

FAIRFAX COUNTY, VIRGINIA

Environmental Improvement Program (EIP) Section E: Fact Sheets

Fiscal Year 2008

Prepared September, 2006



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EIP08-GL07-02(A). PRM Zoning District

Description of Action

On January 9, 2001, the Board of Supervisors established the new Planned Residential Mixed Use (PRM) District which allows high density residential uses or a mix of high density residential uses and commercial uses in areas designated for such uses in the Comprehensive Plan. This action was pursued in order to facilitate high density residential and mixed use development in transit station areas, consistent with Comprehensive Plan policy.

Environmental Agenda Objectives Supported:

Growth & Land Use 1, 2, 3, 4, and 7

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

DPZ

Status/Plans/Outcomes

The PRM District was established in 2001; as of May, 2006, 12 PRM Districts have been established.

In order to ensure a broader mix of uses in high density residential areas near transit station areas and in areas designated in the Comprehensive Plan as being Urban or Suburban Centers, there has been the recognition of a desire to consider amending the PRM District to allow mini-warehousing establishments and vehicle sale and rental establishments in the PRM District with special exception approval. This item has, however, been moved to the Priority 2 list of the Zoning Ordinance Amendment Work Program. A Priority 2 item is maintained on the list for future prioritization and it is anticipated that no work will be done on this item in calendar year 2006.

Resources

The cost of staff time to review and process PRM District applications will be absorbed within the DPZ budget in a future year. Existing staff resources are allocated to more pressing Zoning Ordinance amendments.

EIP08-GL07-03(B). Area Plan Amendments and Subsequent Rezonings Supporting Transit-Oriented Development and the Provision of Housing in Employment Centers

Description of Action

The Policy Plan includes land use and transportation policies emphasizing the need to use land resources wisely and the Comprehensive Plan's Concept for Future Development emphasizes that employment and multifamily housing should be concentrated in centers, especially in areas served by rail transit. Since 1990, when the Policy Plan was adopted as part of the Comprehensive Plan and when the Concept for Future Development was used to guide the development of Area Plan recommendations, numerous amendments to the Area Plans have been made to focus future growth in centers and numerous properties have been rezoned in conformance with this Plan guidance. Continued amendment of the Area Plans and subsequent rezoning actions to further implement mixed use development in employment centers can be anticipated into the future.

An example of a Plan amendment supporting mixed use, transit-oriented development is the Fairlee (Metro West) Plan amendment, which was adopted by the Board of Supervisors on December 6, 2004. This amendment provided guidance for creating a walkable community with a mix of housing types and nonresidential uses next to the Vienna Metro station. A Zoning Ordinance map amendment implementing the amended Plan text was approved by the Board of Supervisors on March 27, 2006. Plan Amendments for the Merrifield Suburban Center (adopted June 11, 2001) and the Dulles Corridor Transit Station Area (adopted May 2, 2001) both supported transit-oriented development near rail stations. As detailed below, additional Plan amendments are currently pending, as are several rezoning applications to implement existing Plan guidance.

Environmental Agenda Objectives Supported:

Growth & Land Use 1, 2, 3, 4, and 7

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

DPZ

Status/Plans/Outcomes

Since the implementation of planning policy is an ongoing process, efforts to implement and refine the Comprehensive Plan will continue. Several Plan Amendments have been adopted, with implementation of Plan recommendations to occur through the zoning process.

Additional Plan Amendments near transit station areas will be considered in the future; a notable example is the Tysons Corner Transportation and Urban Design Study, which is addressed as EIP08-GL07-05. A related action to incorporate transit-oriented development concepts into the Area Plans is support for pedestrian-oriented neighborhood commerce (see item EIP08-GL07-06). Also under consideration is a Plan amendment proposal to incorporate mixed use development within the Springfield Mall area.

As noted earlier, a rezoning of the Fairlee (Metro West) property was approved on March 27, 2006; this action implements the Plan's guidance for creating a walkable, mixed use community next to the Vienna Metro station. Plan guidance in other transit station areas will also need to be implemented through the zoning process, and there are many Plan Amendments and pending rezoning applications that support transit-oriented development and/or housing in employment centers. In the Merrifield Suburban Center, two pending rezoning applications are the Dunn Loring Metro station property which, as of the time of preparation of this fact sheet, includes roughly 700 housing units and the Merrifield Town Center's mixed use development which, again as of the time of preparation of this fact sheet, includes over 900 housing units. A mixed use rezoning proposal is also under review for the Tysons Corner Center, and a rezoning application for mixed use development in a portion of the Fairfax Center Area was approved by the Board of Supervisors on June 26, 2006. In the Route 28 and Dulles Corridors, pending development and rezoning applications with mixed use and housing include Dulles Discovery, the EDS/Lincoln site, and the Reston-Wiehle Station Joint Development proposal. The Wiehle Avenue Joint Development project has undergone a multi-phase evaluation of three proposals. As part of the negotiation with one developer, the Board of Supervisors authorized staff to enter into an interim negotiation agreement to develop and evaluate concept plans for a mixed use development and to incorporate the required transit facilities into either an underground facility or in a structure. Staff anticipates completing negotiations in September, 2006 with a recommendation to the Board of Supervisors in the October/November, 2006 time frame. In Revitalization Areas, numerous pending Plan Amendments and rezoning applications provide mixed use and housing; these cases include the aforementioned Merrifield cases, Mid-Town Springfield and Kings Crossing.

The Department of Transportation has established a Transportation Planner III position to focus on implementation and monitoring of Transportation Demand Management practices as applied to development proposals needing zoning approval.

Resources

Staff estimates an annual cost for implementation of this action of about one half of DPZ's Planning Division budget, or \$1,100,000; these funds are the primary source for Comprehensive Plan activities and do not include the cost associated with development review and cost of other agencies involved in implementing this objective. As an example of costs associated with complex mixed use, transit-oriented Plan amendments, it is estimated that \$275,000 was spent for the Fairlee (Metro West) Plan Amendment, based on this activity involving about 3 SYE of primarily senior level staff involvement. Substantial staff resources were also dedicated to the review of the associated zoning application. These costs have been absorbed by existing staff—no new positions are requested.

During the 2005-2006 South County Area Plans Review process, the need for two special studies of revitalization areas (Baileys Crossroads and Annandale) was identified. In addition, plans are under way to provide a follow-up to an Urban Land Institute study of Springfield, and other efforts are ongoing; again, precise resource needs for this follow-up study are not known at this time. To accomplish planning studies for Tysons Corner, Springfield, Baileys Crossroads, Annandale, and Lake Anne, it is estimated that over \$4,000,000 in consultant services will be required along with considerable staff resources to manage projects. \$4,130,000 has been requested for carryover consideration along with \$444,177 for three additional positions to assist in managing these community planning efforts.

Funding of the Transportation Planner III position has been provided. This position will be funded at the S-27 level (an annual salary of up to \$74,000 initially, plus benefits).

EIP08-GL07-04(B). Planned Development District Zoning Ordinance Amendment

Description of Action

This action is a review of, and possible revision to, the Planned Development District standards to, among other things, place a greater emphasis on tree preservation and the efficient use of open space.

Staff has been requested to pursue this Zoning Ordinance Amendment in order to implement a recommendation of the Infill and Residential Development Study, which was endorsed by the Board of Supervisors in 2001.

Environmental Agenda Objectives Supported:

Growth & Land Use 1; Parks, Trails & Open Space 1

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Infill and Residential Development Study

Lead Agency:

DPZ

Status/Plans/Outcomes

Staff has been working on a Zoning Ordinance amendment addressing Planned Development Districts and has coordinated draft amendment proposals both internally and with the Planning Commission's Policy and Procedures Committee, the Fairfax Committee of the Engineers and Surveyors Institute, the Northern Virginia Building Industry Association and various citizen groups. It is anticipated that this amendment will be brought to the Board for authorization of public hearings during CY 2006.

If an amendment is adopted, it is anticipated that there would be a need for education and training regarding the amendment to both staff and developers through the development of informational materials and the provision of training sessions.

Resources

The cost of staff time to process the amendment through the public hearing process and to provide the necessary follow up training and educational opportunities for both staff and citizens will be absorbed within the current budget; no new staff needs are anticipated. However, these actions require DPZ staff resources, thereby reducing resource availability for other tasks.

EIP08-GL07-05(B). Tysons Corner Transportation and Urban Design Study

Description of Action

The current Tysons Corner study is being undertaken in order to evaluate transportation and urban design issues and formulate recommendations for strengthening the Comprehensive Plan's guidance for transit-oriented development. Other adopted major Plan amendments addressing this objective are addressed in EIP08-GL07-03.

Environmental Agenda Objectives Supported:

Growth & Land Use 1, 2, 3, 4, and 7

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agencies:

DPZ and DOT

Status/Plans/Outcomes

In January, 2005, the initial consultant contract was executed to conduct transportation and urban design analyses. In May 2005, the Board established a task force to guide this study and recommend Plan language. Since its inception, the task force has adopted a set of "Plan Objectives," held an initial program of community outreach to identify community values, issues and concerns for Tysons and used this input to formulate and adopt Guiding Planning Principles for the task force. At its May 8, 2006 meeting, the task force identified the need for additional consultant services from an urban planning team that is experienced in planning for redevelopment of substantial land areas for transit-oriented uses. At the Board of Supervisors meeting on the June 5, 2006, the Board addressed the task force request for additional consultant funds by directing the County Executive to identify funds needed for the additional consultant services, which will be incorporated in to the carryover request for consideration by the Board in September 2006.

Resources

To date, the Board of Supervisors has provided \$735,000 for consulting services. In September 2004, the initial funding provided was \$400,000, which covered only consultant technical services (primarily for transportation modeling and analysis--limited funds were allocated for urban design analyses). In September 2005, additional funds of \$335,000 were provided primarily for community outreach consultant services and to moderately expand the urban design services in the original contract.

EIP08-GL07-05(B). Tysons Corner Transportation and Urban Design Study
Continued

The Task Force's request for substantial additional planning and urban design funding is pending before the Board of Supervisors and is to be addressed during the carryover budget process in September 2006. An additional \$1.2 million has been requested (part of a larger \$4,130,000 request identified in EIP08-GL07-03). These funds do not include cost of staff time and materials provided during the study. Staff time is estimated to be 2 to 4 SYE (or \$170,000 to \$340,000) and material cost for document preparation and other associated costs are estimated to be \$20,000 to \$40,000. The staff costs have been absorbed within DPZ's and DOT's budgets.

EIP08-GL07-06(B). Pedestrian-Oriented Neighborhood Commerce: Plan Implementation

Description of Action

In the past few years, there has been an increase in proposed high density residential developments that integrate pedestrian oriented neighborhood commerce. Examples include, but are not limited to, the approved redevelopment of the Fairlee neighborhood adjacent to the Vienna Metro station and recent approval of a Plan Amendment for residential and office mixed use with pedestrian-oriented retail use in the Fairfax Center Area.

Comprehensive Plan policy supports the integration of neighborhood-serving commercial uses within residential areas, and both a Zoning Ordinance amendment (see EIP08-GL07-02) and Area Plan amendments (see EIP08-GL07-03) have been adopted in recent years to support such integration of uses. This action recognizes that implementation of this Plan policy will be a continuing process.

Environmental Agenda Objectives Supported:

Growth & Land Use 2 and 7

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

DPZ

Status/Plans/Outcomes

Since the implementation of planning policy is an ongoing process, efforts to implement and refine this aspect of the Comprehensive Plan will continue.

Resources

Costs can be considered to be part of broader comprehensive planning activities that have been identified as resources needed to implement item EIP08-GL07-03. No additional resources are needed.

EIP08-GL07-07(B). Adequate Infrastructure Legislation

Description of Action

Recommend to the Board of Supervisors continuation of the position included in past Legislative Programs supporting legislation to give localities authority to adopt an adequate public facilities (APF) ordinance. Such legislation: 1) should permit localities to adopt provisions in their subdivision and site plan ordinances for deferring the approval of subdivision plats or site plans when it is determined that existing schools, roads, public safety, sewer or water facilities are inadequate to support the proposed development; and 2) should not require localities to construct the necessary infrastructure within a timeframe established by the General Assembly.

Environmental Agenda Objectives Supported:

Growth & Land Use 6

Other Plans or Documents where this action appears or that it supports:

Lead Agency:

Government Relations, Office of the County Executive

Status/Plans/Outcomes

The Code of Virginia (Section 15.2-2200) encourages localities “to improve the public health, safety, convenience and welfare of its citizens and to plan for the future development of communities ...” In addition, the Code mandates localities to “adopt ordinances regulating subdivision and development of land.” Yet the Commonwealth does not provide localities the authority to defer approval of a site plan or subdivision plat pending installation of certain public facilities even when it has been determined that existing facilities are inadequate to support the development proposal. As a result, developments proceed, with the inevitable result of increased shortages in infrastructure and the need to play catch up after the fact. The public health, safety, convenience and welfare of citizens are not well-served by this situation.

Historically, Fairfax County has acknowledged a need for additional local government authority to ensure the timely provision of adequate public facilities (APF) to accommodate new development. In recent years, the county has participated with other jurisdictions in crafting such legislation and in monitoring proposals before the General Assembly. Most recently, the county has joined and worked with the Virginia Coalition of High Growth Communities, whose priorities include pursuit of APF authority, and the county included in its 2006 Legislative Program a position statement supporting APF legislation.

As in past years, the 2006 General Assembly declined to grant any authority to local governments to adopt adequate public facilities ordinances. Although the prospects of success

Continued

for comprehensive APF authority in the near term are not anticipated to be high, the county should continue to pursue this legislative position.

Resources

There would be no additional costs associated with this action. The cost of staff time to research and draft an APF legislative position, coordinate with legal staff and affected agencies, vet the position with the Board of Supervisors and its Legislative Committee, and advocate APF legislation during the General Assembly would be included in current operating budgets.

In the event that such legislation was to be adopted by the General Assembly, there would be costs associated with the creation and administration of a program to address the new legislative authority. These costs cannot be calculated at this time because specifics of the enabling legislation do not exist.

EIP08-GL07-08(B) – Review of Federal NEPA Reports and State Environmental Impact Reports

Description of Action

Review of federal Environmental Assessments and Environmental Impact Statements (prepared pursuant to the National Environmental Policy Act [NEPA]), and review of state Environmental Impact Reports (EIRs), for a broad scope of environmental considerations.

Environmental Agenda Objectives Supported:

Growth and Land Use (General)
Water Quality 2, 5, and 7

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

DPZ

Status/Plans/Outcomes

NEPA documents cover a broad range of actions pursued through federal funding, of which most, if not all, fall outside of the County's zoning authority. EIRs address significant land use and development proposals by state agencies. Recent NEPA and EIR documents for projects in (or affecting) Fairfax County have included several development projects at Washington Dulles International Airport, development projects at Fort Belvoir, development projects at George Mason University, changes to airspace design in the Washington, D.C. metropolitan area, major utility projects, the Woodrow Wilson Bridge replacement project, the proposed Metrorail extension to and beyond Dulles Airport, and major highway projects. County staff reviews and comments on most NEPA and EIR documents that it receives and conducts follow-up actions as appropriate. While DPZ generally takes the lead on NEPA reviews, other agencies will take the lead on such reviews as appropriate (e.g., DOT has taken the lead on the reviews of Environmental Impact Statements [EISs] for major transportation projects).

Through the provision of comments on NEPA and EIR documents, the county is able to suggest actions consistent with Comprehensive Plan goals, objectives, and policies for projects that fall outside of the county's zoning authority. In the case of EISs, the NEPA review process requires project sponsors to address all comments (even if they are not required to agree with all comments). While the county's comments are not uniformly considered and accepted by federal and state project sponsors, there have been a number of such reviews that have resulted in direct negotiations between project sponsors and county staff, and responsiveness from project sponsors, on issues of concern to the county.

Resources

NEPA and EIR reviews are conducted with existing staff, although considerable staff time is often needed for the review of complex state and federal projects. The often-substantial staff resources that are dedicated to these reviews are unavailable for other projects and priorities.

EIP08-GL07-09(C). Future Planned Development District Zoning Ordinance Amendment

Description of Action

Amend the Zoning Ordinance to expand the number of uses allowed in Planned Development Districts and to revise allowed densities/intensities of uses in these districts, as appropriate, to better support Comprehensive Plan recommendations regarding mixes of uses in growth centers. This action would go beyond what is currently being considered per EIP08-GL07-04, which focuses on tree preservation and open space considerations associated with the Infill and Residential Development Study, and EIP08-GL07-02, which focuses on the addition of two specific uses in the PRM District.

Environmental Agenda Objectives Supported:

Growth & Land Use 1, 2, 3, 4, and 7

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

DPZ

Status/Plans/Outcomes

The Zoning Ordinance Amendment Work Program identifies, as a Priority 1 item, the consideration of increases to maximum allowable floor area ratios in two of the Planned Development Districts. However, this effort has not yet been initiated.

Resources

The cost of staff time to review and process this amendment would be absorbed within the DPZ budget.

EIP08-GL07-10(C). Residential Compatibility Zoning Ordinance Amendment

Description of Actions

(1) Consider amending the Zoning Ordinance to incorporate methods, such as maximum lot coverages or floor area ratio requirements, that address compatibility issues associated with new residential development in existing residential districts. (2) In addition, consider the initiation of a Neighborhood Conservation District to address compatibility issues associated with new residential construction in developed communities.

Environmental Agenda Objectives Supported:

Growth & Land Use 6

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Infill and Residential Development Study

Lead Agency:

DPZ

Status/Plans/Outcomes

The consideration of a Zoning Ordinance Amendment to address residential compatibility issues has been moved from the Priority 2 list to the Priority 1 list of the 2006 Zoning Ordinance Amendment Work Program. There is, however, no timeline established as to when this item would be completed. The idea of establishing a Neighborhood Conservation District to address compatibility issues remains on the Priority 2 list; it is anticipated that no work will be done on this item in calendar year 2006. Coordination with the Office of County Attorney is needed in order to verify whether or not the establishment of Neighborhood Conservation Overlay Districts requires enabling authority from the Virginia General Assembly.

Resources

The cost of staff time to process the amendment(s) through the public hearing process and to provide the necessary follow up training and educational opportunities for both staff and citizens will be absorbed within the current budget; no new staff needs are anticipated. However, these actions require DPZ staff resources, thereby reducing resource availability for other tasks; the addition of any new item to the Priority 1 Zoning Ordinance Amendment Work Program (e.g., establishing a new overlay district) would necessitate the removal of one or more other items from this list. Staff anticipates that this amendment would be complex and controversial; a considerable level of staff resource needs should be assumed. It should be noted that, while this item is on the Priority 1 list for Zoning Ordinance Amendments, it may not be addressed this year due to other pending priorities.

EIP08-GL08-01(C). Review Zoning Ordinance Parking Requirements in Transit-Oriented Developments

Description of Action

Article 11 of the Zoning Ordinance establishes minimum off-street parking requirements for residential, commercial, industrial, and other uses. The minimum parking requirements are use-specific and do not differentiate among the various settings within which these uses can be established. There is some flexibility in the application of the minimum parking requirements as follows:

1. Paragraph 26 of Section 11-102 of the Zoning Ordinance establishes that the Board of Supervisors can reduce the required parking in conjunction with a proffer for the establishment of a transportation demand management program.
2. Paragraph 5 of Section 11-102 of the Zoning Ordinance allows the Board to reduce parking requirements (a) within the area in proximity to a mass transit station (assuming that the station exists or is programmed for completion within the time frame of the development project), and (b) along a corridor served by a mass transit facility (when the facility is conveniently accessible to the proposed use and offers a regular scheduled service). The Board can impose conditions on such parking reductions.

The Zoning Ordinance does not incorporate further flexibility to modify parking requirements where appropriate to further land use, transportation, and/or environmental objectives. An evaluation of the off-street parking requirements would allow for the consideration of:

- Whether parking requirements should differ within specific uses depending on the setting of the use (e.g., should standards be different in transit-oriented development areas);
- Whether maximum parking requirements may be appropriate for certain uses or in certain circumstances; and
- Whether additional flexibility in allowing for modifications of parking requirements may be appropriate, and, if so, under what circumstances such flexibility should be provided.

As part of a broader Transportation Demand Management program effort, the Fairfax County Department of Transportation will be exploring whether alternative parking standards for sites within and outside of Transportation Management Districts and Transit Station Areas should be pursued. Funding for a consultant contract (\$300,000) has been submitted for consideration in the Carryover budget; this funding would support a number of efforts, including a study of implementation of alternative parking standards and parking incentives to support the reduction of vehicle trips.

Environmental Agenda Objectives Supported:

Growth & Land Use 1, 2, 3, 4, 5, and 7
Air Quality and Transportation 1
Water Quality 5

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agencies:

DOT and DPZ

Status/Plans/Outcomes

As noted above, the consideration of development of alternative parking standards for transit-oriented development areas will be a part of a broader Transportation Demand Management program effort. Initiation of this effort will be dependent on funding for consultant assistance to carry out parking studies.

In order to modify parking standards, the Zoning Ordinance Amendment Work Program would need to be revised to incorporate this action. This item is currently not scheduled for action on the work program.

Resources

The FY07 budget included some funding for the Transportation Demand Management program effort but not to the extent requested by staff. Funding is not available at this time to support the parking studies that would be needed to determine if alternative parking approaches should be pursued for transit-oriented developments. As noted earlier, \$300,000 has been requested in the Carryover budget to support TDM efforts, including parking considerations.

The cost of staff time to process one or more Zoning Ordinance amendment(s) through the public hearing process and to provide the necessary follow up training and educational opportunities for both staff and citizens would be absorbed within the current budget; no new staff needs are anticipated. However, these actions would require DPZ and DOT staff resources, thereby reducing resource availability for other tasks; the addition of any new item to the Priority 1 Zoning Ordinance Amendment Work Program would necessitate the removal of one or more other items from this list. Staff anticipates that this amendment would be complex and controversial; a considerable level of staff resource needs should be assumed.

EIP08-GL08-02(B). Development of the Integrated Parcel Lifecycle System (IPLS)

Description of Action

Development of an integrated parcel lifecycle system that will allow parcel level data to be captured in a GIS-based data warehouse. The goal of the new system is to create a cross-functional data store to better harness the value of land parcel information that various county departments maintain and to make that information widely available through GIS technology.

Environmental Agenda Objectives Supported:

This action would broadly support the Environmental Agenda. It would provide a better land use data system that would support analyses necessary to implement many of the Environmental Agenda Objectives.

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

Systems Management for Human Services (Initially only). Once the system has been initially established, individual agencies will take the lead in the development of additional modules. The data warehouse concept will allow other county agencies to build upon the foundation that the Department of Systems Management for Human Services is developing.

Status/Plans/Outcomes

This effort has been funded to develop a data warehouse of parcel data and create tools for demographic analysis. Phase I, development of the data warehouse structure and loading modules, has been completed and work has begun on Phase II, demographic data analyses and reporting tools. It is anticipated that this Phase II work will be completed by the end of 2006. A third phase that will build in additional data handling tools, incorporate Comprehensive Plan option information, and create daytime population estimates will be completed in 2007.

Resources

The Integrated Parcel Lifecycle System data warehouse structure and demographic analyses modules have been funded and are under way. Ancillary actions, such as the updating of the county's planimetric data layer (see EIP08-GL08-05), are not part of this project and will require additional resources.

EIP08-GL08-03(B). Plan Amendment to Strengthen Air Quality Guidance and to Incorporate Support for Green Building Concepts

Description of Action

Amendment of the Comprehensive Plan to enhance the existing air quality objective in the Policy Plan in order to provide a stronger Plan focus on air quality matters and to facilitate air quality-sensitive development. Incorporation of support for the “green building” concept within this Plan amendment.

Environmental Agenda Objectives Supported:

Growth and Land Use 1, 2, 3, 4, and 7
Air Quality and Transportation 1 and 2

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Air Quality Management Plan

Lead Agency:

DPZ

Status/Plans/Outcomes

Work is under way. Board authorization of public hearings is anticipated in 2006.

Resources

This effort is proceeding using existing staff resources. It is not anticipated that additional resources will be needed.

EIP08-GL08-04(B). Define “Transit Oriented Development” and Incorporate a Definition and Principles for its Application in the Comprehensive Plan

Description of Action

Development of a definition and set of guiding principles for “Transit Oriented Development” and incorporation of this guidance into the Comprehensive Plan.

Environmental Agenda Objectives Supported:

Growth and Land Use 1, 2, 3, 4, and 7

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

DPZ

Status/Plans/Outcomes

The Planning Commission established its Transit-Oriented Development Committee on May 4, 2006. This committee will take the lead in coordinating and soliciting input from various stakeholders as well as conducting community outreach efforts. The discussion will also focus on how identified principles for transit oriented development might best be applied to Fairfax County. The committee will sponsor an open process to gather input on a consensus vision and guidance on Transit-Oriented Development to work toward developing recommendations for an amendment to the Policy Plan volume of the Comprehensive Plan. Staff will prepare a Plan amendment proposal based on the outcomes of the Planning Commission committee work and present this proposal to the Board of Supervisors with a request to authorize public hearings for the Plan amendment. Any proposed amendments will be brought back to the Board of Supervisors with a request to authorize public hearings before the Planning Commission and Board of Supervisors.

A committee recommendation and Plan Amendment Authorization are anticipated in late 2006/early 2007.

Resources

This effort is proceeding using existing staff resources. It is not anticipated that additional resources will be needed.

EIP08-GL08-05(C). Update the County's Planimetric Data Layer

Description of Action

The action would provide for the updating and continued maintenance of the planimetric data layer of the county's geographic information system. "Planimetric data" are features of the built and natural environment visible in aerial photography, including impervious surfaces. Examples include: buildings; hydrographic features such as lakes, streams, paved ditches, and wetlands; transportation facilities such as roads, trails, parking areas, and driveways; street centerlines; railroads; recreation facilities; airports; and utility features such as transmission lines and towers. While significant updates of some of the planimetric data in the county's GIS have been pursued since initial data acquisition from 1997 aerial photography, there has been no systematic maintenance/updating of these data, and the need for a comprehensive updating of the county's planimetric data is apparent.

A recent informal survey of the county's GIS users identified a wide range of needs for updated planimetric data, including public safety, planning, transportation, public facility, and park purposes. Therefore, while this action has been identified in the EIP, it is far greater than an "environmental" initiative. The implications and benefits of this action are manifold and cut across numerous agency and disciplinary lines.

Environmental Agenda Objectives Supported:

This action would broadly support the Environmental Agenda. It would provide better, more up-to-date data that would support analyses necessary to implement many of the Environmental Agenda Objectives.

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Fairfax County Park Authority Strategic Plan

Lead Agency:

DIT

Continued

Status/Plans/Outcomes

The state of Virginia will capture aerial photography at one- and two-foot resolutions for the entire state in calendar year 2007. Fairfax County will attain one-half foot resolution for its entirety. The higher resolution will increase the positional accuracy of features captured from the aerial imagery. The base set of planimetric features that would need to be updated includes all of the planimetric features originally compiled in 1997. New features that could be considered as additions would include:

- Driveways
- Sidewalks – complete area
- Pools
- Patios
- Decks
- Sheds
- Tennis Courts
- 2-foot Contours (currently have 5-foot Contours)

These features were identified in the user survey as assisting county operations.

Maintenance efforts must be pursued in order to keep the planimetric data layer reasonably up to date.

An alternative approach would establish a continuing four year cycle through which one quarter of the county would be updated each year. Under this scenario, some of the planimetric data would be 15 years old before it would be updated.

Resources

If it is the determination of the Board of Supervisors that a one-time updating of the planimetric data layer would be appropriate, the estimated cost to apply the photography in a comprehensive update of the planimetric layer is estimated to be \$1.15 million (\$1.44 million with the additional data layers identified above). This estimate includes the flying the county and processing the imagery along with funds for independent quality control. Additional funding would be needed to maintain the planimetric layer over time.

It is staff's recommendation that this action be pursued as a recurring, cyclical process through which planimetric data for one-fourth of the county would be updated each year. Under this four-year revolving cycle approach, an average of \$322,000 would be needed each year to update the existing planimetric data for 1/4 of the county; an additional \$82,000 per year would be needed for the additional data layers. These costs may be reduced, since the number of features requiring updating each year would be significantly less. The changes would only be across four years rather than 15.

EIP08-GL08-06(B). Mapping of Fairfax County's Vegetation Ecosystems

Description of Action

This project entails the mapping of the county's vegetation by ecosystem-based communities, using the United States National Vegetation Classification System as a standard. The final product will be a polygon-based GIS dataset that is fully compatible with other planimetric data and will delineate the extent and distribution of over 40 indigenous plant communities down to the parcel level.

USNVCS mapping will allow approximate measurements of the total area and distribution of specific vegetation communities on a countywide basis and should be valuable in the identification and conservation of unique and/or threatened plant communities and species on a parcel level.

