

FAIRFAX COUNTY, VIRGINIA
Environmental Improvement Program (EIP)
Appendix 3: Summary of Retired Actions

Fiscal Year 2014

Prepared September 2012

NOTE: EACH EIP ACTION IN THIS SUMMARY IS ASSIGNED A UNIQUE IDENTIFICATION NUMBER, BEGINNING WITH A TWO-LETTER ABBREVIATION FOR THE THEME AREA UNDER WHICH THE ACTION IS LISTED (E.G., “GL” FOR “GROWTH AND LAND USE”). THE THEME DESIGNATION “GL” IS FOLLOWED BY A UNIQUE FISCAL YEAR IDENTIFICATION NUMBER BEGINNING WITH “xx” (for example, “07”) TO INDICATE THE EIP IN WHICH THE ACTION WAS FIRST INTRODUCED. THE FISCAL YEAR IDENTIFICATION NUMBER IS THEN FOLLOWED BY A UNIQUE ACTION NUMBER TO IDENTIFY THE ACTION IN THAT FISCAL YEAR. THE ACTIONS LISTED BELOW WERE COMPLETED IN THE PREVIOUS EIP CYCLE AND ARE NOW CONSIDERED “RETIRED”.

I. GROWTH AND LAND USE (GL)

Title of Action	Action Taken	Date Completed	Comments
GL-A. Retired Actions			
GL07-01: Cluster Subdivision Amendments	Cluster allowed by-right in R-2, R-3 and R-4 where area >3.5 ac. subject to certain requirements. Allowed by SE in R-C, R-E and R-1 and in smaller areas (as small as 2 acres) for R-2, R-3 and R-4.	June 2004	An 18-month progress report was completed in December 2005. No further follow-up is anticipated.
GL08-02: Development of the Integrated Parcel Lifecycle System (IPLS)	Development of IPLS is now complete; the IPLS data warehouse and reporting applications are available to all county staff.	May 2008	
GL08-03: Plan Amendment to Strengthen Air Quality Guidance and to Incorporate Support for Green Building Concepts	Amendment adopted on December 3, 2007.	December 2007	The Planning Commission's Environment Committee is currently reviewing the policy that was adopted in 2007.
GL07-05: Tysons Corner Transportation and Urban Design Study	Board of Supervisors adopted a Plan Amendment for Tysons Corner on June 22, 2010.	June 2010	Additional implementation and monitoring efforts will be needed
GL08-04: Define "Transit Oriented Development" and Incorporate a Definition and Principles for its Application in the Comprehensive Plan	An amendment to the Comprehensive Plan was adopted to address this action. The amendment: added a glossary definition of TOD; added an objective specific to TOD; and added an appendix containing principles that should be considered in future planning efforts in rail transit areas designated for mixed use development in the Area Plan volumes of the Comprehensive Plan.	March 2007	

Title of Action	Action Taken	Date Completed	Comments
GL08-07: Expanded Construction Site Monitoring for Tree Conservation	The Board of Supervisors approved funding to support two additional urban forester positions in the FY 2007 budget. Two additional urban forester positions were deployed to ensure enforcement of tree-related proffers.	September 2006	
GL08-08: Establish a Tree Fund	Staff from Land Development Services, DPWES created a fund entitled the “Tree Preservation and Planting Fund” along with criteria to disburse money from this fund to support community tree planting efforts.	December 2005	
GL08-09: Review and Improve Suggested Tree-Related Proffer Language	A set of draft model proffers was crafted and made available to developers for use in zoning cases in CY 2006. The improved model proffers will help developers communicate specific intentions regarding tree preservation, conservation and removal efforts and the county’s ability to ensure compliance with these commitments during construction activities.	December 2006	
GL08-10: Tree Preservation Legislation and Tree Conservation Ordinance	New authority for tree conservation was passed during the 2008 Virginia Legislative Assembly and the Fairfax County Tree Conservation Amendment and associated amendments were adopted in October 2008.	October 2008	
GL08-11: Urban Forestry Roundtable	The Northern Virginia Urban Forestry Roundtable was formed in late 2005 to bring local environmental groups, tree commissioners and urban forestry officials together to examine ways to cooperate on regional issues.	Late 2005	

