

Stop Auckland Sewage Overflows Coalition

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Report to members

As foreshadowed at our first AGM at the end of September (when we updated members on the coalition's work through 2017), this year has started with a flurry of activity which will be reaching its peak over the coming month.

Before the end of March we have submissions to make on two significant events in the quest for improvement of water quality in Auckland, with another likely to follow soon after:

- Auckland Council applied at the end of January for a network discharge consent for its Auckland stormwater network, consolidating its legacy of multiple consents granted to its predecessor councils: **submissions on this application are due by 20 March 2018.**
- Auckland Council's plan and budget for the next 10 years will be announced this week, including an expected provision of \$400 million through a targeted rate for stormwater infrastructure upgrade: **submissions on this plan are due by 28 March 2018.**
- Auckland Council is expecting to apply for resource consents for a stormwater project in St Mary's Bay/Masefield Beach, Herne Bay sometime in March. **Submissions on this application are likely to be due in April.**

Before we report on these matters, however, we feel it may be useful to recap briefly on the coalition's work in the lead-up to them.

SASOC's goal and path to achieve it

You already know what led to the formation of the coalition, our purposes (as set out in our rules), and the work done last year to "get up to speed" on Auckland's water quality issues (through earlier newsletters and our report to the AGM on 28 September). Towards the end of last year, in conjunction with other water groups working towards the same end, we drew up the following summary of our goal and steps to achieve it, as a guide for our consultation meetings:

Goal:

Clean water in our harbours and beaches, watercourses and aquifers.

Means of achieving this goal:

Develop coherent, complementary and separate stormwater and wastewater systems, within a framework of financial sustainability.

Specific steps to be taken to achieve this goal:

1. Reduce stormwater flows into drainage networks, so that discharges are eliminated or, at least, substantially reduced. This includes removing stormwater from sewers and treating the stormwater locally, wherever practical. This will result in less water to treat, and consequently fewer contaminants to dispose of in the wastewater treatment.
2. Spread the load on stormwater reduction and discharge measures across the catchments in the Auckland isthmus – by identifying local projects appropriate to the area.
3. Treat wastewater/sewage to the highest possible standard and stormwater to the highest practicable standard for the ultimate receiving environment.
4. Develop programmes for recycling water as a renewable natural resource, and preserving/maintaining the natural state of water in our harbours watercourses and aquifers (to be implemented as part of steps 2 and 3).
5. Engage with mana whenua and community groups throughout the Auckland isthmus to help restore wild life, so that waters become populated again by fish and birds and can be used safely by humans (recreation and kaimoana).
6. Implement financial policies and practices to provide and protect the funds needed to ensure the future sustainability of the stormwater and wastewater systems (such as prudent asset management, depreciation and creation of reserves).
7. Design, build and monitor the systems so as to ensure their long-term practical sustainability.

Measures for determining whether steps are achieving desired outcomes

Still to be developed.

Updating what we have learned to date

Combined sewer improvement options

The unpredictable factor in managing the combined system is the volume of stormwater entering it. Stormwater infrastructure must have overflow points. It is not possible to build a stormwater system which will cope with the most extreme rainfall. When rainfall exceeds the reticulation/treatment capacity it will flow into local waterways and sometimes via overland “flood plains”. If there is a combined wastewater/sewage/stormwater system then these overflows will contain sewage, industrial waste, road pollutants, household cleaners etc.

To overcome the negative environmental effect from household and industrial waste, modern infrastructure has separated wastewater and stormwater reticulation (modern best practice). This keeps wastewater out of stormwater whatever the weather.

Another way is to reduce the amount of stormwater in the combined system by implementing smaller local stormwater disposal projects thus eventually leaving the previous combined pipes as wastewater/sewage only.

Auckland Council in its earlier (CANOPy) and more recent (WIWQIP) proposal has plans for a mixture of both of these mitigation methodologies (see below).

Evolution of the CANOPy proposal into anticipated WIWQIP

Auckland mayor, Phil Goff, early this year called for Council to produce a (financially implementable) plan to improve pollution levels substantially, especially around the inner central Auckland suburbs served by the combined pipe system.

As a result Auckland Council (in June 2017) formulated a project named CANOPy (Central Auckland Network Optimisation Programme) to improve overflow pollution in the old Auckland isthmus suburbs serviced by the obsolete combined system. This was a proposal based on a large pipe (called Central Interceptor) to carry sewage/stormwater from Western Springs/Mt Albert and south-western isthmus suburbs to the Mangere Wastewater Treatment Plant at a cost of \$1.5 billion. This proposal had a number of shortcomings: it did not improve Waitemata Harbour water quality much because it did not reduce overflows at Cox's Creek, Okahu Bay and Hobson Bay although overflows in the Meola catchment would be considerably reduced. The CANOPy project was too limited in scope, however, in that, in SASOC's view, it did not make sufficient improvements in the harbourside catchments to reduce pressure on the combined system sufficiently (it did not include a previously mooted "Waterfront Interceptor" nor provide for comprehensive wastewater/stormwater separation).

To overcome the CANOPy deficiencies Council developed another project the Western Isthmus Water Quality Improvement Programme (WIWQIP). This project is essentially an expansion of CANOPy. WIWQIP envisages an extension to the Central Interceptor which is now to run from Grey Lynn to Mangere via Western Springs/Mt Albert. This pipe is to pick up the sewage/stormwater from the Cox's Creek and Motions catchments as well as those originally envisaged thus covering many of the major overflow points in the western isthmus. It also contemplates various local stormwater disposal plans to reduce pressure on the system from stormwater (the first of which is the St Marys/Masefield Bays Water Quality Improvement Project). Separation work is to be considered for all remaining combined system areas on a case by case (affordability) basis.

