

Q&As on proposed change to the Western Isthmus Water Quality Improvement Programme including the St Marys and Herne Bay Separation Projects

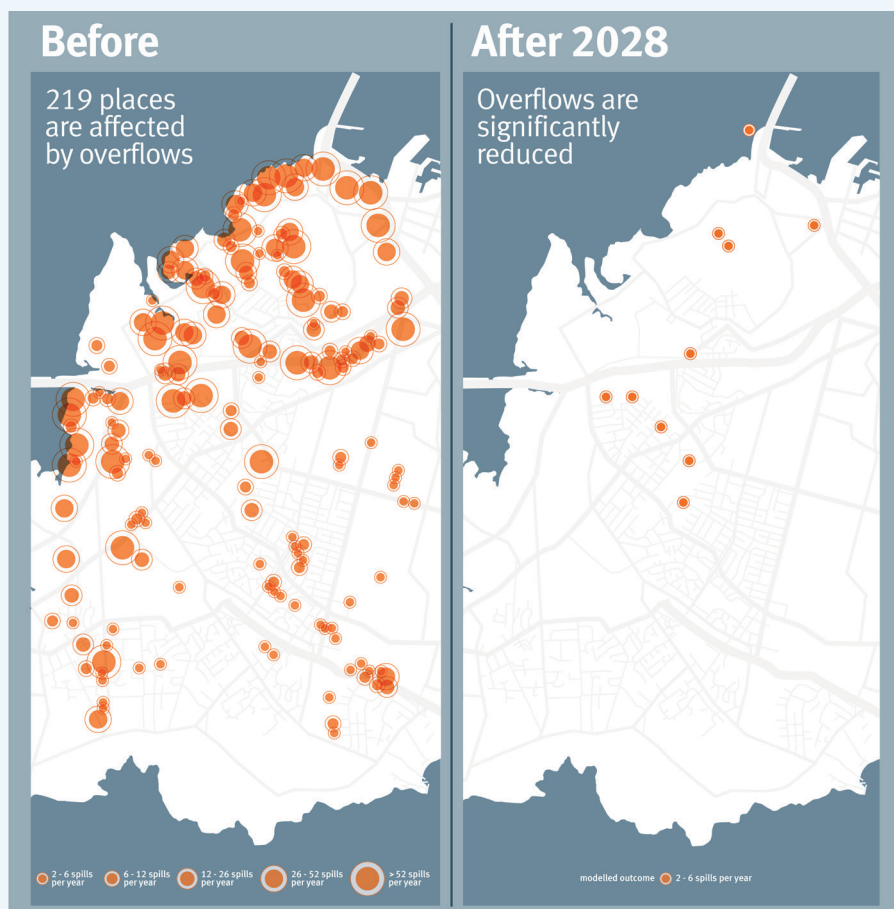


October 2022

What is the Western Isthmus Water Quality Improvement Programme? (WIWQIP)

The Western Isthmus Water Quality Improvement Programme is a joint initiative between Watercare and Auckland Council aimed at reducing wastewater overflows and improving stream and beach water quality across the city's central western isthmus, including the Safeswim beaches of Herne Bay, Home Bay, Sentinel Beach, Masefield Beach, and St Marys Bay.

The programme includes the Central Interceptor extension from Western Springs to Grey Lynn, along with local network upgrades and catchment-based sewer separation projects. It aims to significantly reduce the frequency and volume of overflows in the Western Isthmus from 239 to 10 wastewater spill locations as demonstrated below.



The total programme cost, including the Central Interceptor, was \$1.825 billion (2017 dollars) made up of Watercare costs of \$1.5 billion and Auckland Council costs of \$325 million.

What are the St Marys Bay and Herne Bay separation projects?

These projects were part of the earlier works focused on separating the old, combined stormwater and wastewater pipes directing stormwater to the environment and wastewater to the Māngere Wastewater Treatment Plant via the Ōrākei main. The project included a new public wastewater network, storage and a new pump station at Point Erin as well as private property drainage separation and connections. Work has been progressing for the past 18 months on the design and approvals for the St Marys Bay separation works.