II. AIR QUALITY AND TRANSPORTATION (AQ)

Title of Action	Action taken	Date completed	Comments
AQ-A. Retired Actions			
AQ-A-1: Air Quality Program Manager Position	Air Quality Program Manager position in Health Department to oversee the county's air quality initiatives, planning and programs. Established and filled.	February 2005	
AQ-A-2: South County Bus Plan (Enhancement of bus service throughout southern Fairfax County)	This new service was implemented on September 26, 2004 and further service was implemented on October 24, 2004 to address overcrowding on some routes. Additional service implementation was completed in FY 2007. Since implementation, bus ridership on Richmond Highway has increased 37 percent.	Fiscal Year 2007	
AQ-A-3: School Bus Exhaust Retrofit	Retrofitted 1,012 school buses. 436 received ECM reprogram and DOC. Another 576 received DOC only.	February 2005	
AQ07-06: Transit Shelter Program	This action is has been absorbed into AQ07-07 for a more comprehensive treatment of both items.	October 2008	
AQ07-12: Telework Initiative	Reached and exceeded goal of having 1,000 in the county workforce teleworking by the end of 2005. First jurisdiction in metro area to reach this goal.	January 2006	
AQ07-17: Reduced Vehicle Idling	Fairfax Connector completed implementation of engine idle shutdown.	2007	All Solid Waste trucks and Fairfax Connector buses now have automatic idle shutdown.
AQ07-19: Fairfax Connector Emissions Reduction Program	The Diesel Particulate Filter (DPF) installation and engine derating are complete. Also purchased 68 new buses with DPFs.	December 2007	

Title of Action	Action taken	Date completed	Comments
AQ07-21: Heavy Diesel Truck Exhaust Retrofit	Completed installation of diesel oxidation catalyst on 113 class 8 diesel trucks.	February 2006	
AQ08-02: Station Access Management Plans: Wiehle Avenue and Reston Parkway Rail Stations: The Dulles Metrorail Extension	An RFP was written including a scope-of-work that would result in a transportation management plan to address pedestrian, bicycle, and vehicular access and egress to the Wiehle Avenue and Reston Parkway stations. Work by Vanasse Hangen Brustlin, Inc began under the contract in November, 2006. The study was completed in December 2007.	December 2007	
AQ08-03: Commercialization of Hybrid Electric School Bus	This action has been absorbed into AQ07-15.	October 2008	

III. WATER QUALITY (WQ)

Title of Action	Action Taken	Date Completed	Comments
WQ-A. Retired Actions			
WQ07-01: Strengthened SWM Submission Requirements (Zoning Ord. amendment re SWM info. for RZ, SE, and SPs) <i>formerly WQ-07-A-1</i>	A Priority 1 item on the 2006 Zoning Ordinance Amendment Work Program that has been endorsed by the Board of Supervisors is to consider allowing for reductions of the minimum lot width requirements in residential districts with special exception approval. Although the density of the zoning district in which located could not be exceeded, this proposed amendment could potentially increase lot yield by allowing additional lots to be created that do not meet the minimum lot width requirements of the zoning district in which located. This item is tentatively scheduled for public hearings in the fall of 2006.	Fall 2006	
WQ07-01(A): Watershed Management Planning (Development of comprehensive watershed management plans for all watersheds) <i>formerly WQ-B-1</i>	The development of comprehensive watershed management plans for all 30 watersheds has been completed.	February 2011	The Board of Supervisors adopted all 30 watershed management plans from February 2005 through February 2011.
WQ07-02: Stream Physical Assessment (Baseline stream condition info. supports watershed protection and restoration) <i>formerly WQ-07-A-2</i>	Baseline assessment was completed on schedule and within budget.	August 2005	Completed with on-going support and program monitoring.

