

**Summary of Design Considerations  
Critical Secondary Water Treatment  
SCIP Lot 17 vs. Pulp Mill Filters Site**

CRW Engineering Group’s Filtration Evaluation Report compares the costs, advantages and disadvantages of constructing a new drinking water filter plant at a variety of locations. See report for full discussion. The leading two candidates are Sawmill Cove Industrial Park Lot 17 and the Pulp Mill Filters Site. The table below summarizes the comparison of design considerations between the two sites. Figure 1 at the back of this document shows the locations of the two sites described below.

Design Consideration	SCIP Lot 17	Pulp Mill Filters Site
<b>Geotechnical &amp; Site Development</b>	<ul style="list-style-type: none"> <li>• Generally known and good geotechnical conditions for construction.</li> <li>• No major demolition required.</li> </ul>	<ul style="list-style-type: none"> <li>• Previously disturbed area with shallow bedrock.</li> <li>• Demolition required of wall between filter beds.</li> </ul>
<b>Site Access</b>	<ul style="list-style-type: none"> <li>• Good access from existing roads.</li> </ul>	<ul style="list-style-type: none"> <li>• Adequate access from existing roads.</li> </ul>
<b>Yard Piping</b>	<ul style="list-style-type: none"> <li>• Straightforward to tie in to existing piping.</li> </ul>	<ul style="list-style-type: none"> <li>• Straightforward to tie into water supply piping.</li> <li>• Complex to connect into backwash disposal and sewer connections.</li> </ul>
<b>Structural</b>	<ul style="list-style-type: none"> <li>• No significant structural considerations.</li> </ul>	<ul style="list-style-type: none"> <li>• Requires detailed structural analysis during design and may significantly increase cost if foundation requires extensive modifications.</li> <li>• Will require code waiver for minimum footing depths for frost protection.</li> </ul>
<b>Intake</b>	<ul style="list-style-type: none"> <li>• Route pipe within SMC canyon and/or utilize old hydro facility afterbay.</li> </ul>	<ul style="list-style-type: none"> <li>• Difficult intake pipe routing options including rock anchors to support pipe running up canyon wall.</li> </ul>
<b>Treatment Technology Selection</b>	<ul style="list-style-type: none"> <li>• Adequate space if pre-treatment is required.</li> <li>• Adequate space for either filtration technology.</li> </ul>	<ul style="list-style-type: none"> <li>• Adequate space if pre-treatment is required.</li> <li>• Adequate space for either filtration technology.</li> </ul>

Design Consideration	SCIP Lot 17	Pulp Mill Filters Site
<b>Chlorine Injection/CT</b>	<ul style="list-style-type: none"> <li>• Upgrade to on-site hypochlorite generation at UV Facility.</li> </ul>	<ul style="list-style-type: none"> <li>• Utilize existing gas chlorine system at Blue Lake WTP.</li> </ul>
<b>Backwash Disposal</b>	<ul style="list-style-type: none"> <li>• Best access to backwash disposal options.</li> </ul>	<ul style="list-style-type: none"> <li>• Requires upgrades to sewer pipe on utility bridge or additional pipe to connect to ocean outfall.</li> <li>• Shallow bedrock complicates any settling/recycle equipment installation.</li> </ul>
<b>Other Considerations</b>	<ul style="list-style-type: none"> <li>• Geotechnical investigation for this site was completed in fall 2018.</li> </ul>	<ul style="list-style-type: none"> <li>• Existing slab acts as a thermal bridge between exterior and interior of building likely causing condensation problems and increasing heating costs.</li> </ul>

# Figure 1: Potential Filter Plant Locations

