

Environmental Action Plan 2018-19 Update

Water Quality

Alexandria Waterways Swimmable and Fishable

Enhancing ecological, public health, social, economic benefits of existing/degraded waterways

- Green Infrastructure
- CSO abatement (happening)
- Day lighting

	Goal Target	Justification
City Operations	<p>100% of new BMPs installed on City Property or at City-controlled facilities must be nonproprietary surface BMPs</p> <p>Identify ___ acres on property owned, maintained, or controlled by the City to “green” by 2023</p>	<ul style="list-style-type: none"> • January 2018 Memo from City to industry sets a requirement that for new development and redevelopment, 65% of BMPs must be nonproprietary surface BMPs (up to 35% can be manufactured treatment device) • MTDs do not reduce stormwater runoff
Community	<p>Identify and prioritize large to medium scale opportunities for green infrastructure deployment, to include private land and the public right of way</p>	<ul style="list-style-type: none"> • A holistic approach to greening stormwater management will help the City identify low hanging fruit • Ancillary benefits of larger scale green infrastructure projects include open space improvements, habitat improvements for wildlife

Appendix:

**Environmental Action Plan
2009**

Water Resources

EAP (2009) Water Resource Targets

2010	Obtain a funded OEQ outreach position to manage MS4 and Eco-City outreach.
2015	Establish mechanism for long-term dedicated funding for the purpose of maintaining and improving stormwater infrastructure by 2013.
	Complete Cameron Run Master Plan.
	By 2015, reduce per-capita water consumption by 10%, as estimated from wastewater volume conveyed from the city to its treatment facilities.
2020	Complete 90% of the in-stream portion of the Four Mile Run Master Plan.
	Retrofit 70% of feasible City facilities with BMPs and explore water reuse operations.
2030	Retrofit 100% of feasible City facilities with BMPs.

Update:

- New MS4 Permit with strict Bay TMDL mandate
- New SW Management Fee
- New CSO mandate



Alexandria's past, present, and future are indelibly linked to the Potomac River and the quality of life the river sustains. Water quality in Alexandria will be managed in a sustainable manner consistent with good stewardship of the local streams, the Potomac River and the Chesapeake Bay for the public health, ecological, and recreational benefit of current and future generations.

EAP (2009) Water Resource Goals

	Short-term 2009-2011	Mid-term 2012-2020	Long-term 2021-2030
<p>1. Enhance the ecological integrity of waterways and promote citizen awareness of water quality and resource issues, particularly with regard to regulatory requirements of the Municipal Separate Storm Sewer System (MS4) permit.</p>	<ul style="list-style-type: none"> Continue compliance with Commonwealth and Federal statutes, and continue to improve the City's Municipal Separate Storm Sewer System (MS4). Establish a citizen stream monitoring and clean-up program, and encourage active participation by Alexandria City Public Schools (ACPS). Promote best management practices (BMPs) for stormwater through workshops (e.g., rain barrels, rain gardens, proper application of fertilizers and pesticides) and demonstrations (e.g., "water wise" garden tours, increased access to green roofs). 	<ul style="list-style-type: none"> Continue to work in cooperation with neighboring jurisdictions to achieve and maintain water quality standards in our streams. Restore and stabilize stream banks of all urban streams to promote healthy habitat, biotic integrity, and to minimize erosion. Engage citizens to assist in the improvement of riparian buffers through continued efforts toward invasive species eradication and enhanced planting programs. Preserve, protect, and enhance existing wetlands in the city. Fund and complete implementation of Four Mile Run Master Plan and demonstration project. Implement the Cameron Run/Holmes Run feasibility study to improve biotic integrity and water quality. Continue and expand water quality education of citizens by providing information via the City's website, radio, television, and signage at park entrances where visitors are anticipated to have direct contact with Alexandria waterways. 	
<p>2. Maintain and enhance stormwater and sanitary infrastructure and stream systems to minimize environmental degradation.</p>	<ul style="list-style-type: none"> Continue identifying sewer separation opportunities through the Area Reduction Plan. Support and provide information to the Stormwater Working Group in seeking mechanisms to finance infrastructure improvements. Continue stream stabilization and restoration efforts (Cameron Run/Holmes Run Watershed Feasibility Study, Four Mile Run Master Plan and Demonstration Project, Strawberry Run Stream Restoration) and complete programs to improve water quality (e.g., bioretention area retrofits) and quantity reduction capabilities (e.g., Cora Kelly Green Roof). 	<ul style="list-style-type: none"> Establish long-term dedicated funding mechanisms such as storm water utility fees or other taxes to improve and maintain stormwater infrastructure. Update the flood management program to take into account anticipated rises in Potomac River levels and the increased intensity of storm-related flooding due to climate change impacts. Develop and fund city-wide efforts for floatable controls, including education, outreach, and infrastructure controls. Retrofit all City facilities with stormwater BMPs. Fund and implement the Four Mile Run Master Plan and demonstration project and continue implementation of Cameron Run/Holmes Run feasibility study to maintain flood protection infrastructure. Reduce the amount of sewage discharged into the Potomac River by a public awareness campaign to encourage recreational boat owners to use the sewage pump-outs located at the marinas in the city and through inspection by the Health Department. 	
<p>3. Promote, require, and invest in water conservation infrastructure by updating residential, commercial and industrial water infrastructure and improving public outreach to promote use of available water resources.</p>	<ul style="list-style-type: none"> Focus water conservation outreach and homeowner incentives in areas served by combined sewer systems. Explore a reclaimed water reuse partnership between the City and Alexandria Sanitation Authority. 	<ul style="list-style-type: none"> Explore requiring water conservation measures beyond those required by the current code. Identify and remove barriers to policy formation and code revisions to facilitate installation and approval of water reclamation techniques as part of development, redevelopment, and retrofit projects. Identify candidate City buildings for a gray water demonstration project. Begin incorporating rain harvesting and gray water use into future development, redevelopment, and retrofit projects. Educate businesses that have intensive water use about retrofit opportunities and require upgrades to water recycling or other conservation technologies through the SUP process. Collect statistics and track per capita water use and develop long-term conservation targets. Promote individual water conservation opportunities through incentives, disincentives (i.e., rebates and taxes), and outreach to the general public (e.g., EPA's Water-Sense Program). By 2012, the Alexandria Health Department and the Office of Building and Fire Code Administration should work together to produce a guidance document for architects and engineers on what requirements must be met in order to construct a building employing water recycling technologies. Retrofit at least five City-owned buildings with a gray water recycling system or another recycling system. Explore, with the Alexandria Sanitation Authority, the technical and economic feasibility of using reclaimed wastewater from Alexandria's sewage treatment plant for irrigation of some of the larger open spaces in the city 	
<p>4. Eliminate the harmful impact of the combined sewer systems in the long-term, and minimize them in the short term.</p>			