



Soldiers' Memorial Park New Water Bore ***Statement of Proposal***

1. Context

Wellington Water, on behalf of South Wairarapa District Council (SWDC), is upgrading the water treatment facilities at Soldiers' Memorial Park on Kuratāwhiti Street to increase the resilience of the Greytown Kuratāwhiti drinking water supply.

The treatment plant upgrade consists of two elements:

1. Installing a new bore to ensure continuity of water supply in the long term; and
2. Installing the new water treatment plant (a containerised system), which involves connecting the plant to the bore and the wider drinking water network.

Drilling a new bore requires consent under the Reserves Management Plan. To inform this process we are seeking feedback from those with an interest in the bore in Soldiers' Memorial Park, so we can look for ways to mitigate any concerns through engagement and/or construction methodology.

The second element of the upgrade, the installation of the containerised water treatment plant, has already been consented via a process that took place during April and May 2021. Therefore, it is not included in this proposal.

2. Our proposal

The Council is proposing to install a new bore at the Soldiers' Memorial Park water treatment facilities as part of a larger project to improve the treatment of the town's water supply. The preferred location for the new bore is inside the Greytown Kuratāwhiti swimming pool complex on the grassed area, between the BBQ area and the shaded grassed area. This location avoids putting a bore down in the playing fields area and is away from significant historic trees, the current pavilion area, the proposed pavilion expansion and the campground.

A new bore will occupy a space of approximately 3m by 6m within the unshaded grassed area within the swimming pool complex. It is proposed to fence off the bore so it will not be accessible or visible from the swimming pool complex. The bore pump will be below ground and is expected to be very quiet during operation.

This statement of proposal was adopted by the South Wairarapa District Council on 13 April 2023.

3. Reasons for the proposal

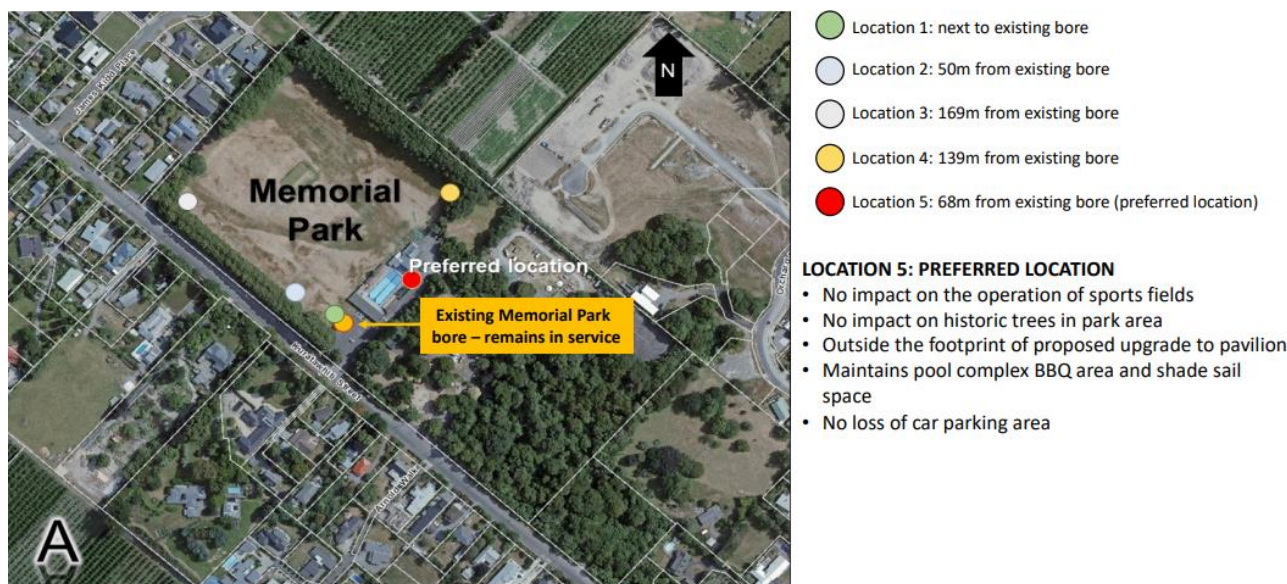
Wellington Water has determined the existing Memorial Park bore is at the end of its useful life, is difficult to maintain and at risk of failure. Therefore, they have proposed the installation of a new bore to ensure Greytown Kuratāwhiti continues to receive a reliable supply of safe, healthy drinking water. The upgrade also provides extra water supply resilience to help respond to climate change challenges.

