



2018 Lake Access Plan

October 2018
Updated May 2021

TABLE OF CONTENTS





TABLE OF CONTENTS.....	1
INTRODUCTION.....	2
OBJECTIVES	3
HISTORY	4
METHODOLOGY	5
PRIORITIZATION OF IMPROVEMENTS AND RECOMMENDATIONS	6
APPENDIX A – SITE EVALUATION METHODOLOGY.....	9
APPENDIX B – LAKE ACCESS EVALUATION MATRIX.....	15

REVISION HISTORY



Adopted October 2018
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INTRODUCTION

Okanagan Lake is central to the character of the Vernon area and residents are constant in their desire for greater enjoyment of this defining feature of their landscape. Feedback from the Official Community Plan, Parks Master Plan and Draft Lake Access Plan confirm that greater lake access is a top priority for residents of the city.

During our hot summer months, Vernon families are fortunate to live within a short distance to three spectacular lakes. Lakeshore parks are well equipped for families to spend a day at the lake. You will share the day with other sun seekers from across the city, another province and the other side of the world. You can find pretty much anything you need to make your beach day a good memory.

Sometimes, though, you are looking for a place to meet with a friend for a chat and a cooling dip after work, a spot close to home to launch your kayak for an hour before dinner, an out of the way spot to teach your ten year old how to paddleboard or a quiet spot to sit with your dog and watch the sailboats. Residents know about such places because they have been using improved lake accesses at Delcliffe, Foster, Kennedy and Whitepoint Roads for years now.

Residents were overwhelming in their response to our public participation programs: they want more access to the water. Lake access sites are designed for short interludes where you know you won't be crowded out. These are the places within our neighbourhoods and they make us feel like we have lakefront property, too.

There are accesses that you may not recognize because the pump station or storm outfall pipe dominates the view. Others are teeming with spawning Kokanee or overrun with native vegetation that give cover to deer or mink. Each serves our community, grows our community and protects the values that define Vernon.

The purpose of this plan is to inform decisions for improving and managing lake access sites in the City of Vernon in efforts to meet Council's strategic goals.

OBJECTIVES

The intent of the Lake Access Plan is to provide guidance to Council and Administration in making choices that will bring the greatest benefit to the community as a whole. This report examines the 39 sites identified in the 2016 Draft Lake Access Plan and a new site added through subdivision since 2016 (totaling 40 sites).

The specific objectives of this plan are as follows:

- To determine those accesses that best satisfy public recreation, utility and ecology and rank the sites within these categories by greatest suitability and ease of development for timely success.
- To recognize impediments to development and identify a process to tackle these issues.
- To establish appropriate levels of development commensurate with the capability and suitability of the site for its best use.



HISTORY

Access to water is established through the Land Title Act Section 75 (1) (c) and (d), whereupon a 20 m wide corridor must be given for public access to a body of water, such as Okanagan Lake, at distances not greater than 200 m between centre lines, or, in a rural area where all parcels in the subdivision exceed 0.5 ha, at distances not greater than 400 m between centre lines.

Historically, these accesses were used to provide livestock access to water and to transport logs from the water to the mill. Today their main use is for recreational access. Other uses for these accesses may include utilities, water quality testing by inspectors, facilitation for search and rescue, firefighting and irrigation.



The City of Vernon assumed control of forty-five (45) accesses from the BC Ministry of Transportation in 1993. In 2005, City of Vernon staff presented recommendations to improve access to Okanagan Lake through the use of these existing rights-of-way. That report recommended the potential disposal of 13 sites and recognized that “some of the sites proposed for sale are encroached upon to the extent that it may be difficult to resolve some of these encroachments.”

Four of the thirteen sites were deferred from disposal, two were disposed, one was subdivided with 10 m retained for public multi-use trail, and one is titled to a private waterworks governed by Greater Vernon Water (RDNO).

