

History and Background

1. In 2013, the Island Health (VIHA) issued the water advisory for Trihalomethane (THM) and Haloacetic acids (HAA). The water advisory has been in place for the last three years since November 2013.
2. Since November of 2013 the ACRD Board of Directors, staff, engineer, consultants and the Bamfield Water Advisory committee (BWS committee) have been working to find the most economical and efficient solution to address the water advisory. The Dissolved Air Floatation pilot test in late 2014 was undertaken to confirm the method of treatment. The cost estimated of a Dissolved Air Floatation water treatment plant was estimated to be \$1.5 million.
3. The Board of Directors applied to the Build Canada fund for up to 2/3 of project costs in the winter of 2014. This program as with most infrastructure grant programs was over subscribed and the ACRD was not successful. Given the importance of having a water treatment solution for Bamfield, the Board of Directors of the ACRD allocated \$1,026,672 in Gas Tax funds towards the treatment plant.
4. The ACRD has worked with the Bamfield Water Committee to refine the plan and confirm the requirements for water treatment, ensuring the plan is as reasonable as possible for a small remote community such as Bamfield.
5. Without the Dissolved Air Floatation (DAF) Water Treatment Plant process we cannot remove organics that combine with chlorine to form potentially carcinogenic by-products in our treated water. Current levels of Trihalomethane (THM) and Haloacetic acids (HAA) are always above Canadian Drinking Water Standards. THM & HAA are a group of chemical compounds that are made when chlorine reacts with organic matter in water. Sugsaw Lake (Bamfield's water source) water is very high in organic materials.
6. Standards are set established by the BC Drinking Water Protection Act and Drinking Water Protection Regulation. The permit conditions do not specifically state that the objectives need to be met using DAF; this is what has been proposed and Island Health as indicated this will meet the objectives. Surface water treatment objectives have already been applied to all large water systems within Island Health, and those systems not yet in compliance are progressing to that end in accordance with time bound implementation strategies. All new water supply systems have been required to meet these treatment objectives since 2000. Island Health is **now** requiring all existing small water systems with surface water sources to meet the treatment objectives.
7. The water system needs to meet the terms and conditions (as set by Island Health) on the operating permit and a DAF treatment plant will provide an economical and efficient solution for the water quality issues Bamfield is faced with. Island Health, staff and the ACRD's engineer have met on several occasions with the BWS committee to review the issues and the options available to the Bamfield water system. The reasoning for the DAF water treatment plant is

provided below, the BWS committee has been diligent in ensuring that the selected method is the best option for Bamfield.

8. In order for the ACRD to borrow for this project it must obtain electoral approval.