Currently it is not possible to undertake maintenance of the pump or bore without running the risk of disrupting water supply for several months to both residents of Featherston and Greytown Kuratāwhiti. Without regular maintenance the bore is at an increased risk of failure. Through the construction of a new bore this will allow maintenance to occur consistently and new pumping technology to be installed. This will ensure continuity of supply for the long term, and during the commissioning stage of the new treatment plant, minimise any disruption to supply for Greytown Kuratāwhiti residents.

The proposed bore, which will be installed at a greater depth than the existing bore will provide a greater level of protection against future climate change impacts, particularly relating to decreased groundwater levels during summer.

4. Options considered

Wellington Water identified five locations for the new bore which were assessed and discussed at length with the Council as part of the design process. After this assessment was completed, location five was selected by the Council as the preferred option (see location below).



Recommended preferred option

The preferred location for the new bore is within the swimming pool complex. This location:

- has minimal impact on the swimming complex;
- does not impact on the protected Memorial Trees;
- retains all grassed sports fields so the community does not lose recreational space for sporting activities; and

- is close to the consented location of the treatment plant, therefore reducing construction costs, when compared to the other possible locations.

A more detailed rationale for this preferred location is outlined in the table below.

Description	Advantages	Disadvantages
1	<ul style="list-style-type: none"> • Nearest location to existing water infrastructure reducing costs associated with construction. • The location is likely above a productive aquifer. 	<ul style="list-style-type: none"> • Significant potential to interfere with current bore during drilling, risking impacting water quality for users during construction and commissioning of bore (potentially over a period of weeks/months).
2	<ul style="list-style-type: none"> • It is less likely (compared to Location 1) that there will be water quality issues in the Memorial Park bore during drilling and installation of the new bore. • Closer to existing water infrastructure than Location 3, Location 4, and preferred location making construction costs lower. • The location is likely above a productive aquifer. 	<p>A high likelihood that the bore would:</p> <ul style="list-style-type: none"> • be located within root ball of historically significant trees which would likely cause significant damage to the trees; or • reduce the size of sports fields to be unusable for local sports clubs. <p>RMP policy restricts earthworks in the root zone of Memorial trees, so construction in this area would not be possible.</p>
3	<ul style="list-style-type: none"> • The furthest location from the existing Memorial Park bore will have the least interference compared to the other locations. • Least likely (compared to the other locations) to cause water quality issues in the Memorial Park bore during drilling and installation of the new bore. • The location is likely above a productive aquifer. 	<ul style="list-style-type: none"> • Distance to the treatment plant means significant extra pipework and electrical/control cabling would be needed to connect the bore to the plant, adding significant cost to the project. <p>A high likelihood that the bore would either:</p> <ul style="list-style-type: none"> • be located within root ball of the historically significant trees which would likely cause significant damage to the trees; or • reduce the size of sports fields to be unusable for local sports clubs. <p>RMP policy restricts earthworks in the root zone of Memorial trees, so construction in this area would not be possible.</p>
4	<ul style="list-style-type: none"> • Less likely (compared locations 1 and 2) to cause water quality issues in the Memorial Park bore during drilling and installation of the new bore. • Furthest away from the wastewater (~65 m to the lateral) and stormwater networks (175 m), of the locations tested. • The location is likely above a productive aquifer. 	<ul style="list-style-type: none"> • The location is within a flood sensitive area, potentially causing contaminated water to pool around the bore headworks. Due to this risk Greater Wellington Regional Council would be less likely to approve a consent for the bore and the Water regulator is likely to refuse compliance of the water source. • Closest location to an orchard which is noted as a contaminated site. <p>A high likelihood that the bore would either:</p> <ul style="list-style-type: none"> • be located within the root ball of the historically significant trees which would likely cause significant damage to the trees; or • reduce the size of sports fields to be unusable for local sports clubs. <p>RMP policy restricts earthworks in the root zone of Memorial trees, meaning construction in this area would not be possible.</p> <p>So, this location is seen as the least preferred of all those considered.</p>