Five sites to date (May 2021) are fully developed and are well-used by Vernon residents: Beachcomber Bay Road, Foster Road, Kennedy Lane, Whitepoint Road and Delcliffe Road. Three sites have been completed with only minor improvements (signage and garbage receptacles) as directed by Council: 9003 Peters Road, 9689 Eastside Road, and 8396 Tronson Road.

Since 2018, one new access site has been added through a subdivision process, located between 9396 and 9415 Eastside Road.

METHODOLOGY

All sites will be referred to by their assigned street address as successive site numbering becomes difficult when sites are disposed and new ones added. On January 22, 2018 Council endorsed an update of the Draft Lake Access Plan (2016) to concentrate on the following dimensions of the plan:

1. focus on retaining ownership of the majority of existing lake accesses sites, improving those sites and acquiring new sites in gap areas,
2. refine the evaluation matrix to consider slope and width, and
3. focus on removal of encroachments, at the owner’s expense, prior to improvements being undertaken.

For a city to provide the infrastructure and range of services demanded, it needs the flexibility to utilize lake access sites for different purposes. The capability and suitability of a site for one purpose may be at odds with a different but equally important purpose. Some lake accesses are serving as utility corridors and infrastructure sites. Other sites offer attractive beaches, an easy link between upland communities and the lakeshore. Alternatively, the best value of a site may lie in preservation or restoration of aquatic habitat or as a wildlife corridor linking important upland territory to a critical water supply. The qualities of one cannot negate the requirements of another. Each site needs to be recognized for its greatest benefit to the community.

The table below identifies the categories and relevant parameters that were used to evaluate and prioritize each lake access site. Additional descriptions of these parameters are provided in Appendix A. Appendix B shows the lake access rating matrix and identified best community use for each site.

Site Approach	By Vehicle	Recreational Site Suitability
	By Foot	
	Parking	
	By Water	
Site Capability	Slope	
	Width (design flexibility)	
	Vegetation density	
	Lakefront usability	
	Impediments	
User Management	Effort of Response	
	Complaint Record	
	Community Acceptance	
Engineering and Operations Requirements	Drainage/Sanitary Requirement	Utilities
Environmental Protection	Environmental Management Area	Community Environmental Contribution
	Riparian Enhancement Opportunity	
	Aquatic Habitat	

PRIORITIZATION OF IMPROVEMENTS AND RECOMMENDATIONS

The Master Drainage Plan, future development, and storm events will influence drainage and sanitary requirements. Every lake access site was identified as being in use or forecast for potential use for community drainage and/or servicing. Moreover, the City’s 2019 Drainage Infrastructure Prioritization Plan identified overland flow routes and where they cross onto private property. Where possible, lake access sites could be used to redirect overland flow routes to the lake through public rights-of-way. Surface drainage is a critical aspect of any lake access design and at a minimum, a drainage swale should be conscientiously included in the site design and improvement plan of every site.

Fifteen lake accesses are well suited for full development as recreation use. This means they should have parking, pedestrian access (footpaths or stairs, if required), and site furniture at the waterfront to accommodate the public. The side boundaries shared with neighbours should be marked to ensure private property is respected and the public knows the limits of the lake access. The access shall have signs on the upper road announcing the lake access in advance for a safe approach. The sites recommended for full recreation use improvements are listed in order, including the latest status (as of May 2021):

2018 Priority Level	Address	2016 Site Number	Status
1	7200 Tronson Road	21	Development underway
2	3000 Lakeshore Road	22	Development underway
3	8130 Tronson Road	11	Development underway
4	9030 Tronson Road	1	Development underway
5	8068 Beachcomber Bay Road	12	Complete
6	7300 Tronson Road	20	To be determined by Council
7	8835 Okanagan Landing Road	26	To be determined by Council
8	114 Russell Road	37	To be determined by Council
9	9003 Peters Road	27	Complete
10	9689 Eastside Road	34	Complete
11	8396 Tronson Road	6	Complete
12	7806 Tronson Road	14	To be determined by Council
13	7700 Tronson Road	15	To be determined by Council
14	8797 Okanagan Landing Road	25	Development underway
15	9499 Eastside Road	30	To be determined by Council

