

20 March 2018

premiumsubmissions@aucklandcouncil.govt.nz

Application number: DIS60069613

Submission on Auckland Council's application: Stormwater Network Diversion and Discharge Consent for the existing and future Auckland Council stormwater network

This is a submission to Auckland Council's application for resource consent to divert stormwater through the public stormwater network and overland flow paths, and discharge stormwater to the environment. The application covers both existing serviced urban and rural/coastal townships, and future urban areas and townships that are serviced by the public stormwater network.

ARPHS is not a trade competitor for the purposes of section 308B of the Resource Management Act 1991.

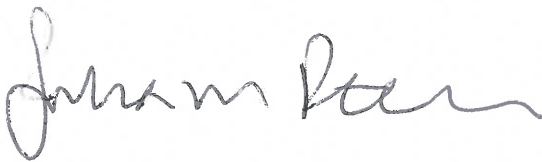
ARPHS wishes to be heard in support of this submission.

The following submission represents the views of the Auckland Regional Public Health Service (ARPHS) and does not necessarily reflect the views of the three District Health Boards it serves. Please refer to Appendix 1 for more information on ARPHS.

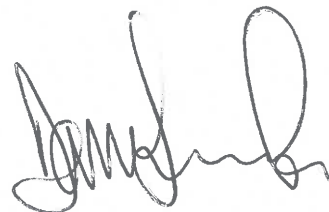
The contact point for this submission is:

Andrew Phillipps
Senior Policy Analyst
Auckland Regional Public Health Service
09 623 4600 (ext. 27105)
aphillipps@adhb.govt.nz

Yours sincerely,



Dr. Julia Peters
Clinical Director
Auckland Regional Public Health Service



Dr. David Sinclair
Medical Officer of Health
Auckland Regional Public Health Service

cc. Katja Huls, Healthy Waters Unit, I&ES, Auckland Council

Auckland Regional Public Health Service

Cornwall Complex, Floor 2, Building 15 | Greenlane Clinical Centre, Auckland | Private Bag 92 605, Symonds Street | Auckland 1150, New Zealand

Telephone: +64 9 623 4600 | Fax: +64 9 623 4633 | www.arphs.govt.nz



The specific parts of the application that ARPHS' submission relates to are:

- Public health concerns associated with stormwater diversion and discharges;
- The proposed integrated stormwater management approach;
- The stormwater networks interaction with wastewater and associated public health risks;
- Support for up-to-date flood modelling;
- Assurances that the nature and scope of the proposed environmental monitoring is fit for purpose;
- Support in principle for applicant's proposed conditions of consent.

Public health concerns

1. ARPHS is interested in the effective management of Auckland's stormwater. Contaminants entrained in stormwater runoff can adversely affect the water quality of the receiving environment, including Auckland's beaches, streams, harbours and aquifers. Contaminants such as metals, hydrocarbons and microorganisms entering these environments can have a detrimental impact on ARPHS' public health goals to:
 - Minimise and prevent the risk of disease associated with the public use of recreational waters, including food gathering sites;
 - Optimise the safety and quality of all drinking water available for public consumption in the Auckland region.
2. Effective management of the stormwater network is also important to mitigate potential public health risks associated with flooding. Flooding has the potential to affect sanitary infrastructure and drinking water supplies. Flooded sanitary infrastructure has the potential to release untreated waste into the environment, significantly impacting on people's health. The pooling of water and subsequent stagnation of water from inundation events can create habitats for mosquitos and rats, which may lead to spread of diseases.

Level of detail provided in NDC application

3. ARPHS appreciates the broad framed nature of the consent application reflects the scale of the consent being sought, and the way the proposed activity must integrate with the wider regulatory and planning environment. However, this makes assessing the public health implications of the application challenging. The application often lacks the necessary detail to comprehend the impact of a what is being asked for, and an understanding of existing programmes, plans and secondary processes is required – see our below comments about monitoring.