Description	Advantages	Disadvantages
<p>5 Preferred option Location 5: ~70m from the existing bore in the swimming pool complex.</p>	<p>This location:</p> <ul style="list-style-type: none"> • Will not interfere with the operation of the sports field. • It does not impact any notable trees in the park. • Construction can be completed during the period when the swimming pool is closed to the public (March to October). • The bore and associated above ground pipework will take up a space approximately 3m wide by 6m long. This area will be fully fenced off from the swimming pool, so you will not be able to see or access the bore from the pool complex. • The shaded grassed seating and BBQ area will continue to be fully accessible from the pool complex. • Location is likely above a productive aquifer. • Close proximity to the treatment plant, meaning costs for pipe connections to the plant from the bore are low compared to all other options. 	<ul style="list-style-type: none"> • Up to 18m² of the swimming pool complex will be permanently removed from the complex for the bore headworks. • Access to the swimming pool car park will be restricted to the construction team to ensure we keep residents safe during the construction period. • Vehicle access to the pavilion will have some restrictions during periods of construction, however, access will be retained via traffic management for the majority of the construction to local user groups as needed. • There will be some construction noise during working hours (7 am – 6 pm). Under normal operating conditions no noise is generated from the underground pump. • Traffic management on Kuratāwhiti Street will be required at times to enable movement of vehicles into and out of the construction site with deliveries. • Access to the playing fields will be moved from the current pavilion access to a temporary access point via the swimming pool car park during construction.

Impacts on tāngata whenua and te ao Māori

Wellington Water, alongside its project delivery partner GHD, have proactively engaged with local Iwi Ngati Kahungunu ki Wairarapa and Rangitāne o Wairarapa as well as presented at the Māori Standing Committee meeting to discuss the planned project and to understand the thoughts and feedback of Iwi. (See appendix for SWDC Māori Standing Committee information sheet)

The key topics discussed included cultural considerations, community impact and technical aspects of the project. The project team followed up by answering questions, and an offer has been made to also present to the local Papawai Marae. The feedback from Iwi was favourable, with the representatives on the Māori Standing Committee supportive of the proposal as it will improve the water quality within the town. They did not raise any concerns that the project would impact on the Te Ao Māori.

5. How you can have your say

The Council encourages any person or organisation affected by, or having an interest in, the proposed location of the new Memorial Park bore to present their views to the Council by making a submission. Submissions can be made before the 17 May via:

- filling out the online feedback form on the WWL’s website: <https://bit.ly/3MPY4cE>
- emailing your submission to cristo.umanzor@ghd.com; or
- posting your submission to: GHD Centre Level 3, 27 Napier Street, Freemans Bay, Auckland 1011, for the attention of Cristo Umanzor.

Please include your name and email address if you want to speak in support of your submission at the Council hearing so we can contact you to arrange a time for you to present at a date to be confirmed in late May 2023.

Privacy statement

Any submissions that are made on this proposal become part of the public consultation process. As such, all submissions, any summaries of submissions, and any documents provided with your submission, are made available to the Council's governing body as well as the public. Your name and feedback will be in public documents. All other personal details will remain private.

The Privacy Act 2020 applies when we collect personal details. Any details that are collected will only be used for the purposes stated. You have the right to access and correct any personal information we hold.

Appendix 1 - SWDC Māori Standing Committee information sheet

Memorial Park Water Treatment Plant

New Water Abstraction Bore

What is the project purpose?

Wellington Water, on behalf of South Wairarapa District Council (SWDC), is upgrading the water treatment facilities at Soldiers' Memorial Park on Kuratāwhiti Street to increase the resilience of the Greytown Kuratāwhiti drinking water supply.

Why an upgrade is required and what's involved

The current bore and treatment facilities exclusively supply 100% of the Greytown Kuratāwhiti drinking water needs. The current bore still meets demand, however:

- the current pump and treatment facilities are ageing and in need of replacement; and
- we cannot switch off the existing pump and treatment facilities to allow maintenance to take place without compromising water supply.

The treatment plant upgrade consists of two elements:

- Installing a new bore to ensure continuity of water supply in the long term.
- Installing the new water treatment plant (a containerised system), which involves connecting the plant to the bore and the wider drinking water network.

We are currently in the process of applying for reserve management consent for the new bore, the treatment plant was consented via an engagement process during April and May 2021.

Benefits

- Ongoing supply of safe, healthy drinking water to the Greytown Kuratāwhiti community.
- Ensure compliance with current national water standards required by Taumata Arowai, New Zealand's water regulator
- Increased resilience: the new bore will enable Wellington Water to carry out maintenance with minimal impact to the Greytown Kuratāwhiti community.

When is this happening?

Construction will be commencing in mid-2023 and is programmed to be completed before the swimming pool is due to reopen in November.

What can I help with?

