

Executive Summary

The Skaha Lake Shoreline Study was completed on behalf of the Regional District of Okanagan Similkameen (RDOS). The primary objective of the study is to provide information to the RDOS such that a comprehensive plan for management of the Skaha Lake shoreline in Electoral Area D may be prepared.

The shoreline management plan is based on the Guiding Principles developed by the RDOS Shoreline Committee. The Committee is composed of eleven (11) members combined from Kaleden, Skaha Estates, and Okanagan Falls. The Guiding Principles for shoreline management produced by the Shoreline Committee include:

- Enhance connectivity;
- Limit noise, water and air pollution;
- Conserve the natural environment;
- Protect and expand recreation;
- Increase accessibility;
- Maintain opportunities for economic development;
- Enhance history, culture, and education;
- Protect and enhance the character and scenery; and,
- Consider legislation and regulations.

The Shoreline Study incorporates consultation with a variety of stakeholders, including conservation groups, First Nations, and the community.

Data collection for this study involved an extensive background review of the RDOS policy documents including parks strategies, Official Community Plans (OCP), bylaws, zoning designations, and biological reports. Coupled with the background review, field inventories were completed. Field inventories of the shoreline followed the Foreshore Inventory and Mapping (FIM) methodology, which is a standardized method to collect baseline information regarding the shores of Skaha Lake. This FIM methodology will allow the RDOS to track changes along the shoreline to help achieve the objectives of the guiding principles and management plan.

Study conclusion and recommendations are summarized as follows:

Environmental Land Use Planning

- Develop/update a Terms of Reference for environmental reports that outlines professional requirements for assessments in the region and provides a list of considerations for environmental professionals preparing site specific assessments.

- Incorporate identified Environmentally Sensitive Areas into OCP's by creation of Environment Development Permit areas.
- Establish and improve the referral process for applications with other agencies such as Front Counter BC, Ministry of Environment, and Ministry of Transportation (subdivision approval authority) to ensure that the concerns of the RDOS can be addressed.
- Create an Environmental Advisory Commission, which would function similarly to an Advisory Planning Commission. Establishment of such a commission in the Regional District Okanagan Similkameen may provide an avenue to address residents environmental concerns and as an advising committee to the Regional Board regarding environmental considerations and regional initiatives.
- Limit or direct development and/or sub-division away from lands that may be subject to natural hazards such as flooding, debris/mud flows, landslip, erosion, rock fall, or subsidence by developing DP areas for hazard lands.
- Work with other agencies to determine carrying capacities for Skaha Lake. Examples include, but are not limited to:
 - Accepted level of boating activity on the lake that considers environmental, safety, and other considerations;
 - Maximum water available for withdrawal from the lake;
 - Maximum tolerance for temperature related impacts associated with geothermal lake or adjacent ground loops; and
 - Important groundwater zones around the lake.
- Recommend completion of environmental inventories to supplement and expand upon the work completed for this study:
 - Accurate mapping of all shore marshes and wetland areas around Skaha Lake;
 - Groundwater aquifer mapping;
 - Sensitive Habitat Inventory and Mapping of any watercourses or gullies that have not been completed yet;
 - A wetland inventory in adjacent upland areas should be completed. Many wetlands occur in isolated basins and good connectivity to Skaha Lake is extremely important for many species;
 - An inventory of important bird nesting areas along the shoreline should be completed. Due to the large number of wetlands observed, it is probable that many important nesting areas have not been identified; and,
 - Detailed terrain and terrain stability mapping to identify areas within the Kaleden-Apex Southwest Sector having a high hazard soil stability rating.
- Prepare a GIS-based environmental data management program to ensure that staff and *the public* have access to environmental information collected.
- Continue to update and promote the Environmental Planning section of the RDOS website which contains valuable educational information to help property owners, developers, farmers and environmental professionals working and living around sensitive habitats.

Land Use Policy

- Residents value the rural lifestyle their communities provide and are also concerned about the impact of development on the natural environment. Therefore, new development should preferably take the form of infill and development of existing vacant and serviced lands prior to considering other areas. New development should be focused in settlement areas, including Kaleden, Okanagan Falls, and within existing developments on the east side of the lake.
- Environmental studies of areas identified as EDP areas should be completed for any land use or development permit applications. It is strongly encouraged that assessments set aside environmentally sensitive areas as early as possible (i.e., at zoning prior to subdivision if possible) using one of the following mechanisms (in order of preference):
 - Set aside or re-zone lands a natural areas parks lands;
 - Create a special Zoning for natural areas and re-zone lands as this;
 - Set aside land using a Section 2.19 Restrictive No Build/No disturb covenant;
- Completion of the Regional Growth Strategy in a timely fashion should be a top priority for the RDOS.
- Strictly uphold the policies developed as part of the Kaleden-Apex Southwest Sector and the East Skaha Vaseaux OCPs.
- A thorough review of the OCPs should be conducted to ensure the results of this shoreline study are integrated into the OCPs.
- 80% of survey respondents strongly agree (64.5%) or agree (15.8%) with the development of Design Guidelines (a total of 76 people answered the question) for multi-family and commercial developments.

