



1.0 INTRODUCTION

Rotorua District Council (RDC) has requested that Golder Associates (NZ) Limited (Golder) provide assistance in obtaining discharge permits under the Resource Management Act 1991 (RMA, 1991) to continue to discharge stormwater from its stormwater network at the Lake Okareka Settlement area to Lake Okareka. This report is subject to the limitations in Appendix A.

Lake Okareka is situated between Lake Tikitapu and Lake Tarawera about 10 km east of Rotorua City (Figure 1). The lake has a surface area of 344 ha, a land catchment area of 1,865 ha, and a maximum depth of 33.5 m. The small settlement of Lake Okareka covers 43 ha of the catchment and is located on the lakes western shores. RDC operates a stormwater network for the Lake Okareka Settlement which predominantly collects stormwater from roads around the settlement and discharges that stormwater to Lake Okareka via streams and drains.

Pursuant to Rule 37 (discretionary activity) of the Bay of Plenty Regional Council (BoPRC) Regional Water and Land Plan RDC is required to prepare a Comprehensive Stormwater Consent Application (CSCA) for the discharge of stormwater to water. This document is the CSCA for the discharge of stormwater from the RDC stormwater network at the settlement of Lake Okareka. It is accompanied, in Appendix B by the Lake Okareka Catchment Management Plan (LOCMP) (RDC 2010) a requirement of CSCAs. Where information in RDC (2010) required expansion for the purposes of a CSCA additional details have been provided in this CSCA document.

2.0 PURPOSE

Urban stormwater network systems are constructed to provide benefits to communities in terms of protection of property from stormwater, flood control and for health and safety purposes. However, stormwater runoff from urban areas has the potential to adversely affect water quality and the habitats of receiving waters, stability of stream channels and lake edges, and cause flooding of downstream properties. The crucial factor in effective stormwater management is integrating land use, stormwater, and infrastructure management. Management of stormwater networks includes obtaining the relevant resource consents for discharges to land and water.

The purpose of this CSCA is for RDC to obtain approval from EBoP to discharge stormwater from the Lake Okareka Settlement stormwater network to land and water (Lake Okareka), while operating the stormwater network and managing any adverse effects associated with that network.

This resource consent application will supersede part of the bulk stormwater consent applications lodged with BoPRC in 2001, and currently on hold. The CSCA and supporting CMP identifies issues and options related to the management of stormwater commensurate with the size of the activities within the Lake Okareka Settlement catchments.

3.0 SCOPE

This CSCA is for the small (43 ha) settlement of Lake Okareka located on the western shores of Lake Okareka. The stormwater network serving the Lake Okareka Settlement comprises 813.2 m of open drain, and 1,435.3 m of stormwater pipes. Figure 2 shows the RDC stormwater network and its catchments for the urban area of Lake Okareka.

Stormwater is discharged from nine sub-catchments in the settlement area via seven outlets located on the south western area of Lake Okareka and includes an open channel known as 'The Wash'. The location of the nine sub-catchment discharge points and seven outlets to the lake are shown in Figure 3.

Stormwater discharged is predominantly captured from the roading network, as each residential section of Lake Okareka is required to dispose of the stormwater generated by their roofs and driveways through soak holes or other on-site disposal methods capable of accommodating at least a 10% AEP storm event.

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LAKE OKAREKA

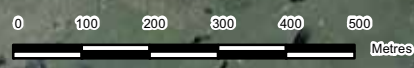
LAKE OKAREKA SETTLEMENT

Legend

 Settlement boundary

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Datum: NZGD2000
 Projection: Transverse Mercator



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TITLE | LOCATION: LAKE OKAREKA SETTLEMENT

JUNE 2011

PROJECT | 1078207446

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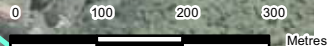
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Legend

-  Storm water catchment boundaries
-  Okareka subcatchment boundaries
-  Storm water inlet
-  Storm water manhole
-  Storm water node
-  Watercourse
-  Storm water channel
-  Storm water lead
-  Storm water mainline
-  Storm water servicable

