Action for healthy waterways: a discussion document

I am writing on behalf of the Waitākere Ranges Protection Society (WRPS) to submit on the Ministry for the Environment proposed Action for healthy waterways discussion document.

Background on the WRPS

The WRPS was incorporated in 1973. Its purpose is the conservation and protection of the Waitākere Ranges to oppose any activity that may threaten or adversely affect the natural environment in the area.

WRPS and its members are strong advocates for the conservation and protection of the natural environment of the Waitākere Ranges and WRPS was one of the key groups promoting the concept of the Waitākere Ranges Heritage Area (WRHA) for 35 years before it was achieved through an Act of Parliament in 2008.

Introduction

The WRHA is of local, regional and national significance due to its unique heritage features, which include the prominent indigenous character of its terrestrial and aquatic ecosystems. However, Auckland’s growing population means mounting environmental pressures and challenges for the WRHA. During day-to-day life, we see how easily human activity can encroach on animal and plant habitats.
General comment

The WRPS acknowledges the necessity of an action plan for improving New Zealand’s freshwater lakes, rivers, wetlands. WRPS agrees that degradation of our natural water source must be stopped and reversed – if we want to be able to safely swim, fish, gather mahinga kai, as previous generations have been able to. WRPS has a focus naturally on the Waitākere Ranges area, and it is within this scope that this submission will focus on. However WRPS does support the inevitable changes that must be made across the board to improve freshwater quality in New Zealand. WRPS commends the overall holistic approach to freshwater, putting its health first and human use second. Ecological health is the primary objective, acknowledging Te Mana o te Wai.

Specific submissions

Objectives

The action plan states that improvements are to be seen in water quality with 5 years.¹ WRPS agrees with this goal – leaving it longer without freshwater improvements can only be disastrous, but it is pertinent to point out that the document does not elaborate specifically on how this is to be achieved.

Other important objectives to include are how to empower individuals to make changes, increase education around freshwater quality and management, and understand better what people know about freshwater and how they can help.²

Watakere ranges specific issues

Over the past 50 plus years the water quality in the lagoons, wetlands, and streams has degraded to the point where it is regularly unsafe for swimming much of the time especially over the summer months.³ Monitoring information indicates significant contaminant is due to poorly performing septic tanks and long drops, with additional sources including bird droppings, dog faeces, and ruminant sources – further possible sources include possums, rats, pets, and other mammals living in the bush.⁴

Lagoons present a safe place for children to swim, a spiritual place, a taonga, a place of ceremony (formerly for Tangata Whenua), a place to kayak, walk dogs and horses, experience wildlife, a place of beauty and relaxation, an enhancement to the value of the areas. But currently, and for many years now, they are considered by the communities which reside there as unsafe and contaminated.


Section 5: Raise the bar on ecosystem health

Proposal: New attributes to be monitored and maintained or improved: nutrients, sediment, fish numbers; lake macrophytes; river ecosystem metabolism; dissolved oxygen. “This is likely to require different actions including…investing in upgrading wastewater and stormwater runoff infrastructure”.

WRPS strongly supports more regular monitoring. Auckland Council’s “safeswim” website is good, but in the summer months when locals and visitors want to swim in the streams and lagoons, they often have “red alerts” ie unswimmable, and most definitely undrinkable. Due to the frequency of red alerts, more regular monitoring needs to occur - every few days over summer, as well as regularly throughout the course of the year.

The feedback from the Love our Lagoons project in 2015 indicated that the members of the communities of Piha, Karekare and Te Henga are willing and ready to take action to improve the water quality of the lagoons. Recommendations were laid out in this document.

Better management of stormwater and wastewater is essential - Stronger regulation is called for:

Stronger regulation is essential to bring systems up to standard and fix faulty septic waste water systems. This simply echoes what has been found in community reports and investigations into faecal matter contamination by both Ducker (2015) and Noble & Neale (2016). An effective, cost realistic solution to upgrading systems is needed, for example financial assistance.

