



April 12, 2016

## *Village of Tahsis*

### **Village of Tahsis Water Well Fact Sheet**

On April 14 and 15, 2016 the Village will begin to use groundwater as the source of our drinking water. This fact sheet aims to inform residents, businesses and visitors about the new water well. The information here has been reviewed and verified by McElhanney Consulting Services Ltd., the Village's consulting engineers on this project, and Island Health.

#### **1. Why was a well needed?**

Prior to 2010 Island Health adopted new standards for drinking water which originates from surface water systems<sup>1</sup>. Our current water source is surface water which draws from McKelvie Creek. The Village was not in compliance with Island Health's policy, specifically the filtration requirement. For several years we have been under "permit conditions" to come into compliance. Cost estimates to build a filtration system range from \$2 million to over \$4 million.

A well which uses the ground as a natural physical filter is an acceptable alternative to Island Health. The well does not need to comply with the surface water standards. However, a well needs to comply with provincial and federal policies, laws and regulations<sup>2</sup>. Island Health reviewed the well information and granted permission to use the well (source approval) on August 13, 2015. The approval letter will be posted on the Village website.

#### **2. Why was this location chosen?**

The Village retained Dr. Gilles Wendling (PhD, P.Eng.) a hydrogeologist to identify potential well locations on Village owned property and within the Tahsis River delta. The location also had to be close to both the existing water system and a power source. This location meets all of these requirements, as well as being a source of high quality and vast quantities of water

#### **3. How much water is there?**

The Village requires 400 gallons/minute to meet consumption demand. Several pumping tests were conducted to determine if there was sufficient volume to meet this demand. One test involved pumping 1000 gallons/minute for 72 hours which is far in excess of the Village's consumption rate. The well passed this test.

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<sup>1</sup> The standards are set out in the Drinking Water Treatment Objectives for Surface Water Supplies

<sup>2</sup> Drinking Water Protection Act and Regulation, Drinking Water Treatment Objectives for Ground Water Supplies in BC, and the Canadian Drinking Water Quality Guidelines

**4. What testing has been done to ensure the water is safe?**

The Village has sampled and tested the groundwater every second month during the past year. The testing has been done in accordance with Island Health requirements and the Guidelines for Canadian Drinking Water Quality. Maxxam Laboratories in Courtenay has carried out the analysis of the water samples. The samples have been tested for impurities such as metals, pesticides, phenols, herbicides, nitrates, carcinogens and other chemicals. All samples tested had levels that were below the drinking water standards with many parameters undetectable by testing. All water sample lab test results will be posted on the Village website.

**5. What testing will be carried out once the well is in use?**

Island Health has established water testing requirements as a condition of the Village's Operating Permit. The Operating Permit is posted on the Village's website. The Village has developed and will implement operating procedures to ensure all testing is carried out in accordance with our Operating Permit. This will include development of a well head protection plan.

**6. What happens if the well stops working?**

The Village will maintain the McKelvie Creek water intake as an emergency backup supply. Locking valves have been installed to ensure that water from McKelvie Creek and the groundwater do not mix. If the well shuts down, the Village can unlock the McKelvie Creek system to provide water to residents. Under that scenario the Village would be under a "boil water notice".

**7. How much did the well cost?**

The contract amount is for \$428,958.54 which is fully funded from within the Village budget. The Village has not received the final payment certificates from the contractor so this amount may change slightly.

Village staff are ready to answer any questions regarding the well. Please feel free to call (250)934-6344, email ([reception@villageoftahsis.com](mailto:reception@villageoftahsis.com)) or stop by in person. We will continue to post water sample lab test results.