Title of Action	Action Taken	Date Completed	Comments
WQ07-03: Perennial Stream	Mapping is complete and buffers have	July 2006	Working with GIS staff to

<p>Mapping and Resource Protection Area Expansion (Mapping tool for perennial streams) <i>formerly WQ-07-A-3</i></p>	<p>been delineated. Working with LDS to revise the PFM to clarify the criteria for reclassifying streams from perennial to intermittent. Revised language has been approved by the Engineering Standards Review Committee.</p>		<p>incorporate the new stream physical assessment layer into the “My Neighborhood” application.</p>
<p>WQ07-04: Stormwater Needs Assessment (Evaluation of current stormwater management services and funding needs) <i>formerly WQ-07-A-4</i></p>	<p>The Needs Assessment was prepared by AMEC Earth and Environmental, Inc. with the assistance of an advisory committee appointed by the Board of Supervisors. The findings of the study were presented to the Board in March 2005. The study identified stormwater levels of service provided by Fairfax County and compared those levels against a benchmark of similar communities within the United States. Funding strategies were presented for stormwater management programs to reflect changing service levels, increased infrastructure inventories, unfunded mandates, and emergency events.</p>	<p>March 2005</p>	<p>In April 2005, as part of the budget deliberation process, the Board of Supervisors adopted a one-cent dedication of real estate tax revenues to fund the stormwater program.</p>
<p>WQ07-04: Riparian Buffer Restoration <i>formerly WQ-07-B-9</i></p>	<p>Completed 35 projects throughout the county focused on the conversion of mowed grass to areas of native trees and shrubs typical of riparian areas. Project size varied from a few trees and shrubs to over a thousand. Since the program’s inception in 2004, over 1900 volunteers planted 9600 native trees and shrubs.</p>	<p>Spring 2010</p>	<p>Future riparian buffer restorations will be reported under WQ07-05(B), WQ07-09(B), ES08-04(B), ES08-06(B), and ES08-10(B)</p>

Title of Action	Action Taken	Date Completed	Comments
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WQ07-05: Occoquan Watershed Planning and Zoning <i>formerly WQ-07-A-5</i>	The Occoquan Watershed and Reservoir models have been calibrated to 1995 land uses and are undergoing a verification step to the 2000 land uses. This verification step should be completed by winter of 2006. Northern Virginia Regional Commission will incorporate 2005 land use upon availability of aerial photography.	Winter 2006	Because of continued high population growth, the Occoquan Program will begin to turn its attention to broader watershed management and planning issues in addition to its current emphasis on best management practices and modeling.
WQ07-06: Septic System Tracking and Assistance Program <i>formerly WQ-B-11</i>	All phases of the project are complete.	April 2010	In April 2010, the Health Department adopted <i>Emergency Regulations for Alternative Onsite Sewage Systems</i> that established performance requirements and horizontal soil setbacks distances for all Alternative Onsite Sewage Systems (AOSS). These regulations were in response to new state legislation and were substantially different from the recommendations of American Water/Applied Water Management.
WQ07-07: Erosion and Sediment Control Inspections—Compliance with New Mandates <i>formerly WQ-B-12</i>	The initial action is complete, with ongoing implementation of compliance measures.	Spring 2008	The cost of the program will be recovered through the site development permit fee.

Title of Action	Action Taken	Date Completed	Comments
WQ07-11(A): SWM reviews during	The Department of Planning and Zoning	Spring 2011	The informal coordination

the Plan Amendment Process <i>formerly WQ-C-2</i>	(DPZ) and the Department of Public Works and Environmental Services (DPWES) established a process to ensure that stormwater management considerations are reviewed during the Comprehensive Plan amendment process. All Area Plan Review nominations are being referred to the Stormwater Planning Division (SWPD), DPWES for review and comment.		process between DPZ and DPWES is working well and will be continued.
WQ08-01: Incorporate Stream Assessment Tool Software into GIS Stream Layer	The initial action is complete, with ongoing support to user agencies.	Spring 2006	
WQ08-02(B): 2009 Radio Ad Campaign	Completed	2011	Ongoing education and outreach efforts were incorporated into ES08-01(B)
WQ08-08(B): Outreach and Education Program	Completed	2011	This action is ongoing and was incorporated into ES08-01(B)