There are an additional eight sites that are well suited as public recreation sites but are accessible from the lake only at this time. Old Stamp Mill Road is a private strata road to which the public does not have access. This does not preclude recognizing the benefits these sites offer the public via lake

access only. The popularity of paddlers with non-motorized watercraft (i.e. canoes, kayaks, paddle boards) means that these users are exploring further from the public beaches. The ability to find resting places and public sites to land a vessel in inclement weather or in case of emergency is fundamental to these recreation lake users. Neighbouring communities of Lake Country and Kelowna are catering to this fast-growing group by identifying the site from the lake and providing basic amenities. Seven of these sites are suited to offering basic amenities which would include site furniture (garbage, bench and landing for their watercraft), the street address on property corner signs at High Water Mark (HWM) or other boundary definition, as required.

The sites for water access can only be developed once a motorized vessel for Operations and Bylaw is secured. Construction, maintenance and Bylaw Compliance will need to access these sites on a regular basis to remove garbage, conduct maintenance and respond to calls. At such time as other issues necessitate acquisition of a motorized vessel, or the water access only sites can be developed to serve tourism and recreation, these sites can be prioritized for development.

The greatest impediment for five sites is the legal public access that private property precludes at this time. Three lake accesses are split with a portion of the site below Tronson Road and a portion below Old Stamp Mill Road. These sites are located at 7452, 7406 and 7352 Tronson Road. The lower portion of all three sites are accessible from the water only by the public, two of which are suited for recreation use with water access only at this time. The third access 7452 Tronson is dominated by a pump station and is best serving the community as a utility site.

The public access to another two sites is complicated by easements. The shared driveway over 7948 Tronson Road favours four landowners with a driveway that crosses four properties and the lake access. The shared driveway over 8196 Tronson Road grants access to two properties and precludes public access. These common driveways use land in the Tronson Road right-of-way, portions of private property and portions of the lake access, and the driveways dominate the site. They were so built because the grades from Tronson Road are severe. Legal public access must be addressed before any of these lake accesses are scheduled for improvements. This obstacle does not preclude developing the site at water's edge with water access before resolution is found for access from the upper road. When any of these properties are redeveloped, public access should be negotiated for full access for the public.

Four sites can be easily accessed by vehicle and foot until the grade drops dramatically to the lake. They offer potential viewpoints at each of 9293, 9589, 9769 and 9896 Eastside Road. The waterfront of 9896 Eastside Road has a beautiful beach and accessible shoreline. The elevation difference of 22+ m can only be addressed by stairs, as the neighbouring property is an example of this. It is not a reasonable design solution for this site at this time, but the water access would make a very welcome site for paddlers.

All lake access sites with encroachments of any kind should have a License of Occupation with the City for which an annual lease fee is charged for non-exclusive use of public land by private

individuals. It is recommended that the City maintain rights for public access and that the legal boundaries are marked with posts at the road and HWM, and that signs are installed on the upper road announcing the lake access in advance of a safe approach. Until the site is improved, site users must find their own access with parking on the upper road.

The site at 7915 Okanagan Landing Road (within the parking lot of the Vernon Yacht Club) was disposed in 2021. Revenues were contributed to the future acquisition of lake access sites. Moving forward, all lake access sites should be retained to, at a minimum, direct drainage through public rights-of-way to Okanagan Lake.

Two sites were found to serve the community best through protection of their environmental role in the community. At this time, these sites should be included in the schedule for protection and discourage recreational use by the public and private encroachment. Encroachments should be removed and no License of Occupation should be granted on these sensitive sites.

