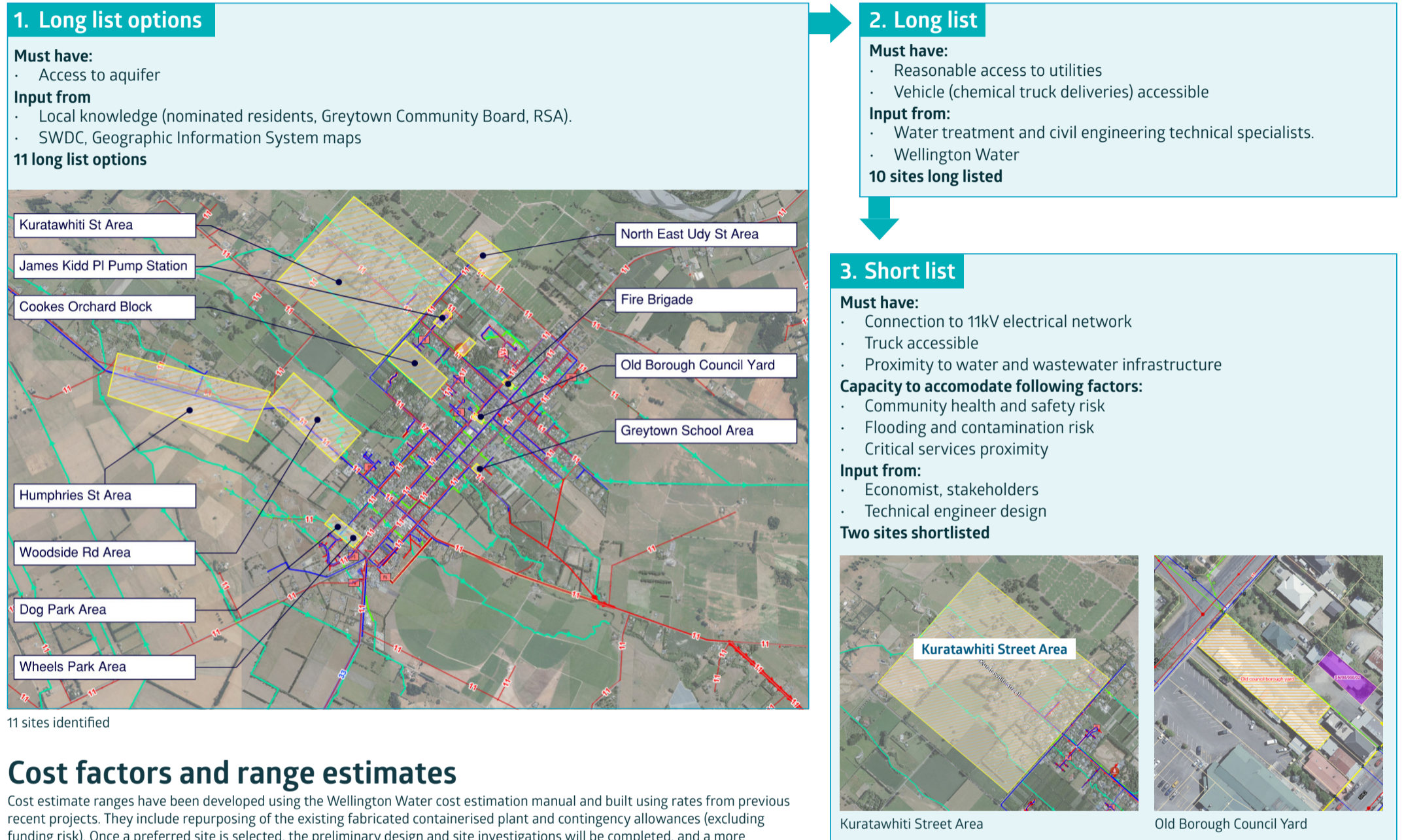


Greytown Water Treatment Plant alternative site assessment

Wellington Water, on behalf of South Wairarapa District Council (SWDC), is working to increase the resilience of the Greytown drinking water supply. The bore and water treatment facilities at Memorial Park that meets Greytown's water needs are ageing and need upgrading to ensure an ongoing reliable safe, supply of drinking water. In 2023 a notified consent application was made to construct a new bore in Memorial Park. As part of this process, the hearing committee recommendation

was presented to the Council Infrastructure and Community services meeting in July 2023. It was agreed not to progress with the consent at this time and to investigate alternative locations and undertake further consultation. As a result, Wellington Water has completed a Multi Criteria Analysis (MCA) of alternative sites for the water treatment plant within the Greytown area. Two sites have been shortlisted through this process then assessed further against key criteria and compared to the base case of Memorial Park.

How we identified the two sites – the process has involved three screening stages:



Cost factors and range estimates

Cost estimate ranges have been developed using the Wellington Water cost estimation manual and built using rates from previous recent projects. They include repurposing of the existing fabricated containerised plant and contingency allowances (excluding funding risk). Once a preferred site is selected, the preliminary design and site investigations will be completed, and a more detailed cost estimate will be prepared.

Factors affecting cost	Question	Kuratawhiti Street Area	Old Borough Council Yard	(base case) Memorial Park
		Alternative Sites		Existing site
Proximity to existing three waters infrastructure	Are new connections needed? Are they close to the proposed WTP location?	Within 300m of a suitable water connection. New connections required to water, stormwater and sewer.	Within 300m of a suitable water connection, new connections required to water, stormwater and sewer	New connections to sewer and stormwater will be required
Power and communication connections	Is a new power supply needed?	✗ New power supply and communications connections required	Power on site but may need to be upgraded	✓ Power and communications already connected to the site
Chlorine contact time	Does a new contact main or contact tank need to be constructed?	✗ Needs new contact main to be constructed along Kuratawhiti Street	✗ Needs new contact main or contact tank to be constructed	✓ 400m contact main installed along Kuratawhiti Street
Accessibility for trucks	Does a new vehicle driveway need to be constructed and tied into the road?	✗ Needs new vehicle access, hard standing and tanker delivery area to be constructed	Tie into West Street exists. Needs new hard standing and tanker delivery area to be constructed	Has vehicle access to pools and sports ground. Needs new hard standing and banded tanker delivery area.
Land ownership and use	Does land need to be purchased or leased?	✗ Land to be purchased	✓ Council owned land	✓ Council owned land
Cost estimate range		\$6.1M to \$7.3M	\$5.8M to \$6.8M	\$3.3M to \$4.0M

This paper provides a summary of the process and results. Full details including a risk register are available in the Greytown Water Treatment Plant Alternative Site Assessment Options Report [link will be provided] that has been submitted to the SWDC.

Assessing and comparing sites

Having met all requirements for an alternative site, the two shortlisted sites (Kuratawhiti Street Area and Old Borough Council Yard) were assessed using a multi-criteria analysis process. This involved scoring each site against critical criteria (such as consentability, social and cultural impacts, flood risk, soil contamination risk). Through this process cost factors and ranges were also estimated (table left). The Kuratawhiti Street area was the highest performing alternative.

The table below summarises the strengths and weaknesses of each option.

Site	Strength	Weakness
Alternative Sites		
Kuratawhiti Street Area	Low impact of affects during construction and operation due to location on the outskirts of the residential area	Land would need to be purchased Needs new power connection, contact main New connection point to the potable water network to be confirmed
Old Borough Council Yard	Council-owned land	Constrained site within built environment, may require a contact tank constructed on site High social impact
Existing site		
Memorial Park	Council-owned land Power, access and other connections already on site	Consentability, due to cultural and historical significance