Environmental Agenda Objectives Supported:

This action would broadly support the Environmental Agenda. It would provide valuable information regarding the county's vegetation communities and would assist in natural resource management planning efforts.

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Park Authority Natural Resource Management Plan
Park Authority Policy Manual
Park Authority Strategic Plan

Lead Agency:

DPWES, Urban Forest Management Division

Status/Plans/Outcomes

This effort has been funded and is under way.

Automated vegetation mapping down to the NVCS alliance level is dependent upon consistent and accurate supervised spectral classification of satellite imagery via image analysis software. This success of this process is not a given at this point and will largely be determined by the quality of the spectral data contained in the satellite imagery and the capacity of the image analysis software and human operators to aggregate spectral signatures into polygons that reflect the actual extents of vegetation communities, many of which do not have easily discernible boundaries, but are divided by ecotones (transition zones between communities) of varying width and composition.

Continue

If the spectral analysis results in acceptable confidence levels via field verification, then the vegetation mapping process will be greatly accelerated. If the spectral analysis fails to produce consistently accurate results, then it is likely that follow-up field work will be needed to refine the dataset where more than one community type produces similar spectral responses. If the spectral analysis cannot be improved via additional data collection, then the mapping will need to be completed without the benefits of automation. In either case, additional time will be needed to complete the mapping project. If all goes well, it is anticipated that a countywide USNVCS dataset based on 2002/2003 satellite imagery will be completed in late 2007.

Funding has been identified to acquire updated satellite imagery in the summer of 2007, and to contract-out the spectral analysis component of the mapping project. Once the new imagery is analyzed, staff will update the NVCS dataset to reflect conditions found at the time of image acquisition.

Resources

Funding has been dedicated for the current mapping effort and for obtaining and processing updated satellite imagery (summer, 2007).

Additional funding would be needed in the future to provide occasional updates of the NVCS dataset beyond 2007. It is recommended that major updates to NVCS vegetation mapping should occur at least once every 10 years. An update would cost an estimated \$180,000 to \$200,000.

EIP08-GL08-07(B). Expanded Construction Site Monitoring for Tree Conservation

Description of Action

This action reports on efforts by the Urban Forest Management Division, Department of Public Works and Environmental Services (DPWES), to expand its capacity to monitor construction sites for compliance with tree conservation proffer conditions, and to improve the county's ability to enforce these conditions if they are not honored.

In reaction to intense public pressure to strengthen the enforcement of tree conservation proffers, in February 2005 the Board of Supervisors directed the Office of the County Attorney, the Department of Planning and Zoning, and Land Development Services, DPWES to scrutinize the process by which tree proffers are written and enforced. The committee that formed to address the directive identified a need to increase UFMD presence on construction sites and recommended that staffing levels be increased. Accordingly, the BOS approved two additional urban forester positions in the FY 2007 budget. These new positions have been deployed with a focus on monitoring construction sites and enforcing tree-related proffer requirements. In addition, UFMD has strengthened its documentation of on-site interaction with developer agents, contractors and citizens by implementing a database that enhances the county's ability to monitor and track activities related to proffer compliance.

Environmental Agenda Objectives Supported:

Growth & Land Use (General)
Air Quality & Transportation (General)
Water Quality (General)

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

DPWES—Urban Forest Management Division

Status/Plans/Outcomes

This effort has been funded and is under way. A substantial increase in the level of compliance associated with proffered tree commitments is the desired outcome. See EIP08-GL08-09(B) "Review and Improve Suggested Tree-Related Proffer Language" for additional action relating to the February 2005 tree preservation process improvement Board Matter.

EIP08-GL08-07(B). Expanded Construction Site Monitoring for Tree Conservation
Continued

Resources

The Board of Supervisors approved funding to support two additional urban forester positions in the FY 2007 budget [Note—these positions are also referenced in EIP08-GL08-09(B)]. No other funding is needed to support this action at this time.

EIP08-GL08-08(B). Establish a Tree Fund

Description of Action

This action establishes a funding mechanism to facilitate the expenditure of donations from zoning cases and other source to fund a countywide tree planting program for purposes of improving the county's air quality. On June 20, 2005, the Board of Supervisor s directed staff of DPWES, the Department of Planning and Zoning, and the County Attorney's Office to investigate the possibility of creating a funding mechanism for a countywide tree planting program through the use of reparations obtained from violations of tree save commitments, cash proffers, and in-kind proffer commitments obtained during the land development process.

Environmental Agenda Objectives Supported:

Growth & Land Use (General)
Air Quality & Transportation (General)
Water Quality (General)

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

DPWES, Land Development Services and Urban Forest Management Division

Status/Plans/Outcomes

This effort is under way. Staff from Land Development Services, DPWES is creating a fund entitled the "Tree Preservation and Planting Fund" to facilitate:

- Proffered donations for tree plantings from zoning cases
- Funds acquired through cash reparations obtained for violations of proffered tree preservation commitments
- Funding from the General Fund for tree-related programs and projects identified in the annual Environmental Improvement Program

EIP08-GL08-08(B). Establish a Tree Fund

Continued

In addition, LDS is establishing criteria to approve, track and report on tree-related projects funded through the Tree Preservation and Planting Fund. It is anticipated that this fund will be used to support tree-related activities such as:

- Tree planting projects on county properties and on Virginia Department of Transportation rights-of-ways.
- Grants to support the activities of non-profit tree planting groups
- Natural landscaping-related projects on county property
- Development of educational materials and workshops
- For implementation of a future local “Heritage, Memorial, Specimen and Street Tree” ordinance.

Several of these activities could be identified as practices in an urban forestry ozone mitigation measure that may be submitted in future Metropolitan Washington Air Quality Plans.

Resources

Tree-related projects and programs administered through the Tree Preservation and Planting funding mechanism will be addressed separately through the Environmental Improvement Program. No staff increases are anticipated in order to support this action.

EIP08-GL08-09(B). Review and Improve Suggested Tree-Related Proffer Language

Description of Action

This action relates to efforts to improve the effectiveness of standardized proffer language focused on tree preservation and landscaping efforts that may be used by developers to ensure the successful execution of commitments made during the review and approval of zoning cases. This action would result in a suggested approach that developers could apply in conjunction with their rezoning proposals; this approach would not be formally adopted as an expected standard commitment but would instead be offered for consideration as an effective approach to achieving a desired outcome.

Environmental Agenda Objectives Supported:

Growth & Land Use (General)
Air Quality & Transportation (General)
Water Quality (General)

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

DPWES, Urban Forest Management Division; DPZ Zoning Evaluation Division

Status/Plans/Outcomes

This effort is underway. In February 2005 the Board directed the Urban Forest Management Division, DPWES and the Zoning Evaluation Division of DPZ to review and strengthen tree conservation policies and procedures used during the review of zoning cases. As part of this effort, a committee consisting of representatives of UFMD, ZED, Office of the County Attorney, Planning Commission, and the Providence Magisterial District BOS Staff was formed to examine the effectiveness of model proffer language relating to tree preservation and landscaping. The committee produced a set of draft model proffers and will, in the last quarter of CY 2006, make these available to developers for use in zoning cases. The improved model proffers will help developers communicate very specific intentions regarding tree preservation, conservation and removal efforts and the county's ability to ensure compliance with these commitments during construction activities. In addition, the new model language provides an enhanced system of assigning monetary values to trees to be preserved and using these values as the basis for establishing tree bonds which a developer will post with the county to ensure the preservation of proffered trees and tree save areas. Current Zoning Ordinance provisions for zoning case submissions may need to be amended to facilitate new tree survey and condition

EIP08-GL08-09(B). Review and Improve Suggested Tree-Related Proffer Language
Continued

analysis components of the new model language. It is anticipated that these amendments will be prepared and submitted for review by the Planning Commission and BOS in CY 2007.

Resources

The Board of Supervisors approved funding to support two additional urban forester positions in the FY 2007 budget. These positions will be deployed to ensure compliance with tree-related proffers (see EIP08-GL08-07--Expanded Construction Site Monitoring for additional information on the positions and for action addressing the February 2005 tree preservation improvement Board Matter). No additional funding is requested to support this action.

EIP08-GL08-10(B). Tree Preservation Legislation

Description of Action

The ability of Virginia's localities to support efforts to comply with Federal and State air and water quality regulations and to provide their communities with a sustainable quality of life is largely dependent on their authority to protect and manage tree and forest resources. However, sections of the Code of Virginia that provide authority to preserve trees and forests during land development are either ineffective or limited in application. This action relates to a continuing effort by Fairfax County to obtain robust state enabling authority to preserve existing trees and forests during land development.

Environmental Agenda Objectives Supported:

Growth & Land Use (General)
Air Quality & Transportation (General)
Water Quality (General)

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

DPWES, Urban Forest Management Division; County Executive's Office

Status/Plans/Outcomes

This effort is under way. This action is a continuation of the county's legislative efforts to obtain strong state enabling tree preservation authority for the past six years. The Urban Forest Management Division, DPWES is working with citizens, tree commissions and urban forestry officials from the Virginia Department of Forestry and other Northern Virginian jurisdictions to build consensus that enabling authority is needed to protect regional vegetation resources. UFMD is working within a subcommittee of the Northern Virginia Urban Forestry Roundtable to build consensus around the contents of a tree preservation legislative proposal for 2007. NVUFR has generally accepted the need to amend tree replacement provisions of § 15.2-961, but is attempting to generate language that is acceptable to all Northern Virginia jurisdictions.

In addition, NVUFR is examining ways to work with Virginia's building and wood products industries to minimize opposition levels during future Virginia Legislative Assemblies. UFMD will submit tree preservation legislation proposals for BOS review for possible inclusion into the county's 2007 Legislative Program and beyond. These proposals will incorporate inter-jurisdictional considerations identified by NVUFR. UFMD is interacting with Legislative Program staff in the County Executive's Office to keep the BOS Legislative Committee apprised of NVUFR legislative efforts.

Resources

No additional resources are needed at this time; however, if future legislative efforts are successful, then additional staff resources may be needed to generate and enforce local ordinances and policies premised on the contents of the state enabling authority.

EIP08-GL08-11(B). Urban Forestry Roundtable

Description of Action

This action relates to efforts by the Urban Forest Management Division, DPWES to support and participate in the newly formed Northern Virginia Urban Forestry Roundtable. NVUFR has been formed to provide a forum for inter-jurisdictional communication and policy development for use by local governments, tree commissions, citizen-based environmental groups, and the public.

Environmental Agenda Objectives Supported:

Growth & Land Use (General)
Environmental Stewardship (General)

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

DPWES, Urban Forest Management Division

Status/Plans/Outcomes

This effort is under way. The lack of regional communication over urban forestry issues is thought to have limited past efforts to obtain tree conservation legislation and to develop other effective programs and practices related to the management of trees and forest resources. NVUFR was formed in 2005 to bring local environmental groups, tree commissioners and urban forestry officials together to examine ways to cooperate over regional issues such as efforts to obtain tree conservation legislation and to develop urban forestry practices and measures for ozone mitigation. UFMD provided leadership during the formation of NVUFR and has been instrumental in organizing a regional conference on trees and air quality plans in November of 2005. In addition, UFMD organized and hosted a NVUFR tree conservation strategy workshop at the Fairfax County Government Center in May 2006. The May 2006 work shop was attended by over 50 people including officials from Virginia Forestry Board and speakers from the Virginia State Senate and House of Delegates. Participation in the NVUFR is critical for the success of the county's tree conservation legislative efforts and regional efforts to embed a credited urban forestry ozone mitigation measure in the 2007 Metropolitan Washington Air Quality Plan.

Resources

No additional resources are needed to support this action.

EIP08-GL08-12(C). Consider Amending Article 13 of the Zoning Ordinance (Landscaping and Screening)

Description of Action

Consider Amending Article 13 of the Zoning Ordinance (Landscaping and Screening) to:

- Strengthen parking lot landscaping requirements in order to increase shading, thereby reducing evaporative air pollutant emissions from motor vehicles;
- Strengthen screening and buffering requirements adjacent to major trails such as the Washington and Old Dominion Trail; and
- Add more guidance regarding requirements for maintenance of landscaped areas.

A first step in this process would be to identify quantitative goals for incorporation into this amendment pertaining to appropriate levels of tree cover in parking lots, appropriate screening and buffering requirements adjacent to trails, and appropriate maintenance practices. Outreach to stakeholders should be a component of staff's process for formulating such quantitative goals.

Environmental Agenda Objectives Supported:

Growth & Land Use (General)
Air Quality & Transportation (General)
Water Quality (General)

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

DPWES, Urban Forest Management Division; DPZ

Status/Plans/Outcomes

The Zoning Ordinance Amendment Work Program would need to be revised to incorporate this action. This item is currently not scheduled for action on the Work Program.

Resources

The cost of staff time to process the amendment through the public hearing process and to provide the necessary follow up training and educational opportunities for both staff and citizens would be absorbed within the current budget; no new staff needs would be anticipated. However, this action would require DPZ and DPWES staff resources, thereby reducing resource availability for other tasks; the addition of any new item to the Priority 1 Zoning Ordinance Amendment Work Program would necessitate the removal of one or more other items from this list.

EIP08-GL08-13(B). Support for Regional Land Use and Related Transportation Planning Initiatives

Description of Action

County staff provides ongoing support to a number of regional land use planning initiatives. These efforts have included and/or will include:

- Participation on and support to the Cooperative Forecasting and Data Subcommittee of the Washington Metropolitan Council of Governments—This is a technical subcommittee that is responsible for preparing 30-year population, household and employment forecasts at the traffic analysis zone level for the entire metropolitan Washington region. These forecasts are used for a variety of purposes. County staff provides population, household, and employment forecasts for Fairfax County. These data are updated regularly.
- Participation on the Planning Directors Technical Advisory Committee of COG—This is the technical subcommittee of the Metropolitan Development Policy Committee (MDPC), which is composed of elected officials in the region and which reports to the COG Board on regional population growth, economic growth and land use issues. Supervisor Sharon Bulova is the current Chair of this regional policy body. Projects undertaken by the Technical Advisory Committee (such as the publication of “Metropolitan Washington Regional Activity Centers: A Tool for Linking Land Use and Transportation Planning”) enhance the coordination between regional land use and transportation planning in Metropolitan Washington.
- Participation on the Joint Technical Working Group that is undertaking the Regional Mobility and Accessibility Study—This study is evaluating alternative regional land use and transportation scenarios to determine the extent to which these scenarios would be consistent with a vision statement adopted by the National Capital Region Transportation Planning Board in 1998 that calls for an efficient, accessible, environmentally sensitive and financially feasible transportation system in the 21st century.
- Participation in efforts to determine next steps for the regional “Reality Check” effort, which sought to increase awareness among elected officials, business groups, environmental groups and local government staff on the significant growth anticipated in the metropolitan area for the coming 25 to 30 year period and ways to best manage this growth.
- Participation in efforts to update the regional picture of the aggregate of local land use plans.

Participation on the Metropolitan Washington Air Quality Committee is addressed by EIP07-14(B). County staff also participates actively in a variety of other regional committees addressing a variety of environmental and transportation issues.

EIP08-GL08-13(B). Support for Regional Land Use and Related Transportation Planning Initiatives
Continued

Environmental Agenda Objectives Supported:

Growth & Land Use 1, 2, 3, 4, and 7
Air Quality & Transportation 1 and 2

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agencies:

DPZ; DOT

Status/Plans/Outcomes

Staff support of these regional efforts will be ongoing. The Director of the Department of Planning and Zoning is a key presence on, and was last year's Chairman of, the Planning Director's Technical Advisory Committee to the Metropolitan Development Policy Committee (MDPC). Supervisor Sharon Bulova is the current Chair of the MDPC. Staff from the Department of Planning and Zoning, the Health Department, the Department of Transportation, the Department of Systems Management for Human Services and the Economic Development Authority invests time and talent at the regional level dealing with land use, transportation and environmental issues that are critical to the sustainability of the region over the long term.

Resources

Staff coordination efforts are being, and will continue to be, conducted with existing resources.

EIP08-AQ07-12(A). Telework Initiatives

Description of Action

Increase the number of Fairfax County government employees who Telework to 1,000 by the end of 2005.

Environmental Agenda Objectives Supported:

Air Quality and Transportation 2

Other Plans or Documents where this action appears or that it supports:

Air Quality Management Plan

Lead Agency:

Office of the County Executive

Status/Plans/Outcomes

This goal was reached and even exceeded in December 2005. As background, the Fairfax County Board of Supervisors and the County Executive have supported Telework as a work option for the county workforce since 1996 and have endorsed the Metropolitan Washington Council of Governments (COG) goal of 20% of the area's eligible workforce teleworking by 2005. In October 2001, the County recommitted its telework efforts and launched the Telework Expansion Project. The intent of the project was to increase employee participation to reach a goal of 1,000 teleworkers by the end of 2005 which was done. Today, almost every county department has teleworkers.

Resources

Funds for the Telework Expansion Project are contained the departmental budgets of the Department of Information Technology (software licenses, loaner PCs, and pagers); the Department of Human Resources (printing costs of training materials/telework sign-up forms); and the DOT (Employer Services materials).

EIP08-AQ07-21(A). Heavy Diesel Truck Exhaust Retrofit

Description of Action

Retrofit all class 8 diesel trucks in the county fleet (except fire and rescue equipment) with at least three years of service remaining with diesel oxidation catalysts.

Environmental Agenda Objectives Supported:

Air Quality and Transportation (general)

Other Plans or Documents where this action appears or that it supports:

None.

Lead Agency:

Department of Vehicle Services

Status/Plans/Outcomes

A contract was awarded June 24, 2005 to retrofit 113 trucks over a six-month period.

This action was completed in February 2006.

Resources

This project was funded partially by a grant of \$75,000 from the US EPA. Remaining costs (approximately \$75,000) were funded from the *FY 2003 Carryover*.

EIP08-AQ07-01(B). EZ Bus

Description of Action

EZ Bus is a free shuttle bus service that was launched in December 2003 as part of the Virginia Governor's Congestion Relief Initiative. EZ Bus serves the Burke Centre Virginia Railway Express (VRE) Station as an alternative form of transportation to the station and relieves some of the over-crowding in the local streets and the station's parking lot.

EZ Bus operates two neighborhood routes – one north of the station, and one south of the station. Passengers subscribe in advance via the web or telephone; passengers without subscriptions are accepted on a “space available” basis. The bus arrives five minutes before the morning train departs and leaves the Burke Station five minutes after the evening train arrives. Subscribers are given an incentive card and after 15 days of riding the shuttle, they receive a 20 percent rebate on their monthly or ten-trip train ticket.

The EZ Bus shuttle service increases the number of options residents of Burke may take to get to work, which in turn reduces the amount of single occupant vehicles on the road. Based on calculations used to determine air quality benefits for federal Congestion Mitigation and Air Quality grant applications, approximately 182 vehicle trips have been eliminated per day, and 5,915 vehicle miles traveled (VMT) reduction has occurred as a result of this service.

On February 16, 2005, the U.S. Environmental Protection Agency (EPA) informed the County that EZ Bus was selected for a Clean Air Excellence Award in the Transportation Efficiency Innovations category. From over 100 applications received nationwide, EZ Bus was chosen by EPA's office of Air and Radiation for its impact, innovation, and replicability, in efforts to achieve cleaner air.

Because of the loss of parking space during the VRE parking garage construction shuttle bus service from the Burke Center Community Library parking lot to the VRE Station will be implemented. Funding for this service is provided in the County FY 2007 budget.

Environmental Agenda Objectives Supported:

Air Quality & Transportation 1; Growth & Land Use 3

Other Plans or Documents where this action appears or that it supports:

- Fairfax County Comprehensive Plan; Transportation Section;
 - Objective 1, Policy a.; Objective 2, Policies j., n., q.; Objective 6, Policy c.
- Fairfax County Capital Improvements Program

EIP08-AQ07-01(B). EZ Bus

Continued

Lead Agency:

Department of Transportation

EIP08-AQ07-1(B). EZ Bus

Continued

Status/Plans/Outcomes

EZ Bus initiated service on December 1, 2003. The grant funds used to implement this service have since expired. However, with the service being very successful, the Board of Supervisors has continued to fund the operations of this service.

With the Burke Centre VRE Station continuing to experience overcrowding, even with EZ Bus operating, the station parking lot has been proposed to be expanded. Currently, a 1,350 parking space garage is under design. When construction begins on this facility in 2006, there will be an increased demand for the EZ Bus service to shuttle VRE patrons from satellite parking lots to access the Burke Centre Station.

The ultimate goal is to mitigate traffic congestion and improve air quality. By increasing the EZ Bus system and ridership, positive measurable air quality benefits will result.

Resources

The EZ Bus service is operated by the Fairfax Connector and therefore is a part of its annual operating budget. The annual operating costs for EZ Bus for three buses are approximately \$396,000. These are operating costs only and any capital improvements to the system, including buses, will require separate requests and appropriations. An additional \$271,040 is funded from the County annual budget for the shuttle bus service.

EIP08-AQ07-02(B). Employer Services Program

Description of Action

The Employer Services Program is one component of the regional Transportation Emission Reduction Measures, which were adopted by the Metropolitan-Washington Regional Transportation Planning Board. Fairfax County has received \$170,000 in regional Commuter Connections Program funds to continue the program. The Employer Services Program provides local outreach and promotion of transportation demand management strategies to employers in Fairfax County. Employer participation is strictly voluntary and direct "sales" contact with employers is conducted by the Employer Services staff.

The program supports commute alternatives, such as public transportation, carpooling, vanpooling, teleworking, flexible work schedules, bicycling, and walking are marketed to employers. In addition, subsidies (Metrochek), incentives and the regional Guaranteed Ride Home Program are promoted. Presentations of commute alternatives are done via personal meetings with decision-makers, car/vanpool formation meetings, and/or through on-site transportation fairs.

Environmental Agenda Objectives Supported:

- Air Quality and Transportation 1 and 2;
- Growth & Land Use 7.

Other Plans or Documents where this action appears or that it supports:

- Fairfax County Comprehensive Plan; Transportation Section;
 - Objective 1, Policy a., Policy c., Policy d., Objective 2, Policy i., Policy l, Policy p., Policy q., Policy r., Policy s., Policy t., Policy u., Objective 6, Policy d., Objective 10, Policy a., Policy b.
- Washington Region Transportation Improvement Program

Lead Agency:

Department of Transportation

Status/Plans/Outcomes

This program was initiated in 1997 to assist employers within Fairfax County to establish on-site Employee Transportation Projects to reduce single occupancy vehicle (SOV) travel and resultant air pollution. The program is one component of the regional Transportation Emissions Reduction Measures, which were adopted by the Metropolitan-Washington Regional Transportation Planning Board.

EIP08-AQ07-02(B). Employer Services Program
Continued

Resources

Annual Costs: This program is funded with \$170,000.00 Commuter Connections Program Grant and supported by DOT Staff.

EIP08-AQ07-03(B). Ridesources Program

Description of Action

The RIDESOURCES Marketing and Ridesharing Program have received State grant support every year since 1984.

This grant program provides funding to promote the use of HOV lanes and FAIRFAX CONNECTOR express and local bus service; to promote commuter alternatives in the greater Springfield area, including discounted bus-to-rail passes, carpooling, vanpooling, and the use of Metrorail and Metrobus; to promote bus fare changes associated with the bus fare buydown program; and to promote cooperative events/marketing campaigns with other jurisdictions and the Washington Metropolitan Area Transit Authority (WMATA). In addition, funds are used to: provide technical support to Transportation Management Associations (TMAs); promote specific marketing campaigns in targeted areas; support desktop publishing and production of various marketing materials, such as maps, timetables, brochures, flyers, and posters; support the County's participation in the Metropolitan Washington Council of Governments' COMMUTER CONNECTIONS network; and provide ridematching assistance to commuters Countywide. The RIDESOURCES Program provides free ridematching services to County residents and to employees who work at employment sites within the County.

Environmental Agenda Objectives Supported:

- Air Quality and Transportation 1 and 2;
- Growth & Land Use 7.

Other Plans or Documents where this action appears or that it supports:

- Fairfax County Comprehensive Plan; Transportation Section;
 - Objective 1, Policy c., Objective 2, Policy b., Policy c., Policy d., Policy i., Policy j., Policy k., Policy o., Policy q., Policy t., Policy w., Objective 4, Policy b.

Lead Agency:

Department of Transportation

Status/Plans/Outcomes

The RIDESOURCES Marketing and Ridesharing Program continue to market ridesharing and transit marketing activities. In addition to promotion of specific marketing campaigns the program provides free ridematching services to County residents and to employees who work at employment sites within the County.

EIP08-AQ07-03(B). Ridesources Program

Continued

This program will continue at its current level, funded annually through a Virginia Department of Rail and Public Transportation (VDRPT) Grant, local matching funds and supported by DOT Staff.

Resources

This program is supported with an annual \$280,000.00 VDRPT Grant and \$70,000.00 local matching funds to support existing positions of a Transportation Planner III, Graphics Artist III, and Administrative Assistant II and limited term support.

EIP08-AQ07-04(B). Metrochek Program

Description of Action

Metrochek is a farecard voucher program provided as an employee benefit by more than 2500 public and private employers in the Washington, D.C. area, including the federal government. Metrochecks are accepted by more than 100 bus, rail, and vanpool commuter services in the region, including Metro, MARC Train Service, Virginia Railway Express, and local bus systems. Metrocheks can be used as Metrorail farecards or as vouchers when purchasing fares for other transit services.

The Metrochek transit benefit works just like many other commonly available fringe benefits such as employer-provided health insurance. Employees are not taxed for the value of the Metrocheks they receive, and employers can deduct the cost of providing the program as a business expense. The monthly Metrochek benefit can be any amount the employer chooses to provide, although a maximum of \$105 per month is allowable tax-free or pre-tax to employees.

Environmental Agenda Objectives Supported:

- Air Quality and Transportation 1;
- Growth & Land Use 7.

Other Plans or Documents where this action appears or that it supports:

- Fairfax County Comprehensive Plan; Transportation Section;
 - Objective 1, Policy c., Objective 2, Policy b., Policy i., Policy j., Policy k., Policy q., Policy v., Objective 7, Policy a.,

Lead Agency:

Department of Transportation

Status/Plans/Outcomes

This program is available to county employees at the Government Center Complex. The Board of Supervisors has approved funding to expand the program countywide. An employee committee is considering how expansion of the program to all county employees can be implemented, including the additional cost and logistics of managing the program Countywide. They are also considering establishing a pre-tax deduction benefit for the employee for their cost above the \$60 per month allocation they receive from the county. Fiscal Year 2006 EIP Carryover funding proposed increasing the monthly allocation to \$105.00 each per month.

EIP08-AQ07-04(B). Metrochek Program
Continued

Resources

Annual Costs: The program is funded by DOT up to \$ 252,900 annually. A monthly increase to \$105.00 requires an additional \$350,000 annually. The program is supported by DOT Staff.

EIP08-AQ07-05(B). Residential Traffic Administration Program

Description of Action

The Residential Traffic Administration Program, managed by the Fairfax County DOT, includes a Traffic Calming component which enhances pedestrian safety and mobility by providing for the installation of physical devices for slowing the speed of traffic in qualifying residential areas. Pedestrian amenities are also enhanced by the Cut-through Restriction, \$200 Fine for Speeding Signs, Multi-way Stop Signs, Watch for Children Signs, and Through Truck Restriction components of the Residential Traffic Administration Program.

Environmental Agenda Objectives Supported:

Air Quality & Transportation #1; Growth & Land Use #7

Other Plans or Documents where this action appears or that it supports:

- Fairfax County Comprehensive Plan; Transportation Section
 - Objective 4, Policy c., Policy e., Policy f., Objective 8, Policy g., Objective 9, Policy d.

Lead Agency:

Department of Transportation

Status/Plans/Outcomes

Through FY 2006, traffic calming plans have been installed on 48 residential roads; plans for 6 roads have been approved and sent to VDOT for installation; and traffic calming projects for 55 roads are in the community planning and approval process. In the past year, five roads for Through Truck Restriction, two roads for \$200 Fine for Speeding, 22 intersections for Multi-way Stop Signs, and nine Watch for Children sign locations have been approved by the Board of Supervisors.

Resources

Funding needs: \$200,000 per year in State Funding
Fairfax County DOT staff resources to manage this program are in place, and it is anticipated that annual State funding of \$200,000 will continue.

EIP08-AQ07-06(B). Transit Shelter Program

Description of Action

This program provides for transit stop amenities, such as new shelters, pads, and benches, throughout the County.

Environmental Agenda Objectives Supported:

Air Quality & Transportation #1; Growth & Land Use #7

Other Plans or Documents where this action appears or that it supports:

- Fairfax County Comprehensive Plan; Transportation Section;
 - Objective 1, Policy a., Policy b., Policy d., Objective 2, Policy b., Policy e., Policy k., Policy u., Objective 5, Policy a., Objective 8, Policy a., Policy d., Objective 13, Policy d.

