Okanagan Falls, Kaleden & Skaha Estates
Liquid Waste Management Plan Amendment - UPDATE

Also included...Update on the New Treatment Plant

April 2010

Grant Application Update

The Regional District has filed an application with the Okanagan Basin Water Board for additional grant assistance. If successful, this grant would reduce rates further from that indicated in the last newsletter.

Liquid Waste Management Plan (LWMP) Effluent Reuse & Disposal Options

The Liquid Waste Management Plan (LWMP) for the Okanagan Falls, Kaleden & Skaha Estates is nearing completion. (see reverse for Figure 3) The Regional District plans on submitting the LWMP to the Ministry of Environment for approval in the next couple of weeks. Ministry approval of the LWMP is needed to implement the plan so funds can be accessed to continue with the new treatment plant design.

Part of the LWMP deals with the final disposal options of the treated effluent from the new treatment plant. One of the options for discharging effluent to the environment is the use of a river diffuser in Okanagan River adjacent to the new treatment plant. Potentially up to 100% of the total effluent could be discharged to the river. The Regional District is not expecting this scenario.

The Regional District intends to reuse as much of the treated effluent as feasible for wetland enhancement and/or for parks and agricultural irrigation, thereby potentially reducing the discharge to the river channel. If the wetland and irrigation options prove to be too costly or too difficult to implement, then up to 100% of the treated effluent could be discharged to the river channel.

After the pre-design is completed, a Public Meeting will be hosted to present all the effluent reuse and discharge options and receive public comments on selection(s) for the final design. Other aspects that will be presented are aesthetics of the site, odour control, pharmaceutical treatment, and general design of the new wastewater treatment plant.

The LWMP amendment suggests an extension of the sewer service area to include Skaha Estates (183 lots likely to be serviced) and Kaleden Lakeshore areas (142 lots likely to be serviced) at a future date. Details of the proposed future sewerage systems for Skaha Estates and Kaleden are presented in Figures 1 and 2 on the next pages.

As part of the public consultation process, you are invited to provide comments and feedback on the LWMP Amendment and various disposal options to the Regional District and the Ministry of Environment by May 31, 2010.

Questions?