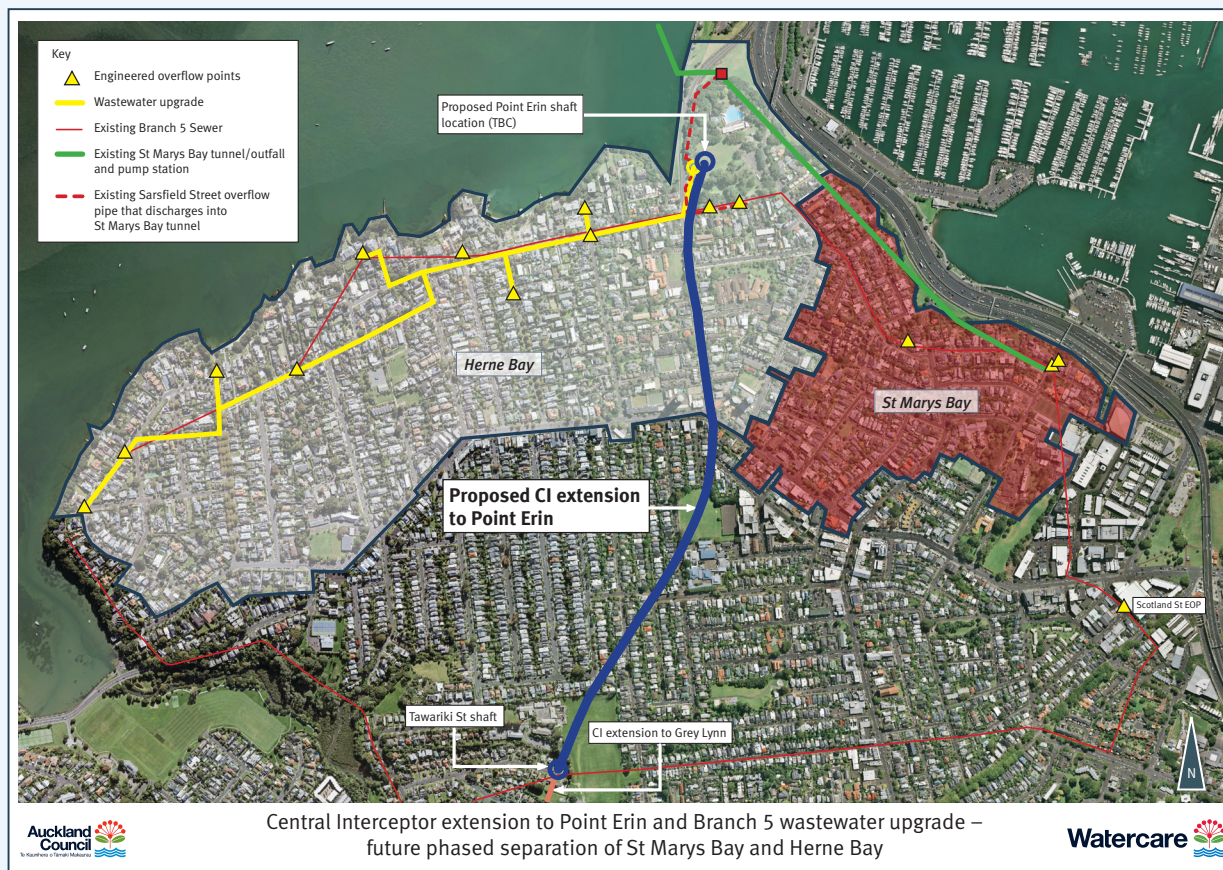
Why has a change in programme been proposed?

Like most infrastructure projects, the St Marys Bay and Herne Bay wastewater and stormwater separation projects have been heavily impacted by escalating material, labour and traffic management costs. These increases, coupled with further costs identified in the design stage to accommodate geotechnical risks, and further learnings taken from the recent separation project at Okahu Bay, put our most recent cost estimates for the project at \$278m double the original forecast of \$136m. This scale of change is unaffordable and as a result Watercare and Auckland Council have been exploring a new, more cost-effective way to deliver the same water quality outcomes within the agreed timeframe.

What is the new proposal?

Fortunately, an alternative more affordable option is available. This involves an extension of the [Central Interceptor](#) wastewater conveyance and storage tunnel from Tawariki Street in Grey Lynn to a new drop shaft in Point Erin. This will be supported by a new Herne Bay wastewater pipe and a revised programme of sewer separation. The tunnel extension will ensure combined overflows are picked up and conveyed to Māngere Wastewater Treatment Plant for safe treatment, reducing overflows to the environment and improving the quality of waterways and swimmable beaches by 2028.

The diagram below demonstrates the new proposal.



Are you abandoning stormwater and wastewater separation altogether?

Separation will remain an important tool to improve water quality. A revised and more targeted programme of separation based on a catchment-by-catchment assessment will take place over a longer period. Ultimately, the total number of properties requiring separation is estimated to be 3841, down from the original forecast of 4911. Separation in the St Marys and Herne Bay catchments will be undertaken in later decades (post 2028) to remove stormwater from the Central Interceptor tunnel, allowing for future sustainable growth in these areas.

What other benefits are there from the new proposal?