Lead Agency:

Department of Transportation

Status/Plans/Outcomes

This program is on-going and numerous transit stop amenity improvements have been completed. The CMAQ Program has resulted in the installation of 135 shelters and 15 additional shelters in planning through FY 2006. Continuation of the Transit Shelter Program in the future is anticipated. This program will utilize the findings of the Bus Stop Inventory and Safety Study to help address the most urgent transit stop amenities throughout the County.

Resources

Funding: Fairfax County has received \$1,425,000 in Congestion Mitigation and Air Quality Program Grants through FY 2005 and anticipates receiving an additional \$ 500,000 CMAQ Grant in FY 2006. Fairfax County DOT staff resources to manage this program are in place.

EIP08-AQ07-07(B). Priority Bus Stop Improvement and Plan.

Description of Action:

The Bus Stop Safety and Inventory and Safety Study identified 344 priority bus stops that require safety and accessibility improvements. In addition, the study made recommendations to improve ADA compliance at the rest of the bus stops. The improvement plan involves making safety and accessibility improvements to the 344 priority bus stops recommended by the safety study as well as making amenity enhancements to 3618 remaining stops to encourage additional bus ridership. Ultimately, accessibility improvements will increase transit ridership reducing roadway congestion, promote improved economic vitality and improve air quality by reducing the use of single occupancy vehicles.

Environmental Agenda Objectives Supported:

Air Quality & Transportation #1

Other Plans or Documents where this action appears or that it supports:

Bus Stop Inventory and Safety Study
Fairfax County Comprehensive Plan; Transportation Section; Objectives: 1, 2, 5, 8

Lead Agency:

Department of Transportation

Status/Plans/Outcomes

The initial Bus Stop Safety Study recommended a variety of safety improvements ranging from minor pedestrian improvements to full scale intersection redesign. The estimated cost to make recommended improvements to all stops is \$26 million with out regard to inflation, right-of-way acquisition, design, or utility impact. Currently, planning for the implementation is underway. The initiative received its first infusion of funds in Q1 of FY 2007. This was \$2.5 million from the County general fund to begin work on improvements identified in the study.

Resources

The Priority Bus Stop Improvement Plan received \$2,500,000 in the FY 2007 from the County General Fund. Additional funding is anticipated in future year annual budgets. Support of DOT staff is anticipated throughout the program.

EIP08-AQ07-08(B). Richmond Highway Public Transportation Initiative

Description of Action

The Richmond Highway Public Transportation Initiative is primarily a capital improvements program based on the 2001 Route 1 Corridor Bus Study conducted by the Northern Virginia Transportation Commission (NVTC), and an update prepared by Fairfax County. The program is being coordinated with the South County Bus Plan. The project involves establishing several major and minor transit centers; improving bus stops; and establishing additional park-and-ride facilities; and significantly improving pedestrian safety and access to the transit facilities. These improvements will help augment the bus service currently operating in the corridor, as well as provide the facilities to establish new routes throughout the corridor and beyond. The Richmond Highway (U.S. Route 1) Corridor is one of the most heavily transit dependent areas of Fairfax County. It is also one of the most congested and economically disadvantaged. Currently, pedestrians and transit passengers have significant difficulty crossing the six through lanes and numerous turn lanes on Richmond Highway. Although there is already a substantial amount of well-used transit service in the corridor, the Route 1 Corridor Bus Study found that this service would be even better utilized, if pedestrian and transit facilities are upgraded. Ultimately, increasing transit ridership will reduce roadway congestion, promote improved economic vitality in the corridor, and improve air quality by reducing the use of single occupancy vehicles. This will be especially important as the County prepares to accommodate the additional jobs which will be added to Ft. Belvoir, based on the BRAC recommendation.

Environmental Agenda Objectives Supported:

- AQ & Transportation 1,3

Other Plans or Documents where this action appears or that it supports:

- Fairfax County Comprehensive Plan; Transportation Section;
 - Objective 1, Policy a., Policy b., Policy d., Objective 2, Policy b., Policy e., Policy j., Policy k., Policy l., Policy m., Policy n., Policy o., Policy u., Policy u., Policy x., Objective 4, Policy c., Policy e.,
- Board of Supervisors Four Year Transportation Plan

Lead Agency:

Department of Transportation

Status/Plans/Outcomes

The initial study recommended many capital improvements, ranging from small, such as pedestrian signs and signals, to large projects, such as the transit centers and park-and-ride lots that were necessary to accomplish the plans goals. The estimated total project costs for all the capital improvements for the initiative is \$55.0 million. With that as a starting point, and so many recommended projects that were identified, the project began as a design/build project, where some of the projects could be implemented immediately, while others required more planning and analysis. The initiative began implementation with its first infusion of funds in the fall of 2002. This was a \$2.0 million Federal Highway Administration/Federal Transit Administration Congestion Mitigation and Air Quality grant. These funds were used primarily for pedestrian improvements and bus service enhancements such as bus shelters.

Construction of pedestrian improvements is scheduled to begin in summer of 2006. The continuous planning, acquisition of funds and implementation of the initiative is done by a team of staff from various county agencies and a private transportation consultant. The timeframe for completion of the initiative is by 2010.

The ultimate goal for Richmond Highway is to have a full priority bus system with supportive roadway and facilities, and at some point in the future, rail in the corridor. This goal will serve to increase transit ridership; improve pedestrian safety; improve effectiveness and efficiency of transit operations; improve air quality; and complement community development and highway initiatives in the corridor.

Resources

The Richmond Highway Public Transportation Initiative is funded by a variety of funding sources. They include, but are not limited to, state funds (such as Virginia DOT's Revenue Sharing and Enhancement funds); federal funds (including CMAQ funds, Job Access/Reverse Commute (JARC) funds, federal appropriations and Transportation Equity Act for the 21st Century Reauthorization funds); County General Fund; and County General Obligation Bonds. Since 2002, the project has identified \$31.1 million from a variety of funding sources, including federal funds, state funds, County general funds, and County General Obligation Bonds.

There is a continuous effort by the initiative's planning team to seek funding from these and other sources until the entire project is funded.

EIP08-AQ07-09(B). Air Quality Outreach

Description of Action

Develop and distribute air quality outreach materials on air quality. Employees and residents need to be provided information to educate them on air quality issues and provide them with voluntary actions they can take to improve the county's air quality. This important step is needed so the region can meet the Clean Air Act National Ambient Air Quality Standards.

Environmental Agenda Objectives Supported:

- Air Quality and Transportation 2
- Environmental Stewardship (General)

Other Plans or Documents where this action appears or that it supports:

- Air Quality Management Plan

Lead Agency:

Office of Public Affairs and Health Department

Status/Plans/Outcomes

The Office of Public Affairs and Health Department partnered with Clean Air Partners in 2006 to continue a county media sponsorship that was started in 2005. Clean Air Partners, a public-private partnership chartered by the Metropolitan Washington Council of Governments, will provide a comprehensive regional media campaign to build awareness of air quality issues and promote voluntary actions individuals and employers can take to reduce air pollution and improve the health and quality of life in the region. This will include radio announcements, television announcements, brochures, flyers, fact sheets, press releases and web resources. In addition, the Office of Public Affairs and the Health Department have developed additional outreach materials to be used at public gatherings such as the Fairfax Fair and placed in public locations like county building and libraries. To ensure that key messages reach individuals, articles will be distributed through internal County publications and external outreach, including e-mail, Web sites, cable Channel 16 and homeowners associations. Staff will continue to research and develop new outreach materials and methods of distribution to reach as many residents as possible. Staff plans to continue the media sponsorship with Clean Air Partners in future years.

Resources

The cost for 2006 actions totaled \$30,000 which included \$15,000 for the Clean Air Partners media sponsorship and \$15,000 for the air quality education and outreach endeavors. The funding came from \$30,000 in carryover funds approved by the Board of Supervisors at the FY 2005 Carryover Review.

EIP08-AQ07-10(B). Dulles Corridor Metrorail

Description of Action

The Dulles Metrorail Extension- Phase I to Wiehle Avenue is expected to become operational in late 2011 or early 2012, and with the takeover of the project by the Metropolitan Washington Airports Authority, Phase II is expected to be operation in the 2013-2014 timeframe. As a part of the Environmental Impact Statement (EIS) for the project, a number of traffic improvements are necessary to address pedestrian and automobile circulation to the stations as identified in the Federal Transit Administration's Record of Decision. The purpose of this effort is to build upon those recommendations and to further mitigate traffic in such a manner as to divert some traffic from the station areas and to enhance pedestrian and bicycle access to the stations which are paralleled by the W&OD Trail. The study will examine and identify congested areas and choke points and propose solutions that can be implemented prior to the opening of the stations. An assessment of the feeder bus networks and service levels prepared for the EIS will also be evaluated to determine the feasibility of those services and to recommend enhancements to the proposed feeder bus services. A multi-year capital program will be established for approval and adoption by the Board of Supervisors.

Environmental Agenda Objectives Supported:

- Growth and Land Use 4, 7
- Air Quality and Transportation 1, 3,

Other Plans or Documents where this action appears or that it supports:

- Board of Supervisors Four-Year Transportation Program
- Fairfax County Vision – Core Purpose and Desired Results
- Fairfax County Comprehensive Plan; Transportation Section;
 - Objective 2, Policy a., Policy b., Policy i., Policy j., Objective 9, Policy b., Objective 10, Policy a., Objective 11, Policy c.
- Washington Metropolitan Area Transit Authority (WMATA) Regional System
- Washington Metropolitan Region Constrained Long-Range Plan (CLRP)

Lead Agency:

Department of Transportation

Status/Plans/Outcomes

- Phase I of the Dulles Rail project (Extension to Wiehle Avenue) is currently in Preliminary Engineering.
- Opening scheduled for 2011.
- Opening Year ridership to Wiehle Avenue in 2011 projected to be 62,800.
- County is working with Western land owners to secure funding for Phase II.

Resources

- Total Capital Cost is \$4.0 billion; Phase I cost is \$2.065 billion.
- Non-federal funding for Phase I is in place through Dulles Rail Phase I Special Improvement District (Fairfax County) and Dulles Toll Road revenues (state).
- Cost allocation for Phase I is 44% federal, 56% state and Fairfax County.
- Federal funding for Phase I is approved through Preliminary Engineering.
- The application to enter Final Design was submitted to the Federal transit Administration on April 28, 2006.

EIP08-AQ07-11(B). Fleet User Forums

Description of Action

Maintain active membership and participation in the Metropolitan Washington Alternative Fuels Clean Cities Partnership. New forums include three sector working groups (School Bus, Urban Fleet, and Construction Equipment) of the Mid-Atlantic Diesel Collaborative. The Technology and Maintenance Council of the American Trucking Associations also has forums for discussion of alternative fuel vehicles.

Environmental Agenda Objectives Supported:

Air Quality and Transportation #6

Other Plans or Documents where this action appears or that it supports:

None

Lead Agency:

Department of Vehicle Services

Status/Plans/Outcomes

Continue active participation in activities of the Clean Cities Partnership. The organization primarily maintains a channel of information among local jurisdictions regarding development and use of alternative fuel vehicles and their supporting infrastructures. Through it, we obtain early and authoritative information on industry developments. We also share first-hand experiences with those who have researched and used various alternatives.

US EPA Region 3 initiated the Mid-Atlantic Diesel Collaborative in February 2006, inviting fleet, supplier, regulatory, and other interested organizations to join in exploring and exchanging means of reducing diesel exhaust emissions. The discussions would lead to implementation of locally successful programs in new areas, to regionally coordinated projects, and to development of candidate projects for grant funding. DVS participates in three of the collaborative's sector working groups.

DVS also has a member in the Technology and Maintenance Council participating in the Hybrid Power Trains Task Force.

As other user organizations become visible, DVS will evaluate the benefits and costs of participation, joining those deemed most valuable as staff resources permit.

This action is established and ongoing, requiring no further funding or developmental work.

Resources

DVS absorbs participation costs with currently authorized staff. No funding requirements are anticipated beyond local meetings and other communications. The Clean Cities Partnership is sponsored by the Metropolitan Washington Council of Governments.

EIP08-AQ07-13(B). Purchase of Wind Power

Description of Action

The Board of Supervisors approved the purchase of 5% of the county's electricity needs from the Mountaineer Wind Farm in West Virginia in April 2005. This is a two-year contract starting in 2005.

Environmental Agenda Objectives Supported:

- Air Quality and Transportation (General)
- Air Quality and Transportation 4

Other Plans or Documents where this action appears or that it supports:

Air Quality Management Plan

Lead Agency:

Department of Cable Communications and Consumer Protection

Status/Plans/Outcomes

Staff worked with the Virginia Energy Purchasing Governmental Association (VEPGA) to change the by-laws to allow this purchase. It is the first wind energy initiative in Virginia. It's a two-year contract and it's a joint purchase with Arlington County. The projected emission reductions are 6.3 million pounds of CO₂, 23,200 pounds of SO₂, and 11,600 pounds of NO_x.

Funding sources

Fairfax County's cost in FY 2006 is \$82,000. Funding was approved by the Board of Supervisors in the FY 2004 Carryover Review. Future funding will be requested to continue this effort and hopefully increase the percentage of wind energy purchased.

EIP08-AQ07-14(B). Participation on the Metropolitan Washington Air Quality Committee (MWAQC)

Description of Action

The Metropolitan Washington Air Quality Committee (MWAQC) is a regional planning group created to conduct interstate air quality attainment and maintenance planning for the Metropolitan Washington region. The authority of MWAQC is derived from the certifications made by the Governors of Virginia, Maryland and the Mayor of the District of Columbia. Fairfax County currently has three Board members serving on the committee: Supervisors Sharon Bulova, T. Dana Kauffman, and Linda Smyth.

Environmental Agenda Objectives Supported:

Air Quality and Transportation 1, 2, and 4

Other Plans or Documents where this action appears or that it supports:

Air Quality Management Plan

Lead Agency:

Board of Supervisors

Status/Plans/Outcomes

Three members of the Fairfax County Board of Supervisors continue to participate on this committee to conduct regional air quality planning toward meeting the requirements of the Clean Air Act. Other county staff members attend these meeting including the Environmental Coordinator, Air Quality Program Manager and DOT staff.

Funding sources

None

EIP08-AQ07-15(B). Purchase of Hybrid Drive Vehicles

Description of Action

As vehicles retire from the county and FCPS fleets, replace them with hybrid drive vehicles when the mission permits. Evaluate plug-in hybrids when available.

Environmental Agenda Objectives Supported:

Air Quality and Transportation (general)

Other Plans or Documents where this action appears or that it supports:

Air Quality Management Plan

Lead Agency:

Department of Vehicle Services

Status/Plans/Outcomes

As vehicle replacements are planned, DVS and user agencies consider whether a commercially available hybrid drive vehicle is practical for the intended mission. This action is established and ongoing. The fleet now includes 56 Priuses and 34 Escape Hybrids.

The county is also exploring the feasibility of one or more demonstration projects for the development of plug-in hybrid electric vehicles (PHEVs), which work like current hybrids, but carry larger battery packs that can be recharged from grid power. The larger batteries can power the vehicle without use of the gas or diesel engine for some 20-40 miles before discharging to the point of needing recharge. At that time, the vehicle's engine automatically reverts to its normal hybrid mode to continue operation until the vehicle can be plugged in again.

Resources

Through FY 2005 and 2006, the county was able to fund the incremental cost of the hybrid drive vehicles through the Vehicle Replacement Fund. The county intends to continue that practice when practical during annual vehicle replacements.

If one or more PHEV demonstrations become feasible, DVS will seek funding assistance from grant authorities to augment *FY 2003 Carryover* funds allocated for emissions reductions.

EIP08-AQ07-16(B). Support for Reductions in Ozone Transport

Description of Action

Communicate by letters, testimony, and other available means with the Governor, congressional delegation and with state and federal regulatory agencies to advocate actions to reduce transport of ozone precursors and other pollution from upwind regions along the east coast and the Ohio River valley.

Environmental Agenda Objectives Supported:

Air Quality and Transportation 4

Other Plans or Documents where this action appears or that it supports:

None.

Lead Agency:

Board of Supervisors

Office of the County Executive – Environmental Coordinator

Health Department

Status/Plans/Outcomes

Ozone transport is both a local and regional issue and it is being handled through actions by the Board of Supervisors and the Metropolitan Washington Air Quality Committee through letters and other means of communication.

Resources

Continuing efforts require allocation of available staff time. No new resource requirements are anticipated.

EIP08-AQ07-17(B). Reduced Vehicle Idling

Description of Action

Identify situations where avoidable idling occurs and take steps to reduce or eliminate it.

Environmental Agenda Objectives Supported:

Air Quality and Transportation 1

Other Plans or Documents where this action appears or that it supports:

Air Quality Management Plan

Lead Agency:

Health Department

Office of the County Executive – Environmental Coordinator

Status/Plans/Outcomes

Several situations involving avoidable idling have received attention.

- Additional scales have been installed at the I-66 Solid Waste Transfer Station to reduce the time that refuse collection vehicles spend idling while waiting their turn to unload.
- Operators of tour buses that visit Mount Vernon have been sent letters explaining the three-minute limit on idling and new signs with this requirement have been posted in the bus parking area. The Health Department has completed a Memorandum of Understanding with the Police Department to help with enforcement actions against violators.
- FCPS has advised school bus drivers on procedures to minimize idling while parked at schools.
- Many Connector buses have been outfitted with automatic idling shut-offs so the buses will actually turn off after a set idling time.
- All county solid waste collection trucks have automatic idling shut-offs.
- Staff will continue to notify and work with applicable groups to reduce or eliminate idling.
- Staff will start to develop education/outreach materials on this subject.

Resources

Funding for actions taken is handled with current agency budgets.

EIP08-AQ07-18(B). Four Year Transportation Plan

Description of Action

On February 9, 2004, the Board of Supervisors endorsed the Chairman's Four-Year Transportation Plan. This significant transportation initiative includes a \$215 million commitment of capital funds to improve major highway and transit projects, spot capacity and safety intersection improvements, and pedestrian improvements throughout the County. Also, included in the program are development of strategies for improving signalization and intersection traffic flow, incident management, pedestrian safety and access, context engineering, expedited project delivery, and expanding telework.

Environmental Agenda Objectives Supported:

- Air Quality & Transportation #1

Other Plans or Documents where this action appears or that it supports:

- Comprehensive Plan.

Lead Agency:

Department of Transportation

Status/Plans/Outcomes

Several projects included in the Plan have been completed and many are in the bid or construction phase. Bus ridership has increased in the Richmond Highway corridor following the service restructuring, and the Burke Centre VRE Station parking garage project remains on schedule. FCDOT provides the Board of Supervisors with a Four-Year Transportation Plan status report on a quarterly basis. To date, of the projects funded by the 2004 Bond Referendum, about seven are complete and nine are in the bid advertisement process or under construction. Of the projects funded by other means, around twelve have been completed and nineteen are under bid advertisement or construction.

Resources

Funding for the capital program is a combination of \$50 million in federal Regional Surface Transportation Program (RSTP) and Congestion Management and Air Quality (CMAQ) funds anticipated to be received by the County as well as \$165 million in County General Obligation (G.O.) bonds approved by the voters on November 2, 2004. The total funding is \$215 million.

EIP08-AQ07-19(B). Fairfax Connector Emissions Reduction Program

Description of Action

Fairfax Connector is using a four-point diesel Emissions Reduction Strategy involving Horsepower Reduction, Engine Idle Reduction, Ultra-Low Sulfur Diesel (ULSD) fuel, and Diesel Particulate Filters (DPF). This strategy will reduce vehicle exhaust particulate matter, carbon dioxide, and hydrocarbons.

Environmental Agenda Objectives Supported:

Air Quality and Transportation 1 (and General)

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan.

Lead Agency:

Department of Transportation

Status/Plans/Outcomes

The pilot program is complete and installation of DPF's on the existing bus fleet is scheduled for Calendar Year (CY) 2006 and purchase of 70 new buses with factory installed DPF's is scheduled for CY 2006. Projections for implementation of the four components of the diesel Emissions Reduction Program are outlined as follows: Reduction of horsepower through engine reprogramming will reduce fuel consumption by 5% and all emissions by 1%. Bus engines have also been programmed to shut down automatically after minimal idle time resulting in an additional 5.25% emissions reduction. Use of ULSD will reduce particulate matter (PM) emissions up to 10 percent in buses without DPFs. Use of ULSD in buses with DPFs will reduce particulate matter up to 90%, carbon monoxide up to 75%, and hydrocarbon up to 85%.

Resources

Board of Supervisors approved \$1,480,000 for the Bus Emissions Reduction Program in the FY 2003 Carryover, and later added \$150,000 for a total of \$1,630,000.

EIP08-AQ07-20(B). Fairfax County Transit Program

Description of Action

Fairfax County's transit system, as part of a multi-modal transportation system, is provided by the Fairfax Connector bus service, Metrobus, Metrorail, MetroAccess, CUE Bus, and Virginia Railway Express (VRE). The Fairfax Connector bus service operates 55 routes, providing service to the County's six Metrorail stations. Metrobus has 87 bus routes in the County providing express bus service along Richmond Highway corridor, and service to six Metrorail stations. The County also subsidizes heavy rail service, by Metrorail and commuter rail services operated by the Virginia Railway Express (VRE). In addition, the County is in the process of implementing park-and-ride lots, transit centers and bus stop and pedestrian improvements at various locations throughout the County to support the various transit carriers.

Environmental Agenda Objectives Supported:

Air Quality and Transportation 1;
Growth and Land Use 1, 3 and 7

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan.

Lead Agency:

Department of Transportation

Status/Plans/Outcomes

Fairfax County's transit system, as part of a multi-modal transportation system, continues to enhance customer service through implementation of new technologies, customer care initiatives and implementation of bus service such as "Richmond Highway Express" (REX). As part of the County's multi-modal transportation program strong support continues for Metro and VRE service. Funding has been identified for purchase of new trains and rehabilitation of existing train cars allowing for expansion to eight car Metrorail trains under the Metro Matters Funding Agreement approved by the Board in November 2004. Financial support for VRE has contributed toward the purchase of new double deck passenger cars. The County subsidizes CUE bus service within Fairfax County for bus service to the Vienna/Fairfax GMU Metro Station.

Continued

Ridership on all transit systems serving Fairfax County have seen increases with Fairfax Connector FY 2006 ridership projected to be 8.6 million, Metrobus ridership at 9.5 million, Metrorail boardings in Fairfax County projected to be 28.4 million and VRE boardings to be 830,000. To further encourage use of mass transit during Code Red air quality alert day the entire region transit systems offer free rides to all passengers.

Resources

Fairfax County supports our multi-modal transit system with annual general fund and general obligation bond support of \$23.06 million for Fairfax Connector, \$54.2 million for Metrobus, Metrorail and Metro Access service, and \$3.94 million for VRE commuter rail service.

EIP08-AQ08-01(B). Regional Urban Forestry SIP **Working Group**

Description of Action

This working group, organized by the Washington Metropolitan Council of Governments, is comprised of state and local urban forestry officials from Virginia, Maryland and the District of Columbia has been tasked by the Metropolitan Washington Air Quality Committee to identify a set of specific urban forestry practices that can be included as a credited measure in future Metropolitan Washington Air Quality Plans.

Environmental Agenda Objectives Supported:

- Air Quality and Transportation
- Environmental Stewardship

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan.

Lead Agency:

Department of Public Works and Environmental Services, Urban Forest Management Division

Status/Plans/Outcomes

Representatives from the Urban Forest Management Division, DPWES (UFM) attended the first meeting of the Urban Forestry SIP Working Group in April, 2006. As a result of that meeting, UFM is working with urban forestry officials from the other Northern Virginian jurisdictions that are included in the Metropolitan Washington airshed to identify urban forestry-related ordinances, policies, practices, programs, and community efforts that could be combined into a credited voluntary measure for future air quality plans (a.k.a. State Implementation Plan or SIP). In late 2005, the United States Environmental Protection Agency approved tree-related measures such tree planting and tree preservation programs as “promising and emerging” voluntary measures that can receive limited offset credits (up to 6% of total) in Ozone mitigation programs. Urban Forestry SIP Working Group is among the first in the nation to work to define an urban forestry measure. As an initial step in 2007, the finalized urban forestry measure will be submitted for review and possible inclusion into a bundle of promising and emerging voluntary measures that will be included the 2007 Metropolitan Washington Air Quality Plan. Future efforts by this group may involve quantifying the discreet impacts of urban forestry practices on air quality in an attempt to gain significantly higher levels of Ozone offset credits in future (beyond 2007) regional SIPs.

Resources

Future activities by this group could require extensive staff time and funding. The activities and programs of non-profit community-based tree planting groups may be identified as a practice in the final urban forestry measure.

EIP08-AQ07-22(C). Fuel Economy and Emissions Standards

Description of Action

Develop a formal federal advocacy strategy within the context of the Metropolitan Washington Air Quality Committee (MWAQC) collaborative process to increase fuel economy and emission standards for cars and light trucks. More stringent standards would reduce emissions of ozone precursors. Build upon previous County correspondence with the Virginia Congressional Delegation.

Environmental Agenda Objectives Supported:

Air Quality and Transportation #5

Other Plans or Documents where this action appears or that it supports:

None

Lead Agency:

Office of the County Executive – Environmental Coordinator

Status/Plans/Outcomes

Draft an advocacy plan for the County's MWAQC representatives to propose to the Committee. The intent would be to enact progressively stricter standards for fuel economy and emissions as a means of mitigating the production of ozone precursors. MWAQC might correspond with Congress to revise existing laws and with the Environmental Protection Agency and Department of Energy to initiate or accelerate rulemakings under current laws which advance this objective. MWAQC could also invite speakers and conduct workshops to facilitate and encourage coordinated efforts by members to communicate on their own authorities a unified message to Congress and the federal agencies.

Resources

Continuing efforts require allocation of current staff time. No new resources are required.

EIP07-AQ07-23(C). Annual Assessment of Alternative Fuel Vehicle Technology

Description of Action

DVS will conduct a literature review and consultation with industry sources and fleet users to evaluate the advisability of incorporating developing alternatives to petroleum diesel fuel in the county fleet. The objective is to identify ways to reduce the emissions and dependence on non-renewable resources of current vehicle and equipment systems. This evaluation will occur in the summer of each year until an avenue away from petroleum diesel fuel becomes clear. In the previous EIP, this action was number EIP07-AQ-C-2.

Environmental Agenda Objectives Supported:

Air Quality and Transportation #6

Other Plans or Documents where this action appears or that it supports:

Air Quality Management Plan

Lead Agency:

Department of Vehicle Services

Status/Plans/Outcomes

The first formal assessment is planned for summer 2006. DVS would update assessments each year until an effective and economically sound concept emerges. At that point, DVS would recommend redirecting efforts to implementing use of that alternative. As alternative fuels and the vehicles that use them continue development, we expect to identify one or more fuels that could displace some, and possibly eventually all, of our petroleum diesel fuel usage. We would recommend paying some premium over the cost of current vehicles and fuel in order to achieve desired emissions reductions and reduced oil dependence. The course we recommend would also demonstrate a viable strategy for other public and private fleets.

The first assessment is expected to be complete in the summer of 2006.

Resources

DVS will absorb the cost of annual assessments with currently authorized staffing.

Resources required for implementation of a future plan could be substantial, but will be unknown until the plan begins to take shape. No funding sources are yet identified. Federal grants are often available by competitive application for demonstration projects. Pursuit of grant funding would likely be part of the implementation effort once a concept is adopted. Significant levels of county funding over many years will also almost certainly be required.

EIP08-AQ08-02(C). Station Access Management Plans: Wiehle Avenue Station and Reston Parkway Station

Description of Action

The Dulles Metrorail Extension- Phase I to Wiehle Avenue is expected to become operational in late 2011 or early 2012. As a part of the Environmental Impact Statement (EIS) for the project, a number of traffic improvements are necessary to address pedestrian and automobile circulation to the stations as identified in the Federal Transit Administration's Record of Decision. The study will examine and identify congested areas and choke points and propose solutions that can be implemented prior to the opening of the stations. An assessment of the feeder bus networks and service levels prepared for the EIS will also be evaluated to determine the feasibility of those services and to recommend enhancements to the proposed feeder bus services. A multi-year capital program will be established for approval and adoption by the Board of Supervisors.

Environmental Agenda Objectives Supported:

- Growth and Land Use 4, 7
- Air Quality and Transportation 1, 3,

Other Plans or Documents where this action appears or that it supports:

- Board of Supervisors Four-Year Transportation Program
- Fairfax County Vision – Core Purpose and Desired Results
- Fairfax County Comprehensive Plan; Transportation Section;
 - Objective 2, Policy a., Policy b., Policy i., Policy j., Objective 9, Policy b., Objective 10, Policy a., Objective 11, Policy c.
- Washington Metropolitan Area Transit Authority (WMATA) Regional System
- Washington Metropolitan Region Constrained Long-Range Plan (CLRP)

Lead Agency:

Department of Transportation

Status/Plans/Outcomes

Study will be initiated in the fall of 2006

EIP08-AQ08-02(C). Station Access Management Plans: Wiehle Avenue Station and Reston Parkway Station
Continued

Resources

Approximately \$500,000 has been budgeted for this study. Funds have been identified in the budget for FY 2006 third quarter carryover. In addition to the consultant effort required for this study, staff will participate in every aspect of the study through a comprehensive public outreach effort.

