



# Municipal Water Policy 2012

- Water Resources Management
- Municipal Water System Viability

Convention Policy Paper



# 1 Background

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## Objective

In 2012, AUMA's Board approved a project to develop municipal water policies over a period of several years. The Board's rationale for developing water policies:

- Recognized that water is essential to municipal sustainability.
- Acknowledged that many municipalities have capacity issues and are struggling to maintain water and wastewater collection, distribution and treatment systems in light of rising standards, shortage of skilled water operators, revenue shortfalls and concerns over regionalization.
- The need for more proactive water management as increasing water demand and decreasing supply put pressure on aquatic ecosystems and constraints on economic and population growth.

The objective of the policies is to:

- Build municipal capacity to respond to water related challenges and opportunities.
- Respond effectively to provincial and federal legislation, policy and initiatives related to water.

## The Municipal Context – Role of Municipalities

In formulating these policies, AUMA considered the leadership role municipalities play in many facets of water management. The following statements represent the roles municipalities would like to play, assuming the appropriate resources and support.

- Municipalities as an order of government have a role to play in responsible water management as leaders in water conservation, efficiency and productivity and maintaining healthy aquatic ecosystems.
- Municipalities operate water and wastewater systems and employ quality assurance, controls and asset management practices towards ensuring the sustainability of their water infrastructure and require support from other orders of government and the AUMA to succeed.
- Municipalities should have effective mechanisms and adequate resources contributing to the 'Water for Life' goals of ensuring Albertans have a safe and secure supply of drinking water, healthy aquatic ecosystems and reliable, quality supplies for a sustainable economy.
- Municipalities are engaged in shaping water policies and legislation, and have the authority and resources for effective monitoring, reporting and enforcement in conjunction with other orders of government.
- Municipalities are active partners in implementing provincial and regional land and watershed management plans that reduce the cumulative effects of development on aquatic ecosystems.

## Process for Policy Development

AUMA's [Water Primer and Discussion Paper](#) (WPDP) was developed and communicated to members in September 2011 and was used as a foundation of research to begin development of a comprehensive water policy that addresses priority water issues. This policy will be developed over a number of years, with statements on specific topics added each year.

Through dialogue with members, AUMA's Board of Directors determined that the 2012 policy should focus on water allocation (in light of anticipated consultations by the provincial government) and the viability of municipal water and waste water systems (due to concerns raised by members around rising standards, shortage of skilled water operators, revenue shortfalls and concerns over regionalization). The focus on water allocation was expanded to include broader water resources management issues as it became evident in discussions with members that current water supply challenges could not be addressed through changes to the allocation system alone.

Policy recommendations pertaining to these topics were developed and informed through research and consultation with a panel of elected officials, CAOs, and technical staff who have a strong interest in water management. As well members' input was received through the workshops on allocations, webinars, AUMA's standing committees, Digest requests and Mayors Caucus discussions.

Over the next year, AUMA will work with its members, the Government of Alberta and other partners to begin implementing the 2012 policy. It will also begin a dialogue with members on how the policy should be expanded in 2013.

### **Principles for Municipal Water Policy**

- Water is essential to municipal sustainability in terms of a community's economic viability, environmental integrity, social wellbeing, cultural vibrancy and good governance.
- Healthy aquatic ecosystems and source water protection are essential to providing Albertans with safe, secure drinking water and reliable quality water supplies for a sustainable economy.
- In times of water shortages, water for human health must be given the highest priority.
- Water allocation legislation, policies and practices recognize that water is a scarce limited resource with significant present and future value.
- Decision making is supported by clear, scientifically-based, accurate and publicly available information on water availability, quality, use and the health of aquatic ecosystems.
- Water management should be based on a risk management approach that balances capacity, aquatic and human health and economic prosperity.
- The costs of municipal water and wastewater services should be born primarily by users.
- Investment in water resources needs to be a high priority for governments and all water stakeholders.

