

**DATE:** December 8, 2016

**TITLE:** **Water Quantity and Quality Management**

**WHEREAS:** Effective water quantity and quality management are issues of concern to all Albertans; and

**WHEREAS:** Water withdrawals, landscape changes, industrial and municipal development, and climate fluctuations impact the quantity and quality of water supplies; and

**WHEREAS:** Watersheds must be managed comprehensively to protect our water supplies; and

**WHEREAS:** A growing water demand and changing climate means Alberta must adapt and prepare to effectively address future challenges.

**NOW THEREFORE BE IT RESOLVED:** The Alberta Association of Municipal Districts and Counties advocate that the Government of Alberta:

- Complete water management planning for all river basins, including major tributaries, or provide funding for others to carry out the studies required; and
- Monitor flow and water quality effectively in all major rivers and tributaries; and
- Provide flow and water quality reports in a timely fashion; and
- Develop aquifer management plans to protect local groundwater supplies; and
- Provide support and funding for municipal watershed partnerships and WPACs.

**BACKGROUND:** Land use change, population growth, climate impacts, surface water and groundwater use are all factors impacting water in Alberta. The effects seen include declining water levels in lakes, rivers and groundwater; water quality concerns; the introduction of invasive species; “flashy” flood events; droughts and impacts to overall ecosystem health. These impacts are very evident in lakes, wetlands and smaller tributaries feeding the major rivers in Alberta.

#### ***WATER FOR LIFE: ALBERTA’S STRATEGY FOR SUSTAINABILITY***

*Water for Life: Alberta’s Strategy for Sustainability* (2003) was created by the Alberta Government in response to conflicting and increasing pressures on Alberta’s water supplies.

The three goals of the strategy are to preserve and maintain:

- Safe, secure drinking water supplies
- Healthy aquatic ecosystems
- Reliable, quality water supplies for a sustainable economy

In the 2009 Government of Alberta “*Water for Life: A Renewal*” document, the commitment from the Government was:

*“The Government of Alberta intends to improve and maintain the health of our aquatic ecosystems by managing the cumulative impacts of point and non-point sources, promoting watershed management, and establishing water conservation objectives on all major river basins.”*

#### **WATER MANAGEMENT PLANS**

A *water management plan* is a regulatory tool that provides broad guidance for water management, and sets out clear and strategic directions regarding how water should be managed. Water management plans typically contain a *water conservation objective*, which specifies the amount of water to be retained in a water body to preserve ecosystem health and function.

The *Framework for Water Management Planning* (Alberta Environment, 1999) states:

*“Water management planning is a process that addresses many issues, involves stakeholders and produces water resource management recommendations. These recommendations can be used by any resource decision-maker when their decision could impact water quantity, quality, habitat or species.”*

The *Framework* principles are:

- water must be managed sustainably
- water is a vital component of the environment
- water plays an essential role in a prosperous economy and balanced economic development
- water must be managed using an integrated approach with other natural resources
- water must be managed in consultation with the public
- water must be managed and conserved in a fair and efficient manner

The *Framework* document states:

*"Alberta Environment will continue to play a lead role by creating, coordinating, authorizing and approving water management plans."*

*"A water management plan should be considered by Alberta Environment when making day-to-day decisions within the physical area that the plan covers."*

Water management planning must be tied closely with land use planning and local decision-making, which falls largely to municipalities. Therefore, a close working relationship between municipalities and the Government of Alberta is crucial to the protection of Alberta's water resources.

#### **RESOLUTION RATIONALE**

By putting forth this resolution, we are asking the Government of Alberta to complete or enable water management planning in all river basins in the province, including tributaries. For this to be feasible, water quantity and quality monitoring must be completed on an annual basis on major rivers and tributaries to enable determination of water conservation objectives. This will protect the aquatic environment while still allowing for economic growth in the province.

Groundwater is not closely monitored and not much is known about flow patterns, surface water interactions or water levels in aquifers. Many rural Albertans rely upon groundwater wells for their drinking water, reinforcing the need for improved quantity and quality monitoring, and the development of aquifer management plans to ensure the long-term supply of safe drinking water to these Albertans.

Supporting partnerships, such as those between municipalities and Watershed Planning and Advisory Councils (WPACs), allows for relationship building, public outreach and education, and the completion of technical studies. Municipal staff and council members receive regular input from their constituents about their concerns,



and WPACs serve a valuable role as a “bridging” organization, bringing together stakeholders and providing technical and stewardship resources.

Invasive species such as flowering rush or zebra mussels are becoming a major concern to municipalities across the province. These invasive species, if left unchecked, can cause millions of dollars in damage to infrastructure and disruption to aquatic ecosystems. Support of municipal control efforts will be necessary to keep these species from proliferating, and to educate the public on prevention.