EIP08-AQ08-03(C). Commercialization of Hybrid-Electric Drive School Buses

Description of Action

Participate with FCPS in a consortium of school jurisdictions from across the country to contract for delivery of a small number of early-production, plug-in hybrid-electric school buses.

Environmental Agenda Objectives Supported:

Air Quality and Transportation 6

Other Plans or Documents where this action appears or that it supports:

Air Quality Management Plan

Lead Agency:

DVS

Status/Plans/Outcomes

DVS has participated with other jurisdictions from several states (Arkansas, California, Florida, Iowa, Nevada, North Carolina, Pennsylvania, South Carolina, Texas, and Washington) to produce a technical specification for a plug-in hybrid-electric school bus. This consortium was formed after earlier efforts showed the technical and financial feasibility of such a vehicle.

The hybrid school bus is expected to reduce the diesel fuel consumption of the bus by at least 40 percent compared to a similar bus of the same model year. It will also have substantially reduced emissions compared to a similar bus.

A request for proposals (RFP) was issued June 21, 2006. Individual jurisdictions will contract and order buses based on the resultant award. Orders placed by late in 2006 are expected to be filled before the start of the 2007-2008 school year.

The RFP requests bidders to propose a bus fulfilling as much of the technical specification as possible within a budget of \$200,000 per bus for about 20 buses. This cost compares to about \$60,000 for a similar bus with a conventional drive system. The investment is deemed reasonable when considering the advancement of the technology by demonstrating the commercial feasibility of the vehicle, the potential for substantial emissions reductions, the high level of expected fuel savings, and the likelihood of reduced maintenance costs.

Resources

FCPS and DVS would expect to share the cost of one plug-in hybrid electric bus, to be operated by FCPS, at approximately \$100,000 for each agency. Grant funding may become available through several provisions of EPACT 2005, but none have yet been announced, and awards would be competitive and therefore not guaranteed.

EIP08-AQ08-04(C). Fire Equipment Diesel Exhaust Retrofit

Description of Action

Retrofit all eligible fire equipment in the county fleet with diesel oxidation catalysts or other emissions reducing technology. Eligibility criteria include age and projected use.

Environmental Agenda Objectives Supported:

Air Quality and Transportation (general)

Other Plans or Documents where this action appears or that it supports:

None.

Lead Agency:

Department of Vehicle Services

Status/Plans/Outcomes

School buses and class 8 heavy trucks were completed in previous years. This project would be a continuation of the Diesel Retrofit Program to retrofit all diesel vehicles in the county fleet.

Resources

Preliminary estimate of cost is \$300,000. This project is funded from the *FY 2003 Carryover*.

We have been successful in the first two phases in getting state and federal grant money to cover part of the cost. Grants are competitive, so while we will pursue further financial assistance, none can be guaranteed.

EIP08-AQ08-06(B). Telework Initiatives

Description of Action

The Board of Supervisors and the County Executive continue to champion this effort. The goal is to continue to increase the number of Fairfax County government employees who telework with a focus on Continuity of Operations.

Environmental Agenda Objectives Supported:

Air Quality and Transportation 2

Other Plans or Documents where this action appears or that it supports:

Air Quality Management Plan

Lead Agency:

Office of the County Executive

Status/Plans/Outcomes

The Fairfax County Board of Supervisors and the County Executive have supported Telework as a work option for the county workforce since 1996 and have endorsed the Metropolitan Washington Council of Governments (COG) goal of 20% of the eligible area workforce teleworking by 2005. In October 2001, the County recommitted its Telework efforts and launched the Telework Expansion Project. The intent of the project was to increase employee participation to reach a goal of 1,000 teleworkers by the end of 2005. Fairfax County government reached its goal of 1,000 county employees teleworking by January 2006. Today, almost every county department has teleworkers, the number of teleworkers rose from 138 in December 2001 to over 1,030 in January of 2006. The goal is to continue to increase the number of staff teleworking with a focus on Continuity of Operations.

Funding sources

Funds for the Telework Expansion Project are contained in the departmental budgets of the Department of Information Technology (software licenses, loaner PCs, and pagers); the Department of Human Resources (printing costs of training materials/Telework sign-up forms); and the Department of Transportation (Employer Services materials).

EIP08-AQ08-05(C). Increasing Tree Canopy at Governmental Parking Facilities

Description of Action

This tree planting project will plant approximately 200 shade trees at governmental parking areas along with 20 educational signs to demonstrate how shade from tree canopy can be used as an air quality improvement practice to:

- reduce levels of Volatile Organic Compounds (VOCs) associated with the evaporation of unspent fuels from parked vehicles
- reduce air temperatures in urbanized environments associated with the formation of ambient Ozone
- reduce the need for maintenance practices that produce VOCs from the operation of grounds maintenance equipment
- reduce air pollution levels through the ability of tree canopy to absorb significant levels of Ozone and other pollutants

Environmental Agenda Objectives Supported:

Air Quality & Transportation (General)

Parks Trails and Open Space (General)

Environmental Stewardship (General)

Other Plans or Documents where this action appears or that it supports:

Benefits and Application of Natural Landscaping and Five-year Implementation Plan (The report prepared for the BOS by the NLC)

Lead Agency:

DPWES—Urban Forest Management

Status/Plans/Outcomes

The level of funding is sufficient to add approximately 200 deciduous shade trees to governmental parking areas and to install 20 associated educational signs. This project will support efforts of the Natural Landscaping Committee and could possibly be used as a tree-related air quality improvement practice in future Washington Metropolitan Air Quality Plans.

Resources

Funding needed: \$75,000

EIP08-WQ08-1(A). Incorporate Stream Assessment Tool Software into GIS Stream Layer

Description of Action

Incorporate Stream Assessment Tool Software into the GIS Stream Layer to aid in identifying downstream conditions during the Plan review stage.

Environmental Agenda Objectives Supported:

Water Quality 1, 2;
Growth & Land Use 5.

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan.
Infill and Residential Development Study

Lead Agency:

DPWES

Status/Plans/Outcomes

New Stream Assessment Tool software was brought on line, which will enhance watershed protection by revealing downstream physical conditions to plan reviewers during the plan review stage. Currently, DPWES staff is educating other user agencies in the use of the software.

Resources

\$200K was allocated for the purchase and installation. Current funding levels are adequate to cover costs of anticipated maintenance and upgrades.

EIP08-WQ08-2(A). 2006 Radio Ad Campaign

Description of Action

Conduct an outreach campaign in partnership with the Northern Virginia Regional Commission and surrounding local jurisdictions to educate citizens about the new storm drain marking program. Measure the effectiveness of the campaign by means of a pre-ad survey and a post-ad survey.

Environmental Agenda Objectives Supported:

Water Quality 1, 8, 9 and 10
Environmental Stewardship 2;

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Watershed Management Plans
2007 MS4 Permit

Lead Agency:

DPWES

Status/Plans/Outcomes

Complete, with ongoing education and outreach

Resources

\$93.45K was allocated. No additional funding needs are anticipated.

EIP08-WQ07-1(B). Watershed Management Planning

Description of Action

Starting in FY 2002, the County began the development of comprehensive watershed management plans for thirty (30) watersheds. These watershed plans will be used to establish the Capital Improvement Program investment needs for protection of water quality and stream health as well as plan an important role in permit compliance and Total Maximum Daily Load (TMDL) strategies. The Plans will generate project recommendations, policy recommendations and county-wide strategies with a planning horizon of twenty years.

During the Watershed Planning process a number of policy-related recommendations have been provided by the citizen-based steering committees as well as the consultants completing the plans. It is anticipated that additional policy-related recommendations will be generated as the watershed management planning process continues. Once the planning process has progressed sufficiently, it will be important to compile and review all the policy recommendations to determine their viability and to address other strategies recommended that may require changes in policy and/or regulation to be implemented.

Environmental Agenda Objectives Supported:

Water Quality 1, 2, 3, 5, 6, 7, 8, 9, 10 and 11.
Growth and Land Use 5

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

DPWES

Status/Plans/Outcomes

Two plans are complete and have been approved by the Board of Supervisors. Four are in draft stage and have been disseminated to the reviewing parties, with an anticipated delivery date to the Board of Supervisors by mid Fiscal Year 2007. A consultant has been selected to assist in preparing the remaining plans, all which will be started in FY 2007.

The watershed plans drive the current investment strategy for the capital improvement program. In addition, under Environmental Protection Agency guidance, the preparation and implementation of watershed plans can be used to establish compliance with TMDL objectives. In FY 2006, staff completed its review of draft TMDLs for bacteria in seven water bodies (three of which also included TMDLs to address a Benthic impairment):

EIP08-WQ07-1(B). Watershed Management Planning
Continued

- Popes Head Creek
- Broad Run
- Kettle Run
- South Run
- Little Bull Run
- Bull Run
- Occoquan River

The results of that review were forwarded to the EPA on May 1, 2006. County staff will continue to track the creation of new TMDLs on stream segments within the County, amending watershed plans as appropriate to keep the County in compliance.

Periodically, the County will review the BMPs and technologies identified within the Plans, utilizing the Stream Physical Assessment and other tools to measure effectiveness of their implementation.

Upon completion of the first five watershed plans in the spring of 2006, an initial evaluation of policy recommendations will be completed. Based on this review, actions may be recommended immediately or may be reconsidered upon completion of all the watershed plans. Where it is critical that changes be made to existing policies in order to move ahead with plan implementation, there will be a strategy initiated to address those recommendations.

Resources

Depending upon final scope of the consultant contract, it is estimated that the completion of the watershed plans will cost \$7.7 million dollars, approximately \$3.9 million in General Fund and \$3.8 million in Pro Rata Share Funds. The contracts for completion of the watershed plans are expected to be approved in FY 2007, with all of the plans to be started the same fiscal year..

EIP08-WQ08-3(B). Stormwater Management Review Process

Description of Action

Increased involvement in the review of stormwater management issues during the zoning process by the staff of the Department of Public Works and Environmental Services (DPWES).

In 2004, the Board of Supervisors adopted an amendment to the Zoning Ordinance that required more substantial stormwater management information for rezoning, special exception, and special permit applications (see EIP07-WQ-A-1). Appropriate staff needs to review the additional information in order to ensure that effective controls and practices are incorporated into site designs; the involvement of DPWES in the review of stormwater management information submitted during the zoning process has, therefore, increased.

The rezoning reviews and comments by NVSWCD also scrutinize stormwater management issues. Following a site visit, comments are sent to DPZ regarding soils, slopes, vegetation and other natural resources and the potential environmental impacts of the proposed land-use change. Recommendations are made for better site design and stormwater management practices that will improve the protection of streams and other natural resources, both on-site and off-site.

Environmental Agenda Objectives Supported:

Water Quality 1, 2, 3, 5, 7, 8, 9, 10, 11;
Growth and Land Use 5.

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Infill and Residential Development Study
Watershed Management Planning

Lead Agencies:

DPWES and DPZ

Status/Plans/Outcomes

The increased involvement in the zoning process by DPWES staff, as well as continued technical guidance provided by the Northern Virginia Soil and Water Conservation District, have facilitated, and will continue to facilitate, the identification and pursuit of viable site design and stormwater management approaches. Increased DPWES involvement in the zoning process is also providing for improved continuity from the zoning process to the site plan/subdivision plan review process. Additionally, as previously noted, new Stream Assessment Tool software has been brought on line that will enhance Stormwater management reviews by revealing downstream physical conditions to plan reviewers during the plan review stage. Additional guidance in the use of the new software is being provided to LDS, DPZ.

EIP08-WQ08-3(B). Stormwater Management Review Process
Continued

Resources

Staff review time for this function is currently provided within the operating budget of the Stormwater Planning Division of DPWES and NVSWCD.

EIP08-WQ07-2(B). Stormwater Management Implementation Plan

Description of Action

This initiative includes implementation of the County's Stormwater Management draft program implementation plan, including strategies addressing the Regional Pond Report and follow up actions. One key element of the Plan is an expanded Capital Improvement Program, including a reinvestment strategy for the existing infrastructure. Fairfax County's stormwater management program includes responsibilities for runoff controls, including management of an extensive drainage system composed of pipe, open channels, stormwater management facilities, detention and retention ponds and natural waterways. In addition, the County is a regulator of development practices and the management of stormwater by private property owners.

Environmental Agenda Objectives Supported:

Water Quality 1, 2, 3, 5, 7, 8, 9, 10 and 11;
Growth and Land Use 5.

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Watershed Plans
MS-4 Permit

Lead Agency:

DPWES

Status/Plans/Outcomes

The FY 2006 program made great progress toward implementing the Board of Supervisors' Environmental Agenda and the recommendations of EIP07. Important strides were made in watershed plan implementation, regional pond construction, infrastructure replacement, stream restoration and flood proofing. Moreover, the Capital Improvement Program was expanded significantly to begin a new infrastructure replacement program and to reduce backlog..

The following information summarizes the status, plans and/or outcomes of the primary Stormwater Management Implementation categories:

- **Watershed Management Planning:** Two watershed management plans have been completed and are being implemented. Four additional plans are undergoing final review with an anticipated delivery date to the Board of Supervisors by mid FY 2007. Combined, these six plans will cover more than 50 percent of the land area in the county. The remaining watershed plans will be started in FY 2007, using the services of a consulting firm.

- **Capital Improvements and Infrastructure Retrofit:** Of the \$36M Capital Improvement Spending Plan approved for FY 2006, it is expected that 85% of the Plan will be implemented by the end of the fiscal year. These projects mitigate house flooding, stabilize streams, rehabilitate dams and improve the water quality of stormwater runoff. Fairfax County and its partners also constructed demonstration projects to encourage the use of low impact development concepts and techniques.
- **Maintenance and Operation:** Fairfax County continues to maintain more than 1,000 stormwater management facilities; 1,400 miles of pipe; and 45,000 drainage structures designed to protect 850 miles of perennial streams.
- **Strategic Initiatives, Policy, Management, and Emergency Response:** Fairfax County completed a quality assurance review of the perennial streams and Resource Protection Areas that resulted in identifying an additional 5.5miles of perennial streams. The Board of Supervisors committed additional financial resources to stormwater management and watershed protection through the commitment of a dedicated penny of the real-estate tax.
- **Monitoring and Assessment:** Watershed monitoring included dry and wet weather screening, bacteria monitoring, biological monitoring, and storm event water quality monitoring. The county is also using data collected from more than 400 volunteer monitors and 500 students to track stream conditions.
- **Public Outreach and Education:** Fairfax County conducted presentations and booths at 27 community meetings events to raise awareness about non-point source pollutants and actions residents can take to help protect streams. Fairfax County partnered with numerous local agencies to promote environmental stewardship such as the stream cleanups in 2005 that mobilized more than 1,000 volunteers. The county also partnered with various organizations to host a high school science program, a middle school teacher training program, stream buffer restoration projects, and a regional pollution prevention radio campaign.
- Each year, staff will evaluate progress made and initiate or continue program elements to achieve the goal of a comprehensive approach to stormwater management within the county.

Resources

It is anticipated that the on-going services for stormwater management will grow annually. A continued reinvestment is required to maintain the Stormwater infrastructure, both natural and man-made. Priorities will be established through the watershed master planning process, physical inspections, and as needs are identified through other methods. The current funding includes the penny on the real estate tax rate and pro-rata funds collected for new development.

EIP08-WQ08-4(B). Low Impact Development Initiatives

Description of Action

Review County codes, regulations and policies to develop recommendations for amendments to the Public Facilities Manual that will encourage the use of low impact development (LID) practices. Develop a Design Manual that contains design and construction standards for LID practices. The manual will be recommended for adoption into the Public Facilities Manual (PFM) by reference either in its entirety or with minor specified differences. Construct projects throughout the County to demonstrate LID designs and practices.

Environmental Agenda Objectives Supported:

Water Quality 1, 2, 3, 5, 7, 8, 9, and 10;
Growth and Land Use 5.

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Infill and Residential Development Study
Watershed Management Planning
MS-4 Permit

Lead Agency:

DPWES

Status/Plans/Outcomes

These recommendations are being implemented. DPWES continues to collaborate with surrounding jurisdictions, state agencies and other local professionals to expand their knowledge of LID and other innovative techniques. 6 LID practices have been identified for Phase I implementation. PFM amendments for the following 6 practices are currently in preparation and/or under review by the Engineering Standards Review Committee: bioretention basins and filters, vegetated roofs, pervious paving, reforestation, vegetated swales, and tree box filters. A related white paper, recommendations for program integration, and related report are remaining tasks. It is anticipated that they will be presented to the Board of Supervisors for authorization and adoption during the summer of 2006. A complete analysis of additional tools as well as a review of ordinances and regulations need to be completed as part of Phase II. Other LID techniques will be considered for inclusion in the PFM over time.

The amendments to the adequate outfall provisions clarify the extent of downstream analysis that must be provided; and provide options for proving no adverse impact and a proportional improvement of outfalls. The amendments to the drainage diversion provisions provide guidance as to when a diversion may be justified and requirements for analyzing downstream impacts.

Projects currently underway include vegetated roofs at several County facilities and multiple LID practices at other County sites. The Office of the Providence District Supervisor project is complete, with monitoring to begin at the end of FY06. Tinner Hill Cultural Center is in design stage. Infiltration studies have been completed at St. Louis Church, in preparation for retrofitting the site with LID-based stormwater controls. The LID hydrologic study and design report recommendations for the Lorton Arts Foundation redevelopment site will be incorporated into approximately half of the site. A demonstration rain garden has been installed on site already. The Fairfax County Park Authority has selected five sites for demonstration projects: Cub Run RecCenter, Mt. Vernon RecCenter, Audrey Moore RecCenter, South Run District Park and Greendale Golf Course. Low Impact Development techniques anticipated include: vegetated swales, soil amendments, rain gardens/bio-cells, storm pond best management practice retrofits, cisterns and planter boxes. Design work is well underway and construction of the first project is anticipated to begin in the summer of 2006. Also, several groups are partnering to install a rain garden at Marie Butler Leven Park.

DPWES staff continues to collaborate with DPZ to incorporate LID into rezoning cases, where appropriate. SWPD staff provides technical expertise in the form of recommendations regarding the ways in which a site may be developed in a more environmentally-sensitive manner. Additionally, NVSWCD visits all sites for which there is a rezoning or special exception application and provides comments to DPZ. The comments include suggestions for better site design to protect natural resources, both on-site and off-site, and include the incorporation of LID techniques when appropriate.

Other ongoing efforts include:

- Development of a Low Impact Development/Best Management Practices Handbook with the Northern Virginia Regional Commission.
- Numerous joint endeavors with the Northern Virginia Soil and Water Conservation District.
- On-going coordination between FCPA and DPWES and the Urban Forest Management Division
- A workgroup within DPWES was established to identify ways to incorporate LID into policies and codes.
- A workgroup was formed that included staff from the Army Corps of Engineers and the Department of Environmental Quality, which sent a Letter to Industry and a technical bulletin to the Department of Conservation and Recreation on a LID handbook, which currently is being developed.

- Living Lightly – Living Green: A Workshop Series, “Demonstrating Innovation”. Innovative redevelopment techniques, including a tour of a rain garden, green roof, and permeable parking lot at the Providence District Government Building. Local experts lead a tour of these three innovative projects, also known as Low Impact Development projects.

Resources

\$40,000 currently is funded for design manual development. \$150K has been funded for FCPA Demonstration Projects. Funding for other Demonstration projects is included in the Stormwater Management Implementation Plan. \$250K in consultant services will be needed to develop Phase II amendments to PFM.

EIP08-WQ07-3(B). Stormwater Retrofits

Description of Action

Retrofitting existing stormwater management facilities to provide improved stormwater management and water quality controls is a key goal for the on-going maintenance and operation of the system under county responsibility. The County is the owner or operator of over one thousand (1,000) stormwater management facilities. Management of the drainage system for long-term effectiveness and for environmental protection includes, where appropriate, addressing both quantity control (detention) to water quality controls. During the completion of the watershed planning process, opportunities will be identified for retrofitting existing stormwater facilities to provide new or additional water quality protection within the targeted watershed. These projects will include converting existing dry detention facilities by the addition of vegetation and wet pools.

Environmental Agenda Objectives Supported:

Water Quality 3, 5

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Watershed Management Plans

Lead Agency:

DPWES

Status/Plans/Outcomes

In 2005, seven stormwater management ponds, serving a drainage area greater than 80 acres, were rehabilitated and/or retrofitted. Rehabilitations consisted of repair, replacement, or modification of the facility to meet or exceed safety and functional requirements and to extend the service life of each facility. Retrofits employed the use of shallow wetland marshes to enhance nutrient uptake and provide an increase in water absorption and transpiration. A secondary effect of wetland marshes and naturally vegetated pond floors is the creation of habitat for wildlife.

In addition, two regional stormwater management facilities were completed during 2005 providing Best Management Practice for 60 acres and controlling stormwater runoff from 192 acres of land. There were an additional twelve regional facilities in the design plan stage in 2005.

Resources

Resource demands will be quantified as potential projects are identified. Funding would be provided in the overall stormwater program budget each fiscal year.

EIP08-WQ07-4(B). Riparian Buffer Restoration

Description of Action

As part of the watershed planning effort, a countywide stream physical assessment was conducted of over 800 miles of stream. Several aspects of stream habitat conditions were evaluated including the identification of deficient riparian buffers. A total of 40 sites, mostly on public land, were identified for planting projects to be completed by Fall 2007.

Environmental Agenda Objectives Supported:

Water Quality 3, 7 and 8.

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Watershed Management Plans

Lead Agency:

DPWES

Status/Plans/Outcomes

A partnership agreement was executed between the Board of Supervisors, Virginia Department of Forestry and Earth Sangha in March, 2005, to implement planting plans and invasive species management. Initial plantings commenced in late March, 2005, at seven Park Authority owned sites.

Spring 2005 planting summary

- Number of sites: 7
- Invasives control: 11,000 square feet
- Total seedlings planted: 1,520
- Live stakes installed: 275
- Area restored: more than 100,000 square feet (2.3 acres)
- Number of volunteers: 297
- Total volunteer hours: 1,093

Fall 2005 planting summary

- Number of sites: 6
- Total seedlings planted: 1,910
- Total area restored: 5.6 acres
- Number of volunteers: 425
- Estimated total volunteer hours: 1, 250

Spring, 2006 and future efforts

- Eight sites identified on Park land for restoration
- Plantings commenced in April at these sites
- Have started prioritizing identified buffer deficiencies on home owner association(HOA) owned private land.

It is anticipated that the program will be ramped up by Fall, 2006, by renewing the agreement with Earth Sangha and VDOF and by acquiring consultant support through an existing environmental services contract for evaluating sites, developing planting plans and overseeing plantings.

Resources

The Board of Supervisors approved and allocated \$300,000 of funding for implementation of the riparian buffer restoration project which supports the Board's adopted Environmental Agenda.

EIP08-WQ07-5(B). Stream Stabilization and Restoration Projects

Description of Action

Stream stabilization and restoration is an important objective in achieved improvement in the overall health of the stream system throughout the County. The Stream Physical Assessment completed in 2003 defines the needs along various stream segments. The current condition of the streams varies throughout the County and as watershed plans are completed, specific projects are being identified to address these situations. Interdisciplinary scoping, planning, design and construction processes are being developed and utilized to address the evaluation process as well as implementation strategies.

Environmental Agenda Objectives Supported:

Water Quality 8.

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

DPWES

Status/Plans/Outcomes

Reestablishing stream corridors will contribute to long-term stabilization, aquatic improvements, increased habitat and healthier streams. Evaluation stream restorations will occur in the overall program assessment process.

Environmental consulting firms have been engaged through a multi-year contract to assist with these projects. In addition, construction contracts with qualified contractors are in place and restoration work in progress in various locations, based on their designated priority. Of the \$36M Capital Improvement Spending Plan approved for FY2006, it is expected that 85% of the Plan will be implemented by the end of the fiscal year. All of the projects will utilize environmentally sensitive construction strategies to stabilize a stream bed and stream bank while replanting appropriate native species to ensure long-term viability of the restoration. It is anticipated that additional projects will be identified in the watershed plans. In a unique partnership, FCPA, NVSWCD, a private firm, nearby homeowners, and the Dranesville District Supervisor's office are coordinating to stabilize approximately 400 feet of Little Pimmit Run that is located in parkland. The homeowners are funding 80% of the project.

Resources

Current funding levels are adequate to support these initiatives.

EIP08-WQ07-6(B). Septic System Tracking and Assistance Program

Description of Action

Review Health Department's inspection of septic systems and their requirement for septic system pump-out and maintenance on a regular basis, for example, every five years. Develop a management and tracking program for existing onsite sewage disposal systems, which:

- Establishes a process for routine inspections of the existing 30,000 existing disposal systems to identify systems that have failed or are in the process of failure due to neglect or overuse.
- Notifies property owners of the septic tank pump-out requirement and tracks compliance.
- Completes in depth surveillance and monitoring of high-tech alternative disposal systems.
- Completes in depth surveillance and monitoring of systems located in marginal to poor soils.
- Develops an outreach program to educate the new home buyer of the type of disposal system that they have purchased and the necessary maintenance issues associated with that type of system.
- Develops an outreach program that targets the real estate industry to educate realtors on the different disposal systems and the specific needs of each.
- Aids in the overall protection of groundwater and the Chesapeake Bay from runoff and contamination.

Environmental Agenda Objectives Supported:

Water Quality 10, 11

Other Plans or Documents where this action appears or that it supports:

2007 MS4 Permit

Lead Agency:

Health Department

Status/Plans/Outcomes

This Program is on hold pending results of a Feasibility Study to develop a management and tracking program for onsite septic systems. A contract has been awarded and the Study is expected to be completed in 15-18 months.

Resources

Funding in the amount of \$178K was approved in the FY 2006 Adopted Budget and carried over for FY 2007.

EIP08-WQ07-7(B). Erosion and Sediment Control Inspections – Compliance with New Mandates

Description of Action

The County is required to maintain a state-approved erosion and sediment control program that includes inspection of disturbed sites at an appropriate frequency to ensure compliance with E&S control requirements. HB1177 establishes the ability of the State to transfer to local governments the responsibility for oversight and issuance of authorizations under the General Permit for Land Disturbing Activities. The State is working under this mandate to transfer the responsibility for permitting land disturbing activities under the National Pollutant Discharge Elimination System program for the issuance and enforcement of industrial-class permits. State law establishes the date of transfer as July 1, 2006. The county must develop a program that can address State standards.

Environmental Agenda Objectives Supported:

Water Quality 6

Other Plans or Documents where this action appears or that it supports:

Watershed Management Plans
Comprehensive Plan
2007 MS4 Permit

Lead Agency:

DPWES, LDS, Environmental and Facilities Inspection Division

Status/Plans/Outcomes

Based on a 2006 review of the County's Erosion and Sediment Control Program, the Department of Conservation and Recreation (DCR) has provided preliminary findings to DPWES, noting that the County's program is consistent with state mandates. DCR's full report and recommendations have not yet been received.

Land Development Services, DPWES staff, Northern Virginia Building Industry Association, and Engineers and Surveyors Institute are working together exploring ways to improve the effectiveness of the county's Erosion and Sediment Control Program. The committee's work is scheduled to be complete in 2006.

Classes and workshops were conducted in 2005 through the Engineers and Surveyors Institute on the county's Erosion and Sediment requirements, constructability issues, quality control of plans and inter-jurisdictional Erosion and Sediment regulations. The class and workshop were attended by both private and public sector employees.

EIP08-WQ07-7(B). Erosion and Sediment Control Inspections – Compliance with New Mandates
Continued

This supplemented the course conducted by Land Development Services staff through Engineers and Surveyors Institute which addressed house lot grading issues with an emphasis on the design of Erosion and Sediment controls and state and federal permit requirements.

Land Development Services organized and conducted a presentation to the Fairfax County Environment Quality Advisory Council pertaining to Erosion and Sediment controls and the protection of natural resources during the land development process. Other efforts included presentations to several citizen groups on the county's environmental protection requirements. In 2006, Land Development Services is expanding its outreach to other groups that are interested to learn about the county's efforts to protect our resources during the land development process.

During 2005 a total of 258 Erosion and Sediment plans were submitted and approved for projects that would disturb one acre or more of land. Monthly letters were written to the Department of Environmental Quality informing them of these individual sites (Appendix G). In addition, 27,469 Erosion and Sediment inspections were conducted by Land Development Services staff during 2005 on all sites under construction in Fairfax County. This amounted to providing Erosion and Sediment inspections on over 3,100 projects each month. Approximately 45 percent of the 3,100 projects per month consisted of bonded site plans and subdivision plans. The remaining 55 percent consisted of individual residential grading plans and minor site plans.

