

**REPORT TO REGIONAL WATER SUPPLY COMMISSION
MEETING OF WEDNESDAY, JULY 15, 2020**

SUBJECT **Agriculture Water Demand Model and Land Use Inventory Report and Agriculture Water Rate Considerations**

ISSUE SUMMARY

To present a summary of the Agriculture Water Demand Model (AWDM) and Agriculture Land Use Inventory (ALUI) report prepared by the Ministry of Agriculture for the Capital Regional District (CRD) and propose further consideration of the agriculture water rate application and methodology.

BACKGROUND

The CRD has provided an agricultural water rate through the Regional Water Supply Service since 2002. Properties that hold a BC Assessment farm classification are eligible to receive the rate subject to the provisions of CRD Bylaw No. 2570, which sets out how the rate applies to properties with or without a residence. Historically, the rate has been substantially lower than the municipal retail or distribution rates which was intended to promote and support local food production. The agricultural rate provides a benefit to farmers by lowering the cost for crop irrigation and livestock rearing. The rate 'subsidy' is funded through the annual Regional Water Supply Service operating budget which funds the difference between the municipal retail rate and the agricultural water rate, keeping the municipalities/distributors 'whole' financially.

In 2018, the CRD partnered with the Ministry of Agriculture to develop an Agriculture Water Demand Model and Agricultural Land Use Inventory for the CRD; the final report is attached as Appendix A. The purpose of the study was to identify the amount of actively farmed land in the region, provide a baseline for monitoring land use change, identify land use trends for areas with historic agricultural uses, identify crop production/type and agricultural water demand and sources. The study was also intended to provide better information to support further consideration of the agriculture water rate application and methodology.

The key findings related to the agricultural water rate are:

- Area of active farmland across the entire CRD is approximately 13,000 hectares (ha), of which significant portions are outside the Regional Water Supply Service area (Southern Gulf Islands and Juan de Fuca Electoral Areas) Note: For comparison the Agricultural Land Reserve across the CRD comprises 16,396 ha
- Crop types across the CRD include forage crops (40%), vegetable crops (40%), berry crops (7%), and nursery/other crops (13%)
- Livestock supported on agricultural lands across the CRD include dairy/dry/beef cows, swine, broiler/layer poultry, goats, sheep, and horses
- The AWDM calculated the total irrigated agricultural area across the CRD was 1,020 ha which included surface water, ground water and municipal water sources
- Current agricultural water demand represents 2 to 3% of annual Regional Water demand; 2019 Regional Water Supply agricultural water volume was 1,050,084 cubic metres confirming that there is some reliance on 'city' water to support agricultural water needs

- The AWDM will be used to determine long-range agricultural water demand forecasting for the region, and demonstrate benefits of efficient and sustainable irrigation systems
- Local agriculture is producing feed and food crops and livestock that are assumed to benefit the region's food supply

Also for consideration are the points raised previously by the Peninsula and Area Agricultural Commission (PAAC) (correspondence received by the Regional Water Supply Commission, October 16, 2019). In summary, the PAAC recommended:

- To simplify and reduce the administrative burden of the agricultural rate application and payment processes
- Rate equalization across municipalities and equalization of 'out of pocket' expense for agricultural water across region
- That the Regional Water Supply agricultural funding be available to fund municipal agricultural water meter replacements, back-flow prevention, capacity studies

Agricultural Water Rate History and Application

As noted previously, the CRD has provided an agricultural water rate through the Regional Water Supply Service since 2002. The rate was implemented with the objective of supporting local food (fruits, vegetables and livestock) and feed production. The rate has not changed for ten years, while during that time, the Regional Water Supply bulk supply or 'wholesale' water rate and the municipal distribution or 'retail' water rates have steadily increased. The table below provides a summary of the rate history:

Year	Bulk Supply Rate (Regional Water)	Agriculture Rate	Sample Distribution Rate (CRD JDF Water)
2002	\$0.2860 / cu m	\$0.2060 / cu m	\$0.9189 / cu m
2010	\$0.5443	\$0.2105	\$1.4985
2020	\$0.6968	\$0.2105	\$2.2159

CRD Bylaw No. 2570 sets out how the agricultural rate is applied. Properties that hold a BC Assessment farm classification are eligible to receive the rate. If all of the water consumption on a property is related to agriculture, the rate applies to the total volume of water consumed. If the property has a residence, the local municipal distribution water rate applies to the first 455 cubic metres consumed in a calendar year, then the agricultural water rate applies to the volume of water consumed during the remainder of the year. Appendix B summarizes the agricultural demand, eligible accounts, and Regional Water funding (2011 to 2019).

