

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Infrastructure Services Committee - November 21, 2019

AUTHOR: Remko Rosenboom, General Manager, Infrastructure Services

SUBJECT: GROUNDWATER INVESTIGATION PROJECT UPDATE

RECOMMENDATION(S)

THAT the report titled Groundwater Investigation Project Update be received;

AND THAT staff bring forward a budget proposal at the Round 2 2020 Budget meetings for a Groundwater Investigation Phase 3- Gray Creek project;

AND FURTHER THAT the SCR D no longer pursues the development of production wells at the Dusty Road and Mahan Road sites.

BACKGROUND

At its January 24, 2019 meeting the Infrastructure Services Committee received the report titled Groundwater Investigation Phase 2 Results. It subsequently adopted the following recommendations at its January 31, 2019 meeting.

015/19 **Recommendation No. 2** *Groundwater Investigation Phase 2 Results*

THAT a 2019 Round 1 budget proposal with respect to the permitting phase for a well field in the Church Road area be brought forward;

AND THAT the Mahan Road site not be pursued at this time;

AND THAT a feasibility report with respect to the production well on the Gray Creek site be brought to Committee in Q4 2019;

AND THAT a feasibility report for the Dusty Road site be explored with staff resources;

AND FURTHER THAT staff share the Mahan Road data with the Town of Gibsons.

The purpose of this report is to provide an update on the four well sites investigated during Phase 2 of the groundwater investigation project.

DISCUSSION

Church Road site

At the December 2019 Planning and Community Development Committee meeting a report will be presented with an update on the development of a production well field at Church Road in Granthams Landing. The development of a productive well field at this site is indeed feasible. The update will include details on technical assessments, detailed design and cost estimates, as well as an update on permitting.

Mahan Road site

The Board placed all work by the SCRD on this site on hold. Staff shared all technical information it had gained from the drilling of the test well on this site with the Town of Gibsons. The Town of Gibsons has in the interim drilled a new production well in close proximity to this test well site (on Oceanmount Boulevard) and applied for a water licence to take this well into production, so it is unlikely that the SCRD could obtain a water licence for a production well at this location. Staff therefore recommends to not pursue a production well at this site at this time.

Dusty Road site

The January 24, 2019 report stated that “the anticipated use of the land upstream of this site for future large scale quarry activities could, in the long-term, impact the water quality at this well site. The aquifer at this location is non-confined, which means it is not protected by an impermeable clay layer on top of the aquifer and is therefore vulnerable to contamination. Due to the lack of a confining clay layer in this area, any such contamination would impact the water quality to the extent that it would no longer be suitable as a drinking water supply.”

Staff have since confirmed with staff from the shíshálh Nation and Lehigh Hanson. that the upslope District Lot 7613 is intended to be logged and subsequently quarried in the upcoming decades, pending the completion of the land transfer component of the Foundation Agreement. Even though the intent is to meet or exceed the environmental standards for quarrying, it is impossible to eliminate the risk that the water quality or quantity in this area could be impacted by this future quarry activity such that it would not be suitable any longer as a drinking water source.

The upslope location of both the Sechelt Landfill and District of Sechelt’s sewage disposal site could be contributing risk factor to long term water quality that cannot be mitigated.

While there are no regulatory limitations for the SCRD to apply for a water licence for a production well on this site, staff are not recommending pursuit of a production well on this site.

Gray Creek site

Staff met with representatives for the Northern Divine Aquafarms Ltd. and confirmed their willingness to collaborate on the development of a production well for a community water supply on their property as long as it does not impact their water rights and operations. An agreement would need to be formalized between the SCRD and the land owner before any physical work on this site could commence.

Several potential sites have been discussed and a desktop analyses of geotechnical information and the drilling of one or more test wells is required to confirm potential sustainable yields. The cost of developing a production well depends on the yield and required upgrades to the distribution system (e.g. water mains).

Staff recommends bringing forward a budget proposal at the Round 2 2020 Budget meetings for a Groundwater Investigation Phase 3- Gray Creek project that would include:

- Development of an agreement between SCRD and the private landowner;
- Desktop study, test drilling and pump tests;
- Preliminary design and cost estimates

The results of this phase would be presented to the Board by Q4 2020. If the results are positive, the Board decides to proceed, and funding is secured for the 2021 budget then a water licence application could be made in 2021 along with final design for an estimated construction and commissioning in 2022 and 2023.

STRATEGIC PLAN AND RELATED POLICIES

The Groundwater Investigation project support Strategy 2.1: Plan for and ensure year round water availability now and in the future.

Groundwater investigation is a supply expansion strategy identified in the Comprehensive Regional Water Plan.

CONCLUSION

Based on developments at the four potential groundwater sites investigated since Phase 2 of the Groundwater Investigation project, it can be concluded that the development of a production well to support the community water supply is realistic on the Church Road site and most likely also at the Gray Creek site. A report summarizing work done to date on the Church Road well field will be presented at the December 2019 Planning and Community Development Committee. A Round 2 2020 Budget Proposal is proposed for Groundwater Investigation Phase 3 – Gray Creek Site.

Staff recommends not pursuing the development of a production well at the Dusty Road and Mahan Road sites.

Reviewed by:			
Manager	X – S. Misiurak	Finance	
GM		Legislative	
Interim CAO	X – M. Brown	Other	