Section 7: Improve ecosystem health by better managing stormwater and wastewater

“The current regulatory system does not provide assurance that wastewater and storm water management risks are being appropriately managed, or that these services are delivering outcomes that are acceptable for communities and the environment.”

WRPS agrees with this statement. In particular we note there is little written evidence of historic Tangata Whenua involvement in discussions pertaining to lagoons, however there is considerable evidence that the lagoons were highly regarded as taonga. Clean waterways and lagoons were important food sources and rivers provided water supplies. Appropriate management includes the serious involvement of Tangata Whenua. In the Waitākere Ranges Te Kawerau a Maki are manawhenua and WRPS holds that they must be considered as key stakeholders in decisions pertaining to freshwater; their involvement in the management of and direction of freshwater policy development is essential.

Proposal: Set minimum standards for wastewater discharges and overflows and require all operators to follow good practice risk management.

The action plan document states that this will occur via the proposed Wastewater National Environment Standards and proposed Water Services Act with the overarching goal being: there is less pollution of rivers, lakes, groundwater and the sea from stormwater and wastewater.

5 Ministry for the Environment. 2019
WRPS submits that there is no specific mention of septic tanks and what this would mean for improving these systems. This is an essential area of improvement necessary for the health of the Waitākere Ranges Heritage Area.

Section 7.3: proposed risk management plan for stormwater specific risks re public health risks, property flooding, water quality monitoring of discharge

The need for stormwater upgrades is well-overdue in the Piha community:

In a 2016 study carried out by Noble & Neale (Auckland west coast lagoons: sources of fecal contamination) the Piha stormwater sampling site (2016) had the highest E. coli concentrations of all sampling sites and represents the largest source of microbiological contamination to the Piha Lagoon. Fluorescent whitening agents were also found in the study, indicating the presence of grey water have been recorded in Piha Stream and Glenesk Stream (a tributary of Piha Stream).

5.10 Water quality – a higher standard for swimming

This section is regarding updating the E. coli safety standards:

Would require councils to place stricter requirements on discharges of wastewater – WRPS agrees with this. Other areas of importance are the Manukau harbour communities and beaches, including Huia Beach, French Bay, Wood Bay, Christmas Beach, Laingholm Beach, Te Atatu Beach, many of which during the summer months have “red alerts”.

The report by Noble & Neale (2016) confirmed the presence of a complex mix of microbiological contamination in the lagoons of Piha, Karekare, and Te Henga. Limitations of E. coli monitoring mean it is difficult to develop an appropriate management response, and so microbial source tracking would be much more useful. The presence of E. coli does not necessarily confirm the presence of faecal contamination as they may survive, reproduce, and establish self-sustaining populations in numerous aquatic environments. Microbial source tracking (MST) tools are based on ribosomal DNA markers associated with the Bacteroidales order of bacteria, so specific markers allow for the identification of whether E. coli concentrations are faecally driven and what the source animal is – this can mean a financially-efficient and targeted management response.

The results from Te Henga Lagoon catchment provided strong evidence of faecal contamination by ruminant animals, suggesting improved livestock management could reduce contamination levels.

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7 Aqualab NZ Ltd. (2013). Auckland Council (WEST) Beach water and Lagoon results.


Recommendations

1. Investigate and improve (where appropriate) the on-site wastewater (septic) systems and their maintenance in all Piha, North Piha, Karekare, Te Henga lagoon catchments.
2. Exclude stock from waterways in Te Henga lagoon catchment
3. Place permanent warning signage explaining the health risks of swimming in the lagoons
4. Riparian planting

The Piha Stream has its headwaters in the Waitākere Ranges, where it has one of the highest diversities of freshwater fish in the region. It is incredibly important to the health of the ecosystem to improve the freshwater quality in the Waitākere Ranges and its communities. Reports have described “chronic microbiological water quality contamination” of the lagoons, and more must be done to stop further degradation. The pollution of freshwater degrades the natural environment, stigmatizes the communities and poses a public health risk.

Yours sincerely,

President
Waitakere Ranges Protection Society