4. The decision to keep or surrender specific conditions on existing consents is an example of where key considerations will be worked out at a later date through Manager's Approval. Some of these existing conditions may be highly relevant to mitigate any effects of the proposed activity.

General support for integrated stormwater management approach and proposed condition 2

5. ARPHS supports in principle the integrated stormwater management approach described in the application, including the identified stormwater management issues and targets, as well as NDC objectives and outcomes. As stated in the application, the effective management of stormwater cannot just be undertaken at a network level, but requires a range of actions to be undertaken at different scales and by different parties to appropriately manage and minimise adverse effects. The Best Practicable Option (BPO) outlines how each of the identified stormwater management issues will be managed, and recognises that effective stormwater management must take into account land use policy, urban planning, urban design principals, development controls, education, community involvement, and the need for cross sectorial cooperation.
6. Ensuring there is accountability for implementing the BPO as intended means ARPHS strongly supports the retention of proposed condition 2 and associated schedules.

Stormwater and its interaction with the wastewater network

7. ARPHS' primary concerns relate to the potentially significant public health risks to recreational water users in the vicinity of stormwater discharges, particularly those discharges affected by wastewater overflows. Pathogens from human wastewater is a hazard for recreational water users. The principal public health risk associated with ingestion of water contaminated by wastewater includes diseases and illnesses mainly of the gastrointestinal tract, although pathogens can also lead to eye and skin infections. There are a range of potential infectious diseases that the public could be at risk of, following exposure to contaminated water, including:
 - Enteric bacterial diseases such as salmonellosis, campylobacter, shigellosis;
 - Enteric viral infections caused by Hepatitis A, enteroviruses, norovirus, rotaviruses adenoviruses;
 - Diseases caused by protozoa, such as giardia and cryptosporidium;
 - Skin infections, such as staphylococcus infections;
 - Other infections, such as leptospirosis.

8. The likelihood of contracting illness increases with the concentration of pollutant, and the length of exposure to the polluted water.
9. The AEE notes on page 5-83 that wastewater entering the region's waterways from Watercare's wastewater network is the result of a number of factors, including:
 - Wet weather overflows due to the limited capacity of the combined sewer system, or the influx of stormwater and groundwater into the wastewater network;
 - wastewater discharging directly to the stormwater system due to illegal or poor quality pipes;
 - blockages;
 - installation of engineered overflows, resulting in the diversion of overflows to the stormwater system or streams.
10. ARPHS recognises that Watercare is the owner of the combined sewer system, and that engineered overflows are consented as part of its wastewater network discharge consent, but prioritising any measures that minimise sewage flows into the receiving environment is strongly encouraged by ARPHS. We therefore support the collaborative measures outlined in Table 9-7 of the BPO and schedule 2 of the proposed consent conditions. We note project CANOPY will be a joint project between Watercare and Healthy Waters to identify the optimal solution to reduce overflows to the receiving environment for public and environmental health reasons for the central combined sewer area. ARPHS is interested in being a part of these types of collaborations in order to gain a greater understanding of the public health risks at specific locations across the Auckland region. Involvement would also support ARPHS' role as a partner in Auckland Council's revised Safeswim programme, which monitors and reports on water quality at Auckland's bathing beaches.
11. ARPHS considers a collaborative priority should be to upgrade infrastructure that allows the progressive elimination of engineered wastewater overflows discharging to the stormwater network, and eventually into the receiving environment. The schedule of existing and new engineered overflow points included as part of Watercare's previous wastewater network discharge permit application in 2013/14 highlights the extent of this issue. If not already completed, a detailed survey to identify the location, character and consequence of every engineered overflow should be undertaken to inform a programme aimed at reducing the number of these overflows in favour of more acceptable solutions. This information would also be of value to the Safeswim programme. An engineered overflow that impacts on the water quality at a designated bathing beach should be an issue that receives a high

weighting when considering the costs and benefits of remedial action throughout the network.