IV. SOLID WASTE (SW)

Title of Action	Action Taken	Date Completed	Comments
SW-A. Retired Actions			
SW07-01: Provide Convenient Access to Recycling Bins.	Provide recycling drop-off centers in the county. Providing convenient access to recycling bins is understood to require two separate sub-tasks as follows: 1) placing additional recycling containers in county buildings; and 2) Reviewing the placement of recycling containers around the county for use by residents.	2005	The base action has been completed. Plans to add to the program are ongoing.
SW07-02: Reduce Idling Time for Trucks Waiting to Dispose of Waste at the I-66 transfer Station.	Added an additional incoming scale at the I-66 Transfer Station to reduce the idling times for trucks waiting to dispose of waste.	2005	Action completed. The capacity for processing incoming vehicles was doubled by adding an additional above ground scale adjacent to the exiting scale.
SW07-03: Pollution Prevention (P2) Program E/RRF Emission Controls	Pollution Prevention control at E/RRF is genuinely state of the art. Emphasis is now focused on preventing constituents of concern from entering the E/RRF altogether.	2006	Action completed. E/RRF Pollution Preventions controls will continually be updated to meet federal, state, local regulations.
SW07-05: Improve County Control of Solid Waste	Little if any opportunities for Legislative support anticipated. Tracking Supreme Court activity on a flow control case.	2006	Action completed. Recent flow control decision thought to support county's goals.
SW08-04: Clean Streets Initiative	This program, to clean up debris piles left at the curb, is underway and has proven enormously successful and effective.	2009	Action completed. The program has been incorporated as a standard operating procedure.

Title of Action	Action Taken	Date Completed	Comments
SW07-07: Develop A Toxics	The "Know Toxics" Program had been	2011	Action completed. The

Reduction Campaign	established as a regional effort to address management of fluorescent bulbs, rechargeable batteries, and obsolete electronics. The main feature of the program is a website entitled “KnowToxics.com” and selected radio and print advertising.		website, “KnowToxics.com” remains operational. However, no further funding is requested.
SW10-02: Single-Stream Recycling Toters for County Customers	Bigger toters reduced collection costs, air pollutant/GHG emissions, and otherwise reduce the environmental footprint of the county’s recycling operations. The pilot program began in November 2009 and was well received. Approximately 20,000 carts were purchased in FY 2011 and distributed in the beginning of the calendar year.	2011	Action completed.

V. PARKS, TRAILS, AND OPEN SPACE (PT)

Title of Action	Action Taken	Date	Comments
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		Completed	
PT-A. Retired Actions			
PT07-01: 10-Year Pedestrian Capital Plan	Deleted	2011	Additional projects will be included in PT07-03(B): Pedestrian Improvements in the Four Year Transportation Plan
PT07-02: Trail Projects/Pedestrian Improvements	Deleted	2011	Additional projects will be included in PT07-03(B): Pedestrian Improvements in the Four Year Transportation Plan
PT07-04: Pedestrian Improvements as part of the State's Secondary Construction Program	Completed	2010	Additional projects will be included in PT07-03(B): Pedestrian Improvements in the Four Year Transportation Plan
PT07-05: Trails Inventory and Planning	Deleted	2010	Due to the elimination of the trails planner position in the FY 2010 budget reductions, this project has been deleted and is covered in EIP12-PT07-03(B). Pedestrian Improvements in the Four Year Transportation Plan
PT07-08: Interpretive Signs Along FCPA Trail System	Completed	2011	Five different interpretive signs were developed and multiple copies were installed along the Cross County Trail.

Title of Action	Action Taken	Date Completed	Comments
PT07-20: Analysis of	Completed		

Developed/Undeveloped Land Within the Park Authority Park System		2007	Action completed and data is available on GIS system.
PT08-02: Park Trail Mapping	Completed	2008	
PT08-04: Developing Natural Landscaping Guidelines and Policies for County Properties	Completed	2008	
PT08-07: Planting Trees for Energy Conservation at County Facilities	Completed	2008	This action is ongoing, but is absorbed into AQ08-05(B)