The current agricultural rate methodology and application provides the opportunity for farm-classified properties to receive the rate regardless of what type of agriculture they are supporting, and keeps the municipalities/distributors 'whole' financially. In other words, the municipalities/distributors receive their full retail rate revenue for the agricultural water consumed in their service area via the CRD reimbursement for the difference between the local municipal

retail rate and the agricultural rate, funded from the Regional Water Supply agricultural rate budget.

In terms of the Regional Water Supply Service budget impact, the 2020 Regional Water Supply agricultural rate funding budget is \$1.5 million which is approximately 4.4% of the total annual budget. The rate budget continues to be increased to keep pace with the reimbursement claims, which is primarily a result of the ever-increasing gap between the rates.

At the June 25, 2020 Water Advisory Committee meeting, staff presented an overview of the Provincial study, as well as the agricultural rate and demand history and application. After a fulsome discussion, the Committee passed the following recommendation:

That the Water Advisory Committee recommends to the Regional Water Supply Commission to direct staff to consult with stakeholders to gain input from and determine the impacts on the agricultural community related to the issues of food security and climate change with respect to the agricultural rate, and that the review process also consider how to better target local food and feed production in the distribution of the water subsidy.

ALTERNATIVES

Alternative 1

The Regional Water Supply Commission recommends:

That staff be directed to maintain the current agricultural water rate for the 2021 budget year, and undertake an agricultural rate review that considers the current rate, rate model and rate application, the implications of these elements, and presents rate/rate model options for the Commission's consideration.

Alternative 2

That staff be directed to recommend a revised agricultural water rate to the Commission for the 2021 budget year, and not undertake an agricultural rate review.

Alternative 3

That this report be referred back to staff for additional information.

IMPLICATIONS

Social Implications

As noted by the Water Advisory Committee, there are many stakeholders that the CRD would engage with as a result of advancing Alternative 1, including the farming community, the municipal water distributors, and organizations such as PAAC.

Environmental and Climate Change Implications

With advancing climate change and promotion of local food security, the CRD and the region recognized the need to support sustainable, regional production through financial mechanisms.

The agricultural water reduces farming operating costs. The CRD also works with the farming sector to promote practices that can further reduce future agricultural water demand. Examples of these are exploring drought tolerant crops, employing water conservation-forward farming practices or installing high efficiency irrigation systems.

By maintaining the agricultural water rate, the CRD, along with the municipal water distributors, are able to continue to support and promote local food production.

Intergovernmental Implications

Actions from all levels of government are required to achieve a strong local food system. The agricultural water rate is one way in which regional and municipal governments can provide assistance to foster sustainable, regional food production.

Regional Growth Strategy Implications

The agricultural water subsidy aligns with the CRD's Regional Growth Strategy to *Foster a Resilient Food and Agriculture System* by easing the burden on farmers for the cost of irrigation and livestock water. Steady and increasing levels of agricultural demand in the region support continued provision of the rate.

Financial Implications

The agricultural water rate provides financial support to farmers by reducing one important cost barrier to farming. However, the agricultural water rate has remained static for many years, while municipal retail rates have steadily increased, resulting in increased costs to the CRD to provide the subsidy.

CONCLUSION

The CRD has provided an agricultural water rate through the Regional Water Supply Service since 2002. The rate was implemented with the objective of supporting local food and feed production. The rate has not changed for ten years, while during that time, the Regional Water Supply bulk supply or 'wholesale' water rate and the municipal distribution or 'retail' water rates have steadily increased. Staff confirm that the agricultural water rate is providing demonstrated benefit to farmers. However, it is difficult to ascertain exactly how much of the benefit results in food production that benefits CRD residents more broadly. In addition, the cost to the CRD to provide the rate with the current approach continues to increase and impact the annual budget. Staff recommend undertaking an agricultural rate review that considers the current rate, rate model and rate application, the implications of these elements, and presents rate/rate model options for the Commission's consideration.

RECOMMENDATION

The Regional Water Supply Commission recommends:

That staff be directed to maintain the current agricultural water rate for the 2021 budget year, and undertake an agricultural rate review that considers the current rate, rate model and rate application, the implications of these elements, and presents rate/rate model options for the Commission's consideration.

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Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

ATTACHMENT

Appendix A: Agriculture Water Demand Model – Report for Capital Regional District – *British Columbia Ministry of Agriculture Innovation and Adaption Services Branch & Partnership for Water Sustainability in British Columbia*

Appendix B: Agriculture Water Rate Funding and Demand Summary 2011-2019