sign showing the latest water quality monitoring results could be put up near the lagoons. We will look into this and other signage ideas, but would appreciate input from the community on how we can design the signs so that they aren't ripped out as some signs are.
11	Has there been any consideration of small treatment plant at Piha to cope with multiple facilities and very high summer visitor numbers?	Yes, this has been looked into in the past in the mid-1990s. A 1996 report recommended replacing all septic systems in the catchment rather than creating a centralised system. More recently we have estimated the costs of developing a reticulated wastewater system that would treat wastewater at a central location. There are many options and improving technology is making more options available all the time. These include smaller self-contained plants that could treat the highest risk parts of catchments rather than the whole community. There are certainly benefits to having centralised high quality treatment, but the initial costs are high and it would not be straightforward to establish such a system. It is likely there would be long term benefits in terms of improved wastewater treatment, but other potential consequences would need to be looked into. If there was strong demand in the community for this it could be investigated further.

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12	What do we know about pathogens in the lagoons? Does managing ecoli reduce risk – given Dave's comment on regrowth.	Good question. We know that E coli is itself a pathogen and some strains are particularly pathogenic. It can also indicate the presence of faecal contamination, but as the question infers it is possible that the E coli are living free in the environment and so there may be no other fresh contamination present. Adenovirus has been recorded in the Piha Lagoon in the past, but we have not done recent studies into the wide variety of other pathogens that could be present. We do not specifically manage for E coli though, as by aiming to reduce faecal contamination at its source will also reduce the other pathogens in the environment. Perhaps the question is whether E coli is the best indicator of success or not! Some work is being done on that nationally (& internationally) at the moment.
13	Regrowth of ecoli in lagoons – will happen. The source tracing study organisms are very unlikely to regrow – some pathogens might persist or regrow. So while regrowth impacts the ecoli numbers and traffic lights the risk factors associated with source are real.	That does seem to be the case, as outlined above.
14	Do [suplens?] treatment plant have overflow function? Where and when does it occur? Implications of rain. How well do systems cope with shock loads?	We couldn't work out which system this referred to, so please get in touch if you'd like to follow up.
15	Communication connection	Connecting people to the lagoons and to the actions that we needed to improve their health will be an important part of this project.
16	Activating the wonder of karekare – what do we value? Essence, core 'love'	Not sure how to follow this up – get in touch if you'd like to discuss further.
17	Living systems flow whole	Not sure how to follow this up – get in touch if you'd like to discuss further.
18	How can we be convinced that effluent never gets into Piha stream?	I wonder if this is referring to the council – owned wastewater system at Piha Domain? The system is designed so that there is a very large amount of emergency capacity to prevent effluent from getting directly into the stream. If people are very interested in this we could arrange a tour of the facility so that you can better understand the protection we have in place.
19	Who is the water? Ko wai koe? How will we get to know these waters? How will we listen?	Not sure how to follow this up – get in touch if you'd like to discuss further.
20	Bill Reed in Auckland in September	Thanks for letting us know. We weren't able to meet with Bill.
21	Work from potential	Not sure how to follow this up – get in touch if you'd like to discuss further.
22	What is the purpose of this project? Why are we here? How will we work together?	We will do some more work on designing a process to involve the community in decision-making on how to best clean up the lagoons. We will aim to answer these questions through that process. In the meantime, we believe the purpose of the project is to achieve this outcome: lagoon water is safe for contact recreation and the environmental and social-cultural values are enhanced. Not the prettiest wording, but essentially the water should be safe for us to swim in and the mauri should be restored.

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23	What does success look like 'Whole'	We would like to explore what success looks like more with the community. From a water quality perspective, we think success would see the lagoons meeting the standards for safe swimming under the National Policy Statement for Freshwater Management (which is a measurement of the average concentration of E coli in the water but success will be broader than just that).
24	Picture of hills and a fence	Not sure how to follow this up – get in touch if you'd like to discuss further.
25	Charts showing theoretical paradigm shifts	Not sure how to follow this up – get in touch if you'd like to discuss further.