VI. ENVIRONMENTAL STEWARDSHIP (ES)

Title of Action	Action Taken	Date Completed	Comments
ES-A. Retired Actions			
<p>ES07-01: Master Watershed Stewards Certification Program</p> <p>A watershed education program covering a wide range of topics, including stream ecology, LID and urban stormwater management.</p>	<p>66 Master Watershed Stewards graduated, having fulfilled the requirements of attending 8 classroom sessions and undertaking a watershed project and/or volunteer activities. One example was the Providence District parking lot LID retrofit. Participants represented 18 watersheds and completed 1,812 hours. The Potomac River Greenways Coalition secured a grant to fund and staff the program, with the support of several partners including DPWES, NVSWCD, ANS, and Fairfax Trails and Streams)</p>	<p>Graduation July 2004</p>	<p>Feedback from participants overwhelmingly indicated program was well-received and should be offered again; program partners agreed. The original program was grant funded; instruction was done by partners and volunteers. Funding would be needed for staff to coordinate future programs.</p>
<p>ES07-09: FCPA “Adoption” Program for Natural Areas Such as Parks, Trails and Stream Valleys</p> <p>HOAs, churches, and schools adopt nearby parks, trails, playgrounds and natural areas.</p>	<p>Groups and FCPA determine scope of activity and sign an agreement. FCPA to explore how to develop a more comprehensive program for adoption of natural areas. Potential to involve children through adoption of natural resource management areas near schools.</p>	<p>Program Eliminated as of FY 2011</p>	<p>The FCPA Invasive Management Area volunteer program takes the place of this program. (See ES08-06 (B) - IMA Program)</p>

Title of Action	Action Taken	Date Completed	Comments
ES09-01: Government Center Lighting and Variable Frequency Drive Retrofit	The constant volume air handling units in the three building in the Government Center complex were retrofitted with variable frequency drives and energy efficient motors. All existing lighting fixtures were relamped with T8 28W lamps and the lighting control software was upgraded.	December 2005	Project resulted in annual cost savings of over \$86,000. The project cost was \$895,220, and factoring in rising energy costs, payback is expected in approximately 7 years.
ES09-02: T-8 Lighting Retrofit of Remaining County Facilities	Miscellaneous buildings still required upgrading of lighting from T-12 to T-8 to reduce electrical consumption. Retrofit was finished spring of 2007.	Spring 2007	The result is a reduction in energy consumption, approximately 40% per fixture. Some of these facilities had T12 fixtures throughout, and others only had a few remaining fixtures in specific locations, so this makes it difficult to quantify the total savings through analyzing utility bills.
ES09-03: Installed Energy Management Control Systems (EMCS) in Burkholder and John Marshall Library	EMCS can reduce energy consumption 25-50% based on facility type and operating hours. FMD has 58 systems installed in over 170 facilities. Capital Facilities will install them in all new facilities.	End of CY 2006	The cost was \$50,000 for Burkholder and \$60,000 for John Marshall. Burkholder was newly turned over to FMD; John Marshall results will be quantified over time.
ES09-04: Reduced Energy Consumption by 13.2% kBtu/SF between FY 2001 and FY 2006	The cumulative efforts of all energy projects implemented by FMD were estimated by evaluating utility data between FY2001 and FY2007.	End of FY2007	The energy projects installed in this time period resulted in total energy cost avoidance of over \$4 million.

Title of Action	Action Taken	Date Completed	Comments
<p>ES09-05: NACo/Energy Star Change a Light Program</p> <p>An initiative to replace incandescent lights at home with compact fluorescent lamps (CFL).</p>	<p>In FY2007, phase I was for county employees and phase II was for citizens.</p>	<p>End of FY 2007</p>	<p>The program resulted in 835 total pledges, 606,583 kWh saved and 1.1 million pounds of CO2 emissions prevented. In 2007 the County won 1st place NACO award for public outreach, and received 1,000 CFL bulbs, which were distributed at public events.</p>
<p>ES09-07: Development of a Green Building Policy for County Capital Projects</p>	<p>In February 2008, the Board of Supervisors adopted a Sustainable Development Policy for all major building projects that are owned and operated by the County. DPWES will continue to follow the LEED approach on all new projects and pursue formal certification. Also, DPWES will use the LEED program as the framework for evaluating the best balance of cost effective and impact sustainable development alternatives for each project.</p>	<p>February 2008</p>	<p>FMD staff will implement the policy in conjunction with Value Engineering and Life Cycle Cost Analyses</p>

