

## EDUCATION: PROGRAMS

## Policy 512.14.1-G (previously 602.14.1-G)

### Water Management Guidelines

#### Introduction

Approximately 70% of the Earth's surface is covered in water and here in Greater Vancouver we are fortunate to have a large supply of fresh clean drinking water, so why do we need to conserve water? By water conservation we mean controlling, protecting, managing and planning for the wise use of our water resources. When viewed in this context, water conservation makes both economic and environmental sense. Water is getting more expensive because it is costing us more to supply, to treat, to dispose of, and to treat again. The energy required to meet our existing water demands is enormous and also carries with it an environmental price tag. For these reasons, we need to think about using our existing supplies wisely. Just because the water is available does not mean that we can afford to use it with reckless abandon. Committing to being an environmental steward involves actions of water conservation. Rethinking our options at school/work for how we use (or do not use) water is essential for a more sustainable future.

#### **Effective Water Conservation Practices at the District Level**

- Create a Five Year Action Plan for water conservation that is coordinated with and integrated in to the district Five Year Sustainability Action Plan. Include funding, savings projections, target setting, and reporting in the plan. Set annual performance reviews, and adjust/revise the plan to ensure goals are met.
- Coordinate the Five Year Action Plan with the planning and requirements of other organizations including Metro Vancouver and the City of Richmond.
- Ensure that legal and regulatory requirements of other levels of government are honoured.
- Create and maintain supporting curriculum so that students are informed of and engaged in the Five Year Plan
- Develop a plan to install water meters on all sites
- Ensure that drinking water fountains are a safe alternative for staff and students, by performing frequent testing
- Advocate on behalf of our schools to incorporate many of the City of Richmond's water conservation initiatives (i.e. toilet rebate programs and efficient irrigation systems for school-community gardens)
- Where water meters are in place, share water consumption data with facility occupants
- Install rainwater collection systems in all new construction sites, with overflow only to storm drains
- Create a plan to reduce contaminants in waste water streams, including chemistry labs and workshops
- Where possible, use technology to assist in reducing water consumption (i.e. motion sensor activated urinals and faucets)
- As appliances are replaced, choose water-wise appliances such as low-flow toilets, faucets and shower heads

## Effective Water Conservation Practices in Schools/Sites

### Collaboration

- Involve all stakeholders at your site who have involvement in water use (students, teachers, custodians, administrators and parents)
- Present the results of initial water audits (with water meters) at school assemblies or staff meetings, and accept feedback and invite others to upcoming action group meetings on how to further conserve water

### Continuous Improvement

- Incrementally aim to reduce water consumption at your site, month by month
- Start with a pilot project to change the behavior of one sub-population at your site and offer opportunities to have the participants share the challenges and successes of the pilot programs

### Commitment to the Triple Bottom Line Assessment

- Assess your plan and implementation strategies for Educational/Social impact:
  - How does your plan meet educational outcomes for social responsibility and relate to Provincial Learning Outcomes of environmental stewardship curriculum?
- Assess your plan and implementation strategies for Environmental impact:
  - How will the roll-out of water conservation strategies benefit the local environment and that which is downstream: the Pacific Ocean?
- Assess your plan and implementation strategies for Economic impact:
  - How does your plan save on the costs of water supply?

### Leadership

- Create a sub-committee of your Green Team to engage in water conservation strategies at your site
- Develop processes and awareness campaigns to ensure that water is conserved and that nothing toxic is improperly flushed down the school drains
- Encourage students to include a reusable water bottle as part of their personal supply of school materials in September

### Learning for All

- Offer a site location for postings of water conservation information
- Post photos of water-wise behaviours and/or lists of items that have been used/installed to promote water conservation (i.e. bottle fill-up stations)

## Project Plan for Water Conservation Initiatives

These guidelines support the successful development of waste management projects by site-based Green Teams as they create local plans of action that align with the District Sustainability Action Plan. The following steps provide a template for this process:

**Step 1:** Determine your site-based waste management initiative(s)

**Step 2:** Collaborate with stakeholders and partner groups

**Step 3:** Develop the project plan (vision, scope, resources, education, funding, assessment, etc)

**Step 4:** Collective endorsement of the project plan

**Step 5:** Implement the project plan

**Step 6:** Celebrate and determination of next steps for continuous improvement

## **Appendix 1 – Practical Actions for Water Conservation**

- Perform water audits if your school/site has a water meter. Monitor consumption and develop plans to reduce water consumption. The Ministry's Green Schools Program provides a checklist for a school's water audit.
- Report leaky taps and fountains
- Ask that aerators be installed on all faucets
- When washing hands, do not leave the water running while soaping/scrubbing hands
- Encourage drinking of tap water and use of fountains over bottled water
- Educate students and staff on the waste generated by bottled water with resources such as the short film "The Story of Bottled Water" by Annie Leonard
- Offer rewards of reusable water bottles for contests
- Encourage fundraising for water bottle filling stations to provide a rapid fill
- Encourage the donation of a graduating class to be a water bottle fill up station or a low-flow toilet
- Collaborate with the Grounds department to install a rain barrel and use this water for school gardens
- Plant native plants in school garden beds which provide local knowledge and require minimal watering the in the dry months
- Request that your site be placed on a priority list for installation of a water meter at your site when funding becomes available.
- Share water-wise changes adopted by your school by including reminders in (electronic) school newsletters and post on the school's website
- Have school participation in park/ shoreline cleanup in your region of Richmond
- Have students participate in the Stream of Dreams and/or make storm drains with the visible yellow salmon symbol (available from many community centres).
- Have students make the connections about water issues and the surrounding bodies of water and the relationship to Indigenous peoples. Two water conservation films to share with students are Blue Gold and Waterlife.
- Use sand and plows rather than salt to get traction on winter ice to avoid adding unnecessary salt to storm water
- Run dishwashers only with full loads