The extension of the Central Interceptor to Point Erin will result in a lot less disruption from construction works and traffic management. Tunnelling will occur unnoticed deep underground and construction traffic will be localised to areas such as the drop shaft at Point Erin.

The project also brings wider benefits including a reduction in peak wet-weather flows into the Central Interceptor and a reduction in flows along the Ōrākei main. This will help reduce pressure on the Eastern Interceptor, reducing wet-weather overflow volumes and providing some benefit for the waterways and beaches from Newmarket through to Ōrākei. There is also the added benefit of leveraging the exceptional capabilities and experience of our international contractors building the Central Interceptor.

What will happen to the water quality targeted rate?

The water quality targeted rate is very important to beach and water quality improvement initiatives. The portion of the targeted rate dedicated to the Western Isthmus programme will continue to be collected and spent on improving local stream and beach water quality in the area.

Does the change impact the Manukau Harbour?

The Central Interceptor acts as a storage tunnel holding wet weather flows so that they can be pumped into the Māngere Wastewater Treatment Plant at a controlled rate. Resource consent conditions and compliance will continue to be met at the Māngere discharge point to the Harbour. Over time, ongoing separation across the catchment will gradually reduce the volume of stormwater entering the Central Interceptor tunnel, allowing for long-term sustainable use of this important asset.

Our calculations indicate that by adding the combined flows of St Marys Bay and Herne Bay, we would increase the yearly flow to the Māngere Wastewater Treatment Plant by about 0.2%.

The Māngere discharge consent expires in 2032 and that there would be an ongoing discussion around how we manage discharges from the Māngere Wastewater Treatment Plant.

Is the underlying motivation for the extension of the CI to allow for greater intensification as per the National Policy Statement on urban density?

No, the primary driver is to deliver water quality and bathing beach outcomes at a more reasonable cost by 2028.

Separation post 2028 remains important and is required to gradually remove stormwater from the Central Interceptor tunnel – this will allow more capacity for future growth as it occurs across the catchment.

How do we know if the new proposal is a good solution?

The Central Interceptor has been in planning, design, and construction for well over a decade and the concept and functioning of such storage and conveyance tunnels is well proven internationally.

In consultation with the residents' associations, we have also agreed to engage independent Engineer and reviewer Ian Wallis. Ian provided the community with constructive feedback on the Councils recent stormwater outfall project. Our aim is to work collaboratively with all parties to ensure we achieve the best water quality outcomes in a timely manner.

St Marys Bay Separation Project

What has happened with the project to date?

Over the past 18 months, work was completed on most of the detailed design for the new public network and private drainage connections in St Marys Bay. Approximately half the property owner approvals required were obtained. Resource consents were sought for the public wastewater networks but have not been granted. Work on the St Marys Bay separation project has now stopped. Property owners in the catchment will be advised of this change.

Will there be any separation works within St Marys Bay before 2028?

No separation works are planned in St Marys or Herne Bay catchment prior to 2028.

Will separation still take place?

Yes. Separation of the combined networks will still occur but over a longer timeframe beyond 2028. Separation at this time is likely to involve fewer properties in catchments where we can get the most benefit for the investment. More work will be undertaken at an appropriate time to plan for these works. The catchment areas that are separated first will depend on the validity of the business case balancing outcomes and costs. It is estimated that separation will continue over a period of 20 to 30 years.

Watercare agreed to meet the costs of connecting all residents' properties to the separated infrastructure. How will the new proposal address that?

The aim of the original separation proposal and the revised Point Erin extension of the Central Interceptor is to achieve bathing beach and water quality outcomes by 2028.

Separation and connection of private property drainage was initially required to achieve full separation. The private drainage work is no longer required under the revised proposal which will instead pick up combined overflows and transfer them directly to the Central Interceptor.

What about the private drainage diagrams?

This work is not wasted and will be kept on record for future reference when separation is eventually undertaken. All property owners will be contacted again in the event of future separation. Residents are welcome to contact Watercare if they require a copy of their private drawings. Email pterin@water.co.nz

Is the landowner approval form still valid?

Should we need to undertake separation at your property in future, we will revisit the landowner approvals and the relevance of the associated information. If required, new landowner approvals will be sought from private property owners.

What if I want to develop my property?

You can still develop your property by following normal procedures with Auckland Council. Requirements for drainage work will depend on the scale of development proposed. Auckland Council may require separation of your private dwelling(s) to the boundary, as is already the case. If you are contemplating development, you should talk to Auckland Council about your plans and requirements.

How much has been spent on the project to date?

Approximately \$3million of the original \$33million has been spent on the St Marys Bay work to date. Given the existing financial constraints, it is important to stop and refocus on the best way to achieve the water quality outcome before investing further funds in the project. The work already undertaken is not wasted and will be filed for future reference as further separation is undertaken post 2028.