A 24-hour hotline established by the Code Services Division of DPWES continues to be an effective means for citizens to report complaints about erosion and sedimentation.

The County will continue to participate in the process of rule making and program standard development over the next year. During the FY 2007 budget process, a plan of action to address the necessary staff and operating costs will be developed. The impact could be substantial on existing County resources. Fees are charged for these permits and the State will receive a portion of the fees. It is intended that the fees provide 100 percent recovery of the cost of the program. Fee structures have not been established for the delegated program but will be part of the rule making process.

In the Chesapeake Bay Region, the threshold for the requirement of compliance with the General Permit is the disturbance of more than 2,500 square feet. State DCR is required to develop program standards and model ordinances, including the approval of a local program prior to delegation of responsibility.

Resources

The current cost of services for this program is funded through fees paid by the development community. Delegation of the General Permit compliance will also be fee-based with the State taking 30 percent of the fee charged to the developer. Fees are to be determined during the program development phase from DCR and Fairfax County will participate in the development of those fees.

EIP08-WQ07-8(B). Soil Survey Project

Description of Action

The Fairfax County Soil Survey is being updated under the leadership of the USDA's Natural Resources Conservation Service, in partnership with the county and NVSWCD. Originally published in 1963, the Soil Survey was based on field work completed in 1955 and covered 60% of the county. Over the last 45 years, county land use has changed immensely and the science of soils has progressed, particularly in the area of soil taxonomy. Much of the information used to describe soils in the 1963 survey is less useful to the densely populated urban county Fairfax has become. Additional soils work was done by the county between 1966 and 1990, but was never completed nor certified to national standards. The updated soil survey will reclassify the soils and provide updated and expanded interpretive information – including information on soils that have been bulldozed, backfilled, graded or otherwise disturbed by development, something that was not done in the past. The remainder of the county that was not surveyed will be mapped. The survey will be certified to USDA National Cooperative Soil Survey standards and incorporated into the USDA's National Soils Information System database. The new soil survey will be published in its entirety (maps, descriptions, interpretations and data tables) and available on the USDA's Web Soil Survey website, in CD format, and on the County's GIS system.

Environmental Agenda Objectives Supported:

Growth & Land Use 5
Water Quality 2, 5

Other Plans or Documents where this action appears or that it supports:

Watershed Plans

Lead Agency:

NVSWCD, GIS, DPWES

Status/Plans/Outcomes

The mapping and data collection have been completed and are undergoing quality control and assurance processes and awaiting scanning and digitization by the USDA-NRCS state office in Richmond. In addition, the special study to characterize the large percentage of disturbed soils in the County is nearly completed. Disturbed soils no longer have their original structure, are generally denser and less permeable than undisturbed soils, and create more runoff than undisturbed soils. Knowing the behavior and characteristics of human disturbed soils is vital for understanding the stormwater management and erosion issues that will affect Fairfax County in the future, especially as efforts towards meeting the Chesapeake Bay Agreement intensify.

EIP08-WQ07-8(B). Soil Survey Project
Continued

A Soil Survey Users Group facilitates ongoing communication during the Soil Survey update. It is comprised of county staff from: DPWES – LDS (ESRD, EFID, Building Plan Review and Permits Division, Code Services Division), SWPD, MSMD, UFMD; DPZ; Health; Tax Administration; FCPA; DIT –GIS; and staff from VCE, NVSWCD and NRCS).

In order to successfully transition to using the new information in the updated soil survey, the following tasks have been identified:

- to integrate the new survey maps and information into the county GIS;
- to create county-specific ratings for the new soils and to reassign problem classes and other ratings to the new soil types;
- to make the necessary changes to the county code;
- to provide training to county staff who deal with soil issues;
- to provide training to the private sector on the new soil survey information and its appropriate and effective use;
- to develop a process for maintaining and updating the soil survey as land uses change.

In addition to the tasks identified during the transition period, there will be a continuing need in the county for the expertise of a soil scientist:

- to maintain and update the county's soil survey, including coordinating with USDA-NRCS and GIS;
- to evaluate and interpret soils information;
- to conduct soils investigations;
- to retrieve and apply the appropriate soils information for given situations;
- to conduct soils-related research in order to meet county needs, especially to expand knowledge on the behavior of human disturbed soils;
- to evaluate and test soils for infiltration capability, especially for siting and designing LID practices;
- to provide advice to county staff, land managers, the development community and the general public; and
- to develop and lead training and education programs on soils and the appropriate and effective use of soil maps and soil information.

The expertise of a soil scientist, familiar with the county's soils and the county soil survey, is needed beyond the completion of the soil survey update.

Resources

County and NRCS funds have been committed for the soil survey update. The county's contribution to the project over a five year period is approximately \$780,000.

Beginning in FY 2008, approximately \$85,000 would be needed to continue to support one soil scientist.

EIP08-WQ07-9(B). Soil and Water Quality Conservation Planning for Horse Operations and Other Land in Agriculture

Description of Action

Soil and Water Quality Conservation Plans are developed for all land in agricultural use, which in most cases in Fairfax County are horse-keeping operations. The plans are written to comply with the Chesapeake Bay Preservation Act guidelines. They include best management practices to reduce: sediment pollution from erosion; excess nutrients from animal waste and fertilizers; and the misuse of pesticides and herbicides. The plans also include the establishment and maintenance of vegetated riparian buffers next to all streams and other Resource Protection Areas. As required by county ordinance, soil and water quality conservation plans are developed for all agricultural and forestal districts in the county. Plans are updated and technical assistance is provided by NVSWCD as needed. Conservation plans are developed for landowners receiving state cost-share money to install BMPs such as manure storage and composting structures, to fence animals out of stream, and to design pastures and watering systems that make more efficient use of the land and protect natural resources. An on-going outreach and education program encourages land owners to manage their land in an environmentally responsible way. This includes presentations at community events and distribution of the publication, *Agricultural Best Management Practices for Horse Operations in Suburban Communities*.

In addition, nutrient management and integrated pest management plans are reviewed, or developed, for nursery operations, golf courses, and other land uses.

Environmental Agenda Objectives Supported:

Water Quality 1, 7, 10
Environmental Stewardship 2

Other Plans or Documents where this action appears or that it supports:

Chesapeake Bay Preservation Ordinance
New Millennium Occoquan Watershed Task Force Report
Agricultural and Forestal District Ordinance

Lead Agency:

NVSWCD

Resources

This work is done as part of the NVSWCD annual plan of work.

EIP08-WQ07-10(B). Comprehensive Review of the County's Code and Zoning Requirements

Description of Action

This action would be a comprehensive review of site design requirements within the context of better site design principles (i.e., the Model Development Principles developed by the Center for Watershed Protection through its Site Planning Roundtable). The goals of the effort would be to identify regulatory impediments to a broader application of better site design principles in Fairfax County, to identify potential policy conflicts between better site design and other issues (e.g., the desire for adequate parking capacity vs. the desire to minimize impervious cover), and to draft appropriate Zoning Ordinance and/or other County Code amendments for consideration by the Planning Commission and Board of Supervisors.

Environmental Agenda Objectives Supported:

Water Quality 1, 2, 3, 5, 7, 8, 9, and 10;
Growth and Land Use 5

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Infill and Residential Development Study
Watershed Management Planning

Lead Agency:

DPWES and DPZ

Status/Plans/Outcomes

This review has not yet been initiated. A number of approaches could be taken to the implementation of this action. This could be done through an internal review by appropriate County agencies (DPZ, DPWES, and Department of Transportation), with coordination with the Planning Commission and Board of Supervisors and with stakeholder outreach at appropriate steps in the process, through a consultant contract, or through the Center for Watershed Protection's "Builders for the Bay" program (involving the establishment of a Local Site Planning Roundtable consisting of a diversity of stakeholders).

Resources

This would be a significant effort involving considerable staff time and resources regardless of the approach that is taken. If this effort is to be pursued through an internal staff review, other initiatives would need to be delayed—it is anticipated that the effort would need to be pursued by existing staff and that new staff resources would not be sought (the process will, by necessity, require considerable institutional knowledge). A very broad, order of magnitude estimate of what it might cost to hire a qualified consultant to conduct and complete this review would be \$100,000. Additional resources would likely be needed for a “roundtable” type program (estimated to total between \$200,000 and \$250,000). However, it should also be noted that there are numerous opportunities to apply for grants to fund such efforts, and staff anticipates that this funding would be sought for any efforts to implement this action.

EIP08-WQ08-5(B). Benchmarking Watershed Tree Cover Levels

Description of Action:

This action is an effort to identify the level of tree cover that exists in the County's major watersheds and to make that data available for use in a wide-range of natural resource management and land-use planning efforts. This action supports components of the Chesapeake Bay Program's Riparian Forest Buffer Directive which encourages communities to complete an assessment of their urban forest (including benchmarking tree cover levels), adopt local goals to increase urban tree canopy cover, and encourage measures to attain the established goals in order to enhance and extend forest buffer functions in urban areas. Watershed-based tree cover data can be used:

- as a watershed planning tool
- to identify the location of riparian buffer restoration projects
- to identify the location of tree plantings for air quality purposes
- to establish watershed-based tree cover goals
- to establish a Countywide tree cover goal
- to conduct geographic information system (GIS) analyses for natural resource management purposes
- to provide information relevant to land use planning and the review of proposed zoning cases

Environmental Agenda Objectives Supported:

Water Quality (General)
Growth & Land Use (General)
Air Quality and Transportation (General)

Other Plans or Documents where this action appears or that it supports:

The Chesapeake Bay Program's Riparian Forest Buffer Directive No. 03-01
Chesapeake Bay Preservation Ordinance
Agricultural and Forestal District Ordinance

Lead Agency:

DPWES, Urban Forest Management Division

Status/Plans/Outcomes:

This effort has been funded and is underway. This action supports a recommendation of the Tree Action Plan. Urban Forest Management Division is conducting a tree cover analysis using high-resolution satellite imagery acquired in 2002 and 2003 to establish tree cover percentage levels for the 30 major watersheds in Fairfax County. The 2002/2003 tree cover data will also be used to support periodic countywide canopy change detection analyses. The end product of this analysis will be a GIS dataset that can be utilized in conjunction with other GIS datasets such as streets, building footprints, and topography for a wide variety of uses including watershed planning. It is anticipated that tree cover analysis for all watersheds will be completed by June 2007. In addition to providing information for watershed planning efforts, benchmarking tree cover levels could provide data critical to tracking and verification procedures that may be required for tree preservation and planting air measures in future air quality plans.

Resources:

No additional resources for this action are required; however, future efforts to update tree cover levels are likely to require additional funding to purchase new satellite imagery. The estimated one-time cost to update high-resolution satellite imagery on a countywide basis is \$30,000.

EIP08-WQ08-6(C). Stream Flow Gauge Monitoring

Description of Action

Partner with USGS to install stream flow gauges, which can assist in evaluation of SWM facilities, pollutant loadings and in restoration design.

Environmental Agenda Objectives Supported:

Water Quality 1, 3, 8, 10

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Watershed Planning
2007 MS4 Permit

Lead Agency:

DPWES

Status/Plans/Outcomes

Discussion meetings with USGS began in May, 2006. Loudoun County has already implemented the system, with good results.

Resources

No additional funding needs are anticipated for this effort.

EIP08-WQ08-7(C). MS4 Permit Application

Description of Action

Redesign the County's MS4 Permit to ensure compliance within the confines of available tools and resources.

Environmental Agenda Objectives Supported:

Growth and Land Use 5
Water Quality 1, 3, 4, 5, 6, 7, 8, 9, 10
Environmental Stewardship 1, 2, 3, 4

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Watershed Planning
2007 MS4 Permit

Lead Agency:

DPWES

Status/Plans/Outcomes

A draft of the new permit was presented to the Board of Supervisors in July, 2006. The permit will be submitted to the Department of Conservation and Recreation (DCR) for their review and ultimate approval. It is anticipated that there will be considerable negotiations and revisions as DCR reviews the proposed permit, insofar as permits previously were reviewed by the Department of Environmental Quality.

Resources

The current Stormwater program provides funding adequate to complete this project as planned.

EIP08-WQ08-8(C). Outreach and Education Program

Description of Action

Develop an outreach and education program that complies with the provisions of the 2007 MS4 Permit.

Environmental Agenda Objectives Supported:

Water Quality 3
Environmental Stewardship 1, 2, 3, 4

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Watershed Management Plans
2007 MS4 Permit

Lead Agency:

DPWES

Status/Plans/Outcomes

Fairfax County Stormwater Management will be using staff and contracted services to work on various communication tasks including the improvement and expansion of existing education and communication tools such as Web sites; public informational workshops; and internal communication training. Stormwater will continue the regional radio campaign and expand its multi-media outreach (radio, TV, Kiosks, web, etc.) for relating pollution prevention and control and stormwater management messages. Additionally, the outreach and educational message will reflect the lessons learned from the recently completed Water Quality Survey, conducted by Virginia Polytechnic Institute under the sponsorship of the Chesapeake Bay Foundation.

Resources

No additional funding is required.

EIP08-WQ08-9(C). Establishing Tree Cover Goals for Watersheds

Description of Action:

The successful management of Fairfax County's water resources and stormwater concerns is dependent upon our ability to protect and manage the County's urban forest and other vegetation resources. As in all parts of the Chesapeake Bay watershed, Fairfax County's tree canopy and soil conditions associated with forested areas deliver significant water quality and stormwater management benefits. Fairfax County's tree canopy is estimated to intercept and absorb one million pounds of nitrogen annually that could eventually enter the Chesapeake Bay, and to intercept and slow the velocity of 370 million cubic feet of stormwater annually.

This action addresses a recommendation from the Tree Action Plan to identify tree cover goals for all major watersheds in the County, along with the policies, practices, actions and funding needed to achieve these goals; and then, to use the tree cover goals to support both watershed planning efforts and land use decisions. This action also supports regional efforts of the Chesapeake Bay Program that encourage communities to set urban tree canopy goals. The Chesapeake Bay Program's Riparian Forest Buffer Directive No. 03-01 (Chesapeake Executive Council) signed in December 2003, expands the previous riparian buffer directive by recognizing that tree canopy offers stormwater control and water quality benefits for municipalities in the Chesapeake Bay watershed, and can extend many riparian forest buffer functions to urban settings. The Riparian Forest Buffer Directive states following program goals related to tree cover:

- By 2010, work with at least 5 local jurisdictions and communities in each state to complete an assessment of urban forests, adopt a local goal to increase urban tree canopy cover and encourage measures to attain the established goals in order to enhance and extend forest buffer functions in urban areas; and,
- Encourage increases in the amount of tree canopy in all urban and suburban areas by promoting the adoption of tree canopy goals as a tool for communities in watershed planning.

Environmental Agenda Objectives Supported:

Water Quality (General)
Growth & Land Use (General)

Other Plans or Documents where this action appears or that it supports:

The Chesapeake Bay Program's Riparian Forest Buffer Directive No. 03-01

Lead Agency:

DPWES, Urban Forest Management Division

Status/Plans/Outcomes:

This action supports a recommendation of the Tree Action Plan. Several of the steps necessary to complete this action are underway. Urban Forest Management Division is currently working to quantify tree cover levels in all 30 major watersheds. The majority of the activities needed to support this action will begin during CY 2008. These activities will require participation from several agencies and business areas including Urban Forest Management Division, the Stormwater Planning Division, DPWES, the Planning and Zoning Evaluation Divisions of DPZ, and the Resource Management Division, FCPA.

The following actions are prerequisite to generating achievable tree cover goals:

- Benchmarking existing tree cover levels (underway)
- Assessing the potential for tree cover gains and losses in critical watershed and sub-watersheds
- Assessing the potential for tree cover gains and losses on public properties, developed private property and commonly-owned open space.
- Assessing potential for additional canopy loss through development of under utilized parcels
- Analyzing the potential of using easements and other deed-restrictions as canopy protection mechanisms
- Analyzing policies and ordinances that affect tree conservation (underway through multiple actions of the Tree Action Plan)
- Identifying ways to link tree cover goals and related policies to the practices contained in a Countywide urban forest management plan
- Identifying grant opportunities and alternative funding sources that could be used to support tree planting and preservation activities
- Identifying ways to engage non-profit tree planting groups, private property owners, homeowners associations and civic associations
- Identifying how tree cover goals can be used effectively within the context of land use planning, and how the goals can be honored on a piecemeal basis during the review of proposed zoning cases
- Identifying ways to engage and partner with the land development industry
- Identifying ways to engage and partner with commercial property management groups
- Setting specific tree cover goals for all major watersheds and critical sub-watersheds, and by extension, setting a Countywide tree cover goal
- Identifying target dates to achieve those goals
- Identifying ways to assess gain or loss of social and ecological benefits resulting from changes to tree cover on watershed and Countywide basis

This action will identify realistic and achievable tree cover goals for all major watersheds, along with the policies, practices, actions and funding needed to support those goals. In addition the action will investigate ways to use tree cover goals in the support of watershed management and planning efforts. It is anticipated that tree cover goals could be generated by CY 2008.

Resources:

Considerable staff hours will be needed to accomplish this action. No additional funding is requested to support the action in FY 2008; however, future funding and additional staff resources may be needed to support the implementation of associated policies and projects.

EIP08-WQ07-11(C). Standard Operating Procedure for Stormwater Management Reviews During the Comprehensive Plan Amendment Process

Description of Action

Establishment of a standard operating procedure for stormwater management reviews during the Comprehensive Plan amendment process.

A standard procedure for review of the Comprehensive Plan amendments with regard to impacts on stormwater management within the county needs to be developed. Currently, staff from the Department of Public Works and Environmental Services (DPWES) participates during the Area Plans Review (APR) and Out-of-Turn Plan Amendment (OTPA) processes on an *ad hoc* basis as initiated by individual DPZ staff members. In light of increasing State and Federal stormwater management initiatives and regulatory mandates, and in light of the development of watershed management plans and the implications of land use changes to conditions and recommendations identified within these plans, a more consistent and formal process is suggested.

Environmental Agenda Objectives Supported:

Water Quality 1, 2, 3, 5, 7, 8, 9, and 10;
Growth and Land Use 5

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Watershed Management Planning

Lead Agencies:

DPWES and DPZ

Status/Plans/Outcomes

Ongoing.

Resources

Staff resources will be dedicated to implementation of this strategy. Costs of enhancing DPWES coordination on stormwater management issues during the APR and OTPA processes would be absorbed into the operating budgets of DPZ and DPWES; no new staff resources would be requested directly in response to this action; however, the incremental staff resource burdens of this action, related actions, and other actions needed to support the Board's Environmental Agenda, may necessitate additional staff levels in the future.

EIP08-WQ07-12(C). Review of Standards and Guidelines for Special Permit, Special Exception, and Public Uses in the Resource Conservation (R-C) District

Description of Action

As recommended in the New Millennium Occoquan Watershed Task Force report, this action would provide for a review of standards and guidelines associated with Special Permit, Special Exception, and public uses that may be approved in the R-C District. R-C zoned land is generally confined to the Occoquan Watershed (with Fort Belvoir being a major exception, albeit one that is not subject to County zoning requirements). Included in this review would be:

- Maximum allowable floor-area ratios;
- A consideration of development of standards and/or guidelines for impervious cover and/or undisturbed open space;
- Impacts of facility footprints and total impervious cover, including parking; and
- A consideration as to whether more specific guidance should be established in the Comprehensive Plan regarding mitigation of impacts on the water quality impacts of the Occoquan Reservoir.

The process through which such a review would occur has yet to have been determined. The New Millennium Occoquan Watershed Task Force has recommended that a broad-based advisory committee be established. More efficient approaches that still provide for significant stakeholder involvement may be available, and County staff has recommended coordination with the Planning Commission on the definition and scope of this effort.

Environmental Agenda Objectives Supported:

Growth and Land Use 5
Water Quality 1, 2, and 10

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

DPZ

Status/Plans/Outcomes

This review has not yet been initiated. However, this item is included on the Priority 1 Zoning Ordinance Amendment Work Program for 2006 as an ongoing Zoning Ordinance Amendment Involving Coordination with Committees/Task Forces and/or Additional Study by Staff. There is no projected timeline for completion, and the ability to pursue this effort is dependent on competing demands on staff resources for other amendments. Anticipated outcomes would be clarity regarding expectations governing Special Permit, Special Exception, and public uses that may be pursued in the R-C District in the Occoquan Watershed.

Resources

Resource needs will depend on the specific process that is pursued. However, even under the most efficient process, substantial staff resources will be needed; between two and four professional-level planners would need to devote a considerable portion of their work hours to this effort for a year or more. Additional clerical and supervisory resources would be needed, and a number of County agencies beyond DPZ would need to become involved to some extent (e.g., DPWES; Fairfax County Park Authority; Fairfax County Public Schools).

EIP08-SW07-03(A). Pollution Prevention Program – E/RRF Emissions Controls

Description of Action

Ensure that E/RRF facility continues to have state-of-the-art technology to remove as many harmful emissions as possible.

Environmental Agenda Objectives Supported:

Air Quality and Transportation II (General)
Solid Waste IV

Other Plans or Documents where this action appears or that it supports:

Solid Waste Management Program Strategic Plan (2006-2011)
Department of Public Works and Environmental Services Strategic Plan (2006-2011)
Board of Supervisors Environmental Agenda, published 2005

Lead Agency:

DPWES-DSWDRR and DSWCR (collectively, the Solid Waste Management Program)

Status/Plans/Outcomes

This action has been completed. As relevant new pollution control technology has been developed, it has been installed. Upgrades since 2000 include carbon injection (to control mercury), ammonia injection (to reduce nitrogen oxides), a lime scrubber (to remediate acid gases), an upgraded continuous emissions monitoring system, and a dolomitic lime system (to further stabilize ash into a form safe for landfilling).

The pollution control technology at the ERR/F is genuinely state-of-the-art, the emphasis has been shifted to focus more on improving the quality of the fuel delivered to the facility, expanding programs that prevent constituents of concern from entering the E/RRF all together. Batteries and other materials that should not be processed in the facility are now collected separately at the I-66 and I-95 Household Hazardous Waste (HHW) sites. The Conditionally Exempt Small Quantity Generator (CESQG) program will hold three events in 2006, to collect materials from businesses that generate small amounts of hazardous waste. Currently, a program is in place to collect “NiCad” and other rechargeable batteries at the citizen drop-off facilities, and along with a program to promote recycling of NiCad batteries by local businesses. Collaboration with the Rechargeable Battery Recycling Coalition has been established to publicize a “take back” program for retailers who sell batteries. Concurrent with these events that target toxics in the waste stream, an ongoing series of community clean up events have been coordinated to allow appropriate collection and disposal of materials generated by the clean-ups.

Resources:

Action is completed. Complimentary or follow on activities will be described separately.

EIP08-SW07-02(B). Expand Recycling Programs

Description of Action

Continue emphasis on recycling for residents and businesses; continue the County's current recycling program of curbside pickup of recyclable bottles, cans, and newspaper. County's Solid Waste Management Plan recommends that curbside recycling be expanded to include additional materials for which markets exist, such as mixed paper, corrugated cardboard, and plastic bottles and jugs. Recycling opportunities need to be improved for County businesses also. The business recycling improvement program will focus on increasing the quantity of "traditional" recyclables collected from businesses (paper, cardboard, etc.), developing opportunities to recycle construction and demolition debris (CDD), and increasing recycling of special wastes such as electronics.

Environmental Agenda Objectives Supported:

Solid Waste IV

Other Plans or Documents where this action appears or that it supports:

20-year Solid Waste Management Plan for Fairfax County, published 2004

Solid Waste Management Program Strategic Plan (2006-2011)

Department of Public Works and Environmental Services Strategic Plan (2006-2011)

Board of Supervisors Environmental Agenda, published 2005

Lead Agency:

DPWES-DSWDRR and DSWCR (collectively, the Solid Waste Management Program)

Status/Plans/Outcomes:

Mixed paper, flattened cardboard and plastic bottles and jugs have been added to the recyclables that are required to be collected at the curb from single-family homes and town homes in Fairfax County. The Solid Waste Management Program has implemented a coordinated outreach program to notify residents about the changes and provide education about what materials can be placed at the curb for recycling. Advertisements have been placed in local newspapers and changes to the county website (to reflect the expanded list of recyclable materials) have been made.

Resources

Initial funding of \$100,000 has been expended. Program expansion could require an additional \$175,000 per year for public outreach and assistance aspects of the County's recycling program. Actual materials collection and recycling costs are borne by the individual waste generator. Future costs will take up ongoing support of the new initiatives over several years.

EIP08-SW07-03(B). Encourage Use of Recycled Products through Environmentally Preferable Purchasing (EPP)

Description of Action

Encourage use of recycled products to expand the market by developing an Environmentally Preferable Purchasing (EPP) Program for use by county purchasing staff. This will provide information to potential buyers about products that include recycled content and/or has the least impact on the environment. It is widely accepted that promoting the purchase of environmentally-friendly products will in turn stimulate and expand markets for recyclables.

Environmental Agenda Objectives Supported:

Solid Waste IV

Other Plans or Documents where this action appears or that it supports:

N/A

Lead Agency:

DPWES-DSWDRR and DSWCR (collectively, the Solid Waste Management Program)
Department of Purchasing and Supply Management (DPSM)

Status/Plans/Outcomes:

Environmentally preferable purchasing is a practice that is managed by the Department of Purchasing and Supply Management (DPSM). The Solid Waste Management Program is supportive of environmentally preferable purchasing, but cannot take the lead on this issue. The Solid Waste Management Program has provided DPSM with technical support on the issue of trying to develop such a program for the county, but to date it has not evolved. The Solid Waste Management Program will continue to support the DPSM as it moves forward to implement this practice within the county.

Resources

Program costs are estimated at approximately \$10,000. Since this program would be managed and implemented by the DPSM, it is suggested this item be directed to DPSM for this action to be implemented.

EIP08-SW07-04(B). Increase County Use of Recycled Products

Description of Action

Two County Procedural Memoranda (PM) regarding the use of recycled-content products were developed and issued in 1994. They are:

1. PM 143 – Bid Specifications to Include Recycled Content; and
2. PM 144 – Waste Reduction and Recycling Policies Concerning the Use of Paper in County Agencies.

Revisions are necessary to update these PMs and re-issue them in an effort to reinvigorate participation by county agencies (currently, few agencies participate). This will require visible and active support for these policies from the Board and the County Executive. The Solid Waste Management Program will attempt to revisit these issues with the Board of Supervisors and the County Executive. However, the Department of Purchasing and Supply Management must be involved to a great degree, in order to actually implement these policies in the county.

Staff will request a formal statement of support from the Board of Supervisors and the County Executive to be distributed to and implemented by all county agencies. However, the Solid Waste Management Program cannot implement these policies without input, staff effort, and support from the Department of Purchasing and Supply Management.

Environmental Agenda Objectives Supported:

Solid Waste IV

Other Plans or Documents where this action appears or that it supports:

20-year Solid Waste Management Plan for Fairfax County, published 2004

Solid Waste Management Program Strategic Plan (2006-2011)

Department of Public Works and Environmental Services Strategic Plan (2006-2011)

Board of Supervisors Environmental Agenda, published 2005

Lead Agency:

DPWES-DSWDRR and DSWCR (collectively, the Solid Waste Management Program)

Status/Plans/Outcomes:

The Solid Waste Management Program will continue exploring ways to communicate the benefits of using materials with recycled content with key staff. Ongoing communication strategies need to better link this initiative to the county's environmental policy, to draw staff support, and place the need to comply in the context of the larger environmental improvement work undertaken by the county. The Employee Recycling Committee could have a role in this effort, if supported by county management.

Resources

Both the Board of Supervisors' and the County Executive's visible and active support of this policy will be critical in creating an atmosphere where county agencies will implement this program. Annual program costs are estimated at approximately \$10,000. Funding sources will include a request to the general fund. It is also critical that the Board of Supervisors and the County Executive ask the Department of Purchasing and Supply Management to prioritize this issue and implement these policies within the purchasing practices implemented by the county.

EIP08-SW07-05(B). Improve County Control of Solid Waste

Description of Action

Work with the County's Federal delegation to overturn the Supreme Court's "Carbone" decision that limits local government's ability to control the flow of solid waste within its own boundaries.

Context

The County will continue to seek opportunities to gain congressional support for overturning the "Carbone" decision that limited the County's solid waste flow control authority. Stand alone legislation on flow control has been unsuccessful on a number of occasions in the past. Current efforts, being pursued through the County's lobbyist in Washington, focus on the identification of related legislation to which flow control authority can be added. Additional efforts include attempts to garner support from national organizations such as NACO and SWANA to broaden the interest of Congress in this legislation.