We are engaging with the local community and mana whenua to seek to understand any issues and concerns you may have regarding the project so we can put in place, where possible, processes to mitigate these concerns during construction. Please email Cristo, our Project Manager (Cristo.Umanzor@ghd.com) by 31 March 2023 with any comments/queries you may have.

Project Detail

Where is the existing bore located?

The preferred location for the new bore is inside the Greytown Kuratāwhiti swimming pool complex on the grassed area beside the toddler pool. It is shown in the white outlined box in Figure 2.

Which locations were considered for the new bore?

Five locations (shown in Figure 1) were assessed and discussed at length with SWDC as part of the design process:

1. Location 1, immediately next to the bore. This was ruled out because it had the potential to interfere with the current bore during drilling, risking impacting the water quality for users during construction.
2. Location 2, 50m from the existing bore along the southern edge of Memorial Park.
3. Location 3, ~170m from the existing bore in the western corner of Memorial Park.
4. Location 4, ~140m from the existing bore in the eastern corner of Memorial Park.
5. **Location 5, ~70m from the existing bore in the swimming pool complex. (preferred option)**

Locations 2-4 were ruled out due to the potential impact to operation of the sports field and the proximity to the notable trees bordering the grassed area.

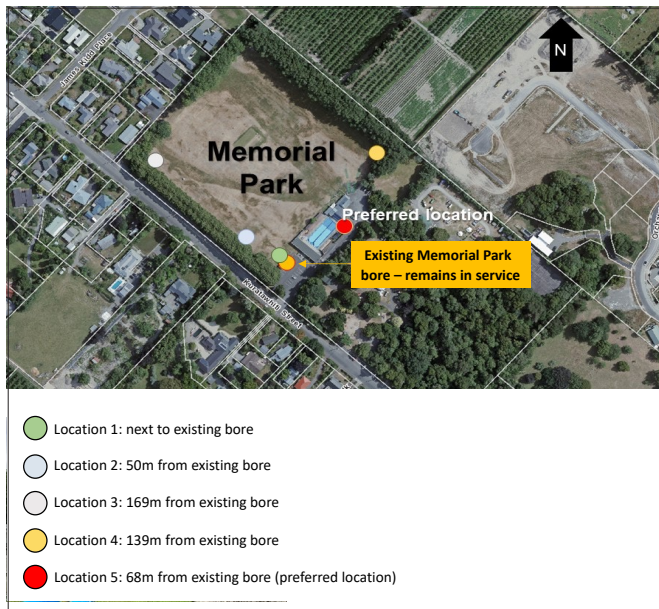


Figure 1: Bore Locations considered

Where is the preferred location for the new bore?

The preferred location for the new bore is inside the Greytown swimming pool complex on the grassed area beside the toddler pool. It is shown in the white outlined box in Figure 2.

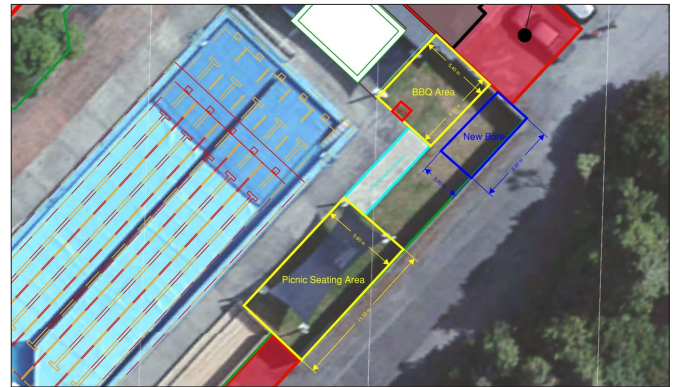


Figure 2: Preferred Bore Location

How much impact will this have on the swimming pool complex?

As construction will not start until after the completion of the busy summer swimming period, and are programmed to be completed before the start of the 2024 summer season. We anticipate that the impact on day-to-day pool operations will be minimal. The bore and associated above ground pipework will take up a space approximately 3m wide by 6m long. This area will be fully fenced off from the swimming pool, so you will not be able to see or access the bore from the pool complex.

The shaded grassed seating and BBQ area will continue to be fully accessible from the pool complex.

What other impacts can we expect during construction?

Access to the swimming pool car park will be restricted to the construction team to ensure we keep residents safe. There will be limited vehicle access to the clubrooms, which will be arranged with local user groups as needed.

There will be some construction noise during working hours (7 am – 6 pm) and traffic management on Kuratāwhiti Street at times to enable movement of vehicles into and out of the construction site with deliveries.