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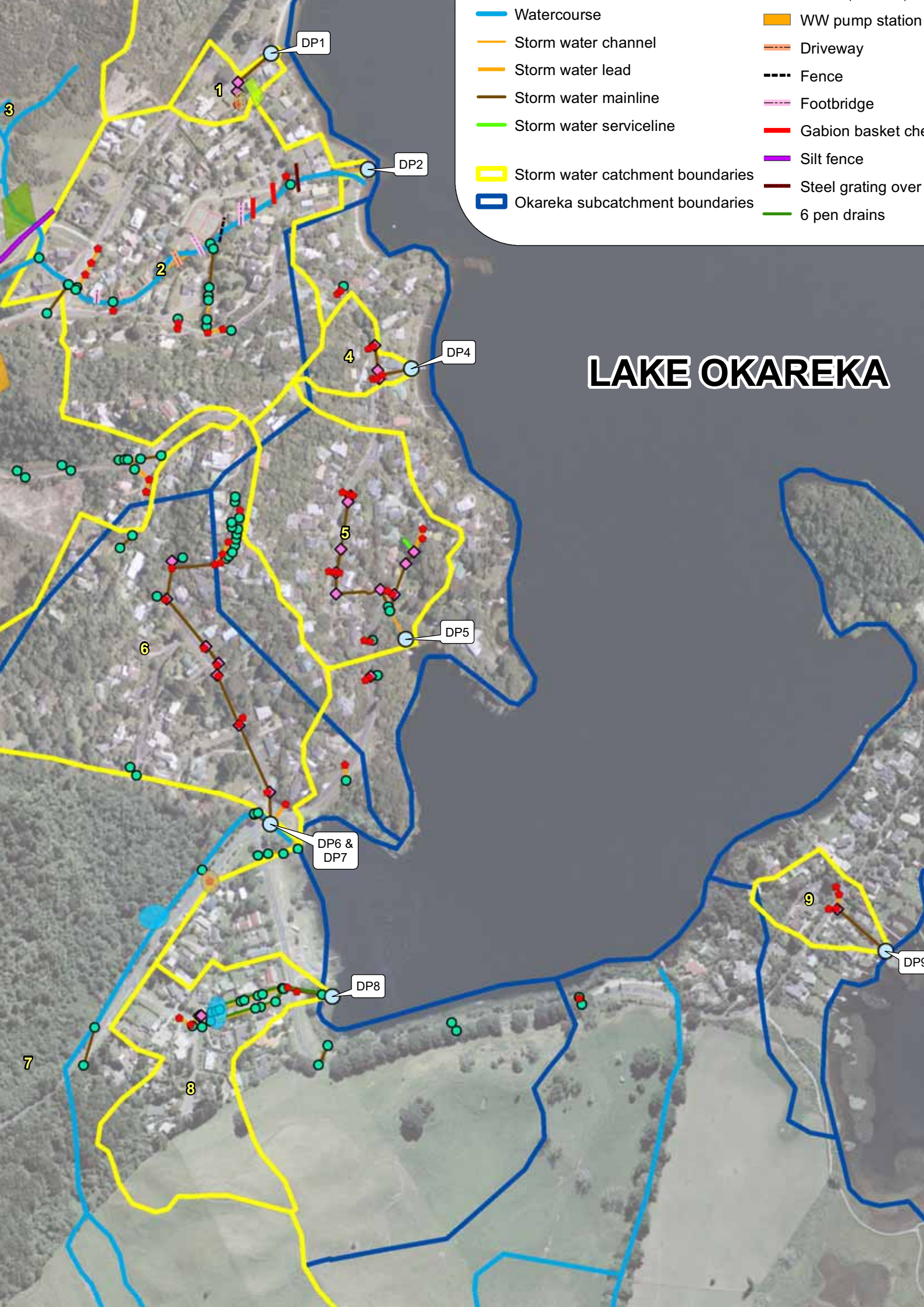
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TITLE | **STORMWATER NETWORK
CATCHMENT BOUNDARIES**

JUNE 2011
PROJECT | 1078207446

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- Watercourse
- Storm water channel
- Storm water lead
- Storm water mainline
- Storm water serviceline
- Storm water catchment boundaries
- Okareka subcatchment boundaries
- WW pump station
- Driveway
- Fence
- Footbridge
- Gabion basket check
- Silt fence
- Steel grating over
- 6 pen drains

LAKE OKAREKA

