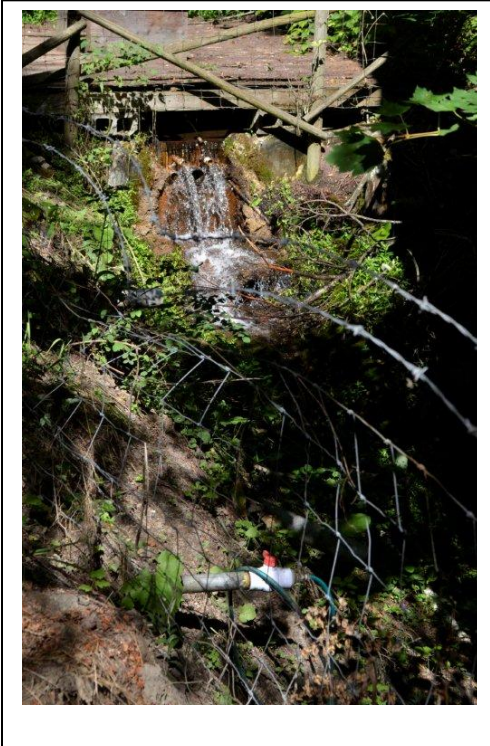


Hullcar Aquifer Inter-Ministry Working Group Update of Key Activities and Actions



Ministry of Environment Sample of the Steele Springs Drinking Water Overflow

The Ministry of Environment July 20, 2016 Nitrate sample from Steele Springs drinking water overflow was 11.3mg/L. This is similar to the June 22, 2016 Nitrate sample which was 11.5mg/L.

Starting with the June 22 sample, the Ministry of Environment increased the number of sampling parameters for the Steele Springs drinking water overflow. The additional parameters will provide beneficial information to the integrated monitoring study. Due to the increase in parameters, it is taking the lab additional time to process the results. Ministry staff collected the August sample and it is expected that the results will be received late September. Sample results will continue to be shared with Steele Springs Water Board, the inter-ministry working group members and posted to the Ministry of Environment Hullcar Aquifer webpage.

Action Plan Activity 3: Review of *Environmental Management Act*,

***Drinking Water Protection Act, Health Act* instruments to encourage collective action for improvement of water quality.**

Pollution Prevention/Abatement Orders

Ministry of Environment, Director for Waste Management approved the environmental impact assessment terms of reference and work plan for Grace-Mar Farm and H.S. Jansen & Sons Ltd. The qualified professionals for Grace-Mar and H.S. Jansen have initiated the respective work plans. For each of these farms, the environmental impact assessment must be completed by November 8, the results/report must be submitted to the Director by November 17 and an Action Plan must be submitted by November 30, 2016. Terms of Reference and work plan for Ken and Brenda Regehr is expected August 31.

Draft Ministerial Order for a Hullcar Valley Area Based Management Plan

Comments received up to August 14 from interested parties on the draft Ministerial Order and draft terms of reference for a Hullcar Valley Area Based Management Plan were compiled and a summary was prepared for the Minister of Environment's consideration. A decision is expected in early Fall.

Action Plan Activity 6: Develop an integrated cross ministry monitoring plan including identification of sampling points, by whom, schedule of samples, etc.

Integrated Monitoring Study

The contract to undertake the Integrated Monitoring Study was awarded to Golder (Kelowna office). They are currently undertaking phase I of the study which is a desktop assessment. Phase II (the field assessment) will be initiated early October. Please see the accompanying document “Chart and Summary of Environmental Studies in Hullcar Valley” for more information.

Other Information

Information and Privacy Commissioner Investigative Report:

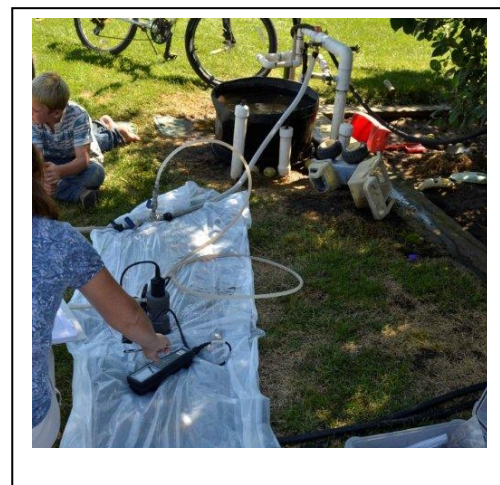
As environmental information is submitted as per the requirements of the Information, Abatement and Prevention orders, it will be posted to the Ministry of Environment web page.

Ambient Hydrogeological Network Sampling:

The Ambient Groundwater Quality Monitoring and Assessment for Hullcar valley was conducted by Ministry of Forests, Lands and Natural Resource Operations on Tuesday, August 16 and Wednesday, August 17. Ambient groundwater quality monitoring is useful for establishing baseline groundwater characteristics and for investigating long-term trends or impacts to groundwater quality from human activities. This program has been sampling private wells in the Hullcar Valley since 2009. Traditionally, local wells were sampled in September of each year; however for the 2016 sampling, the time period has been shifted to mid-August. As well, the samples will be analysed for additional parameters including stable isotopes of oxygen and hydrogen, and some for nitrogen-15. The results will be uploaded to the Environmental Monitoring System and incorporated into the integrated monitoring study.



August 2016 Ambient Groundwater Network Sampling – preparing a sample bottle



August 2016 Ambient Groundwater Network Sampling

Surface Water Sampling:

During the week of August 15, the Ministry of Environment conducted surface water sampling of Deep Creek including a 'spring' near Deep Creek. Parameters also include stable isotopes of oxygen, hydrogen and some for nitrogen-15. The results will be uploaded to the Environmental Monitoring System and incorporated into the integrated monitoring study.

Tracking Post-Harvest Soil Nitrate in Agricultural Fields over the Hullcar Aquifer

Short title: Post-Harvest Nitrate Study

Ministry of Agriculture is preparing to undertake a Post-Harvest Nitrate Study in Hullcar valley. The purpose of the study is to better understand the distribution of fields with high levels of residual nitrate, and whether the residual nitrate is expected to be lost from agricultural fields over the winter. Secondary objectives are to provide soil test results that would be suitable to be used for nutrient management planning. This study is similar to following studies:

- [Okanagan Agricultural Soil Study](#),¹ 2007
- [Lower Fraser Valley](#),² 2005.

This study will be completed in three phases:

Part 1: Preparation – August 2 to September 7, 2016

Part 2: Soil sampling and testing, collection of application records – September 2016 to May 2017 (contractor)

Part 3: Data analyses and report writing – December 2016 to July 2017

¹ http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/agricultural-land-and-environment/environmental-farm-planning/okanagan_soil_study_report_2007.pdf

² http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/agricultural-land-and-environment/environmental-farm-planning/fvsns-combinedreport_feb28_2007_for_release.pdf