

SUBMISSION ON THE DRAFT AUCKLAND COUNCIL ANNUAL PLAN 2011-2012

Submission from the Onepoto Lagoon Co-ordination Committee addressed to the Kaipatiki Local Board

Contact details:

Carol Bergquist
3 Mollyhawk Place
Birkenhead 0626
Ph: 418 4841 (evening)
484 8328 (daytime)
Mob: 021 229 8544
Email: caution@ihug.co.nz

Richard Plinston
22 Wilkinson Way
Browns Bay 0630
Ph: 478 6044
Email: riplin@Azonic.co.nz

The submission is addressed to the Kaipatiki Local Board and falls under the local board's priority for Environmental Protection and Enhancement.

It also relates to Region Wide Project 5: Helping to ensure our beaches are clean and to reduce flooding by investing in stormwater infrastructure, land purchase for drainage, ecological open spaces **and making sure stormwater treatment has a minimal impact on the environment.**

DECISION SOUGHT

That funding is made available in the 2011-2012 Annual Plan budget for dredging of the bottom sediments, and restoration of the condition of the lakes at Onepoto Domain as suitable for recreation, sailing and wildlife.

SUBMISSION

The Onepoto Lagoon Co-ordination Committee (OLCC) is drawn from members of the boating clubs that use the lakes at the Onepoto Domain for boating purposes. The Committee is seeking confirmation that sufficient funding is available in the Annual Plan budget for 2011-2012 for the dredging of sediment from, and restoration of, the Onepoto Lagoon in the Onepoto Domain.

The OLCC has enjoyed substantial support and assistance from the Parks Advisor and his contractors, from Stormwater engineers and from the former Birkenhead-Northcote Community Board in maintaining the lakes as functional as possible.

SUBMISSION COMMENTS

1. Background

The Onepoto Domain, its lakes, playing fields; playground and bush walk provides a variety of passive and active recreational opportunities that are well used by the community.

The boating clubs that use the Onepoto Lagoon on a regular basis include:

The NZ Radio Yacht Squadron
The Onepoto Electron Fleet
The Ancient Mariners Radio Control Group

To understand the dynamics of the lakes and to ensure the best possible sailing and environmental conditions, the OLCC undertakes water quality monitoring of the lakes and one of the feeder streams under the WaiCare umbrella. The results can be viewed using the links below:

<http://www.waicare.org.nz/site/locations/onepoto-pond.aspx>
<http://www.waicare.org.nz/site/locations/eastern-stormwater-channel.aspx>

2. Onepoto Domain Reserve Management Plan

The Onepoto Domain Reserve Management Plan 1997 (the Plan) describes the Onepoto Lagoon as two freshwater lakes designed to function as a settling ponds for stormwater which is collected through the three main drainage channels in the Domain. The lakes were designed to be 450mm deep. As drainage lakes they naturally accumulate sediment from stormwater (1.4.2).

Future use and environmental improvements for the Domain include ongoing regular management practices for the lakes which will include (2.1.1):

- Dredging out of the lakes
- Aeration of the lake water by operating the fountain on a regular basis
- Clearing of rubbish and lake weed

In terms of existing casual use, the Plan (2.1.2) provides for the continued use of the lakes by remote control boating hobbyists, namely the Whitbread 60 Remote Yacht Club (now renamed NZ Radio Yacht Squadron) and the Onepoto Electron Fleet. The Plan states the lakes will be maintained in a condition suitable for their pursuit, while the effects of the activity, especially noise will be carefully monitored.

Amongst the Management Objectives and Policies for the Domain are:

- 5.4.7 That dredging of the lakes be provided for and that disposal of dredgings on site be an option.
- 5.4.8 That the lakes be regularly cleared of weed and rubbish
- 5.4.10 That the lakes be de-silted regularly to maintain a minimum depth when full of 350mm approximately.
- 5.4.11 That the streams and cesspits within the basin be regularly cleared of weed and rubbish.

3. Issues

3.1 Sediment deposition

The lakes have accumulated considerable silt and decayed vegetation resulting in a 1-2 metre margin around the whole of the eastern side of the main sailing lake having a depth of 100-300mm only, as measured in 2007. Approximately 25% of the sailing lake has a depth less than 400mm and this means the yachts cannot approach the shallow area or

will run aground. The deepest part of the lake appears to be no more than 1.2 metres. This is shown in the attached map prepared in 2008.

3.2 Weed Growth

All clubs have experienced difficulties in the past with excessive weed growth fouling the keels and rudders of their boats. This made racing and organised events difficult. The OLCC has partially resolved this problem by opening the flood gates slightly to allow sea water from the adjacent estuary into the lakes with high tides, and this kills the weed. This is possible as the lakes are slightly lower than mean sea level. However, the lake bottom is loaded with organic matter from dead weed and in warm weather this organic load putrefies and rises to the lake surface presenting a further problem with layers of floating debris.

The seasonal botulism problem, caused by the growth of a blue-green algal species has also hit the lakes this year with a number of duck deaths.

3.3 Aeration of the lakes

The initiative of the former Birkenhead-Northcote Community Board of installing 2 new and very effective fountains in 2009 has greatly improved the circulation and aeration of water. Oxygen saturation has ranged from 64-100% since installation of the fountains; a level of 60% saturation is necessary to sustain fish life.

3.4 Conclusion

The lake bottom and entire margin has very fine black mud which is anoxic – producing hydrogen sulphide which bubbles up the fine mud on warm, still days. Permanent flushing of the lakes with salt water to kill the algal weed growth has been necessary to maintain the lakes for sailing. However, this still contributes to the mud build up and anoxic conditions that produce a bad smell as it putrefies.

4. Previous Resolutions

The former North Shore City Council Infrastructure and Environment Committee at its meeting of 1 December 2009 resolved:

2. *That the option recommended in the report of dredging the Onepoto lakes to give a minimum water depth of 1.5 metres be approved.*
3. *That Council officers continue the required investigations in 2010/11 at a cost of \$56,000 for the Onepoto lakes and \$110,000 for the Chelsea ponds, with the source of funding to be determined through the 2010/11 Annual Plan process, and report the results of the investigation to the Auckland Council.*

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Carol Bergquist
 Onepoto Lagoon Co-ordination Committee
Onepoto Domain Pond Depths in Metres