Title of Action	Action Taken	Date Completed	Comments
ES09-11: Energy Star for Vending Machines	All vendors were required to install Energy Star compliant machines for new or replacement locations. Existing machines were retrofitted with an external control to reduce consumption.	End of CY 2007	All vending machines in County facilities are now Energy Star compliant. Energy use by these machines could be reduced by 30-46% and provide an annual savings of up to \$100-\$150 per machine.
ES09-18: Energy Manager, Park Authority <i>formerly PT09-02 (B)</i>	After several years of planning and in support of the Park Authority's Strategic Plan 2006-2010, an energy manager position was established and filled in October 2007. The framework for the agency's Energy Management Plan for has been developed. Energy surveys, monitoring and audits are being done. Projects are being identified and implemented.	FY 2008	
ES10-01: Calculate and Validate the Noman M. Cole, Jr. Pollution Control Plant's Carbon Footprint.	The carbon footprint for the Noman M. Cole, Jr. Pollution Control Plant has been calculated and validated by a third party.	FY 2008	
ES10-02: Tree Planting at the Noman M. Cole, Jr. Pollution Control Plant	In November 2007 the Wastewater Treatment Division hosted Earth Sangha volunteers at the Noman M. Cole, Jr. Pollution Control Plant. The volunteers planted approximately 1,000 trees on the site of the RR Building at the plant.	November 2007	
ES10-04: Water Use Reduction in Wastewater Management Program Laboratory Process	In 2007, the Lab realized a reduction in deionized water usage by 8,040 gallons per year	FY 2007	

Title of Action	Action Taken	Date Completed	Comments
<p>ES10-05: Use Reclaimed Water in the Irrigation System for Noman Cole Pollution Control Plant Landscaping</p>	<p>The installation of an irrigation system was completed in March 2008, and use began in May 2008.</p>	<p>FY 2008</p>	<p>The system is designed for future expansion.</p>
<p>ES10-12: “Earth Hour” Event Participation</p> <p>An event to raise energy awareness by turning off non-essential lights and other electrical equipment for one hour.</p>	<p>The cost-benefit of participating in this world wide international outreach event, sponsored by the World Wildlife Fund, is needed. The Board of Supervisors proclaimed 8:30 p.m. on March 29, 2009 as Earth Hour 2009 and encouraged participation by turning off non-essential lights in county facilities and by county residents.</p>	<p>2009</p>	<p>No further action is planned for county participation by FMD.</p>
<p>ES10-13 (C) Master Watershed Stewards Certification Program</p> <p>Training in watershed issues, technology and outreach to prepare county residents to participate in watershed plan implementation and other watershed improvement activities.</p>	<p>The Master Watershed Stewards program was conducted in 2004 (ES07-02 (A)). An EIP action was proposed to re-start the program in collaboration with the Potomac River Greenways Coalition.</p>	<p>Retired in 2012</p>	<p>This need is currently being filled by programs now offered by the Environmental Protection Agency and Center for Watershed Protection.</p>
<p>ES11-01: Installation of a Solar Powered Water Mixer by Waste Water Treatment Division at Noman M. Cole, Jr. Pollution Control Plant</p>	<p>In 2005 the WTD installed a solar powered mixer in one of its equalization ponds in lieu of refurbishing the existing electrically powered mixers.</p>	<p>FY 2006</p>	<p>The WTD saw an almost immediate payback from the installation in electrical cost savings.</p>
<p>ES11-02: Installation of Solar Water Heater at the Wastewater Treatment Division’s Noman M. Cole, Jr. Pollution Control Plant</p>	<p>In November 2008, the Noman M. Cole Jr. Pollution Control Plant installed a primary solar hot water heater to provide hot water for the showers, bathroom and lunch room in the old Admin. Building.</p>	<p>FY 2009</p>	

Title of Action	Action Taken	Date Completed	Comments
ES11-03: Installation of Solar Powered Meters by the Wastewater Collections Division	In 2008, the Meter Section installed solar batteries in 10 locations instead of installing electric power saving several thousands of dollars.	FY 2008	
ES11-06: Window Replacement Noman M. Cole Jr. Pollution Control Plant	This project was completed in November 2010. Energy efficiency is expected to yield \$4,680 per year in savings.	FY 2011	