Project timing

March 2023 – Engagement with Mana Whenua, park user representative groups and others

April 2023 – Compile feedback to inform construction methodology

Mid-2023 – Construction begins

We anticipate that construction will commence in April/May 2023 with the consented treatment plant and the bore installed mid-2023. Works are expected to be completed by late 2023. This includes a period of time when the treatment plant operations will be tested to ensure they work as designed before the plant is handed to Wellington Water to operate.

Iwi and Community Engagement

Drilling a new bore requires consent under the Reserves Management Plan. To inform this process we are seeking feedback from those with an interest in Memorial Park on the bore, so we can look for ways to mitigate any concerns through engagement and/or construction methodology.

The proposal outlined in this information sheet has been developed with collaboration with Wellington Water and SWDC, while taking into account the current consent requirements for the treatment plant.

Wellington Water has begun engaging with the local community about this project. This engagement includes:

- Engagement with Ngāti Kahungunu ki Wairarapa and Rangitāne o Wairarapa.
- Presentation to the Greytown Community Board, which took place on 28 February.
- Meeting with the Māori Standing Committee (14 March).
- Engaging directly with park stakeholder groups (i.e. swimming pool operations, cricket club, camp ground etc.).
- Engaging with all park user groups through email correspondence.

What do we want to achieve from this engagement?

The purpose of this engagement is to seek feedback to inform final construction methodology, and understand any issues and concerns so we can put in place, where possible, processes to mitigate these concerns.

Background Information

Ongoing access to Memorial Park clubrooms

During normal operation of the new water treatment plant and bore, no issues regarding driveway access are expected. There will be some minor disruption when chemical deliveries occur (likely to be approximately once a month) when the delivery truck will need to park in front of the treatment container. This is expected to be for no more than about an hour each time.

Location of treatment plant will minimise disruption

The location of the containerised plant and borehole (off the pavilion driveway in the alcove area, shown in Figure 3 below) was specifically chosen to minimise public disruption. Wellington Water staff may, at times, need to park their vehicles near the plant, but given its location, public access to the clubrooms and parking will not be impacted.

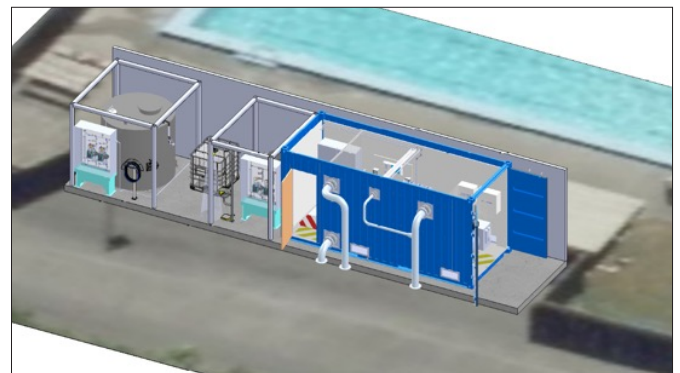


Figure 3: Schematic of the Memorial Park Water Treatment Location in relation to the pool and current driveway

Existing bore details

The current Memorial Park bore is 11 m deep and draws water in from between 9 to 11 m below ground level. The aquifer at this location is shallow and unconfined. In Greytown Kuratāwhiti, bores (which want to be installed above the base of the aquifer to ensure they can produce the yield necessary) are typically less than 15m deep, though deeper aquifers are likely present 5km to the east, near Parkvale. The underlying strata below Greytown Kuratāwhiti has not proved to be particularly productive for the most part, which creates a risk that if we drill to deeper depths, the bore will not provide the yield required to supply the network.

The current bore was pump tested in the early 2000s and showed the aquifer was very permeable with rates up to 46 L/s achieved. The Memorial Park bore is consented to abstract a maximum of 60 L/s (to a maximum daily volume dependent on the time of year), which meets the 30 L/s at peak demand for Greytown Kuratāwhiti.

Proposed bore details

The proposed bore is intended to be slightly deeper than the current bore and screened below 10 m to offer some additional protection from contaminants.

Risk of contamination in shallow bores

Shallow bores tend to be more at risk from contamination emanating from the land surface, as such Taumata Arowai (water services regulator) has put in place regulations for these types of bores which include:

- standard of treatment;
- assessing risks in the source water and mitigating them to acceptable levels when identified;
- monitoring water quality at source and within the network;
- contingency/emergency plans; and
- improvement schedules to drive continuous improvement in the network.

The Memorial Park treatment plant, and the bore which feeds the plant, have been designed to meet these requirements and ensure safe water supply for the town.