Maintenance and upgrading of stormwater network

12. The applicant has direct control over the maintenance and upgrading of its stormwater network. The AEE outlines on page 5-84 how that the stormwater system can affect the performance of the wastewater systems through:

- Flooding and poor overland flow paths, causing systems to be inundated (including onsite/reticulated systems);
- Illegal cross connections; and
- Exfiltration of the stormwater system which may then enter the wastewater network.

13. While the Stormwater Asset Management Plan (AMP) 2015-2045 prioritises asset operation and renewals over environmental improvement, we note the asset criticality model takes into account environmental degradation and social impacts. ARPHS supports opportunities where the repair and renewal of critical assets can align with recreational water quality improvements. ARPHS considers the impact a failing stormwater asset has on the functionality of the wastewater network, and/or subsequent water quality of recreational waters, is an important consideration when determining asset criticality and overall asset risk.

Flooding

14. ARPHS agrees that maintaining up-to-date flood modelling for growth areas should be a priority, and supports the following schedule 2 performance standard - *Council flood hazard GIS layer is maintained so that it is current, publically available, and reviewed on a two yearly basis.*

15. This information will assist Council, developers and other stakeholders to make informed decisions about how to manage flood risk.

Details of monitoring programmes

16. In accordance with proposed monitoring condition 24 and schedule 6, environmental monitoring requirements for the Auckland stormwater NDC will utilise existing monitoring programmes conducted by RIMU.

17. If consent is granted, ARPHS seeks assurances that any monitoring conditions reflect best practice, and are 'fit for purpose' in terms of accurately measuring the consented activity's

impact on water quality and quantity for the region's water resources, because in this regard, the application is lacking in detail. A good knowledge of existing council monitoring programmes is required to determine whether the proposed monitoring is adequate (i.e. monitoring sites, methodology etc).

Support for proposed conditions

18. To minimise potential adverse public health effects associated with the proposed application, ARPHS recommends that consent conditions be imposed similar in intent, but not limited to those outlined in the applicant's AEE.

19. Further comment about the applicant's proposed consent conditions includes:

Condition 2	ARPHS supports this proposed condition in principle.
This condition supports the integrated stormwater management approach outlined by Council.	
ARPHS recommends that this provision is retained.	

Condition 16	ARPHS supports this proposed condition with amendments.
We support the proposed content to be included in the 6-yearly Stormwater Network Discharge Review report, including the requirement to include a summary of the consultation undertaken with stakeholders. We suggest the report also include a summary of any updates to models, methodologies, mapping etc. This background information will assist stakeholders to better understand the changing nature of Auckland's urban stormwater environment.	
ARPHS recommends that that this provision is retained with amendment.	

Condition 18	ARPHS supports this proposed condition.
ARPHS supports the proposed condition relating to consultation with the parties mentioned, including ARPHS. As noted in this proposed condition we wish to highlight the importance of the reporting on and addressing of the effects of discharges on receiving environments, and the prioritisation of improvement works to the network as part of the review.	
ARPHS recommends that this provision is retained.	

Condition 27	ARPHS supports this proposed condition.
Making the listed information publically available will support stakeholder engagement around stormwater issues in the Auckland region.	
ARPHS recommends that this provision is retained.	

Appendix 1 - Auckland Regional Public Health Service

Auckland Regional Public Health Service (ARPHS) provides public health services for the three district health boards (DHBs) in the Auckland region (Counties Manukau Health and Auckland and Waitemata District Health Boards).

ARPHS has a statutory obligation under the New Zealand Public Health and Disability Act 2000 to improve, promote and protect the health of people and communities in the Auckland region. The Medical Officer of Health has an enforcement and regulatory role under the Health Act 1956 and other legislative designations to protect the health of the community.

ARPHS' primary role is to improve population health. It actively seeks to influence any initiatives or proposals that may affect population health in the Auckland region to maximise their positive impact and minimise possible negative effects on population health.

The Auckland region faces a number of public health challenges through changing demographics, increasingly diverse communities, increasing incidence of lifestyle-related health conditions such as obesity and type 2 diabetes, infrastructure requirements, the balancing of transport needs, and the reconciliation of urban design and urban intensification issues.