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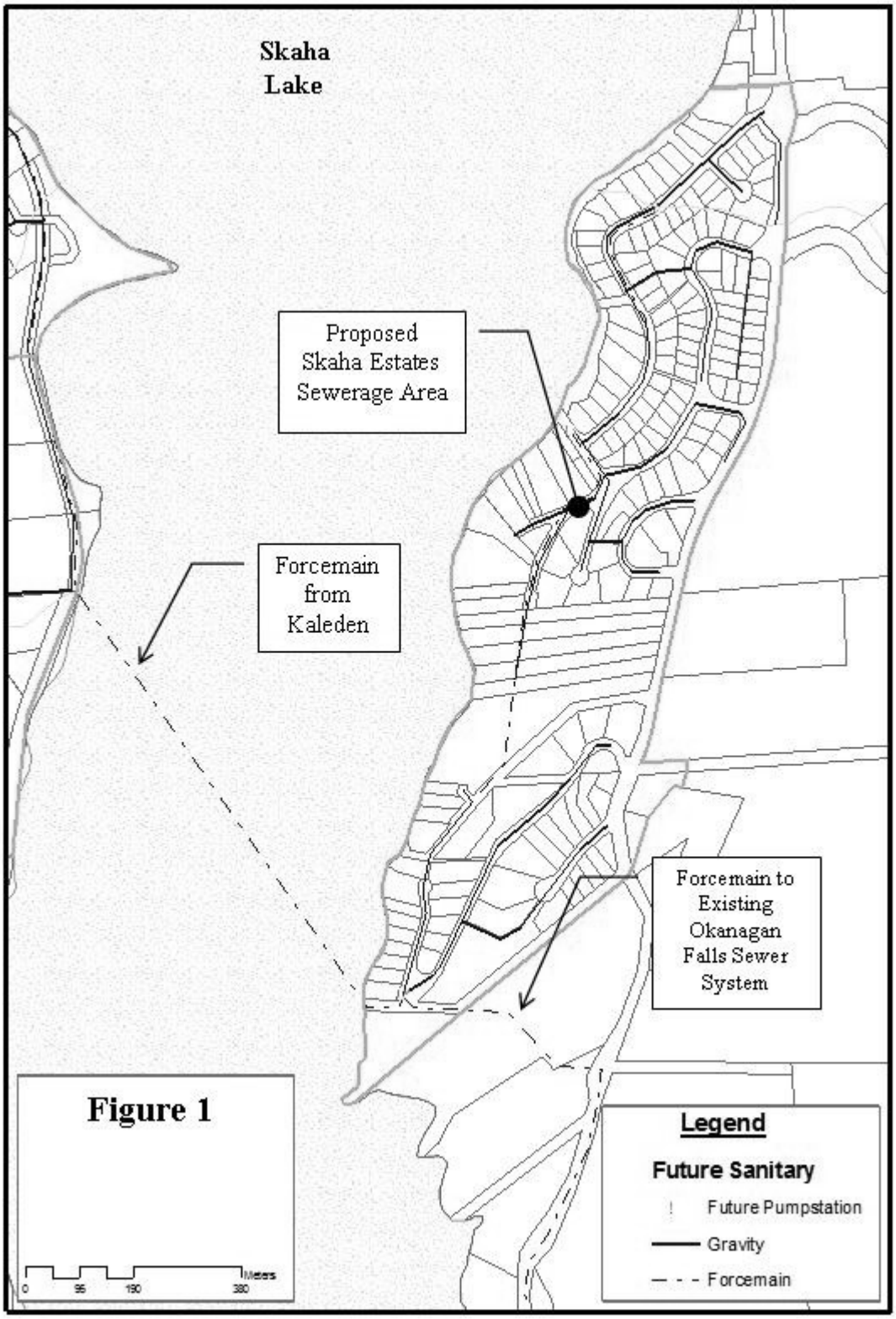
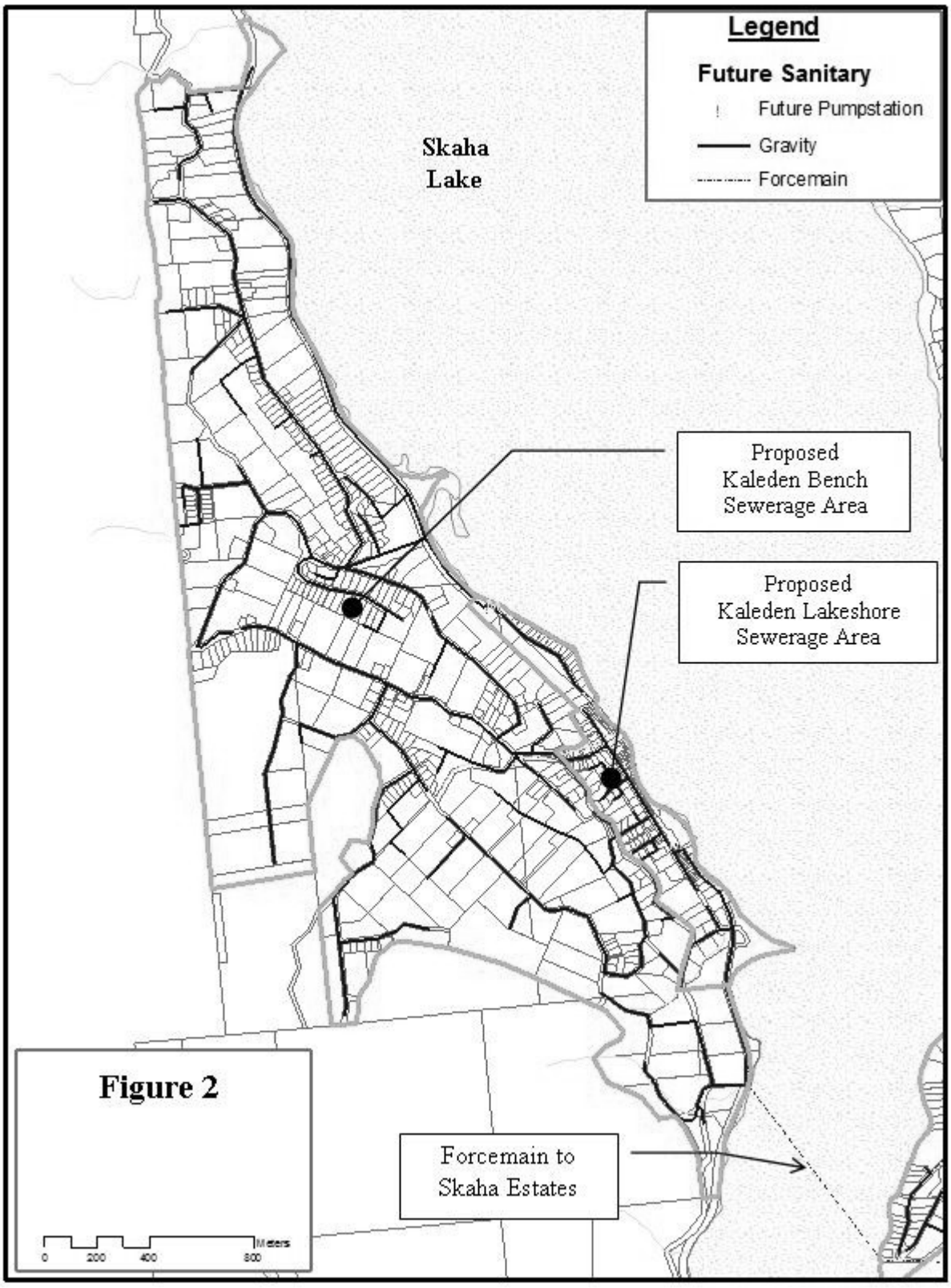
Conceptual Future Layout of Skaha Lake Sewer System as included within the LWMP Amendment *(Final layout to be determined when the sewering project proceeds).*