If approved the WIWQIP project will take 10 years to complete (at a cost of \$1.825 billion in today's dollars) and is included in Council's Ten Year Plan currently out for consultation. This work has been subject to significant deferrals (the first iteration of the Central Interceptor was put forward in 1989) and is now not only well overdue, but essential for water quality and health reasons.

As well as the above, it is intended over time (say, incrementally over 20 years) to funnel increasing amounts of wastewater from western Auckland to the under-utilised Rosedale wastewater treatment plant.

In addition to the western isthmus (WIWQIP) work, separation will continue in Orakei, Newmarket and surroundings which will reduced/eliminate sewage overflows in the isthmus eastern beaches.

WIWQIP costings are:

Central Interceptor from Mangere to Western Springs	960,000,000
Extension tunnel to Grey Lynn	74,000,000
Wet weather treatment	100,000,000
Wastewater Improvements/separation	365,000,000
Stormwater Improvements/separation	326,000,000
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Total	\$1,825,000,000

We estimate WIWQIP plus the expenditure in Orakei/Newmarket (if approved in the Ten Year Plan) will approach \$2 billion over the ten year period. This can be compared to a close to zero expenditure on combined system upgrades since the formation of Auckland Council in 2010.

Function of the Central Interceptor

The Central Interceptor is proposed as a 4.5 metre diameter pipe. It has a dual function. Its most important function is to transmit wastewater to the Mangere Treatment Plant.

During rain the increased stormwater volumes from the combined system exceed treatment capacity. That is when the excess overflows into the local environment and the Waitemata Harbour, currently via 42 principal (and over 100 minor) outfalls between Whau River and Mission Bay. Overflows occur after only minimal rain, and on average over 50 times annually. Approximately 2.2 million cu m polluted water currently discharges annually into the Waitemata Harbour.

The size of the Central Interceptor means it has a holding capacity of 240,000 cu m. This is its second function - to hold the wastewater/sewage mixture while the treatment plant processes at maximum possible throughput. This holding capacity means overflows will only happen after exceptionally heavy rain.

On completion of the project, based on the Central Interceptor holding capacity and the Mangere plant operating ability, Council estimates annual overflows will reduce from 50 plus from 42 major overflow points to between 2 and 6 from only 10 overflow points. In addition, it is expected that each overflow incident will be much lower in volume and also more highly pollutant diluted (because of the quantity of rain required to result in an overflow).

Stormwater treatment

Stormwater also contains contaminants. Some 50% of city stormwater is produced by roading runoff (ie by Auckland Transport). The contaminants include heavy metals (from brakes and tyres), hydrocarbons, and general rubbish. Heavy metals tend to accumulate in the environment and enter the food chain. To date little has been done to deal with this pollution which (if not treated at Mangere) usually discharges into the local waterways and harbours. Auckland Council has changed its policy and will now begin to treat stormwater discharges. Initial targets for contaminant removal are arterial roads and heavy use areas such as busy shopping precincts.

WIWQIP/the Long Term Plan submission/the Auckland Plan

We have continued to have consultation meetings with both Healthy Waters and Watercare (jointly) on aspects of WIWQIP, as well as separate discussions with each on matters falling into specific aspects of stormwater or wastewater. These are likely to continue up to the point of lodging a written submission and making an oral submission at the end of March as well as afterwards (implementing WIWQIP).

We will be preparing SASOC's submissions mid-March. In our view it is imperative that Council adopts the proposed long term plan, even though it is just a starting point. It is equally important that the concurrent revision of the Auckland Plan provide for completion of the improvements within a foreseeable period and to an acceptable standard. Sustainability should be an important element of all work and plans.

We are planning to send you a sample submission for use as a template for you as an organisation, and possibly a modified version for individuals (that you can pass on to your own members).

Council's network discharge consent application

This application has some important elements for SASOC and the central isthmus. We propose making a relatively brief submission, and also plan to distribute a sample submission for members to use or adapt.

The St Mary's Bay water quality improvement project

SASOC members The St Mary's Bay Association and The Herne Bay Residents' Association are actively engaged in the consultations on this project. Any submission on this project will be made by them rather than by SASOC as we feel that it is important to make submissions on formal legal processes such as this through incorporated entities.

What more do we need to do

We would like to increase our membership. If you know of any community organisations who share our concerns, please send details to us.

We also intend to continue lobbying for greater central government involvement in regulation of water quality. Although we accept that Auckland Council tries to keep its operational arm separate from its regulatory arm, the siting of both functions in the one body raises genuine concerns about objectivity and incentive to enforce compliance with water quality standards in plans and consents.

Clarification of earlier report

In an early report we said that Auckland Council relied on the "existing use" rights provisions in the Resource Management Act for the sewage/stormwater overflows. This view was based on high level legal advice about existing use rights.

Unbeknown to us at that time, in 2014 Watercare obtained a (non-notified) resource consent to cover 217 overflow outfalls. That consent is valid for a period of 35 years. Because the consent was not publicly notified we (and the public) did not know it existed. Its existence was ascertained when Council advised SASOC members/associates of it.

Members' views

We welcome feedback from members on any aspect of this report, or any other matter that warrants consideration.

With best wishes,

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