It is recommended that Licenses of Occupation shall be renewable each year until notification is given of scheduled improvements. At that time, encroachments would be removed by the Licensee at their expense. Land surveys marking current encroachments and resources (large trees, etc.) should be the basis for the License and no further encroachments would be permitted without re-negotiation of the License with the City. Any property owner with improvements in a lake access who has not entered into an agreement with the City shall remove all encroachments at their expense. Licensees cannot discourage public access and use of any part of a lake access.

APPENDIX A – SITE EVALUATION METHODOLOGY

Details on Lake Access Site Evaluations

The descriptions below outline how each lake access site was evaluated based on the relevant parameters.

Site Approach

Transportation staff assessed the approach by pedestrians and vehicles by road and the potential for parking. Each of these three parameters were evaluated and ranked out of five (one is low value, five is high). The rating for the three subcategories was averaged for a final score in the site approach category. Evaluation criteria for the three subcategories are as follows:



By Vehicle:

Vehicle access safety in and out of the site was measured by driving to/from the site and checking the driver's view of sightline. In areas where sightline safety was not determined through visual inspection, formal measurements were completed. Rankings:

- 5 = Clear view of oncoming vehicles from both the left and right
- 4 = Slightly obstructed view of oncoming vehicles from one side. Very minimal movement or adjustment of obstructions required.
- 3 = Slightly obstructed view of oncoming vehicles from both sides. Minimal movement or adjustment of obstructions required.
- 2 = Obstructed view of oncoming vehicles from one side. Complicated or costly removal or adjustment of obstructions required.
- 1 = Obstructed view of oncoming vehicles from both sides. Complicated or costly removal or adjustment of obstructions required.

If the approach to a site was considered unsafe by vehicle due to irremediable obstructions (i.e. horizontal /vertical curve of the road, terrain, permanent structures) and these hindrances cannot be realistically be removed to improve visibility, then the site will be considered for water approach only.

By Foot:

Pedestrian access determined site approach by foot using sidewalks and shoulders. Rankings:

- 5 = Sidewalks and/or paved shoulders are provided on both sides of the roadways adjacent to the lake access.
- 4 = Gravel or paved shoulders are provided on both sides of the roadways adjacent to the lake access.
- 3 = Narrow gravel or paved shoulders are provided on both sides of the roadways adjacent to the lake access.
- 2 = Narrow gravel shoulder is provided on one side of the roadways adjacent to the lake access.
- 1 = No pedestrian facilities available on a very low traffic-volume road leading to the lake access. Pedestrians share the lane with vehicles.

The approach to a site was considered unsafe for pedestrian access when visibility was poor, there was

no sidewalk, shoulder or other means for pedestrians on higher volume roads, or the grade differential precluded foot traffic from paralleling the road beyond the driving surface. The site was considered for water approach only.

Parking:

The number of existing and potential parking stalls were estimated at each site. Parking on the opposite side of the road presents additional safety challenges on busy and or winding roads where crosswalks are deemed necessary for pedestrian safety. Rankings:

5 = 3 or more parking spaces on-site

4 = 3 or more parking spaces on-street, same side of quiet road

3 = 2 or more possible on-street parking spaces, same side of Tronson Rd, Okanagan Landing Rd or Eastside Rd

2 = 2 or more possible on-street parking spaces, opposite side of Tronson Rd, Okanagan Landing Rd or Eastside Rd

1 = 1 possible on-street parking space

If a site has no parking opportunities on or off-site, the site was considered then for water access only.

By Water

Recreation sites developed to date have great waterfront qualities. However, some sites have great water access and an attractive beach, but impediments present awkward access from the road. This parameter recognizes that some lake accesses can best serve as water only access to those on the lake looking for intervals to rest or a port in a storm.



Rankings:

5 = attractive, unimpeded access, level entry beach, space to secure several watercraft and provide amenities

4 = attractive, accessible beach, space to secure watercraft and a few amenities

3 = good accessible beach, space for amenities is limited

2 = challenging waterfront, waterfront has heavy vegetation, coarse aggregate, may be difficult launching/landing small watercraft

1 = waterfront not amenable for landing watercraft or accommodating paddlers on shore

Site Capability

Site capability is a multi-dimensional parameter and somewhat subjective. It is often not a singular parameter but the combination of a number of parameters unique to the site that determine the ease of site development.

