

# BIRCH COVE BEACH CLEAN UP AND MAINTENANCE: LOG BOOK

## General Information

1. The objectives of Birch Cove's Beach Development and Maintenance is to improve the functionality and aesthetic appeal of the beach and water shallows. We are on a learning curve, and our techniques, processes, and knowledge will improve over time. **Thank you for making this effort a success through your community support!**
2. Any work that takes place at the high water mark and into the water is under Federal/Provincial Jurisdiction  
\*This includes removal of sludge (on the shoreline, in and floating on the water), removal of aquatic plants, removal of semi-submerged dead trees and shrubs, installation and maintenance of rip rap to prevent water erosion and siltation.
3. Any work that takes place behind the high water mark is under the jurisdiction of the Summer Village of Birch Cove, with the expectation that environmentally conscious practices will be utilized at all times.
4. This log will detail the work completed on both Municipal and Federal/Provincial land, the methodology followed, as well as notes on approaches that worked well, and the ones that could be improved-- to inform future work projects

DATE	Work	Tools Used	Methods	Comments
<p><b>Sept 10, 2023</b>  <b>SCHEDULED</b>  <b>VOLUNTEER CLEANUP</b></p>	<p><b>Project</b></p> <ol style="list-style-type: none"> <li>1. cut down the stumps on the left side and front of the jetty (old boat launch) and install a safety fence until the rip rap installation.</li> <li>2. cut down dead trees on the right side of the jetty</li> <li>3. Whipper snipper/mow grass and plants above the high water mark (Municipal Reserve Land)</li> </ol>	<p>Handsaws, chain saws, rakes, pitch forks, wheel barrows, garbage bags</p>	<p>Tree stumps submerged in water were cut down to the lake bed with hand saws. Tree stumps on dry land above the high water mark were cut with chain saws and hand saws to the ground level. Because there wasn't a bin for debris, the tree debris was cut into pieces for community firewood, some of the smaller branches were burned in the community fire pit.</p>	<ol style="list-style-type: none"> <li>1. About 15 volunteers participated in this scheduled cleanup day.</li> <li>2. Several pictures were taken after the work was completed, these are on file.</li> <li>3. Contractors are being contacted for an estimate for installing riprap around the jetty.</li> </ol>

	<b>Work Project</b>	<b>Tools Used</b>	<b>Methods</b>	<b>Comments</b>
<b>Aug 29, 2023</b> <b>Adhoc Volunteer Work</b>	Sludge removal by 2 community volunteers	Rakes, shovels and a wheel barrow	Volunteers raked accumulated sludge on water's edge from the old boat launch to the kayak launch site. The sludge was piled onto Municipal Land, and then removed to the new park area on the Municipal Reserve, next to the multi-purpose sports court	Continued vigilance on removing accumulated sludge within permitted time period (July 15-Sept 15) much appreciated!
<b>Aug 26, 2023</b> <b>SCHEDULED VOLUNTEER CLEANUP</b> ***** <b>SUGGESTIONS FOR COUNCIL CONSIDERATION:</b> 1. Council supply bottles of water for volunteers and hot dogs immediately after the work is completed. 2. Council supply construction-style garbage bags for the removal of noxious plants. 3. Council arrange for transport and an off-site location for the sludge. 4. Council reimburse fuel expenses for skid steer. <b>CONTINUED NEXT PAGE</b>	This was the first organized community volunteer work day, led by Bruce Sample from the Beach Development Committee. Bruce advertised the event with posters at the Community Centre and distributed notices around the summer village. About 25 community volunteers of all ages participated enthusiastically.	Volunteers brought their own rakes, shovels, wheelbarrows, whipper snippers and large garbage bags. One resident brought his skid steer. Council arranged for a C-can (shipping container) to put the vegetation debris, and selected the designated park area on the Municipal Reserve for the sludge to be used as fertilizer.	Before work commenced, Bruce Sample led a brief training session with the volunteers and Renee Jackson showed the volunteers the noxious and invasive plants to be manually pulled out by the roots	<ol style="list-style-type: none"> <li>1. The workday was originally planned for 10 am to 2 pm (4 hours), but all work was completed in just over 2 hours. Pictures were taken during the work and after it was completed. These are on file.</li> <li>2. There were no safety incidents and the work was in compliance with the Water Act Approvals and conditions.</li> <li>3. The Binder containing the Siltation and Erosion Control Plans as well as the approved methodologies was at the work site, with Sandra Lambertus documenting the activities for the log.</li> <li>4. The tasks were completed efficiently and the appearance of the beach and the jetty was greatly improved.</li> <li>5. The dead willows on the right side of the jetty have been marked for cutting down, the date for this work has yet to be determined.</li> <li>6. Due to the unusually high water level in the lake for this time of year, there was relatively little sludge to remove. Sandra Lambertus will contact Alberta Environment to confirm whether sludge washed up on the shore can be removed after September 15, when the water level may drop.</li> </ol>

