REGIONAL DISTRICT OF NANAIMO

STAFF REPORT

TO:	Mike Donnelly Manager, Water & Utility Services	**DATE:**	January 11, 2016
		MEETING:	Board, January 26, 2016
FROM:	Julie Pisani DWWP Coordinator, Water Services	**FILE:**	5600-07

SUBJECT: AVICC Resolution – Rainwater as a Potable Water Source

RECOMMENDATION

That the attached resolution regarding *Rainwater as a Potable Water Source* be adopted and forwarded to the Association of Vancouver Island and Coastal Communities (AVICC) for consideration at the 2016 Annual General Meeting and Convention.

PURPOSE

To recommend a resolution for consideration at the AVICC Annual General Meeting and Convention that would encourage the Province to develop rainwater-specific source characterization protocols, infrastructure requirements and treatment standards and objectives as a framework for more effectively establishing rainwater as a safe alternate drinking water source for small water systems in rural communities.

BACKGROUND

Water supply systems in BC are regulated by the local health authorities that administer the *Drinking Water Protection Act*, to ensure the safety of drinking water provided to the public. The *Drinking Water Protection Act* defines water supply systems as systems that supply water for domestic purposes to anything other than serving a single-family residence. In other words, water systems that are regulated by the *Drinking Water Protection Act* purvey water to the public or to more than one connection i.e. – mobile home park, community centre, restaurant, office, etc.

Currently, small water systems may submit an application to their local health authority to propose a rainwater source for potable water. This source must be appropriately characterized for possible risks to human health, and then prescribed the appropriate treatment requirements, in order to obtain source water approval from the local health officer. Surface water and groundwater sources are dealt with in the same way.

Many small water systems that operate under the *Act* exist in water-stressed locations and would benefit from utilizing rainwater as an alternate / additional source to protect and reduce demand on traditional water sources. Because rainwater is a non-traditional water source, however, the risks are largely unknown. The quality is inherently variable as collection surfaces and environmental conditions differ from place to place. There are currently no provincial rainwater treatment objectives or standards for characterizing rainwater as a drinking water source. There is currently no comprehensive provincial guidance or framework of requirements for water systems to safely develop and use rainwater for potable purposes. This lack of guidance and standards makes it difficult for water system operators to confidently and consistently address the safety requirements, and makes it difficult for the local health officers to approve rainwater source proposals. Ultimately this limits the successful utilization of

rainwater as a potentially suitable additional water source to increase resiliency in rural areas.

We understand that work on devising objectives and standards for rainwater source water was started through a provincial committee attended by representatives from each of the health authorities, but then this work was discontinued by the Province. The attached resolution urges the Province to continue and complete the development of standards with regards to rainwater sources for potable water in public water systems.

If the Province, via the Ministry of Health, had a comprehensive framework that was developed through research, it would improve the prospect of rainwater being used as a safe alternative drinking water source. We suggest that the framework could include:

- Rainwater Source Characterization Protocols
- Rainwater Collection Infrastructure Guidelines
- Rainwater Treatment Objectives and Standards

This will give local health authorities the basis to approve water supply systems that use rainwater collected off appropriate surfaces and treated in the appropriate manner, to effectively and safely augment small water systems' public water supply. In turn, small water system operators would have a more straightforward application process to follow, so they can successfully purvey water safely and reliably in rural communities.

ALTERNATIVES

1. That the Board adopts this recommendation and forwards the proposed resolution to AVICC.
2. That the Board provides alternate direction.

FINANCIAL IMPLICATIONS

There are no financial implications to the RDN.

STRATEGIC PLAN IMPLICATIONS

Encouraging the use of rainwater as a safe additional potable water source for small water systems is consistent with RDN strategic direction to build community self-sufficiency and resilience in rural areas.

SUMMARY/CONCLUSIONS

To assist small water systems in accessing additional approved water potable sources, it is necessary for the Province to develop well-researched rainwater source characterization protocols, rainwater infrastructure requirements and rainwater treatment standards and objectives. The resolution that is recommended to be brought to AVICC in April 2016 is attached to this report.

Report Writer	Manager Concurrence
General Manager Concurrence	CAO Concurrence

RAINWATER AS A POTABLE WATER SOURCE

WHEREAS small water systems that operate under the *Drinking Water Protection Act* and provide water to the public have the need for alternate potable water supplies in rural, un-serviced communities in BC;

AND WHEREAS rainwater has the potential to be a safe additional drinking water source to augment low-yielding groundwater or surface water supplies;

THEREFORE BE IT RESOLVED that the Union of BC Municipalities urge the Province to develop rainwater-specific treatment objectives and standards, source characterization protocols and infrastructure requirements, to enhance the ability of small water system operators to implement and local health authorities to approve rainwater source(s) for potable water.