## 2 Policies

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### Water Resources Management Policy

#### Proactive Water Management

##### ***Municipal Concerns:***

*Water allocation is the process by which the Government of Alberta grants licences for water use to municipalities, industry, irrigators and other water users. Increasing demands and decreasing supplies have placed strain on the allocation system, especially in southern Alberta. The Province has been considering potential changes to the system for a number of years and indicates its intent to hold public consultations in fall 2012 on this topic. For this reason, AUMA selected “water allocation” to be one of the initial focuses of its water policy development.*

*As AUMA began engaging its members in a discussion on water allocation<sup>1</sup>, it became apparent that issues around how water licenses are granted or transferred cannot be solved without addressing broader water management concerns such as the lack of:*

- Integration between land and water use decision making;*
- Incentives for collaboration or conservation;*
- Transparency around the impact of water use by the oil and gas sector particularly hydraulic fracturing and use in backflooding for additional extraction purposes;*
- Recognition of the true value of water; and*
- Accessible information on water use, quality, flow variability, groundwater and other data required to support sound decision making.*

##### ***Policy:***

The Government of Alberta must:

- 1.1. Move beyond the current focus on water licenses to more proactively address management of water as an essential resource;*
- 1.2. Manage water on a watershed basis using a collaborative approach that includes public input from all the stakeholders in a basin via Watershed Planning and Advisory Councils.*
- 1.3. Integrate water management with air, land-use and biodiversity management such that the cumulative impact of our activities does not impair the sustainability of our ecosystems;*
- 1.4. Engage in an open discussion with Albertans to create a long term vision and practical strategy for water management;*
- 1.5. Use science to inform decision-making through making strategic investments in monitoring and reporting (i.e. to close data gaps) to ensure that publicly accessible information is available on:*
  - Water quality and quantity including the interaction of surface and groundwater and potential impacts of climate change.*

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<sup>1</sup> For more information on the current allocation system and details on what municipalities think are its strengths and weaknesses see *Alberta’s Water Allocation System What We Heard Report* available at [water.auma.ca](http://water.auma.ca)

- Water use including information on water that is consumed (not returned to its source) and return flows.
- The impact of water use on other users and the health of aquatic ecosystems.

## **Conservation, Efficiency and Productivity**

### ***Concerns of Municipalities:***

*Albertans are among the highest water users in the world and municipalities see opportunity for water conservation, efficiency and productivity (CEP)<sup>2</sup> by all sectors to decrease pressure on the allocation system and contribute to improved water management overall. AUMA, along with other major water using sectors such as the irrigation and the oil and gas industry, have developed sector-wide CEP plans as part of a process led by the Alberta Water Council. The creation of these plans is a positive step forward, but a great deal of work is required to make sure they result in tangible benefits to Alberta's communities, economy and the environment.*

### ***Policy:***

AUMA will work with the Government of Alberta, municipalities and other partners to promote more responsible water use through the following actions:

- 1.6. Raise awareness that water is a valuable limited resource and provide more public education on CEP.
- 1.7. Provide education and tools to assist municipalities in becoming leaders in water CEP.
- 1.8. To improve productivity and efficiency, remove barriers and move ahead with greater urgency in promoting responsible water re-use initiatives such as residential grey water re-use.

AUMA urges the Government of Alberta to:

- 1.9. Create incentives and reward innovation for water conservation, efficiency and productivity by all sectors.

## **Allocation System**

### ***Concerns of Municipalities:***

*Notwithstanding the desire to see the Government of Alberta focus its attention beyond the allocation system, municipalities see opportunities to address some of the weaknesses of the current system. While Alberta's allocation system is working well for many municipalities, some small to medium sized municipalities are caught in a situation where their current allocation will not meet future growth without going through a lengthy and complex process to obtain an additional license or absorbing tremendous costs associated with purchasing a license from another user in basins where no new licenses are available.*

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<sup>2</sup> AUMA uses the definition of CEP agreed to by the Alberta Water Council:

**Water conservation:** 1. Any beneficial reduction in water use, loss, or waste. 2. Water management practices that improve the use of water resources to benefit people or the environment.

**Water efficiency:** 1. Accomplishment of a function, task, process, or result with the minimal amount of water feasible. 2. An indicator of the relationship between the amount of water needed for a particular purpose and the quantity of water used or diverted.