	<b>Work Project</b>	<b>Tools Used</b>	<b>Methods</b>	<b>Comments</b>
<p>5. Council to decide whether beach cleanup is restricted to organized events or also include adhoc volunteers outside the designated workday.</p> <p>6. Use social media to increase community awareness of cleanup activities. This may be restricted to the Birch Cove Website, and requires Council decision--the CAO is in charge of the website.</p> <p>7. Council consider hiring out the removal of invasive milfoil in our water shallows--these are pervasive and creates dense mats that interfere with water recreation.</p>	<p>1. Remove noxious and invasive plants, as per Alberta Environment advisory</p>	<p>By hand</p>	<p>Manually pulled plants out by the roots, bagged securely, placed in the C-can, and later taken to a landfill</p>	<p>Volunteers pulling invasive plants used up all the donated bags supplied by volunteers. Refer to Suggestions to Council</p>

<b>ORGANIZATIONAL SUGGESTIONS</b>	<b>Work Project</b>	<b>Tools Used</b>	<b>Methods</b>	<b>Comments</b>
<p>1. Provide a clear work plan to all volunteers for the day's activities.</p> <p>2. Appoint leads and have names of volunteers for specific activities in advance. Teams can accommodate additional volunteers on the work day.</p> <p>3. Make the Log Book, Methodologies, and Siltation and Erosion Control Plans binder more accessible for the community. (To avoid the risk of theft or vandalism, these documents will be available on the Birch Cove website, and available electronically on request, rather than leave the hard-copy binder in the Community Centre.</p>	<p>2. Cut back all dead willows about 3 feet above the water line on the left side of the jetty (facing the lake), and mark for future cutting dead willows on the right side of the jetty</p>	<p>Whipper snippers, other power tools</p>	<p>Debris collected in a C-can and taken to a landfill</p>	<p>1. Trees were cut high to prevent a hazard with snow mobiles in the winter. Tentatively this winter, trees will be cut again to the level of the ice, and then this summer cut at the lake bed, to allow for new riprap. There were some smaller living trees and shrubs also cut back--due to the high water in the lake, these were at risk for dying by next year.</p> <p>2.The sodded area on the jetty was left as is.</p> <p>3. Living trees and shrubs remaining on the right side of the jetty offer shade and a wind break for the jetty.</p>

<b>Work</b>	<b>Project</b>	<b>Tools Used</b>	<b>Methods</b>	<b>Comments</b>
3. Whipper snip Municipal Reserve land around the jetty and above the high water mark, up to the kayak launch	Whipper snippers, other power tools	Plants were cut low to the ground, and debris raked and placed in the C-can	Improved appearance of the Municipal Reserve in front of the water.	
4. Removed sludge from the high water mark to the shoreline that extended from the kayak launch to the jetty. Also removed sludge floating at the top of the water.	Hand tools: Rakes, shovels (REFER TO SLUDGE METHODOLOGY PAGE)	Sludge was piled up on Birch Cove Municipal Reserve land above the high water mark. Because there was a relatively small amount of sludge, comprised mostly of plant-based material plus the availability of volunteers and wheel barrows, it was decided to immediately move the sludge to the new park area beside the multi-purpose sport court. The sludge will be used as fertilizer in advance of applying grass seed. Residents can also access the sludge in this area to use as fertilizer on their Birch Cove properties.	Water level was very high for this time of year, and sludge accumulation was mostly comprised of plant debris. If the water level declines, and more sludge is pushed to the shoreline when the boat docks are removed, this may become a volunteer work project for September 10	