Public and Private Amenities

- The boat launch at Main Street will eventually need to be repaired or replaced. The design team for the boat launch should consider newer technologies that exist which are thought to lessen impacts of the launches. Also, consideration should be given to the type of vessels that are appropriate for the launch. A well constructed boat launch in an appropriate location is preferred to undeveloped launches that are commonly used and public should be directed to appropriate locations for boat launching. Also, signage regarding transfer of exotic plants and other marine species build awareness and promote boat inspections at the site of launch, which could reduce spread of various invasive species. Any boat launches proposed should be referred to Front Counter BC for review and comment by senior government agencies.
- The RDOS may wish to consider pursuing a head lease on areas along the Skaha Lake shoreline. A head lease, issued from the province would give the RDOS more control over the management of docks. The City of Peachland currently has a head lease from the province and should be contacted to discuss the advantages and disadvantages of this approach.
- Determining whether a commercial moorage facility is required in Electoral Area D is difficult due to data gaps in future boater demand. 67% of respondents to the study survey do not agree

with marina development. Many people would like to see Skaha Lake used for non-motorized watercraft only. The concern is that a new marina will result in increased motorized boat traffic on the lake. The lake can likely facilitate one additional large, fully serviced facility. Locating the facility is important and the following are recommendations for locating a new commercial moorage facility when a decision is made regarding the necessity:

- Detailed bathymetry of the candidate areas should be prepared. Bathymetric mapping will help determine areas suitable based upon the topography of the lake bottom. Preferred moorage locations occur in 2 to 3 m deep water in wide littoral areas that do not contain significant aquatic vegetation;
 - A detailed environmental overview of proposed locations should be prepared to assess impacts of the structure on fish species, wetlands, and any other important terrestrial habitats that may occur;
 - A demand analysis should be prepared to determine appropriate moorage demands now and into the future.
 - Any moorage designs should be reviewed by a qualified environmental professional to address fisheries and wildlife concerns. All moorage designs should be referred to Front Counter BC to facilitate permitting with senior government agencies.
 - Candidate areas reviewed should consider future expansion of the marina/moorage, as it is preferred to keep moorage concentrated in one location. Thus, a small facility may only be required at this time and it is preferable to site the facility in an area where it can grow with demand; and,
 - Detailed mitigation plans for any fuelling and sani-disposal areas should be prepared. Spill management plans and resources must be located adjacent to these facilities in preparedness for when (not if) a spill will occur.
- Based on existing public accessibility and existing services, previous development, lack of critical aquatic habitat and/or sensitive environmental features, the preferred location for a new marina, should it be considered in the future, is on the south side of Skaha Lake at Okanagan Falls. Completion of the above studies is critical to ensure that this recommendation is appropriate.
 - Day use moorage is noticeably absent in most parks and boats were observed moored along the shorelines during surveys. In park areas, it is preferred that a day use moorage facility be provided to minimize impacts such as propwash. Environmental considerations should be given when determining an appropriate location and design of the moorage;
 - In general, parking in Kaleden appears to be adequate for the current level of usage of the shoreline and lake. Kaleden Pioneer Park has an expanded parking lot to accommodate trucks and boat trailers. Improved signage and enforcement would ensure these large vehicles park in the designated location.
 - Parking for shoreline amenities in Okanagan Falls could be improved. Parking for Lions Park, Christie Park, and the Main Street boat launch is “on-street” and shared with businesses owners and residents. Overflow parking for the boat launch should be clearly identified.

Shoreline Accessibility

- Shoreline accessibility for humans must be balanced with the need to protect natural shoreline habitat. Providing well-marked, easily-accessible access points in areas with low habitat value and discouraging access in areas with high habitat value is strongly encouraged. Access can be discouraged through the use of barriers and/or educational signage. The FIM data should be used to determine areas where public access should be discouraged.

Recreational Opportunities

- Determining the recreational carry capacity of the lake is strongly recommended. The recreational carry capacity includes many items, such as camping facilities, moorages, boat numbers, activities, and locations (e.g., is there a maximum number of vessels the lake can safely facilitate use of), personal watercraft, cottages/single family dwellings, wildlife corridors and environmentally sensitive features. There are many areas adjacent to the lake that are considered environmentally sensitive for a variety of reasons, and a larger scale environmental land use plan (i.e., one that considers a larger scale) would help determining that carrying capacity. Ultimately, there is a point when the lake system will not be able to accommodate all of the desired uses in a sustainable manor. To develop a carrying capacity, it is recommended the items for which capacities are determined are prioritized: Immediate items to consider are the # of boats (personnel, powered, and manual) the lake can safely accommodate, and wildlife corridors and environmentally sensitive area planning. Based upon our review, these items appear to have the greatest pressure.
- It is important that the beaches in Kaleden and Okanagan Falls continue to be well maintained and accessible.
- The OK Falls Parks and Recreation Commission should continue to pursue the take over of park maintenance of Christie Memorial Park from the Province. Ownership transfer of the park to the RDOS should also continue to be considered and discussed with the Province.
- The Kettle Valley Railway (KVR) is one of the more unique features of the shoreline. Ensuring that access to this recreational trail is maintained is considered extremely important. The Rails to Trails and Parks Committee should continue to work with the Province to obtain sections of the KVR Trail on Crown lands. The Committee should also work with private landowners to ensure the right-of-way through private land is accessible to the public.
- A pamphlet that includes parking locations at each end of the trail, the trail route, points of interest along the trail, and general information about Penticton, Kaleden, and Okanagan Falls would be an excellent tool for promoting the KVR Trail to tourists.
- A feasibility study should be conducted to determine the demand for a public non-motorized watercraft rental enterprise, identify the best location, consider potential operators, and identify useful partnerships.
- A separate study and long-term plan should be prepared to determine the best option for improving Eastside Road such that it might better accommodate walkers/joggers, cyclists, and wildlife.

- Measures should be implemented as soon as possible to lower the speed limit and enforce weight restrictions on Eastside Road. Highway 97 should be considered the main traffic corridor and Eastside Road should be treated as a secondary route used for scenic driving.

Historical, Cultural, and Educational Opportunities

- Information about the history of the area, including the history of First Nations people, could also be presented along the KVR Trail.
- Kal Rec should consider the placement of a large sign on the lake side of the Kaleden Hotel that provides the history of the site and some general history about Kaleden and the KVR Trail.