Proposal for the Point Erin tunnel extension of the Central Interceptor

What happens next?

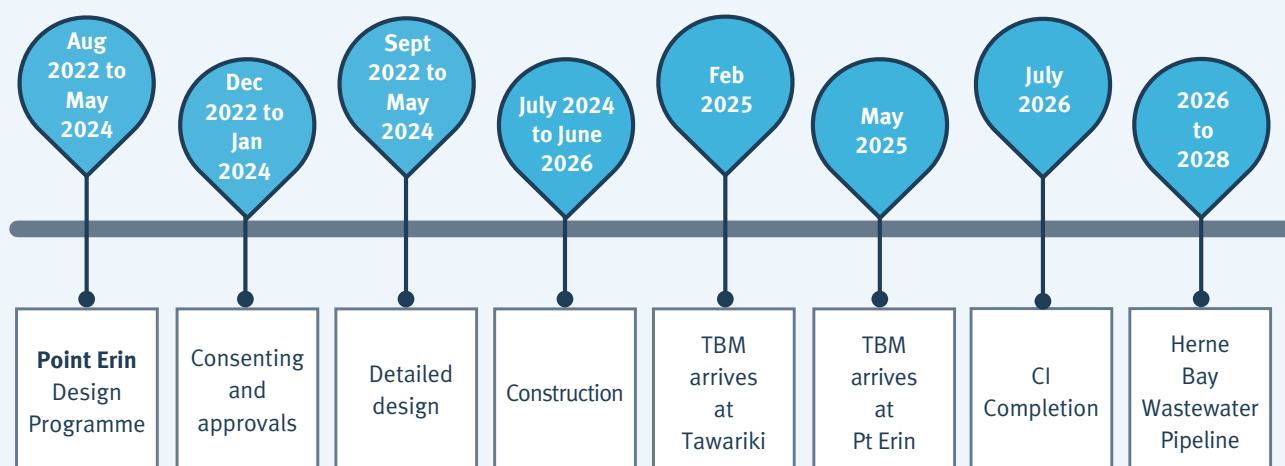
The Watercare Board has asked staff to engage with key stakeholders regarding the revised proposal and both Watercare and Healthy Waters have been liaising constructively with mana whenua and the local liaison groups and residents' associations. The aim is for the 4.5m diameter tunnelling machine to be able to continue towards Point Erin from Grey Lynn without disruption when it arrives in 2025. To achieve this, contractual agreements, detailed design, landowner and statutory approvals need to be started as soon as possible.

Further project updates and engagement will be provided when more information becomes available.

What are the timelines for the new proposal?

Design and consenting work are expected to get underway as soon as possible. The Central Interceptor is expected to arrive at Tawariki Street, Grey Lynn around 2026 where it will continue the final stage to a new shaft site constructed at Point Erin. Everything going well, the project is expected to be completed later in 2026.

Estimated timeline for St Marys Bay CI works



Work on the wastewater main upgrade in Herne Bay will take place in parallel and is expected to be constructed between 2026 to 2028.

Is the 2028 date realistic for linking all the existing infrastructure to the extension?

Yes, we believe so. The 2028 date was the original date for the Western Isthmus programme completion which is what we were targeting. The build crew on the Central Interceptor are very experienced and efficient and will have many years of local experience by the time they reach Point Erin. However, we cannot delay if we are to meet these deadlines as we need to complete design and consenting in preparation for construction. If we miss the programme for the Central Interceptor TBM we would have to look at alternatives that may take longer.

Where can I provide feedback?

We welcome feedback on the change and new proposal. Please send your comments and questions to pterin@water.co.nz

General Questions

Longer term are we still going to achieve full separation?

Post 2028 when the Central Interceptor is extended to Point Erin, we will look at separation on a case-by-case basis optimised for each catchment. The only way we can now realistically achieve the spill frequency required by the Network Discharge Consent in the long-term is through a hybrid approach focused initially on the Central Interceptor extension followed later by separation.

What happens if the tunnel reaches capacity in wet weather – will it overflow at Point Erin?

If the Central Interceptor reaches capacity in wet weather, control gates can be shut to protect the tunnel from overfilling. These gates will cause wet weather flows to return to the engineered overflow points along the tunnel route. This will only occur in the heaviest rainfall events, estimated to be about twice per year, consistent with the network discharge consent. The average overflows are expected to be less than two per annum per overflow point, consistent with the Network Discharge Consent. The emergency relief point for the Central Interceptor tunnel is located at Māngere.

What will happen to any property agreements with the 3 waters reforms?

The current agreements would be transferred over to any new water services entity under 3 waters reform.