Overall Site Slope:

The slope analysis at each site was evaluated and provided a ranking out of five. The City of Vernon recognizes the challenges of improving land with an overall grade of 30% or more. Rankings:

5 = 0% - 10%

4 = 10.1% - 15%

3 = 15.1% - 20%

2 = 20.1% - 25%

1 = 25.1% - 30%

Width of Site:

The effects of slope can sometimes be ameliorated by design if a site has sufficient space to use design solutions (switchbacks, stairs, etc.) in making footpaths safe and accessible. Sites incorporating design solutions are more costly to improve, maintain and re-capitalize and potentially present higher liability to the City. The suitability for recreation use would be increased with a wider site, especially if the site has existing utilities. Infrastructure is also more easily accommodated on a wider site. Any site with stairs would likely require closure when snow is on the ground. Rankings:

5 = more than 20 m

4 = 14.1 – 20 m

3 = 10.1 – 14 m

2 = 8.1 – 10 m

1 = 5.0 – 8 m

Vegetation Density:

5 = Existing vegetation does not present a problem for ease of development

4 = Existing vegetation can be removed to the road, slope and soils can accommodate supplemental plantings

3 = Existing vegetation is a limitation to site development, removal of large trees not easily achieved, invasive species to be replaced with native species

2 = Existing vegetation presents significant impediment to development due to density,

1 = Removal of existing vegetation will cause slope failure, or includes removal by water, successful replacement with native vegetation unlikely due to lack of irrigation, slope, lack of growing medium, other reason

Lakefront Usability:

Usability considered the number of upland users for each site and the amount of useable public space near the lake. These subcategories were evaluated and given a ranking out of five. The total of these subcategories was then divided by two and recorded in the usability category. Rankings:

5 = 501m² +

4 = 301 – 500m²

3 = 201 – 300m²

2 = 101 – 200m²

1 = 1 – 100m²

Number of Upland Properties:

Okanagan Lake accesses are intended to provide small sites with few amenities for short term use. Though ratings will be higher if vehicular access and parking can be accommodated, it is recognized that the immediate community of upland residents will likely make up the majority of users. Therefore, the number of residential properties within 200 m is included in Site Capacity. Rankings:

5 = 31 - 50 lots

4 = 21 - 30 lots

3 = 11 - 20 lots

2 = 6 - 10 lots

1 = 1 - 5 lots

Obstacles:

- 5 = No encroachments (one month notice to neighbours announcing construction work imminent).
- 4 = Minor encroachments such as planting, small retaining walls supporting planting beds, fencing, gates, manicured landscaped areas and private possessions to be removed in preparation of construction activity.
- 3 = Encroachments presenting obstacles to public use –parking, fencing, retaining walls, storage and use that implies private ownership of public access.
- 2 = Major encroachment of a secondary structure, retaining structure supporting driveway, or legal public access restricting full public access (Minimum two years pre-planning to resolve) License of Occupancy with the City until encroachments are resolved.
- 1 = Major encroachment of a permanent primary structure or retaining structure supporting primary structure (Minimum 2 years pre-planning to resolve) License of Occupancy with the City until site improvements scheduled and encroachment issues resolved.