Conceptual Future Layout of Kaleden Lakeshore and Kaleden Bench Sewer System as included within the LWMP Amendment. *(Final layout to be determined when the sewering project proceeds).*



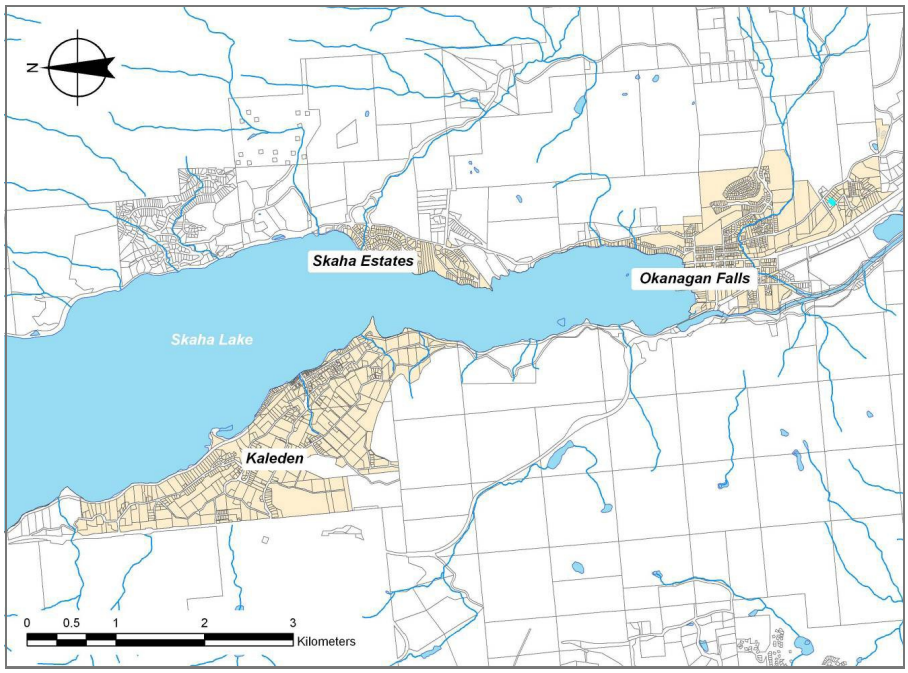


Figure 3: LWMP Amendment Areas

Wastewater Treatment

Historically, wastewater treatment involved primary treatment and secondary treatment to remove most of the solid and organic materials before being discharged to the receiving environment. An example is the current plant in Okanagan Falls that carries out primary and secondary treatment before pumping to the existing infiltration basins. Lessons gained through experience have taught the importance of also removing nutrients, such as nitrogen and phosphorous, from the waste-water. This is accomplished through tertiary treatment processes that remove almost all the nutrients before discharging to the receiving waters, such as lakes or rivers.

The new wastewater treatment plant will have tertiary treatment using Biological Nutrient Removal (BNR) technology. The proven process is reliable, robust, operator friendly and extremely adaptable to changing flow and load conditions. The BNR treatment process removes organic material, phosphorous and nitrogen and with filtrations and disinfection, will produce effluent at near drinking water standards. The high quality effluent provides for a range of uses and disposal methods. The effluent can be reused as irrigation water, discharged to a river or lake or used to enhance habitat in wetland environments. BNR technology was implemented in Canada in the late 1970s when the first BNR plant was constructed in Kelowna to address nutrient impacts to Okanagan Lake, such as algae blooms and excess weed growth. BNR plants in other Okanagan communities have also proven to be successful, such as those in Penticton, Summerland and Lake Country.

Did You Know?

- AECOM Canada Ltd. was awarded an engineering contract of $900,000 by the Regional District Board on February 18, 2010 to design and administer the construction of the new wastewater treatment plant. This is almost $200,000 less than what was budgeted. Design has commenced and a realistic schedule has been determined.

- Construction Schedule:
    1. March 2011: design completion
    2. March and April 2011: tender for construction
    3. May 2011: construction commences
    4. April 2012: plant will be operational

- Area D Director, Bill Schwarz, has formed an Advisory Design Committee to consider public issues and concerns such as aesthetics, noise, odour, traffic, landscaping and fencing. If you wish to participate, please contact Director Bill Schwarz.

- At this point, Skaha Estates and Kaleden are not included in the service area for sewer. However, the plant will be designed to manage high volumes and Skaha Estates and Kaleden are planned to be added in the future.