



## FACT SHEET: Water Conservation, Efficiency and Productivity Planning

Water conservation is one of three key directions in the *Water for Life (WFL)* strategy; this direction states: *All sectors understand how their behaviours impact water quality, quantity and the health of aquatic ecosystems; they adopt a water conservation ethic and take action.* A specific outcome of this key direction is that all

sectors will demonstrate best management practices to ensure that overall efficiency and productivity of water use in Alberta improves by 30% from 2005 levels by 2015. Improvements will occur when water demand decreases or when efficiency and productivity increase.

### What is water conservation, efficiency and productivity (CEP)?

In 2007, the Alberta Water Council adopted the following definitions:

*Conservation* is:

- Any beneficial reduction in water use, loss or waste.
- Water management practices that improve the use of water resources to benefit people or the environment.

*Efficiency* is:

- The accomplishment of a function, task, process, or result with the minimal amount of water feasible, or
- An indicator of the relationship between the amount of water needed for a particular purpose and the quantity of water used or diverted.

*Productivity* is:

- The amount of water that is required to produce a unit of any good, service, or societal value.

### Council activity in support of water CEP

The *WFL* Action Plan identifies three key actions for water conservation. Since 2006, the Alberta Water Council has been working to advance water conservation, efficiency and productivity planning, which is the crux of action 6.3. It involves working with key water sectors to develop and implement water conservation, efficiency and productivity plans, and establishing an ongoing monitoring program to ensure results.

In 2008, the Council published a report and recommendations for CEP sector planning, including a framework and annotated table of contents to guide Alberta's major water-using sectors in preparing their water CEP plans. The report also identified seven sectors that use most of the allocated water in Alberta, and outlined that CEP planning should focus first on these sectors. Subsequent Council activity involved working with these seven sectors to develop CEP plans, all of which had been completed by 2012: Chemical Producers, Downstream Petroleum Products, Forestry, Irrigation, Power Generation, Upstream Oil and Gas (including oil sands), and Urban Municipalities. All sector plans were prepared on a voluntary basis and approved by their respective organizations. However, neither the Council nor Alberta Environment and Sustainable Resource Development approved or endorsed the plans.

The sector plans contain targets and benchmarks that reflect the unique circumstances of each sector. They also identify a range of opportunities for sector members to contribute to achieving the overall

conservation goals in the *WFL* strategy. In many cases, the plans include stretch targets, which will challenge the sectors to go beyond “business as usual.” For example, the Irrigation sector has targeted a 15% improvement in efficiency and a 15% improvement in productivity, and intends to keep its diversions at or below the 2005 level despite expectations for expanding the irrigated acreage.

All sectors will report back to the Council on implementation progress by the end of 2015 emphasizing, among other things, their success in meeting the stated targets and how these contribute to achieving *WFL* goals. Appropriate metrics and data will be needed to effectively measure progress toward the *WFL* goal of a 30% improvement in overall efficiency and productivity of water use. A new multi-stakeholder Council team will be formed in 2014 to determine how to measure success of CEP plans in contributing to this and other *WFL* goals.

As part of its CEP work, the Council also identified several key issues and policy gaps that are broadly relevant to CEP planning but were outside the Council’s mandate. The relationship between water licensing, allocation and CEP planning is particularly important and decisions in this area could have implications for water CEP. The Government of Alberta’s implementation of its Cumulative Effects Management System could also affect CEP planning, and cumulative impacts of CEP gains could be included in future progress reports.

#### **Other water conservation actions**

The other two actions under the Water Conservation key direction are:

- 6.1: Develop tools to integrate environmental, economic and social values into water management decision making; and
- 6.2: Develop and implement an enhanced education program to encourage water conservation.

As reflected in the Council’s most recent *Review of Implementation Progress of Water for Life, 2009-2011*, limited progress has occurred on action 6.1 due to a lack of problem definition: what problem requires resolution and which tool(s) are best to address the problem? Action 6.2 is being re-evaluated by the Government of Alberta along with the entire *WFL* education plan, with the intent of developing a more holistic approach to education and outreach.

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*This fact sheet is one in a series prepared by the Alberta Water Council. It draws from the Water for Life strategy and its associated Action Plan, both of which are available online at <http://www.waterforlife.alberta.ca/>. All fact sheets as well as reports produced by the Council on this topic are available at [www.awchome.ca](http://www.awchome.ca). The seven sector CEP plans are online at <http://www.awchome.ca/Projects/CompletedProjects/WaterCEP/tabid/115/Default.aspx>*