User Management

The location of the site, number of complaints, effort of response and neighbours' location were evaluated and given a ranking out of five. The total of these subcategories was then divided by four and recorded in the enforcement category. Evaluation criteria for the four subcategories are as follows:

Ease of Response

This rating is pertinent for Bylaw Compliance, RCMP, other emergency services (i.e. ambulance, fire), Operations or a maintenance contractor servicing the site. Some of these factors include proximity of safe parking, the distance of on-site pedestrian travel to the complaint area, density of vegetation, if two officers are required to attend, steepness and condition of the trail, etc. Rankings:

- 5 = 0 – 7.9km from City Hall
- 4 = 8.0km – 10.4km from City Hall
- 3 = 10.5km – 13.9km from City Hall
- 2 = 14.0km – 17.9km from City Hall
- 1 = 18km – 20km from City Hall

Complaint Record

Existing data from Bylaw Compliance regarding the history of complaints for each site was used to assess the potential need of enforcement. Sites with no record of complaint were rated highest (5) and sites with high complaint frequency were rated low (1).

Community Acceptance

This evaluation was determined by the distance from the adjacent homes to the lake access, and whether or not the neighbourhood would positively adopt this area (e.g. consider it a valuable neighbourhood asset). This is a sliding scale with 5 indicating anticipated acceptance to 1 indicating resistance of the neighbours to adopt the public lake access as an amenity.

Engineering and Operations

Drainage/sanitary servicing is critical to urban community development. Future subdivision and increased densities will create greater demand for services. Operation and maintenance activities require staff and contractors to have full access for vehicles and equipment. It is critical to maintain a swale or culvert to the lake for surface drainage of roads and upland properties. Infrastructure servicing and upgrades for lift stations and pump stations tend to be located 6-8 m near the waterfront.

The accesses have not been evaluated for significance to the water utility. One access with a right-of-way titled to a private water service has been relinquished by the City and responsibility for this right-of-way given over to RDNO, Greater Vernon Water. Rankings:

- 5 = Major drainage corridor identified in the Master Drainage Plan and either the site of an existing sanitary lift station or the site of a potential lift station
- 4 = Major drainage corridor identified in the Master Drainage Plan or from drainage issues.
- 3 = Major drainage corridor identified from drainage issues.
- 2 = Minor drainage corridor
- 1 = informal swale created by surface runoff to the lake

All sites were assessed as critical to maintain for drainage and sanitary servicing now or in the future. Should any lake access be considered for disposal in the future, an unencumbered right-of-way with a minimum 6 m width should be maintained for City infrastructure and servicing.

Environmental Protection

A qualified environmental professional was retained to perform an assessment of all the lake accesses in the fall of 2015. This evaluation considered the Environmental Management Areas (EMA) rating outlined in the City's Official Community Plan (OCP), the riparian enhancement opportunity, and the aquatic habitat as found in the Environmental Management Areas Strategy, the provincial Riparian Area Regulation, and the Okanagan Region Large Lakes Foreshore Protocol. These three subcategories were combined to form the Community Environmental Contribution.

Environmental Management Area

The EMA rankings were based on existing and potential habitat type. The Qualified Environmental Professional (QEP) ranked each access out of ten and then divided by 2 to obtain a value out of five. Rankings:

- 5 = High Conservation Value has locally and provincially significant ecosystems that provide habitat of critical importance to rare wildlife species.
- 3 = Medium Conservation Value has areas of moderate ecological importance based on ecosystem rarity and sensitivity and/or value to wildlife.
- 0 = Low Conservation Value areas are assumed to have little or no inherent ecological value or importance as wildlife habitat.

Riparian Enhancement Opportunity

- 1 = Current habitat impacts occurring due to condition
- 2 = Potential habitat impacts occurring due to condition
- 3 = Clean improvements

4 = Minor improvements possible

5 = Little to no improvements

Aquatic Habitat

5 = Black zone, critical habitat

4 = Red zone, very high to high value habitat

3 = Yellow zone, generally moderate, with some high value habitat

2 = No colour, unclassified or low value habitat, aquatic native vegetation in foreshore

1 = No noticeable habitat and no aquatic vegetation in foreshore

NOTE: Sites were assessed by a Qualified Environmental Professional during a site visit and with reference to the provincial map which uses Kokanee spawning data, other fish habitat data and known occurrences of Species at Risk (SAR).

APPENDIX B – LAKE ACCESS EVALUATION MATRIX