

Appendix 25: Boat Ramps

1. Introduction

One of the recommended priority actions to improve access to the Waikato River is the development of a strategic access plan which would (among other things) identify what new access facilities might be needed. They might include:

- Footpaths and cycle ways.
- Boat ramps and facilities.
- New reserves.
- Private and/or public access to waahi tapu (sacred area) sites.
- Improved riparian vegetation.

As an indication of what may be required, this Study scoped the need for boat ramps for waka ama/waka taua (outrigger canoe/war canoe). The lower Waikato lakes are likely to require improved boat access but in the upper Waikato, existing boat access may suffice. A preliminary engineering assessment is that most locations on the Waipa River are unsuitable for installing a boat ramp, and in these areas money may be better spent on improving access in other ways, such as a creating reserves next to the river. For the purposes of costings, a generic guideline cost for new boat ramps was estimated to be \$460,000 per ramp. This is based on the 2009 costs for the Hamilton City Council replacement boat ramp at the Delta, and includes an estimate for a 1,000 square metre parking area. No allowance is made for any additional costs such as land purchase, road access, toilets, washwater or other general amenities, since these are location dependent and will vary widely. Upkeep and maintenance of a ramp are assumed to be the responsibility of the local council, and to be minor over the first 30 year period. This cost is indicative only of the scale of investment required. During the development of a comprehensive strategic plan, locations and costings would need to be thoroughly canvassed, beyond the level of a scoping study.

This appendix provides background information to the Waikato River Authority on how the generic guideline costs for new boat ramps were estimated (see Section 5.2.4 of the Waikato River Independent Scoping Study).

2. Methodology and limitations of the costs allocated

A generic boat ramp that is assumed to be suitable for use throughout the Waikato region was identified by the Study team by reviewing several existing boat ramps around Hamilton City. These were used as a basis to determine the requirements of a generic boat ramp design and construction. The generic boat ramp chosen is made of concrete and is single width. An adjacent parking area or approximately 1,000 square metres has been allowed for. No toilet or wash-down facilities are allowed for.

No specific locations for the future construction of boat ramps have been determined at this stage. As noted above, the Study team recommends that a strategic access plan be developed for the Waikato River. This would identify what new facilities might be needed and where they might be located. In lieu of this information, in order to provide cost estimates, the Study team has assumed that four boat ramps (or equivalent access measures) will be constructed in each economic region of the Study area.

A typical boat ramp installation is shown below:



Figure 1: Roose Commence boat ramp (Hamilton) – BECA.

Construction of boat ramps will improve access to the Waikato River. However, there are a number of reasons why a boat ramp at a specific location may deviate from the generic boat ramp chosen.

Construction of a boat ramp will need to be tailored to its specific location, and needs to take into account a number of factors including:

- The degree of water level fluctuation.
- Direction of the current relative to the bank (i.e., position of eddy currents).
- Stability of adjacent riverbank and local soil conditions.

- The depth of water required to launch.

The location will also influence how frequently each ramp is used. More popular ramps may warrant double width construction, increased parking area and provision of toilet and washdown facilities.

Land purchase and resource consent costs have not been allowed for. These will be location dependent and will vary significantly throughout the Study area.

Where construction of boat ramps is not possible, but improved access to the river is still desired, it is assumed that the money for a boat ramp could be used on other measures to improve access. These measures have not been well identified, and any measure which requires substantial earthworks or construction is likely to exceed the cost to provide a boat ramp.

3. Estimated costs and timelines

Since the locations of new ramps for boat access to the river have not been determined, the Study team used generic costs based on figures provided by Hamilton City Council for a ramp that was designed to be installed at the Waipa Delta. Hamilton City Council advised us that their estimate for a replacement ramp at the Waipa Delta would cost between \$300,000 and \$400,000. The costs were developed in 2009 and are considered to be a reasonable estimate. The Study team therefore suggests using a cost of \$400,000 per boat ramp to estimate total costs (Table 1).

Each ramp will require parking facilities. It is assumed that flat land is available adjacent to the boat ramp site. It is also assumed the carpark requires negligible earthworks and will be constructed using a 200 millimetre sub base, 100 millimetre base course and 25 millimetre asphalt seal. Asphalt seal has been selected as it is harder wearing and will withstand the effects of heavy turning vehicles better than either a chip seal or unsealed surface. Based on 1,000 square metre parking area, including margins and fees the estimated cost of each carpark would be in the vicinity of \$60,000.

Therefore an estimated cost of \$460,000 has been applied for each boat ramp and parking facility. This does not allow for the specific costs of road access, toilets, washwater or any other general amenities.

It is assumed, for the purposes of the Study, that new boat ramps would be owned by the local council. They would be responsible for the upkeep and maintenance of the ramp and any associated facilities. Operating costs have not been determined for

a boat ramp at this time, but it is expected to require only minor repair work over a 30-year timeframe.

It is expected that a single boat ramp would take eight to 12 weeks to construct, assuming there are no site issues (e.g., adverse ground conditions, flooding etc.).

The following table summarises the cost estimates to install boat ramps in each of the four zones of the Waikato River catchment.

Table 1: Cost estimate for construction of new boat ramps.

Economic region	Number of Boat Ramps (or equivalent)	Total Capital Cost	Annual Operating Cost
Lower Waikato	4	\$1,840,000	Minor
Waipa	4	\$1,840,000	Minor
Middle Waikato	4	\$1,840,000	Minor
Upper Waikato	4	\$1,840,000	Minor
Total	16	\$7,360,000	Minor