Environmental Agenda Objectives Supported:

Solid Waste IV

Other Plans or Documents where this action appears or that it supports:

20-year Solid Waste Management Plan for Fairfax County, published 2004

Solid Waste Management Program Strategic Plan (2006-2011)

Department of Public Works and Environmental Services Strategic Plan (2006-2011)

Board of Supervisors Environmental Agenda, published 2005

Lead Agency:

DPWES-DSWDRR and DSWCR (collectively, the Solid Waste Management Program)

Status/Plans/Outcomes:

Effort is ongoing - support received in the past has been limited to "grandfathering" the county's flow control authority until the revenue bonds issued for construction of the Energy/Resource Recovery Facility have been paid. This will occur in five years, so as we approach that time, the value of the legislation may decrease.

Resource needs identified below relate to use of a lobbyist in Washington. Costs vary significantly from year to year. Current estimate is based on most active years. Future cost assumes decreasing efforts as we approach bond payoff. Based on previous reception in Washington to this topic, once the revenue bonds for the facility are paid off in 2011, there will be little interest in providing the County with flow control.

Resources

Annual program costs are estimated at approximately \$25,000, with future costs increasing to an estimated \$100,000 per year.

EIP08-SW07-06(B). Remote HHW Collection Events

Description of Action

Fund five remote Household Hazardous Waste (HHW) collection events per year. The County currently has two permanent HHW collection sites.

Environmental Agenda Objectives Supported:

Solid Waste IV

Other Plans or Documents where this action appears or that it supports

Solid Waste Management Program Strategic Plan, (2006-2011)

Lead Agency:

DPWES-DSWDRR and DSWCR (collectively, the Solid Waste Management Program)

Status/Plans/Outcomes:

The County routinely receives requests for remote HHW collections. This project would respond to such requests. Another outcome of remote collection sites would be a reduction in the amounts of toxicity from refuse being processed by the E/RRF. This would in turn, reduce the load on the facility's pollution control systems and ultimately result in less net pollution from the facility.

Resources:

Initial estimated cost for the program to fund five remote collection sites for one year was \$60,000. However, citizen participation in the first two of these events has exceeded initial estimates by as much as 50 percent. Based on this experience, an additional \$30,000 may be necessary to stage a total of five events in FY06, and \$90,000 will be needed to fund five events in FY2007.

EIP08-SW07-07(B). Develop Long-Term Plans to Manage Electronic Waste within Fairfax County

Description of Action:

Opportunities to promote reuse/recycling of electronic waste within Fairfax County will be continued to the extent possible. The ultimate goal is to provide a permanent program where county residents can drop off their unwanted electronic waste so that it can be kept out of the county's waste stream.

Environmental Agenda Objectives Supported:

Solid Waste IV

Other Plans or Documents where this action appears or that it supports:

Fairfax County's 20-year Solid Waste Management Plan
Solid Waste Management Program Strategic Plan (2006-2011)

Lead Agency:

DPWES-DSWDRR and DSWCR (collectively, the Solid Waste Management Program)

Status/Plans/Outcomes

Fairfax County currently provides electronic recycling opportunities to residents in the form of recycling events held around the county at various locations. This activity is conducted in conjunction with ServiceSource's Keep it Green Program. They have partnered with a computer recycling firm that uses ServiceSource's labor pool to disassemble computers and peripherals. They take used electronic equipment at no charge *except* for computer monitors for which \$10 donations are requested for each monitor. This is to pay for management of the leaded glass that is contained in the cathode ray tube. The leaded glass is the material we are attempting to keep out of the waste stream.

Resources:

Annual program costs for a permanent location to collect electronic waste are estimated at approximately \$225,000 per year. Funding sources have not yet been identified.

EIP08-SW07-08(B). Develop a Toxics Reduction Campaign

Description of Action:

Opportunities to educate businesses to properly manage everyday products when disposed of within Fairfax County will be continued. The ultimate goal is to create a regional campaign about how to properly manage end-of-life fluorescent lamps, rechargeable batteries and obsolete electronics.

Environmental Agenda Objectives Supported:

Air Quality and Transportation II
Solid Waste IV

Other Plans or Documents where this action appears or that it supports:

Fairfax County's 20-year Solid Waste Management Plan
Solid Waste Management Program Strategic Plan (2006-2011)

Lead Agency:

DPWES-DSWDRR and DSWCR (collectively, the Solid Waste Management Program)

Status/Plans/Outcomes:

Fairfax County is working in cooperation with NVRC to develop a regional approach to providing information about recycling electronics and other items that contain toxic components. Items targeted for this outreach program are fluorescent lamps, rechargeable batteries, and obsolete electronics. The program is comprised of a website entitled "KnowToxics.com" and brochures that will be distributed within communities to businesses and residents.

Resources

Annual program costs will be approximately \$50,000 per year. Funding sources have not yet been identified.

EIP08-SW08-01(B). Maximize Recovery of Energy From Landfill Gas (LFG) Resources

Description of Action

The County has two closed municipal solid waste (MSW) landfills, one each at the I-95 and I-66 solid waste management facilities. These facilities generate landfill gas (LFG) as a natural part of the process by which MSW buried at these sites decays.

LFG consists of approximately 50 percent methane, and can be used as a substitute for natural gas (following minimum treatment). The energy in LFG can also be recovered by powering engine-generator or other energy recovery technologies. This action continues the emphasis placed on maximizing the energy recovery potential from our LFG resources.

Environmental Agenda Objectives Supported:

Air Quality and Transportation II
Solid Waste IV
Environmental Stewardship VI

Other Plans or Documents where this action appears or that it supports:

USEPA Landfill Methane Outreach Program (LMOP)

Lead Agency:

DPWES-DSWDRR and DSWCR (collectively, the Solid Waste Management Program)

Status/Plans/Outcomes:

In one of the earlier projects, funded in partnership with DWWM, the Solid Waste Management Program (SWMP) teamed with the County's Noman Cole Waste Water Treatment Plant (WWTP) to transport by pipeline up to 1,000 cubic feet per minute (cfm) of LFG for the sludge incinerator at the WWTP, three miles away in Lorton.

The first phase of the current LFGTE project, LFG is used to heat the maintenance building at the I-95 Landfill Complex, resulting in benefits in fuel cost savings. This phase was designed and constructed using Agency funding. Design planning is under way to collect landfill gas at the I-66 Transfer Station Complex (closed landfill) and use it to heat the Administration Building and/or the Department of Vehicle Services maintenance garage in a similar manner.

Resources

\$150,000 was funded through the carryover funds from EIP. However these funds are anticipated to be expended on design and equipment for the I-66 Transfer Station Project. \$150,000 of funding is required for construction cost.

EIP08-SW08-02(C). Effluent Reuse at Covanta E/RRF from Noman Cole WWTP

Description of Action:

The Energy Resource Recovery Facility (ERRF) uses approximately two million gallons (2.0 MGD) of potable water for process purposes. This project will reduce consumption of potable water at the E/RRF through the reuse of WWTP effluent, as a substitute, which will also allow WWTP to further reduce nutrients in their effluent discharge. This action will provide both facilities with cost savings.

Environmental Agenda Objectives Supported:

Water Quality III
Solid Waste IV

Other Plans or Documents where this action appears or that it supports:

Solid Waste Management Program Strategic Plan (2006-2011)
Department of Public Works and Environmental Services Strategic Plan (2006-2011)
Board of Supervisors Environmental Agenda, published 2005

Lead Agency:

DWWM
DPWES-DSWDRR and DSWCR (collectively, the Solid Waste Management Program)

Status/Plans/Outcomes:

Initial feasibility study is underway. Project to consist of constructing a pipeline and pumping station to convey effluent from Noman Cole WWTP to Covanta E/RRF.

Resources:

The \$124,000 needed to pay for initial study is included in DWWM budget.

EIP08-SW08-03(C). Standby Power from Covanta E/RRF to Griffith WTP and Noman Cole WWTP

Description of Action:

The Covanta Energy Resource Recovery Facility (E/RRF), at the I-95 Landfill Complex, as a source of standby electrical power to the Griffith WTP and Noman Cole WWTP during protracted periods of imminent or actual interruptions in utility service.

Environmental Agenda Objectives Supported:

Solid Waste IV

Other Plans or Documents where this action appears or that it supports:

Board of Supervisors Environmental Agenda, published 2005

Department of Public Works and Environmental Services Strategic Plan (2006-2011)

Lead Agency:

DPWES-DSWDRR and DSWCR (collectively, the Solid Waste Management Program)

Status/Plans/Outcomes:

An initial assessment of conceptual feasibility was completed in March 2006 through a cooperative agreement with FCWA, split between DSWDRR and DWWM (i.e., about \$60,000) each.

Resources:

Preliminary estimated cost to build the project is \$19.5 M. How these costs will be shared between the beneficiaries is still to be finalized, but will likely approach 50 percent of the overall cost as the County's share. Initial funding of \$400,000 is to pay for Solid Waste's share of project design and costs.

EIP08-SW08-04(C). Clean Streets Initiative

Description of Action:

Delegate provisions of authority to the Directors of the Solid Waste Management Program (SWMP) to enforce provisions of Chapter 46 of the Fairfax County Code that relate to unsanitary or improper disposal of trash, garbage, refuse, debris, other solid waste, or hazardous waste, also to pursue penalties for trash violations authorized by Section 46-1-6.

Environmental Agenda Objectives Supported:

Solid Waste IV

Other Plans or Documents where this action appears or that it supports:

N/A

Lead Agency:

DPWES-DSWDRR and DSWCR (collectively, the Solid Waste Management Program)

Status /Plans /Outcomes:

In response to complaints originating from the Board of Supervisors about persons who improperly dispose of their waste, garbage, debris, and similar materials, and do not have the materials removed, DPWES staff requested the ability to take the lead in these cases. Since they are engaged daily in waste removal and have the ability to react to these situations, it would be beneficial for DPWES to take the lead in enforcing Chapter 46 when material is not removed from curbside and it violates provisions of Chapter 46.

Resources:

Annual costs would be approximately \$45,000 per year (initial estimates)

EIP08-SW08-05(C) Recycling Natural Wood Waste

Description of Action

This action builds upon the success of the wood recycling activities of the County's Solid Waste Management Program by providing citizens with an opportunity to observe natural landscaping techniques that encourages the use of recycled mulch products, and investigates additional methods to reuse wood waste from natural sources such as tree removal and pruning. More specifically this action would involve:

- Demonstrating the use of recycled mulch products generated by County's Solid Waste Management Program in natural landscaping projects on County property
- Participating in waste wood utilization workshops such as those hosted by Metropolitan Washington Council of Governments to investigate alternative wood waste products and uses.

Environmental Agenda Objectives Supported:

Solid Waste (General)

Environmental Stewardship (General)

Other Plans or Documents where this action appears or that it supports:

Solid Waste Management Plan

Board of Supervisors Environmental Agenda, published in 2005

Lead Agency:

DPWES-DSWDRR and DSWCR (collectively, the Solid Waste Management Program)

Status/Plans/Outcomes

This effort will augment the efforts of the Natural Landscaping Committee which is a multi-agency committee direct by the Board of Supervisor to communicate the purpose, goals and importance of natural landscaping features on County properties to the private sector and County staff.

Resources

Funding will be a two- phased approach. Phase I will consist of spending \$50,000 getting a firm handle on demand for the product, product quality specifications, and deliverable needs. Phase II funding is yet to be identified and will cover implementation, equipment procurement, start-up procedures, and staffing as necessary.

EIP08-PT07-01(B). 10-Year Pedestrian Capital Plan

Description of Action

The pedestrian task force final report was presented to the Board in January 2006, recommending a safety awareness campaign and a 10 year pedestrian capital plan. Seek funding to implement.

Environmental Agenda Objectives Supported:

Parks Trails and Open Space 3; Growth & Land Use 2, 4, & 7; Air Quality and Transportation 1

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

DOT

Status/Plans/Outcomes

Underway

Resources

Funding Needed: \$60,000,000

EIP08-PT07-02(B). Trail Projects/Pedestrian Improvements

Description of Action

In FY 2004, the Board of Supervisors appropriated, as part of the FY 2004 Third Quarter Budget Review, \$2.5 million and \$2.0 million, as part of the FY 2004 Carryover, for streetlight, drainage and walkways, for a total of \$4.5 million in general funds. Of this general fund amount, \$1,174,000 was earmarked for sidewalks and trails construction. The Trails and Sidewalks Committee has, in the past, developed a list of trail project priorities, and the Pedestrian Task Force has prioritized funding needs based on pedestrian safety. On November 2, 2004, county voters approved a \$165 million General Obligation Bond Referendum as part of the Board's four-year Transportation Plan. Within the Board's four-year Transportation Plan, \$10.8 million was designated to fund countywide pedestrian improvements such as sidewalks and trails, and improvements for bus stops and crosswalks, as well as pedestrian improvements for the Richmond Highway Initiative. Additional funding opportunities for priority trail projects is being sought; it is anticipated that funding will be incorporated into the proposed 2007 Transportation Bond.

Environmental Agenda Objectives Supported:

Parks, Trails and Open Space 3; Growth & Land Use 2, 4, and 7; Air Quality & Transportation 1

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

DPZ/DOT

Status/Plans/Outcomes

Underway

Resources

Annual Cost: \$2,000,000

The budget should continue to provide an annual commitment for funding missing links to the sidewalk and trail system. An annual fund of at least \$2,000,000 should be available for this purpose. Because the inventory of trail needs is not complete, the total construction cost to complete an interconnected trail network in the County is unknown.

EIP08-PT07-03(B). Pedestrian Improvements in the Four Year Transportation Plan

Description of Action

The Fairfax County Board of Supervisors Four Year Transportation Plan, highlighted by the Route 1 Initiative, provides funding of nearly \$11 million for pedestrian improvements.

Environmental Agenda Objectives Supported:

Parks, Trails and Open Space 3; Air Quality & Transportation 1; Growth & Land Use 7

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Board of Supervisors Four Year Transportation Plan

Lead Agency:

DOT

Status/Plans/Outcomes

Underway

Resources

\$11,000,000 funded

Approximately \$11 million for pedestrian improvements, particularly related to the Route 1 Initiative, as provided in Board's Four Year Transportation Plan.

Actual expenditures on yearly basis undetermined; approximately \$11 million total available for timeframe of late 2004 into 2008 primarily. Board of Supervisors Four Year Transportation Plan provides necessary funding of \$11 million to accomplish the future plans noted above.

EIP08-PT07-04(B). Pedestrian Improvements as part of the State's Secondary Construction Program

Description of Action

The Board of Supervisors prioritized funding for pedestrians within the State's Secondary Construction Program for pedestrian improvement projects at priority intersections throughout the County, such as locations with high numbers of pedestrian crashes.

Environmental Agenda Objectives Supported:

Parks Trails and Open Space 3; Air Quality and Transportation 1; Growth & Land Use 7

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

DOT

Status/Plans/Outcomes

Underway

Resources

\$1,200,000 funded

Actual expenditures undetermined on a given year basis; \$1.2 million identified within State Secondary Construction Program, a six-year program updated annually.

EIP08-PT07-05(B). Trails Inventory and Planning

Description of Action

Continue to update the existing trails map to help identify missing trail links. Inventory and prioritize the missing links for trail construction in conjunction with other priority projects considered by the Trails and Sidewalks Committee.

Use the most current aerial imagery available from County orthophotography data set and field checks to identify the missing links of the major commuting or recreational trail routes and prioritize which links should be completed first.

Environmental Agenda Objectives Supported:

Parks Trails, and Open Space 3; Air Quality and Transportation 1; Growth & Land Use 7

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

DPZ

Status/Plans/Outcomes

Underway

The Department of Public Works and Environmental Services and the Park Authority are working to update GIS data and routines are being developed to update information from new developments. The Department of Planning and Zoning will utilize this data for trail planning and to develop trail maps. See project EIP08-PT08-02 (B).

Update of the existing trails map will continue as long as aerial imagery is updated on schedule.

Resources

The current costs of this effort are being absorbed within staff's routine work schedule. However, an annual fund of at least \$2,000,000 should be available for continued trail development in order to make progress on the bridging of gaps in the system (see EIP08-PT07-02 (B)). With respect to future costs, because the inventory is not complete, the total construction cost can not yet be determined.

EIP08–PT07-6(B). Upgrades for the Cross County Trail

Description of Action

After 6 years of work the Cross County Trail was completed in December 2005. The trail is more than 41 miles long, stretching from the Potomac River at Great Falls Park to the Occoquan River and passing through all nine magisterial districts. The trail forms a north-south trail spine for county trail users. An amount of \$450,000 for upgrades for the Cross County Trail was requested for the FY 07 budget, but not allocated, to continue improvements for this countywide trail.

This funding was requested to provide a match for grant money for a much needed re-route of the trail in the Springfield, Lee and Braddock Districts between Hunter Village Drive and the dam at Lake Accotink to ensure safe walking conditions and provide for the transportation needs of pedestrians and bicyclists in the County. This segment of the trail consists of more than 2 miles of trail and will include 3 bridges. The funds are requested to match existing Transportation Enhancement grant funds and other federal grant funds of more than \$2,000,000,

Environmental Agenda Objectives Supported:

Park Trails and Open Space 3; Air Quality and Transportation 1; Growth & Land Use 7

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

FCPA

Status/Plans/Outcomes

Underway

Resources

In future years, additional funding in the amount of \$4,000,000 will be needed for improvements to the existing trail. These improvements will include re-routed sections, additional and improved stream crossings, additional signage to identify trail connections, rest stop locations, drinking water sources, etc., and additional upgrades to trail surfacing. Funding sources for this additional amount have not yet been identified, but could include grant funds, Park Authority bond funding, and general funds.

EIP08-PT07-7(B). Park Authority Trail System

Description of Action

The Park Authority trail system continues to be developed through the park bond program and through volunteer efforts. Current and future efforts include evaluating missing links and providing needed trail network connections. In addition, trail plans need to be developed for Laurel Hill and Sully Woodlands where the complexity and breadth of the land and variety of uses will require careful planning.

Environmental Agenda Objectives Supported:

Parks Trails, and Open Space 3; Air Quality and Transportation 1; Growth & Land Use 7

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

FCPA

Status/Plans/Outcomes

Continue to implement the countywide trails plan in stream valley parks and within local-serving and other managed parks. Connect parks via trails to population centers and other trails in the trail network.

Resources

Funded: \$4.9 million

Funds Needed: Approximately \$75 million

\$2.5 million remains in the 2004 park bond program for trails. \$5 million is proposed to be included in an interim bond in 2006. A bond is also planned for 2008 which will include trail funds.

An additional 75 miles of trail are needed in the park system during the next ten years. These trails will be developed with a combination of county funds, bond funds, volunteer efforts, and grant funding. At an average cost of \$1 million per mile, \$75 million will be needed to implement this trail program to its fullest extent. Park Authority trails form the main off-road countywide trail system. It is essential to continue to develop these trails at a quick pace to attempt to meet the desire for trails as expressed in the needs assessment.

EIP08-PT07-08(B). Interpretive Signs Along FCPA Trail System

Description of Action

It has been estimated that over 50,000 people use park trails every day. The newly completed Cross County Trail, which stretches over 40 miles from the Potomac River in the north to the Occoquan River in the south, mostly within stream valley parkland, presents an ideal way to provide trail users with information about natural and cultural features found in Fairfax County.

In the past, interpretive signs have been added as funding and time allow, but a recent grant allowed an interpretive program to be developed for the entire trail. The goal for these first signs is to educate the public about the value stream valley parks provide to our history, present and future. More funding is needed to produce more of these signs and to develop new themes.

Environmental Agenda Objectives Supported:

Parks Trails, and Open Space 3; Environmental Stewardship (General)

Other Plans or Documents where this action appears or that it supports:

Park Authority Strategic Plan
Park Authority Policy Manual
Park Authority Natural Resource Management Plan

Lead Agency:

FCPA

Status/Plans/Outcomes

Five interpretive signs have been developed, incorporating themes from the natural and cultural components of this trail. Themes have been outlined and prioritized for new signs as funding allows.

We focused on natural topics like the benefits that vegetated stream valleys provide, buffering developed areas from wetlands and streams and the concept that the watershed we live in links us to our streams and to the Chesapeake Bay. These topics are in addition to existing signs focusing on the wildlife found within our stream valleys and the hazards and benefits of poison ivy. Not ignoring the cultural history of our stream valleys, we stress that stream valleys have been used for generations, and it is careful stewardship of these stream valleys which will allow them to remain.

EIP08-PT07-08(B). Interpretive Signs Along FCPA Trail System
Continued

Resources

Funded: \$28,000

Needed: \$750,000

Interpretive signs cost in the neighborhood of \$500 to \$1,000 to develop and an additional \$500 to \$1,000 to produce. Estimating 250 total miles of trail, and estimating two signs per mile, the program would cost between \$500,000 and \$1 million to complete. Because trails are the most heavily used facility within the park system, there is an opportunity for stewardship education. Many of the one million people in the county would be exposed to this sign program and benefit from it.

EIP08-PT07-09 (B). FCPA Urban Parks

Description of Action

The Park Authority has an ongoing program to acquire new park lands and develop/redevelop park sites based on demonstrated need through the Needs Assessment evaluation process. Urban Parks are a subset of local-serving parkland of which there is a deficiency across the county, in particular in many of the urbanizing areas.

Diminishing land availability and an emphasis on “town center” and “transit oriented” development argues for the provision of smaller, publicly accessible open space areas that are integrated into compact new developments with higher intensities. More urban development concentrates more residents in integrated, compact locations without private yards. Therefore, the need for public outdoor open space and recreation facilities increases.

Some of the park acquisitions currently under consideration would qualify as urban parks based on their size (less than two acres) and location (in densely developed areas). Most, however, will be dedicated and perhaps built by private developers who proffer urban park space through rezonings. For instance, an urban park is currently under development in the Merrifield Town Center that will be turned over to the Park Authority as a complete turnkey facility. Another turnkey urban park is currently in the development process in Tyson's Corner. Recently planned Ossian Hall Park in Annandale is an example of how the Park Authority has incorporated urban park features into an existing community park located in a changing and urbanizing area of the County.

Environmental Agenda Objectives Supported:

Parks Trails, and Open Space 1, 2

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Park Policy Manual

Lead Agency:

FCPA

Status/Plans/Outcomes

Underway

The Park Authority will continue to pursue acquisition in urban areas as funding is made available, and through proffers in the land development process. It is challenging to acquire and develop these types of parks. The high per unit cost of urban land compared with less costly opportunities in other parts of the county makes the choice to acquire land in these areas with limited land acquisition funds difficult. It can also be more expensive to develop these types of parks as the intensity of use requires hard surfacing and concentration of activities.

Continued

The Park Authority is actively pursuing acquisition of a new urban park sites in urbanizing areas of the County. Opportunities to leverage funding for new public urban parks are currently being explored cooperatively with the other County agencies and private developers.

Resources

Cost: \$1,000,000 for acquisition (funded)

Future Cost: \$10,000,000+ to develop 2-3 of these parks

\$10,000,000 will develop 2 - 3 of these parks in locations to be determined. The Park Authority has limited acquisition funds available from the 2004 Park Bond program, which will be utilized for acquisitions throughout Fairfax County. With the cost of acquiring park land in these urban areas currently ranging from \$0.5 - \$1.0 million per acre, there is no adequate source of funding available. Privately owned pocket parks established as part of the land development process with public access are an alternative way to meet a portion of this need.

EIP08-PT07-10(B). Parks and Recreation Needs Assessment Process

Description of Action

A Parks and Recreation Needs Assessment provides a 10-year Capital Improvement Plan for new park facilities, renovations and land acquisition that seek to meet the park and recreation needs of Fairfax County residents. A 2003 cost estimate for Capital Improvements needed through 2013 was \$376 million. Implementation of the plan is primarily through General Obligation Bonds and the plan serves as a decision making guide to direct projects included in the bonds are consistent with citizen needs.

Environmental Agenda Objectives Supported:

Parks Trails, and Open Space 1, 2, 4, 5

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

FCPA

Status/Plans/Outcomes

Underway

Implementation of the Needs Assessment is ongoing through the Capital Improvement Program, Comprehensive Plan Amendments, and Long Range Park Planning.

The Needs Assessment process should be updated every 5-7 years in order to capitalize on changes in the County demographics as well as coincide with funding cycles.

Resources

Cost: TBD

Cost Varies- Study conducted every 5-7 years. Implementation actions included in regular Work Plan. Approximately \$300,000 for consultant to conduct a full Parks and Recreation Needs Assessment in 2002-4.

The Needs Assessment is the primary tool used by the Planning and Development Division of the Park Authority to recognize park land and facility deficiency in the County and is the first step in planning the location of facilities in new or existing parks. The implementation of actions recommended in the Needs Assessment is addressed in EIP07-PT-B-11.

EIP08-PT07-11(B). Parks and Recreation Needs Assessment Implementation

Description of Action

The Park Authority has conducted a comprehensive needs assessment to guide park planning and development. The final product of the Park Authority Needs Assessment Project was the development of a 10-Year Needs-Based Capital Improvement Plan. This Plan outlines the cost of meeting the County's park and recreation deficiencies presently and projected through 2013. The CIP has three cost areas: Land Acquisition, New Development, and Renovation, and breaks the timeframe into Near Term, Intermediate Term and Long Term. The Plan is implemented through the annual Capital Improvement Program processes for the agency and funded through Park Bonds, County general funding, revenue streams, donations, and other sources.

Environmental Agenda Objectives Supported:

Parks Trails, and Open Space 1, 2, 4, 5

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
2004 Park and Recreation Needs Assessment

Lead Agency:

FCPA

Status/Plans/Outcomes

Underway

The Park Authority Needs Assessment identified \$111,838,000 needed in the near term and \$377,000,000 needed in next 10 years for land acquisition, facility renovation, and new capital improvements. This does not include funding earmarked specifically for natural or cultural resource protection. A portion of the Near Term Needs will be satisfied through the acquisition and build out of the current and upcoming Capital Improvement Plans. The approved 2004 Park Bond will also meet a portion of the funding need (\$13,250,000 per year for 4 years).

Resources

Cost for new development and renovation: \$53,000,000 has been funded through the 2004 Park Bond (13,250,000 per year for four years)

Future Cost: \$ 33,583,995

\$33,583,995 represents the balance of near term new development and renovation costs (\$86,583,995) minus the \$53,000,000 in the Park Bond (this does not include land acquisition, nor does it include funding earmarked specifically for natural or cultural resource protection). Land Acquisition is addressed in EIP-PT-B-12.

EIP08-PT07-12(B). Parkland Acquisition

Description of Action

The Park Authority has an ongoing program for acquisition of property, including vacant and underutilized parcels, for open space. Parcels identified must be suitable for active recreation uses, natural or cultural resource preservation, or trail connectivity. Chairman Connolly has challenged the Park Authority to acquire 10% of the land in the county. Current land holdings account for 9.4% of the county or 23,677 acres, with an additional 1,600 need to reach the 10% target.

Environmental Agenda Objectives Supported:

Parks Trails, and Open Space 1, 2, 3, 4, 5, and 6

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

FCPA

Status/Plans/Outcomes

Underway

The Park Authority will continue to identify and acquire land suitable for public open space through the variety of methods identified above. This will include active pursuit of: purchases of private land, purchase of trail and conservation easements on occupied land, transfers of open space land from the County and other organizations, dedications of land through the land development process, and donations of land and funding from both private entities and public organizations.

The adopted Land Acquisition Criteria and the Needs Assessment will continue to guide the planning of the land acquisition program where open space is needed most throughout the county. As critical land acquisition decisions arise from unsolicited sources (offers of bargain land sales, targeted properties appear on the market for sale), the Park Authority will evaluate proposals and consider options to alter its current program course to take advantage of such opportunities.

EIP08-PT07-12 (B). Parkland Acquisition

Continued

Resources

Funded: \$22,000,000 (2004 and proposed 2006 bond)

Funding Needed: \$51,000,000 (identified in the Park Authority Board approved Land Acquisition work plan)

The cost of resources needed to fully accomplish this objective has not yet been identified, as the price of land varies significantly throughout the county. While some acquisitions are made at no cost to the Park Authority, such as a transfer of county land, the properties that are most important to fill deficiencies in open space countywide must be purchased. With the rapidly dwindling availability of open space in the County, and continually rising cost of land, adequate land acquisition funding is needed for the Park Authority to acquire open space. With the support of the County Executive and the Dept. of Management and Budget, creative financing opportunities can be created which will allow the Park Authority to purchase open space before it is too late.

EIP08-PT07-13(B). Open Space Easements/NVCT Partnership

Description of Action

Through the Open Space Easements Program coordinated by the Dept. of Planning and Zoning, donation or purchase of conservation easements has been encouraged for a number of purposes, including open space, historic preservation and trails. The public is encouraged to work with any qualified non-profit land trust, or with the Fairfax County Park Authority or the Northern Virginia Regional Park Authority.