**Water productivity:** The amount of water that is required to produce a unit of any good, service, or societal value.

*Furthermore, municipalities are concerned that the current system does not do enough to incent wise water use or protect water for human health and the environment.*

**Policy:**

To improve the ability of the current allocation system to support improved water management, AUMA recommends that the Government of Alberta:

- 1.10. Confirm in legislation that water cannot be allocated out of province: make sure that only Albertans can control Alberta water;
- 1.11. Build greater transparency into the financial and technical details around transfers (who purchased what volume at what price for what purpose) and performance assessment into the allocation system;
- 1.12. Realign the allocation system to take care of basic human health and hygiene and the environment first, and then let the market manage economic needs;
- 1.13. Hold in reserve allocation room for population growth. Municipalities are a small part of water use: the province can protect future growth without significant changes to the system;
- 1.14. Ensure that the use of Holdbacks does not penalize municipalities for administrative transfers;
- 1.15. Develop a plan under the current system for the next big drought so that Albertans are prepared and know in advance what actions can be taken, how responsibilities will be shared, and how regulatory decisions will be made during times of hardship; and
- 1.16. Require anyone applying for an additional licence or to buy or sell an existing licence to have a Water, Conservation and Efficiency Productivity (CEP) Plan in place that demonstrates best practices are being used to minimize water use.

**Regional Collaboration**

**Concerns of Municipalities:**

*Watershed Planning and Advisory Councils (WPACS)<sup>3</sup> have a key role to play in various aspects of the water management system. WPACs are multi-stakeholder, non-profit organizations whose core function is to assess the state of a watershed and develop a watershed management plan. They provide a venue for municipalities to work with and learn more about major water-using sectors such as Irrigation Districts and the Oil and Gas industry. These plans are intended to address the Water for Life goals of providing Albertans with a safe, secure supply of drinking water, healthy aquatic ecosystems and reliable supplies for the economy. Developing and implementing these plans is costly and the eleven WPACs in the province do not have a consistent funding source despite the importance of their work mandated by the government. They also lack a consistent process of engaging sectors such as municipalities in the development of plans which rely on these same sectors to implement them.*

**Policy:**

AUMA will:

- 1.17. Promote municipal participation on Watershed Planning and Advisory Councils.

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<sup>3</sup> For more information on WPACs and their relationship with municipalities visit the Water Governance and Legislation Page of [water.auma.ca](http://water.auma.ca)

- 1.18. Advocate for a consistent process for engagement of municipalities and other sectors on WPACs.
- 1.19. Advocate for the Government of Alberta to provide sufficient, consistent core and project funding for WPACs to carry out their primary mandate of watershed assessment and planning.
- 1.20. Advocate that WPACs place significant attention to source water protection upstream of municipalities to ensure a safe, secure supply of drinking water to our citizens.

## **Municipal Water System Viability Policy**

### **Drinking Water Quality Standards**

#### ***Concerns of Municipalities:***

*Municipalities are responsible for implementing drinking water standards that are set and enforced by the Government of Alberta, but derived from national guidelines. These standards and guidelines take into account operational considerations, while protecting public health. Rising standards can be a significant cost driver for municipal systems.*

#### ***Policy:***

- 2.1. AUMA urges the Governments of Alberta and Canada to engage municipalities early in the process of developing new standards to facilitate greater understanding of potential impacts on the municipal systems and enable municipalities to better prepare for changes.
- 2.2. The Government of Alberta should advance collaboration with health authorities and post-secondary institutions to build greater understanding and capacity to meet the standards.
- 2.3. The Government of Alberta should work with AUMA to explore opportunities for smaller systems to partner with larger systems to gain a better understanding of how to efficiently and effectively meet standards.
- 2.4. AUMA will urge the Governments of Alberta and Canada to work with municipalities to develop a funding strategy when new standards or regulations are introduced.

