# Ngā Mahi a Wai Māori Kaipara District - Water Storage and Use Project





### Why were the locations chosen?

Previous studies analysed the entire province of Te Tai Tokerau before determining that the most benefit could be realised in the Kaipara and Mid-North

The location you see on the map above were ultimately chosen because of:

- Suitable Horticultural Soils
- Demand and opportunity due to climatic conditions
  - Significant potential for economic growth in local communities











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#### Kaipara Scheme

Analysis and investigations have been undertaken by a multi-disciplinary team of experts including Water Resource Scientists, Dam Engineers, Environmental Planners and Horticulture Scientists to determine possible scheme configurations.

Through careful consideration of the environment, land ownership, water availability, and projected demands of the community, potential scheme options have been developed to a pre-feasibility level.

### Conceptual Design

High-level conceptual design has been undertaken for two scenarios. An option with larger storage reservoirs which would have to be built in one go, or a distributed option which can be incrementally developed over time.

Water is proposed to be harvested from multiple sources during high flows via gravity inflows and pumped from higher yielding catchments. This approach ensures reservoirs are not constructed on major streams or rivers.

Whilst the end solution has not yet been determined it is likely that the project will favour further investigating and developing a distributed option as it can be developed in a flexible manner as demand increases. This reduces the amount of capital required up front by only building infrastructure as and when it is required.

www.nrc.govt.nz/waterstorage

	Large Storage Option	Distributed Storage Option
Volume of Storage	11.5 Mm <sup>3</sup>	11.4 Mm <sup>3</sup>
Number of Storage Sites	1	4
Total Length of Pipe	65 - 75 km	75 - 85 km
Orchard Canopy Area supplied	2600 ha	2600 ha
Farm Area supplied	3700 ha	3700 ha
Allowance for other demand	Yes	Yes
Indicative Scheme Capital Cost	\$40-\$60m	\$50-\$70m