There are several non-profit land trusts that work locally, including the Northern Virginia Conservation Trust (NVCT) and the Potomac Conservancy. The County entered into a public-private partnership with NVCT in FY 2001. Through this partnership, NVCT has obtained 29 conservation easements and four land gifts, protecting over 500 acres in Fairfax County. NVCT estimates a value of over \$40 million in protection through this program. The Potomac Conservancy seeks easements to protect the Potomac River in four states and the District of Columbia, and has six easements in Northern Virginia (Arlington and Fairfax Counties).

NVCT proactively identifies properties with high natural resource or historical value and promotes donations of easements or fee simple interests in the land. Using the Fairfax County Park Authority's Green Infrastructure Model and the historical landmark listing, the Trust contacts landowners of significant properties and encourages donation of conservation easements or fee simple interest. By using federal and state tax incentives NVCT has been able to facilitate the donation of over \$20 million worth of conservation lands in Fairfax County.

Environmental Agenda Objectives Supported:

Parks Trails, and Open Space 4, 6

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Lead Agency:

DPZ/FCPA/NVCT

Status/Plans/Outcomes

Underway

Resources

Cost: \$266,380 (Approved County Contribution for FY'07)

Future Cost: \$266,380 + CPI (annual cost)

EIP08-PT07-14(B). Park Authority Conservation Easement Initiatives

Description of Action

Park Authority conservation easement initiatives are utilized for preservation of open space, historic and natural resources, and to facilitate trail connections throughout the County.

The Fairfax County Park Authority (Park Authority) is a leader in conservation and preservation of open space and is dedicated to protecting natural, cultural and historic resources in Fairfax County. The Park Authority and the Board of Supervisors have acquired a 41-acre conservation easement and purchase options on the historic property known as “Salona.” The Salona homestead and grounds comprise 7.8 acres within the 52.4 acre site, and is already protected in perpetuity by a 1971 easement to the Board of Supervisors. Salona derives its name from the circa 1805 homestead associated with this site. Salona has significant cultural history of local, state and national importance that spans centuries. This was the home of Henry “Light Horse Harry” Lee, a Revolutionary War hero; it was to Salona that Dolley Madison fled in 1814 when British troops were burning the White House; and during the Civil War, Salona served as a part of the headquarters for the Union Army. The Northern Virginia Conservation Trust has the role of easement enforcement, and collaborated on the acquisition of the easement. Several other key acquisitions of conservation easements include the Elklick Woodland Natural Area Preserve, which protected over 200 acres of rare oak hickory forest from development, and the preservation of Oak Hill, the last remaining residence with a connection to the Fitzhugh family (the Fitzhugh's owned the largest land grant in Fairfax County in the 1700's). In addition, the Park Authority completed the Cross County Trail last year, using acquisitions of open space, conservation easements and trail easements as mechanisms to complete the CCT.

The Park Authority has developed the Green Infrastructure Model for targeting land acquisition opportunities that have significant natural or cultural resources. The Green Infrastructure Model, along with the recently completed Park Authority Needs Assessment, has provided a blueprint for acquisition of parkland and preservation of open space, significant resources, and trail corridors in the County.

Environmental Agenda Objectives Supported:

Parks Trails, and Open Space 1, 2, 4, 5

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Park Authority Strategic Plan

Park Authority Policy Manual

Park Authority Natural Resource Management Plan

Lead Agency:

FCPA

Continued

Status/Plans/Outcomes

Ongoing

The Park Authority will continue to utilize the Green Infrastructure Model and Needs Assessment tools to cost effectively acquire additional open space, conservation easements and trail connections. Refinement of the Green Infrastructure Model and the implementation of the Agency Natural Resource Management Plan, which lays out strategies to evaluate natural resources on properties prior to acquisition, will allow the Park Authority to make more deliberate and effective decision in regards to open space protection through acquisitions and easements. With the rapidly dwindling availability of open space in the County, and continually rising cost of land, conservation easements will become a much more heavily relied upon tool for the Park Authority to protect open space.

Resources

Funded: \$12,900,000

Funding Needed: \$10,000,000 would help establish a more aggressive Park Authority conservation easement program.

EIP08-PT07-17(B). Park Authority Natural Resource Management Plan Implementation--Encroachment Enforcement

Description of Action

The Park Authority has developed an Agency-wide Natural Resource Management Plan (NRMP), which was approved by the Park Authority Board in January 2004. The plan outlines strategies, actions and policy changes needed to appropriately plan, develop and manage parkland. The first phase of implementation of the Natural Resource Management Plan is focused on strategies that do not require additional resources such as reviewing policies and procedures, building partnerships and expanding education. To continue to implement this plan, funding is needed. The third year begins in FY 2007 and will show little progress without additional resources. In addition, in order to adequately manage and develop our parks, the Park Authority continues to stretch limited resources in the areas of acquisition, planning, development and maintenance.

The Park Authority has tens of thousands of park neighbors and these neighbors can have tremendous impacts on park resources through intentional and unintentional encroachments. The Park Authority addresses encroachment as they can with existing resources and has produced a brochure to educate park neighbors which is already in its second printing. This enhanced program will focus on encroachment detection, enforcement and elimination on parkland. A dedicated encroachment team will not only mitigate impacts from current encroachments, but also educate residents on how to be good park neighbors.

Environmental Agenda Objectives Supported:

Parks Trails, and Open Space 5

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Park Authority Strategic Plan

Park Authority Policy Manual

Park Authority Natural Resource Management Plan

Lead Agency:

FCPA

Status/Plans/Outcomes

Due to not having the focused resources to appropriately manage parkland encroachments there remains significant numbers of encroachments and limited ability to enforce the agency's encroachment policy. This program would allow focused encroachment detection, notification, enforcement and elimination to occur on all parklands with particular emphasis on 'unstaffed' parklands, such as stream valleys and new undeveloped parklands.

EIP08-PT07-17(B). Park Authority Natural Resource Management Plan Implementation--
Encroachment Enforcement
Continued

Resources

Funding Needed: \$200,000 (annual cost)

While this effort requires dedicated recurring funding and staff position/s to be fully implemented, significant progress can be made with one-time funding.

EIP08-PT08-01(B). Park Natural Resource Management

Note: this project replaces the following projects from the FY 2007 EIP: PT-B-15, 16, 18 and 1, PT-C-2 and 4

Description of Action

The Park Authority has developed an agency-wide Natural Resource Management Plan (NRMP), which was approved by the Park Authority Board in January 2004. The plan outlines strategies, actions and policy changes needed to appropriately plan, develop and manage parkland. Fiscal Year 2008 will mark the 4th year of plan implementation.

We are now at a critical stage in which we can not continue to make significant progress without additional staff and funding.

Our natural areas at risk

- Invasive plants are crowding out native trees and taking over our forests.
- Deer are devouring young trees, leaving the future of the forests at risk.
- A lack of natural disturbance (such as fire) has left our forests unhealthy and stocked with too much fuel.
- If we do not act, our forests may not continue to regenerate at all and certainly will not be healthy, functioning systems.
- Without these functional systems our air quality will continue to degrade.
- Our streams will also continue to degrade. As the stewards of many of the county's stream valleys which ultimately protect the Chesapeake Bay we must act to protect and maintain these natural systems.

Environmental Agenda Objectives Supported:

Parks Trails, and Open Space 1, 2, 3, 4, 5, and 6

Environmental Stewardship 1, 2, 3, and 4

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Park Authority Strategic Plan

Park Authority Policy Manual

Park Authority Natural Resource Management Plan

Lead Agency:

Park Authority

Status/Plans/Outcomes

- As the steward of many of the county's natural areas and an educator, the Park Authority must take the lead in natural resource management.
- The Park Authority's Natural Resource Management Plan has been in place and under implementation for two years. The plan, when implemented, will strongly support the Board's 20-Year Environmental Vision.
- In anticipation of the plan, in 2003, the Natural Resource Group was restructured and one position was added from within.
- Two years into implementation, we are doing everything we can –making changes to policy and practices, educating staff and residents and asking all Fairfax County Park Authority staff to help where they can.

The intent of the Natural Resource Management Plan – to manage natural resources - can not occur without additional funding and staff.

Resources

- To manage all of our natural areas, it is estimated that \$3 million per year is needed.
- Some of the functions and capacity we are lacking include: natural land managers, ecologists, restoration specialists, water resource specialists, wildlife specialists, planners and project managers.
- A phased approach will allow us to manage the natural resources on at least 10 percent of our parkland. We'll use this first phase to learn how best to set up the program for all park land.

Phase 1 cost: \$650,000 recurring need includes six staff positions in technical and field disciplines, costs for consultant services, equipment and operating costs.

EIP08-PT08-02(B). Park Trail Mapping

Description of Action

The Board of Supervisors designated \$160,000 at FY 2005 carryover for park trail mapping. The Park Authority has extensive trails in its almost 400 parks. A comprehensive mapping program will allow the Park Authority to better manage and plan the trail system. A second component of this project will be to produce park trail maps for park patrons. This project includes coordination with DPZ and DPWES to capture and integrate data that is already available.

Environmental Agenda Objectives Supported:

Parks Trails, and Open Space 3 and 5

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Park Authority Strategic Plan
Park Authority Policy Manual

Lead Agency:

Park Authority

Status/Plans/Outcomes

This project was initiated in the spring of 2006.

Resources

\$160,000 funded

EIP08-PT08-03(B). Park Information Systems

Description of Action

The Board of Supervisors designated \$180,000 at FY 2004 carryover for Geographic Information Systems. This project will expand the use of Geographic Information Systems (GIS) for Park Authority natural resource management. This will include a needs assessment, data development and the initial development of a Decision Support System with automated tools for park planning and resource management to include the green infrastructure model.

Environmental Agenda Objectives Supported:

Parks Trails, and Open Space 4, 5, and 6

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Park Authority Strategic Plan
Park Authority Policy Manual
Park Authority Natural Resource Management Plan

Lead Agency:

Park Authority

Status/Plans/Outcomes

The Park Authority has conducted an in-house needs assessment to finalize the project plan. The project will have three components: 1) natural resource inventory database, 2) evaluation of feasibility of modeling of 'ecologically important' resources (green infrastructure) and 3) park interface and tools for decision support. Natural resource inventory information has been consolidated and a scope of work for data integration and analysis is being finalized with a consultant. The third component may include park base map data such as land use data (water, field, forest, trails, etc), land records (such as conservation easements), facilities and specific natural resource information as well as viewing and analysis tools. The components of the third phase will depend on availability of funds and prioritization of data and application development.

Resources

\$180,000 funded by the Board of Supervisors
\$300,000 additional funding could be used to update and digitize park boundaries and land records including conservation easements and to develop park base map data (such as buildings, managed landscapes and recreation facilities) to help manage park resources.

EIP08-PT08-04(B). Developing Natural Landscaping Guidelines and Policies for County Properties

Description of Action

This action focuses on the development of guidelines, policies and tracking mechanisms needed to successfully implement natural landscaping techniques and practices on County properties.

On June 21, 2004 the BOS directed staff to identify County properties where natural landscaping could be used to reduce maintenance practices that can cause harmful environmental impacts such as air pollution; to reduce the need and expense of mowing, pruning, edging, and using fertilizers, pesticides, and herbicides; and, to prepare a report with a proposed Countywide implementation plan. In response, a Natural Landscaping Committee (NLC) was formed to identify practices, policies and a Countywide implementation plan. A final report and recommendations was prepared and presented to the Board's Environmental Committee and approved by the BOS on July 11, 2005. The Board directed the County Executive to commission a multi-agency group to:

- Update the palette of natural landscaping techniques and practices as new information and research emerges
- Establish formal guidelines for retrofitting the landscapes of County properties both with and without developed facilities
- Develop natural landscaping guidelines and specifications for new facilities
- Draft a Countywide Natural Landscaping Policy to communicate the purpose, goals and importance of natural landscaping features on County properties
- Implement a five-year natural landscaping plan in an aggressive but cooperative fashion
- Produce an annual progress report that evaluates the level of cost-effectiveness and benefits that specific natural landscaping practices, techniques and projects are likely to provide
- Submit natural landscaping projects to the ECC for possible inclusion into the annual Environmental Improvement Program

Environmental Agenda Objectives Supported:

Parks Trails and Open Space (General)
Air Quality & Transportation (General)
Environmental Stewardship (General)
Water Quality (General)

Other Plans or Documents where this action appears or that it supports:

The Tree Commission's Tree Action Plan
Benefits and Application of Natural Landscaping and Five-year Implementation Plan (The report prepared for the BOS by the NLC)

EIP08-PT08-04(B). Developing Natural Landscaping Guidelines and Policies for County Properties
Continued

Lead Agency:

DPWES—Urban Forest Management

Status/Plans/Outcomes

This effort has been funded and is under way.

Resources

No additional resources are needed to generate natural landscaping-related guidelines and policies; however, additional funding will be needed in order to implement practices and projects on County properties. See related EIP08-PT08-06 and EIP08-ES08-09.

EIP08-PT07-20(C). Analysis of Developed/Undeveloped Park Land

Note: project number in EIP FY 2007 was PT-C-1

Description of Action

Using GIS analysis tools as well as site visits, staff will identify and quantify the amount of developed versus undeveloped land within parkland while also identifying different types of developed and undeveloped land uses.

By identifying the amount and type of developed and undeveloped land within the Park Authority system, the Park Authority can better plan and manage these different lands. Undeveloped land would then be further categorized to delineate which undeveloped lands are natural areas. This would include classifying the type of natural resources (such as meadow, forest, stream, wetland, etc). Once a GIS analysis system is devised and baseline studies have been completed, this study could be updated periodically in order to maintain a current record of land types within the system.

The Park Authority provides opportunities for recreation and is the major steward of County natural resources. By developing a system to define and identify developed and undeveloped land within the Park Authority's land holdings, we can better plan future acquisition and land management needs.

Environmental Agenda Objectives Supported:

Parks Trails, and Open Space 4, 5 and 6

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Park Authority Strategic Plan
Park Authority Policy Manual
Park Authority Natural Resource Management Plan

Lead Agency:

FCPA

Status/Plans/Outcomes

This is a new initiative. By developing a system to define and identify developed and undeveloped land within the Park Authority's land holdings, FCPA can better plan future acquisition and land management needs.

Resources

Cost of Resources Needed (Unfunded)
\$300,000

EIP08-PT07-21(C). Park Authority Natural Resource Management Plan Implementation--Boundary Survey and Marking

Note: project number in EIP FY 2007 was PT-C-03

Description of Action

The Park Authority has developed an Agency-wide Natural Resource Management Plan (NRMP), which was approved by the Park Authority Board in January 2004. The plan outlines strategies, actions and policy changes needed to appropriately plan, develop and manage parkland. The first phase of implementation of the Natural Resource Management Plan is focused on strategies that do not require additional resources such as reviewing policies and procedures, building partnerships and expanding education. To continue to implement this plan, funding is needed. The third year begins in FY 2007 and will show little progress without additional resources. In addition, in order to adequately manage and develop our parks, the Park Authority continues to stretch limited resources in the areas of acquisition, planning, development and maintenance.

The Park Authority has more than 23,500 acres of land, most of which is not marked at its boundaries. As a result, boundaries are not clear and park neighbors can have tremendous impacts on park resources through unintended encroachments.

This program would survey and permanently mark park boundaries. This would make park property lines clear and help to prevent misunderstandings about property lines and discourage encroachments and their negative impacts.

Environmental Agenda Objectives Supported:

Parks Trails, and Open Space 5

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Park Authority Strategic Plan

Park Authority Policy Manual

Park Authority Natural Resource Management Plan

Lead Agency:

FCPA

Status/Plans/Outcomes

The majority of parkland boundaries are not marked. The continued lack survey and boundary marking allows undesired use of park land such as dumping, encroachments and poor land use practices such a off road biking, hunting and natural/cultural resource degradation. This program includes staff to conduct boundary surveying and marking with supplemental survey work by contract.

EIP08-PT07-21(C). Park Authority Natural Resource Management Plan Implementation--
Boundary Survey and Marking
Continued

Resources

Funding: None

Funding Needed: \$250,000 (annual cost)

While this effort requires dedicated recurring funding and staff position/s to be fully implemented, significant progress can be made with one-time funding.

EIP08-PT08-05(C). Sully Woodlands Interpretive Center and Resource Management

Description of Action

The Park Authority has developed a regional master plan for all parkland located within the boundaries of the Cub Run and Bull Run watersheds. This Sully Woodlands Regional Master Plan was developed in close coordination with the watershed planning process. The goal was to produce a regional master plan that not only achieves park objectives for land use and resource management, but one that is in direct concert with, and rooted in, similar county watershed management objectives. This model approach will serve the Park Authority well in other areas of the County as well.

An interpretive center and resource management activities are recommended in the plan. Natural resource management research, plans and activities will need to occur to maintain the integrity of the natural resources and to continue to protect the Cub Run and Bull Run watersheds.

Environmental Agenda Objectives Supported:

Water Quality 1, 2, and 3

Parks, Trails and Open Space 1, 2, 3, 4, 5, and 6

Environmental Stewardship 1, 2, 3 and 4

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan

Park Authority Strategic Plan

Park Authority Policy Manual

Park Authority Natural Resource Management Plan

Lead Agency:

Park Authority

Status/Plans/Outcomes

Not begun

Resources

Amount to be determined.

Funding will be needed for a nature center as well as interpretive staff and resource/land management staff.

EIP08-PT08-06(C). Implementing Natural Landscaping Practices on County Properties

Description of Action

This action focuses on the implementation of natural landscaping techniques and practices on County properties. On June 21, 2004 the BOS directed staff to identify County properties where natural landscaping could be used to reduce maintenance practices that can cause harmful environmental impacts such as air pollution, and reduce the need and expense of mowing, pruning, edging, and using fertilizers, pesticides, and herbicides. In response, a Natural Landscaping Committee (NLC) was formed to identify practices, policies and a Countywide implementation plan. The final report and recommendations of the NLC was presented to the Board's Environmental Committee and approved by the BOS on July 11, 2005. The BOS directed the NLC to implement a five-year natural landscaping plan in an aggressive but cooperative fashion and submit natural landscaping projects to the ECC for possible inclusion into the EIP. The following projects are examples of specific natural landscaping projects that can be implemented on County properties:

- Establishing no-mow-zones and replanting these areas with tree seedlings and other alternative groundcovers such as native wild flowers and grasses
- Planting riparian buffers with native trees and shrubs
- Installing Schoolyard Habitat Gardens
- Installing natural landscaping improvements using native plants around schools and governmental buildings
- Refitting stormwater management facilities using natural landscaping techniques
- Removing invasive plants that threaten native plant communities and replace with appropriate species trees and shrubs

Environmental Agenda Objectives Supported:

Parks Trails and Open Space (General)

Air Quality & Transportation (General)

Water Quality (General)

Environmental Stewardship (General)

Other Plans or Documents where this action appears or that it supports:

Benefits and Application of Natural Landscaping and Five-year Implementation Plan (The report prepared for the BOS by the NLC)

Lead Agency:

DPWES—Urban Forest Management

Status/Plans/Outcomes

In alignment with BOS direction to pursue the “aggressive and widespread use of natural landscaping” this action will implement approximately 130 natural landscaping projects on County-owned properties such as governmental centers, libraries, fire stations, parks and schools over the next five fiscal years (FY 2008 through FY 2013).

EIP08-PT08-06(C). Implementing Natural Landscaping Practices on County Properties
Continued

These projects involve practices that will reduce mowing acreage and associated use of fertilizers, pesticides, gasoline and other petroleum based-fuels. Reduction of Volatile Organic Compounds (precursors to the formation of Ozone) emissions from reduce use of mowing equipment will result in improvement to air quality, especially during summer months when ambient Ozone levels become a critical air quality issue. The riparian buffer and stormwater management area projects will help to improve water quality. All these projects can be used to promote the use of natural landscaping on private properties (see related EIP08-ES08-09(C) Promoting the use of Natural Landscaping).

Resources

Cost of resources needed: \$2,400,000 (to be spent over a 5-year period).

EIP08-PT08-07 (C): Planting Trees for Energy Conservation at County Facilities

Description of Action

This action implements an energy conservation practice recommended by the Natural Landscape Committee (NLC). The NLC was formed to address a June 21, 2004 BOS directive for staff to identify County properties where natural landscaping could be used to reduce maintenance practices that can cause harmful environmental impacts such as air pollution, and reduce the need and expense of mowing and using fertilizers, pesticides, and herbicides.

This tree planting and public education project will result in the planting of shade trees at County owned facilities such as governmental centers, recreational centers, libraries, and fire stations for energy conservation, aesthetics, and to improve air and water quality. Through the use of on-site educational signs the shade trees will also provide an educational opportunity for visitors to observe how trees and landscaping can be used to reduce energy usage in privately-owned buildings.

Environmental Agenda Objectives Supported:

Parks Trails and Open Space (General)
Air Quality & Transportation (General)
Water Quality (General)
Environmental Stewardship (General)

Other Plans or Documents where this action appears or that it supports:

Benefits and Application of Natural Landscaping and Five-year Implementation Plan (The report prepared for the BOS by the NLC)

Lead Agency:

DPWES—Urban Forest Management

Status/Plans/Outcomes

The strategic placement of shade trees adjacent to one and two story buildings will conserve energy used to cool those building and will lower the cost of utility bills. Well-placed deciduous trees on the western and southwestern sides of buildings provide shade from summer sun and can lower cooling costs by 10 to 50 percent. In addition to energy cost savings, the reduction of energy used to cool the building directly translates to less carbon dioxide produced during the generation of electrical power. This program could possibly be used as a tree-related air quality improvement practice in future Washington Metropolitan Air Quality Plans. The level of funding is sufficient to add approximately 300 deciduous shade trees and install 20 educational signs at governmental facilities such as governmental centers, libraries, schools and fire stations. Tree planting programs should include measures to protect plantings from herbivory.

Resources

Funding needed: \$100,000

EIP08-ES07-02 (B) Volunteer Stream Monitoring Program

Note: This item also includes portions of items from the FY 2007 EIP report found in ES-B-3 and ES-B-9.

Description of Action

The Northern Virginia Soil and Water Conservation District (NVSWCD) sponsors a volunteer stream monitoring program. The program provides training, certification, equipment, on-going support, data processing and quality control. Volunteers conduct biological monitoring to determine the general health of a stream, based on the composition and diversity of benthic macroinvertebrates. They also conduct chemical tests for turbidity and nitrate/nitrite and make observations about the stream physical conditions and surrounding habitat. Approximately 165 certified monitors collect data four times a year at 53 sites throughout the county. The volunteer data complements the data that was collected for the DPWES Stream Protection Strategy Study and provides on-going water quality trend data. It also identifies emerging problems.

Park Authority staff also monitor streams in several parks. Staff and an intern conduct the annual Rapid Bio-Assessment II at Huntley Meadows Park.

Environmental Agenda Objectives Supported:

Environmental Stewardship 1, 2, 3 and 4
Water Quality 1, 3, 9 and 10

Other Plans or Documents where this action appears or that it supports:

MS-4 Permit
Watershed Management Plans
New Millennium Occoquan Watershed Task Force Report
Park Authority Strategic Plan
Park Authority Natural Resource Management Plan

Lead Agency:

Northern Virginia Soil and Water Conservation District

Other Agencies

Fairfax County Park Authority
Department of Public Works and Environmental Services

Status/Plans/Outcomes

These programs are part of an on-going effort of the Northern Virginia Soil and Water Conservation District, and are supported by FCPA and DPWES

EIP08-ES07-02 (B). Volunteer Stream Monitoring Program

Continued

As part of the stream monitoring program, NVSWCD conducts programs in elementary, middle and high schools, which include stream monitoring training and educational programs about watershed issues. Annually, this includes 8 to 10 high schools. Woodson High School's Science Honor Society members work with Hidden Oaks Nature Center and monitor streams in three parks.

In addition to learning about stream monitoring, many volunteers also become involved in watershed groups, clean-up events, and educational programs. NVSWCD sends newsletters and monthly calendars about watershed events via email to 700 people who are interested in stream monitoring and related issues, many of whom forward the emails to others.

Certified stream monitors play an important role in leading watershed walks and watershed bike rides for watershed residents. They discuss streams, erosion, habitats, stormwater management, and what residents can do to improve their watersheds.

The Audubon Naturalist Society (ANS) also trains and supports volunteer stream monitors, with six sites located in the county.

The volunteer data collected serves as important information for determining water quality trends in the county's streams. Volunteer data, along with the probabilistic stream monitoring data collected through DPWES-SWPD and other various monitoring programs are incorporated into an Annual Report on Fairfax County's Stream (June 2006), which allows for a comprehensive view of the conditions of Fairfax County's streams.

www.fairfaxcounty.gov/dpwes/stormwater/streams/assessment.htm

Fairfax County will continue to support the efforts of volunteers in support of the program and for the protection of water quality within the county.

Resources

NVSWCD's watershed specialist coordinates the volunteer stream monitoring program and related education and outreach activities. This is valued at \$50,000 annually and is funded as part of the NVSWCD annual budget. Monitoring equipment and supplies are funded through grants, which average \$2,000. The annual contribution of volunteers who participate in this program is valued at more than \$110,000 (165 x 45 hrs x \$16.05/hr).

FCPA and DPWES staff time and resources in support of volunteer monitoring efforts are provided as part of their annual funding.

EIP08-ES07-09 (B) FCPA “Adoption” Program for Natural Areas Such as Parks, Trails and Stream Valleys.

Description of Action

Currently there are 22 participants in the Park Authority's Adopt-A-Park program. This program, administered by the agency's Park Operations Division, encourages citizens to adopt trails, small parks and playgrounds. Most 'adopters' are homeowner associations or churches located close to the park and typically the organization's members are frequent users of the selected park. The Park Authority and organization sign an agreement that outlines the scope of what will be done in the park.

Environmental Agenda Objectives Supported:

Environmental Stewardship 1, 2, 3, 4
Parks, Trails and Open Space (General)

Other Plans or Documents where this action appears or that it supports:

Park Authority Strategic Plan
Park Authority Policy Manual
Park Authority Natural Resource Management Plan

Lead Agency:

Fairfax County Park Authority

Status/Plans/Outcomes

The program is ongoing. The Park Authority will explore how to best develop a comprehensive program for adoption of natural areas. One limitation foreseen is insufficient staff to manage the groups, especially staff with natural resource expertise. This program would be implemented by our Park Operations and Resource Management Divisions.

One way to engage young citizens in stewardship of natural areas may be to develop agreements with teachers, instructors and professors (e.g., biology, natural sciences) from local high schools and colleges to 'adopt' natural resource management projects. This would offer their students a practical, hands-on use of what has been learned in the classroom while the students provide a valuable community service.

Coordinating with “Friends Of” groups would provide benefits to both programs.

Resources

Costs to implement this program will be developed in the future.

EIP08-ES07-10 (B) Storm Drain Marking-Pollution Prevention Program

Description of Action

NVSWCD sponsors a storm drain marking program, which is a neighborhood education program about the dangers of dumping pollutants into storm drains, which lead to nearby streams. The program emphasizes educating the community about how to properly dispose of used motor oil, fertilizer, pet waste, toxic chemicals, yard debris, trash and other pollutants and encouraging environmental stewardship by educating residents about their local watershed. This is done by volunteers who create and distribute brochures and door hangars, and place articles in their community newsletters. NVSWCD provides guidance to ensure accurate information is disseminated. It also coordinates with VDOT for the necessary permits and ensures that the storm drain markers, or stencils, are applied according to the standards and guidelines in the NVSWCD *Storm Drain Marking Guide*. Schools, community organizations, and watershed stewardship groups often are partners in implementing this program. In FY 2006, DPWES formed a partnership with NVSWCD to support this program as part of the county's watershed plan implementation program. DPWES provides the storm drain markers, glue and other supplies. NVSWCD committed more staff time to promote and oversee an expanded program.

Environmental Agenda Objectives Supported:

Environmental Stewardship 1, 2, 3 and 4
Water Quality 1, 3 and 10
Solid Waste (General)

Other Plans or Documents where this action appears or that it supports:

Watershed Management Plans
New Millennium Occoquan Watershed Task Force Report
MS-4 Permit

Lead Agency:

Northern Virginia Soil and Water Conservation District

Other Agencies

Department of Public Works and Environmental Services

Status/Plans/Outcomes

This is an on-going effort of the North Virginia Soil and Water Conservation District and DPWES. While prior to the current expanded program, the average number of projects was 6 per year, in FY 2006, 20 projects were carried out in local communities resulting in approximately 15,000 households educated.

EIP08-ES07-10 (B). Storm Drain Marking-Pollution Prevention Program

Continued

Plans are underway to work with Fairfax County Public Schools to mark storm drains on school property and to assist schools with the education component of the program.

In 2005, DPWES joined with other local jurisdictions and the Northern Virginia Regional Commission to sponsor public service messages on local radio. A 'talking storm sewer inlet' provides practical tips on how to prevent common pollutants – fertilizer, used motor oil, and pet waste – from entering the storm drains.