### **Drinking Water Safety Plans**

#### ***Concerns of Municipalities:***

*The Government of Alberta has mandated all municipalities to develop a Drinking Water Safety Plan (DWSP) by December 31, 2013 with subsequent annual reviews. A DWSP aims to ensure the safety of drinking water through a risk assessment and risk management approach which considers the source of water, how it is treated and the storage and distribution of treated water. To support the adoption of the DWSPs, the Government of Alberta has been holding workshops throughout the province and has launched a website which includes a DWSP template and tips. Feedback from water operators who have attended these workshops has been positive. However it needs to be recognized that drinking water policies create extra demands on drinking water operators.*

#### ***Policy:***

- 2.5. AUMA supports the Government of Alberta's approach to Drinking Water Safety Plans and requests the continuation of tools and resources to support their implementation.

- 2.6. AUMA encourages the Governments of Alberta and Canada to take a similar approach to engagement and support in developing and implementing other water related standards and regulations.

## **Wastewater Regulations**

### ***Concerns of Municipalities:***

*The wastewater treatment standards that municipalities must achieve have been the exclusive domain of the provincial government until recently, when the federal government introduced draft Waste Water System Effluent Regulations in an attempt to harmonize standards across the country. AUMA supported and facilitated member input in the development of the Canada-wide Strategy for Management of Municipal Wastewater Effluent on which the regulations are based.*

*These regulations will have less impact in Alberta than in the rest of the country as standards in the province are already high. However, there are some concerns over the potential impact of increased reporting requirements and aspects of the regulations that may deviate slightly from the original Strategy.*

*As well, harmonization is an imperative as some municipalities have already been charged for violating a federal standard, while being in full compliance with a provincial standard.*

### ***Policy:***

- 2.7. Harmonized regulations pertaining to wastewater effluent must be developed through collaboration and coordination of federal, provincial and municipal governments in order to ensure optimal and consistent protection of human and environmental health.
- 2.8. The Governments of Alberta and Canada should engage municipalities in implementing the regulations so that communities can be prepared for any necessary changes to system operations, capital upgrades and the associated cost.
- 2.9. All levels of government should work together to develop a one-window approach to reporting to ensure that the new federal regulations do not place unnecessary administrative burdens on municipalities.

## **Water and Wastewater Operators**

### ***Concerns of Municipalities:***

*No matter what the standards and protocols, the provision of a safe, secure drinking water supply and protection of the environment depends on the people who operate water systems. Concern is growing because municipalities are struggling to attract and retain qualified water and wastewater operators. Operator training courses in the province are currently oversubscribed, and there are concerns that the certification process creates obstacles for those who want to advance their career. Certified operators often go on to seek employment in large centres or the oil and gas sector instead of small communities.*

*The Alberta Water and Wastewater Operators Association (AWWOA) is leading a number of initiatives to encourage more people to choose water operations a career. Municipalities are also collaborating through operational consortiums to share operators and through reciprocal agreements to provide qualified oversight when operators are on holiday or on illness leave. They are also interested in other options such as circuit rider programs employed in First Nations communities.*

***Policy:***

- 2.10. AUMA will continue to partner with the AWWOA and other organizations to develop and promote resources to support the attraction and retention of qualified water and wastewater operators.
- 2.11. AUMA urges the Government of Alberta and AWWOA to identify and remove barriers to entry into the certification process.
- 2.12. AUMA urges the Government of Alberta, the AWWOA and post-secondary institutions to collaborate in maintaining and expanding operator education programs that enable operators to be trained in local communities as opposed to having to travel to a central location.
- 2.13. AUMA will seek the support of the Government of Alberta and the AWWOA to provide members with information and examples on operational consortiums, reciprocal agreements and operating contracts.
- 2.14. Additional means of providing qualified oversight of water systems should be explored such as circuit rider programs and remote monitoring.

**Funding**

***Concerns of Municipalities:***

Municipalities face a wide variety of funding pressures, including:

- Aging infrastructure
- Users treating water as an unlimited and low cost resource
- The cost of maintaining large systems built to meet sprawling land uses
- Maintaining systems in the face of population decline or expanding systems in the face of growth
- Meeting increased standards and expectations
- Declining revenue base due to effective water conservation initiatives while fixed operational and capital expenditures continue to increase through time.

Many municipalities do not use full cost accounting so there is minimal awareness and understanding by municipal governments and users of the true cost of the water services. Full cost accounting calculates all costs related to providing drinking and waste water services: operating and maintenance expenses, depreciation of assets, and returns for the replacement of capital assets. It may also include the cost of implementing source water protection and water conservation initiatives.