Possibility of contamination of the bore from the pool

The upgraded bore and plant will increase the level of treatment the water receives, so the risk of contamination from the nearby swimming pool is considered low. This will ensure water supplied to the Greytown Kuratāwhiti community remains healthy, and safe to drink.

Hydrogeology

Most bores near Greytown Kuratāwhiti have been installed into the highly permeable Holocene aged¹ gravel (Q1 in Figure 4 below). This gravel is fed from rainfall and water lost from the Waiohine River and provides the flow for the Papawai - Tilsons springs downgradient. Few wells have been installed into the deeper gravels (Q2 to Q5+), which suggests they are less productive than the Holocene gravels. The existing geological mapping available for Greytown Kuratāwhiti does not show any faults within the vicinity of the town.

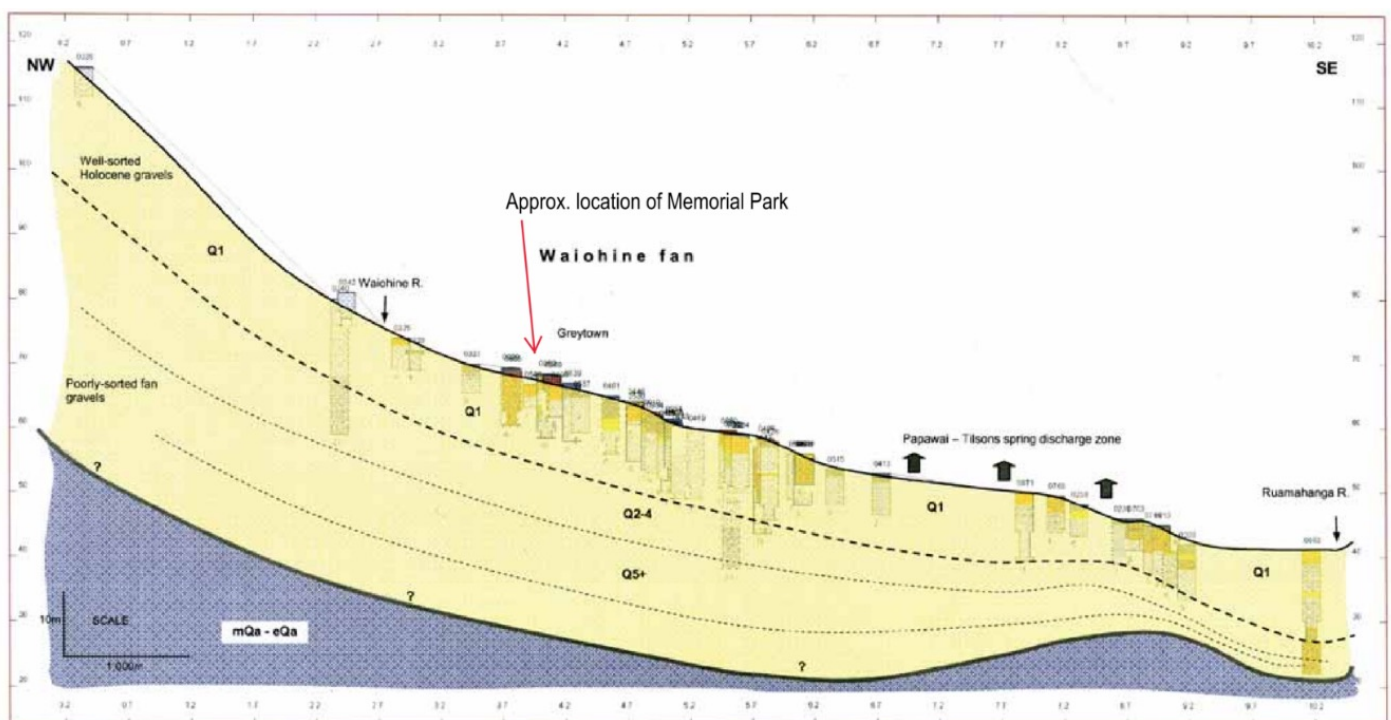


Figure 4: Greytown-Waiohine geological cross section showing fault lines and aquifer (source: Gyopari and McAlister (2010), Wairarapa Valley groundwater resource investigation: Middle Valley catchment hydrogeology and modelling. Greater Wellington Regional Council, Technical Publication No GW/EMI-T-10/73)

¹Holocene is the current geological epoch, spanning from approximately 12,000 years ago to present day.