Therefore, in most municipalities, residents and businesses do not pay for the full cost of the water services they use, nor is money put in reserves for future upgrades.

To fill this financial gap, municipalities turn to overtaxed general revenues and oversubscribed grants. The resulting shortfall leads to deferred maintenance and upgrades, which in turn contribute to the municipality's overall infrastructure deficit and concerns about the ongoing ability of the system to provide safe drinking water.

***Policy:***

- 2.15. AUMA encourages and will partner with the Government of Alberta to support municipalities in adopting full cost accounting and implementing water pricing that will:

- Educate users on the true cost of the water resources they are consuming, thereby providing a financial incentive to conserve and use more efficiently:
  - Provide enough revenue to cover the full costs of providing water and wastewater services including maintaining and replacing infrastructure and implementing water conservation and source water protection measures; and
  - Provide financial reporting on water and wastewater utility functions separate from general revenues.
- 2.16. The Government of Alberta should update the criteria for water funding to give priority to requests from municipalities that have implemented or are working towards full metering, water conservation, efficiency and productivity planning, asset management and full cost accounting.
- 2.17. AUMA urges the Government of Alberta to aid in funding and supporting small municipal and regional systems, where populations may be decreasing and/or users may not be able to fully cover capital costs.
- 2.18. AUMA urges the Government of Alberta to improve alignment between the water policy-makers, regulators and infrastructure funders.
- 2.19. The Government of Canada should make water and wastewater infrastructure eligible for funding under the Long Term Infrastructure Plan as opposed to creating a dedicated funding stream in order to allow municipalities to set their own infrastructure priorities.

## **Asset Management**

### ***Concerns of Municipalities:***

Asset management is the process of looking at the life cycle of all the assets in a municipality to develop information about future maintenance, new development and the capacity to resource. Asset management applies to a broader set of infrastructure considerations than just water. Still, it is important to highlight the critical role it plays in the viability of municipal water systems. Asset management is closely linked to full cost accounting for water as both require a detailed understanding of costs and capital assets related to municipal water systems. AUMA is a member of the Asset Management Alberta Working Group which also includes representatives of AAMDC and the Government of Alberta and is open to any municipality who wants to attend. The intent of the group is to provide practical tools and a forum for knowledge sharing around best practices in managing assets in a capacity constrained environment.

### ***Policy:***

- 2.20. AUMA will work with the Government of Alberta, municipalities and other partners to help build the capacity of municipalities to implement a strategic asset management system that applies financial, technical, economic and other information to the management of physical assets with the objective of providing the required level of service in the most cost effective manner.
- 2.21. AUMA and AMSC will explore options to provide municipalities with programs and services for reducing water losses from water distribution systems and inflow and infiltration in wastewater collection systems.

## **Regional Systems**

### ***Concerns of Municipalities:***

Given the challenges facing municipal water systems, an increasing number of municipalities are turning to regional systems to maximize economies and increase access to skilled operators. However, regional systems come with their own challenges including:

- Concerns over control governance structures
- Funding
- Long term pricing
- Land use implications

### ***Policy:***

- 2.22. The Government of Alberta should increase funding for regional systems and extend the funding commitment to cover all phases of regional system development and transitional costs.
- 2.23. Funding for regional systems should be consistent with inter-municipal and regional plans where they exist.
- 2.24. AUMA will work with Government of Alberta to explore emerging issues with regional systems such as a lack of direct access to funding for capital upgrades and disparities in regional funding programs.
- 2.25. The Government of Alberta should ensure full consideration of long-term implications on water servicing and water use demand in land use decisions.
- 2.26. AUMA will partner with the Government of Alberta to inform and support municipalities in reviewing and implementing regional systems including but not limited to:
  - Factors to consider when deciding on viability of regional systems.
  - Governance options and funding models in establishing a regional system.
  - Governance in terms of the appropriate relationship between the regional system and each member municipality.
  - The process for establishing regional systems.
  - Critical factors for success in regional systems.
  - Options for operational oversight of municipal distribution/ collection systems even after joining a regional system.
  - Implications of regionalization on municipal water allocation.