Resources

NVSWCD staff time, valued at \$35,000 is budgeted as part of its Annual Plan of Work. Some supplies are secured through grants. If the demand for the program continues to increase, additional staff resources will be needed in order to support this program.

DPWES provides funding for the markers, glue, cleaning supplies, safety equipment, and promotional fliers as a public outreach project under its watershed plan implementation initiative. In FY 2006, \$17,300 was expended for these items, which are expected to last through the fall of 2006. Funding for these supplies is expected to continue, with approximately \$12,000 needed annually.

EIP08-ES08-01 (B). Education and Outreach Programs and Activities

This item also integrates all or part of several items from the FY 2007 EIP report: ES-B-04, ES-B-7, and ES-B-11.

Description of Action

The County sponsors a variety of programs and activities that help to inform the public about watershed issues and to promote environmentally responsible behaviors. They provide the knowledge, and often the tools, needed to help protect streams and other natural resources. The programs may be unique to an agency, or they may be carried out in cooperation with a few, or many, partners. They include brochures, newsletters, exhibits, videos, seminars and workshops, on-site and specialty programs, websites, and technical and educational advice. They provide ways that residents can learn about and participate in environmental stewardship.

Environmental Agenda Objectives Supported:

Environmental Stewardship 1, 2, 3 and 4

Water Quality 1, 3, 9, and 10

Solid Waste (General)

Other Plans or Documents where this action appears or that it supports:

Watershed Management Plans

MS-4 Permit

New Millennium Occoquan Watershed Task Force Report

Park Authority Natural Resource Management Plan

Lead Agencies:

Northern Virginia Soil and Water Conservation District

Fairfax County Park Authority

Department of Public Works and Environmental Services

Status/Plans/Outcomes

- FCPA Stewardship brochures and highway cards that are being distributed county-wide. Stewardship is the focus for the quarterly publication, ResOURces. Stewardship issues are highlighted in the quarterly Parktakes, which is mailed to all households.

- NVSWCD published *You and Your Land—A Homeowner’s Guide for the Potomac Watershed*. This handbook has a variety of practical information designed to aid homeowners in the economical care and maintenance of their property. It provides a simple step-by-step approach to solving common problems found in most yards, gardens or common areas. It is available on the county web site at <http://www.fairfaxcounty.gov/nvswcd/youyourland/intro.htm> The *Watershed Stewardship Guide*, available both in print and on the web, shows citizens ways they “can make a difference” in their local watersheds.
- *Conservation Currents* is a quarterly newsletter with articles homeowner associations are encouraged to reprint in their own newsletters. The variety of articles includes information about ponds, streams, stormwater management, hazardous waste, disposing of pet waste, proper lawn and garden fertilization, low impact development, erosion and sediment controls on construction sites, and citizen stewardship activities.
- FCPA created fourteen wayside exhibits along the Potomac River Gorge Interpretive Trail help the public learn about this valuable resource. Thirty-five wayside exhibits have been installed along the Cross County Trail, with a focus on five environmental topics. Signs were installed at Ellanor C Lawrence Park noting the park’s inclusion as part of the Virginia Birding Trail.
- The FCPA produced and printed 2,500 copies each of two posters – Natural Treasures and Cultural Treasures.
- FCPA staff have produced five videos that educate the public on the important habitats for vernal pools and for local wildlife needs; they are shown in the parks.
- Education resource materials, watershed awareness programs (watershed basics), and an interactive watershed model—*Enviroscape*—are part of the outreach program NVSWCD targets to teachers, youth groups and community groups.
- The County’s website contains a broad array of environmental information. DPWES’s stormwater webpage includes information about codes and ordinances, reports and studies, and volunteer opportunities. The watersheds webpage includes announcements, information and updates on the watershed planning efforts, and reports such as the *Stream Physical Assessment*, the *Occoquan Watershed in the new Millenium* and the *MS-4 Annual Report*. www.fairfaxcounty.gov/dpwes/watersheds . The NVSWCD web page contains educational and technical information and articles on many environmental topics—from lawn care, erosion and drainage, to recycling and litter, stream restoration and ponds, and rain gardens. It averages 6,000 visitors a month. www.fairfaxcounty.gov/nvswcd
- The Volunteer Stream Monitoring program’s monthly watershed calendar, and the Green Group’s periodic announcements and bi-monthly Green Breakfasts help to keep public informed about environmental issues, meetings, and events.
- Many agencies attend town meetings and other community events, which provide an opportunity to take a display and literature and talk with the public. DPWES’s Stormwater Program and Land Development Services sponsor two large exhibits at the Fairfax Fair. NVSWCD participates, having created 15 new display panels to offer information about specific subject areas, e.g, riparian planting, rain gardens, responsible yard care, drainage problems, soils, and stormwater.

EIP08-ES08-01 (B). Education and Outreach Programs and Activities

Continued

- The Community Advisory Committees, which are formed as part of the public involvement component of the county-wide watershed planning, are provided with extensive information about their watersheds. Also, during each watershed planning effort, there is at least one watershed-wide seminar that provides an opportunity for all interested members of the community to learn about watershed issues and options for solutions.
- NVSWCD's community education programs include workshops on sediments and nutrients in streams, how to spot problems with erosion and sediment controls on construction sites, how to solve erosion and drainage problems around your home, pond management, stream stabilization projects, and infiltration techniques such as rain gardens.
- NVSWCD and DPWES lead watershed bike rides. While exploring their watershed, participants learn about erosion, habitats, streams, stormwater ponds, monitoring, and what residents can do to improve their watershed.
- DPWES Solid Waste Management Division participates in the *Know Toxics* program with Northern Virginia Regional Commission, an outreach program designed to educate the public about proper recycling or disposal of obsolete electronics.
- Fairfax County supports litter prevention activities through its partnership with Clean Fairfax Council.
- The annual World Water Monitoring Day, an initiative of America's Clean Waters Foundation, is coordinated by national and state agencies, and locally by NVSWCD. Public and private partners plan and carry out a day-long festival in the county.
- County agencies, businesses, environmental and non-profit groups, and Northern Virginia Community College partner to implement the county's annual Earth Day/Arbor Day celebration. The emphasis is on hands-on education and demonstrations and the event includes a ceremony where recycling and other education programs in schools are recognized, the Tree Commission presents its *Friends of Trees* awards, and members of the Board of Supervisors plant a tree.
- "Earth Day is Everyday in Fairfax County Parks" was the theme for the Park Authority display at the county's Earth Day Employee Expo. Activities promoted the importance of agency and individual stewardship actions.
- Several Parks, DPWES-UFM, and NVSWCD join with Potomac Conservancy, NVCT, and the Virginia Department of Forestry to support the collection of native seeds for the annual *Growing Native* Program.
- Each year, thousands of programs are conducted in the parks to increase the public's awareness, appreciation and stewardship of the county's natural and cultural resources. Programs are developed for varied audiences, including adults, families and children. Most of these sessions include an outdoor component allowing individuals to come in direct contact with natural resources.
- The staff at NVSWCD and staff at Huntley Meadows Park use the *Enviroscape* watershed model to demonstrate to both adult and youth groups how a watershed functions and the sources and solutions for nonpoint source water pollution. The FCPA would like to purchase watershed models for programs in Hidden Oaks, Hidden Pond, Ellanor C Lawrence and Riverbend Parks.
- The annual *Wetlands Awareness Day* at Huntley Meadows Park attracts more than 500 visitors.

EIP08-ES08-01 (B). Education and Outreach Programs and Activities

Continued

- NVSWCD's annual seedling program provides inexpensive plant materials for residents; it raises awareness about the benefits of trees and other native vegetation and contributes to urban reforestation.
- Through the Master Gardener program, the Park Authority and Virginia Cooperative Extension have increased outreach to community groups and individuals through speaking engagements, information displays, via the help line, and at plant clinics, which typically are conducted at libraries and farmers markets. Crowds at the Master Gardener annual EcoSavy Symposiums at Green Springs Park learn about gardening strategies that conserve natural resources and how to solve problems without harming the environment.
- NVSWCD staff provide on-site technical assistance to homeowner associations and schools to design and implement projects that both educate and solve problems, e.g. a rain garden, habitat improvement.

These programs are on-going and will continue.

Resources

These programs are budgeted and carried out as part of the DPWES, FCPA, and NVSWCD annual work plans.

\$4,000 is needed to purchase *Enviroscape* models to support Park Authority programs at four parks.

EIP08-ES08-02 (B) Environmental Education Programs Involving Youth

Note: This item also includes portions of items from the FY 2007 EIP report found in ES-B-1, ES-B-3, ES-B-8, and ES-B-11.

Description of Action

Providing opportunities for youth to learn about and engage in their natural world is key to their becoming life-long stewards of the environment. The County has a variety of programs, many in partnership with schools, which build understanding and respect for the county's natural resources, and further the goal of promoting environmental education and stewardship among youth.

Environmental Agenda Objectives Supported:

Environmental Stewardship 1, 2, 3 and 4
Water Quality 1 and 10
Solid Waste 2 and 3

Other Plans or Documents where this action appears or that it supports:

Watershed Management Plans
New Millennium Occoquan Watershed Task Force Report
Park Authority Strategic Plan
Park Authority Policy Manual
Park Authority Natural Resource Management Plan

Lead Agencies:

Fairfax County Park Authority
Northern Virginia Soil and Water Conservation District
Department of Public Works and Environmental Services

Status/Plans/Outcomes

- Hundreds of environmental education programs are offered each year in parks managed by Fairfax County Park Authority. Parks serve as science labs for thousands of elementary school students annually. These hands-on programs are specifically designed to meet the Virginia Standards of Learning and Fairfax County's Program of Studies. Annually, Park Authority staff meet with the Elementary Science and Social Studies Curriculum Specialists to ensure that park-based school programs meet the needs of teachers and students.
- In collaboration with the Middle School Science Curriculum Coordinator, park staff have developed "Meaningful Watershed Experience in Parks for 7th graders." These advanced environmental experiences were offered on a trial basis in the spring of 2006, and will be formally launched at the Middle School In-Service in August, when teachers will be able to register their classes for programs at five parks in the spring of 2007. These classes will reach more than 1,000 students. DPWES-Stormwater and NVSWCD also are partnering with FCPS to implement the *Meaningful Watershed Experience* Program, by

training teachers in water quality monitoring techniques, watershed protection policies, stewardship opportunities. In FY 2005, the county participated in three teacher training workshops to build the capacity of 7th grade teachers in approximately 15 schools.

- The goal of the 45 nature day camps, developed by park staff for summer 2006, is to increase nature appreciation and environmental sensitivity in campers from pre-schoolers to teens. These camps highlight the county's rich wildlife and habitats and how children can help protect them. Ellanor C. Lawrence Park and Huntley Meadows summer camp activities include stream observation and water testing.
- Individual students, who serve as active park volunteers, also conduct park projects to fulfill community service and class requirements.
- Middle and High School students participate in the Volunteer Stream Monitoring Program, assessing water quality in streams in their neighborhoods and in parks.
- *Envirothon* is a local, state and national competition among teams of high school students, sponsored locally by NVSWCD. Hands-on events give them an opportunity to demonstrate their knowledge about aquatics, forestry, soils, wildlife. Each year there is a special topic, such as watershed planning, urban runoff, agricultural pollution, or a leaking landfill.
- Education resource materials, watershed awareness programs (watershed basics), and an interactive watershed model—*Enviroscape*—are part of NVSWCD's outreach program targeted to teachers and youth groups. NVSWCD's programs at high schools and high school environmental clubs highlight stream ecology, watershed basics, biological monitoring, and programs that are available to students. Students also receive help with science projects.
- Each year, NVSWCD judges environmental projects at the regional science fair and provides awards and recognition. Project summaries are posted on the county's website for other students to read, and receive a large number of hits.
- Annually, NVSWCD sponsors a scholarship program for college students interested in studies related to natural resources.
- DPWES-SWPD staff serve as a technical resource for Earth Force's Global Rivers Environmental Education Network (GREEN). They identify stream monitoring sites and assist with outdoor training and classroom presentations.
- DPWES Solid Waste Management takes recycling programs and activities to the schools.
- DPWES Solid Waste Management, in partnership with Clean Fairfax Council, offers \$6,000 in environmental grants (Johnnie Forte Junior Memorial grants) to FCPS students each year to implement litter prevention, litter control, and recycling projects in schools.

Plans are for these programs and partnership activities to continue.

Resources

These programs are budgeted and carried out as part of the FCPA, DPWES, and NVSWCD annual work plans.

EIP08-ES08-03 (B) Stream and Watershed Clean Up Efforts

Note: This item also includes portions of items from the FY 2007 EIP report found in ES-B-3 and ES-B-7.

Description of Action

Trash and debris discarded throughout a watershed often end up in the county's streams and stream valleys. They are collected and carried by stormwater runoff from streets, yards, and parking lots, and enter stormwater inlets that lead to local streams. These streams connect to larger watersheds, the Occoquan and Potomac Rivers, and eventually the Chesapeake Bay. Community-based stream and watershed cleanups provide a valuable environmental benefit to the county. The county supports these efforts in a variety of ways, including helping to initiate, plan and publicize events, participating in projects, and facilitating disposal.

Environmental Agenda Objectives Supported:

Environmental Stewardship 1, 2, 3, 4
Water Quality 1, 3, 10
Solid Waste (General)

Other Plans or Documents where this action appears or that it supports:

Watershed Management Plans
New Millennium Occoquan Watershed Task Force Report
MS-4 Permit

Lead Agencies:

Department of Public Works and Environmental Services
Northern Virginia Soil and Water Conservation District
Fairfax County Park Authority

Status/Plans/Outcomes

Since 1990, the Park Authority has sponsored the biannual Watershed Clean-Up Day, as an opportunity for residents to discover the dynamics of county streams and watersheds and to provide a hands-on experience for them to care for their water resources. Participants include scouts, families, church groups, school groups and civic associations. As they remove debris, they learn how water moves in a watershed and that most of the trash originated elsewhere. Plans include additional clean-up day locations, enlisting additional partners (e.g., schools, 'friends of' groups), adding educational components on clean-up days, such as the *Enviroscape* watershed model demonstration, and adding more school-based programs in parks.

DPWES Stormwater Planning and NVSWCD, in partnership with numerous other local agencies and groups, support ongoing and semi-annual watershed cleanup efforts. Staff assist with planning for the large-scale events that occur in April, under the auspices of the Alice Ferguson Foundation's Potomac Watershed Cleanup, and in September, through the International Coastal Cleanup. DPWES Solid Waste supports citizen clean up efforts by waiving tipping fees and strategically stationing trucks to receive bags of trash on the days of the large-scale cleanups. Annually, since 2004, 80 to 100 citizen-based cleanup projects in Fairfax County are registered with the Alice Ferguson Foundation. Over 1,200 volunteers remove tons of trash, including more than 2,000 bags.

The Board of Supervisors has joined jurisdictions throughout the Potomac Watershed in signing the treaty for a *Trash Free Potomac by 2013*. The Board of Supervisors Environmental Chair, DPWPES, NVSWCD, and other groups in the county participated in the 2006 Trash Summit and continue to participate in the working groups associated with this initiative, which is being coordinated by the Alice Ferguson Foundation. These groups focus on education and outreach programs, economic issues, technical measures, and regulatory issues.

Numerous citizen-based groups, such as the Friends of Little Rocky Run, Friends of Accotink Creek, Friends of Cub Run, Friends of Burke Spring Branch, Friends of the Occoquan, the Mason Neck Lions Club, and many others, sponsor periodic and annual stream and watershed cleanups. The County supports these efforts by publicizing and helping with disposal and often by staff participation. Clean Fairfax Council, which is supported by Fairfax County, provides supplies for many of these events.

Community groups are encouraged to Adopt-A-Stream and enroll in the state program. They receive a sign with the program logo and their name, which they can post at a road crossing to help raise awareness about keeping trash out of streams. A sign in the headwaters of Difficult Run denotes adoption by DPWES-Stormwater Planning staff.

The Citizens Advisory Committee for the Little Hunting Creek Watershed Plan identified the clean up of illegal dump sites as important and necessary. DPWES initiated a watershed plan implementation project to clean up many of these sites.

Resources

Support for current watershed clean-up efforts are part of the on-going Park Authority, DPWES and NVSWCD work plans.

EIP08-ES08-04 (B) Support of Citizen-Based Environmental Stewardship Programs and Activities

Note: This item also includes all or portions of items from the FY 2007 EIP report found in ES-B-1, ES-B-6, and ES-B-11.

Description of Action

The county recognizes that neither government nor residents can solve watershed problems alone, but must work together. It also recognizes the important contributions made by citizen-based initiatives to conserve, protect and enhance the county's natural resources. The county supports these efforts by being a resource for information and technical advice, and identifying and making available county services and programs to support activities.

Environmental Agenda Objectives Supported:

Environmental Stewardship 1, 2, 3, 4
Water Quality 1, 3, 9, 10

Other Plans or Documents where this action appears or that it supports:

Watershed Management Plans
New Millennium Occoquan Watershed Task Force Report
Park Authority Natural Resource Management Plan

Lead Agencies:

Northern Virginia Soil and Water Conservation District
Department of Public Works and Environmental Services

Status/Plans/Outcomes

Watershed stewardship groups receive administrative, educational and technical support from NVSWCD and county agencies. Groups include 'Friends of streams' groups for Accotink Creek, Cub Run, Little Rocky Run, Burke Spring Branch, Sugarland Run, the Occoquan and others. Besides stream monitoring and cleanups, many community, scout, school, homeowner associations, civic groups and environmental organizations organize tree plantings, watershed cleanups, pollution prevention and education activities, riparian and habitat enhancement projects and other environmental stewardship activities on both public and private lands. Fairfax Trails and Streams, the Mason Neck Lions Club, Northern Virginia Conservation Trust, Potomac Conservancy, Fairfax Audubon, Audubon Naturalist Society, and Fairfax ReLeaf have coordinated environmental stewardship activities with county staff. In 2006, DPWES purchased trees for the *2006 Trees in 2006* campaign, which was coordinated by Fairfax ReLeaf. Staff from NVSWCD and DPWES often participate in and make presentations at environmental group meetings.

EIP08-ES08-04 (B) Support of Citizen-Based Environmental Stewardship Programs and Activities
Continued

The Fairfax Watershed Network is a dedicated group of organizations, agencies, friends of groups, and individuals that support and promote the improvement and protection of Fairfax County's streams and watersheds through outreach and education activities. DPWES Stormwater Planning Division and NVSWCD are founding members and continue to serve as participants and technical liaison. For the past two years, a major project of the Network has been to promote and facilitate participation in the annual Potomac River Clean Up.

Community Advisory Committees are formed as part of each watershed planning effort. The committees are diverse groups of community stakeholders with representatives from homeowners associations, business interests, the development community, environmental groups, churches, schools, and interested citizens. It is anticipated that these committees will continue to help build community support for implementing watershed projects. Also, while initially formed to engage in a planning role, these committees often seek to incorporate stewardship roles. County agencies and partners will continue to provide technical and educational support, and information about stewardship opportunities.

Volunteer groups associated with county parks, such as the Friends of Huntley Meadows, provide valuable services by conducting education and stewardship activities. Park staff support and work closely with these groups.

In 2005, the Friends of Hidden Oaks Nature Center, National Wildlife Federation, Supervisor Gross, Audubon Society, Northern Virginia Conservation Trust, and Earth Force launched a five-year program to certify the greater Mason District area as a wildlife habitat. This plan requires 1,000 homes to be certified as backyard wildlife habitats. Currently, 158 homes are certified.

Resources

Staff resources to support these citizen-based efforts are budgeted as part of the DPWES, FCPA and NVSWCD programs.

EIP08-ES08-05 (B) Stewardship Education (FCPA Brochures)

Description of Action

The Board of Supervisors designated \$ 135,000 at FY 2004 carryover for stewardship education. The project is meant to fund education and outreach efforts on county environmental stewardship initiatives and includes the development and communication of stewardship messages for partners and citizens across the county. This project will allow the Park Authority to educate both staff and citizens countywide in important stewardship issues and the County's commitment to stewardship and to engage them in practicing good stewardship.

Environmental Agenda Objectives Supported:

Environmental Stewardship (General)
Parks, Trails, and Open Space (General)
Water Quality 1

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Park Authority Strategic Plan
Park Authority Policy Manual
Park Authority Natural Resource Management Plan

Lead Agency:

Park Authority

Status/Plans/Outcomes

The Park Authority is implementing this stewardship education initiative through a series of brochures related to natural resource stewardship. The brochures include a county-wide stewardship message with a consistent style. Six brochures have been published including "Treasures," "Wildlife," "Invasive Backyard Plants," "Invasive Forest Plants," "Trees" and "Spiders, Snakes and Slime Molds." The first Highway Card (also titled "Trees") was published. Highway Cards are designed to respond to more seasonal interests, provide contact information or other non-evergreen issues. The Park Authority worked with Urban Forestry and the Park Authority Forester to create the "Trees" Highway Card and provide contact information for several sources related to trees. Several more topical brochures are in production.

Resources

\$135,000 funded
\$100,000 - \$300,000 needed

Funding is needed to develop for reprints of brochures and for development of new materials and education programs which may include:

EIP08-ES08-05 (B). Stewardship Education (FCPA Brochures)

Continued

- Stewardship Education television marketing spots modeled after the 'Fairfax County Stewardship' branding started with the brochures. The spots would be short and eye catching and would focus on key topics with tips for action.
- A consultant report to identify what skills and functions each employee class should possess to practice stewardship, as well as a comprehensive training plan.
- A consultant recommended strategy for external outreach.

EIP08-ES08-06 (B) Invasive Management Area (IMA)

Program

Description of Action

The Board of Supervisors designated \$100,000 at FY 2005 carryover for invasive plant removals on park land. The Park Authority is using this funding to develop the Invasive Management Area (IMA) pilot program. The IMA program is a volunteer-led pilot project designed to reduce invasive plants on parklands and to draw attention to the threat invasive plants pose to natural areas. The program is unique in that volunteer leaders must take on coordination responsibility and commit to adopting a site for several months. The program contains a monitoring component for both the ecological impacts as well as the success of this volunteer model. Up to 20 leaders are being recruited who will commit to four work-days including invasive plant removals and re-planting. The Park Authority is carrying out the pilot program in partnership with a number of organizations and the training for the volunteers is being conducted in conjunction with a new program sponsored by the Northern Virginia Soil and Water Conservation District - the Neighborhood Ecological Stewardship (NEST) training program.

Project Goals

- Capitalize on support and momentum from the public to do something about non-native, invasive plant and animal species; garner community involvement and support.
- Educate the public about the effects of non-native, invasive plant and animal species.
- Participate in outreach opportunities regarding non-native, invasive plant and animal species.
- Develop healthy woodlots with uneven-aged stands of mixed trees, shrubs and ground cover with a floor of leaf litter and debris that are free of invasive plant species.

Partnerships and Consulted Organizations

Northern Virginia Soil and Water Conservation District

Earth Sangha

Fairfax ReLeaf

Fairfax County, Department of Public Works and Environmental Services

Virginia Native Plant Society, Potowmack Chapter

Friends of Riverbend Park

Reston Association

Weed Warriors, The Nature Conservancy

Weed Warriors, Montgomery County Parks

InvasivePlants.org

Audubon at Home

Northern Virginia Conservation Trust

Potomac Conservancy

EIP08-ES08-06 (B). Invasive Management Area (IMA) Program
Continued

Environmental Agenda Objectives Supported:

Parks Trails, and Open Space (General)
Environmental Stewardship 1, 2, 3, and 4

Other Plans or Documents where this action appears or that it supports:

Comprehensive Plan
Park Authority Strategic Plan
Park Authority Policy Manual
Park Authority Natural Resource Management Plan

Lead Agency:

Park Authority

Status/Plans/Outcomes

The program began in March 2006 and ends in October 2006.

Resources

\$100,000 and volunteer labor. Grant funding is being sought to supplement the program budget.

EIP08-ES08-07 (C) Neighborhood Ecological Stewardship Training

Description of Action

The Neighborhood Ecological Stewardship Training (NEST) program was initiated in the spring of 2006 by the Northern Virginia Soil and Water Conservation District, as a pilot project and as part of a doctoral studies project for a student at George Mason University. NEST teaches citizens about their local environment through a series of experiential workshops and hands-on outings that explore local stream ecology, plants, soil, resource efficient behaviors and personal connections to the region. More than twenty-five agencies, organizations and companies partnered with the NEST program. More than 145 adults participated in the NEST program in 2006. The program was well-received and extensive documentation is available that illustrates the effectiveness of this approach to stewardship education.

The program website is at: <http://mason.gmu.edu/~jcornell/NEST>

Program Goals

- Capitalize on support and momentum from the public to get involved with their local environment through watershed and invasive species issues – to garner community involvement and support.
- Educate the public about how their actions impact their water resources, the local forests and the Chesapeake Bay Watershed.
- Create an environmental community with the skills, knowledge and commitment to make a positive impact on their “place” (neighborhood), by enhancing their “sense of place.”

Program Overview

- I. Stream Valley Ecology – Watersheds and Streams
- II. Stream Valley Ecology – Soil and Native and Invasive Plants
- III. Land-based Exploration
- IV. Water-based Exploration
- V. Outdoor Arts
- VI. Connecting with Nature Series

Environmental Agenda Objectives Supported:

Environmental Stewardship 1, 2 and 4
Water Quality 1, 9 and 10

Other Plans or Documents where this action appears or that it supports:

Watershed Management Plans
New Millennium Occoquan Watershed Task Force Report
Park Authority Natural Resource Management Plan

Continued

Lead Agency:

Northern Virginia Soil and Water Conservation District

With support from DPWES, FCPA and 26+ additional agency, private, and non-profit partners.

Status/Plans/Outcome

NEST 2006 demonstrated that there is extensive interest in adult natural resources programs. The program filled to capacity and many participants claimed it “changed their outlook on natural resources in the area.” Pre and post-program surveys document the success of this hands-on approach.

The NEST program is clearly an effective way to foster environmental stewardship and can become a national model for adult stewardship education.

Resources

The program’s formal budget was \$0. The program coordinator’s time was funded by the Northern Virginia Soil and Water Conservation District. All program funding and support were provided in-kind by its partners.

To continue the NEST program, funding is needed for both staff support and resources. \$35,000 would fund a part-time person to carryout the program. A full-time person could be used effectively to help implement the NEST and to carry out other technical and outreach programs (such as EIP08-ES08-08).

EIP08-ES08-08 (C) Bayscaping: Improving Water Quality, Increasing Biodiversity and Enhancing Community in Fairfax County

Description of Action

Bayscaping, alternatively referred to as conservation or natural landscaping, describes an approach to landscape maintenance that minimizes impacts to local water quality and the Chesapeake Bay by reducing pollutants, increasing biodiversity and habitat including urban forest resources, and minimizing runoff. Bayscaping programs typically have multiple goals including neighborhood beautification, urban greening, water and air quality protection, and environmental education. They also stimulate local environmental stewardship and enhance community by empowering citizens to enact positive change locally.

NVSWCD would like to initiate a bayscaping program for Fairfax County, focusing in several or all of the following areas: LID for the home landscape with an emphasis on residential rain gardens and/or rain barrels, habitat/native plant gardening training and education, a native habitat mini-grant and technical support program for schools, a riparian/pond buffer enhancement plant grant and technical support program for private landowners, and implementation of the “Livable Neighborhoods” program, a sustainable communities program that trains citizens to be leaders within their own neighborhoods in the areas of water conservation and protection. (This last program is already developed and has been enacted in Arlington County and the City of Falls Church with measurable success.)

Program Goals:

- Educate the public about how their actions impact their water resources, the local forests and the Chesapeake Bay Watershed and stimulate individual behavior change.
- Provide technical information on alternatives to highly resource consumptive and polluting gardening and landscape practices.
- Provide financial incentive and technical support to enable on-the-ground projects that demonstrate environmental stewardship and provide for ongoing environmental education.
- Increase habitat and forestry resources and improve air and water quality within Fairfax County
- Create a constituency with the skills, knowledge and commitment to make a positive impact on their neighborhood by enhancing their sense of place and building community.

EIP08-ES08-08 (C). Bayscaping: Improving Water Quality, Increasing Biodiversity and Enhancing Community in Fairfax County
Continued

Environmental Agenda Objectives Supported:

Growth and Land Use 5
Air Quality (General)
Water Quality 1, 7, 9, 10
Parks, Trails and Open Space 2
Environmental Stewardship 1, 2, 3, 4

Other Plans and Documents where this action appears or that it supports:

Watershed Management Plans
New Millennium Occoquan Watershed Task Force Report
MS-4 Permit

Lead Agency:

Northern Virginia Soil and Water Conservation District

Status/Plans/Outcome

NVSWCD will partner regionally and participate in training for the “Livable Neighborhoods” program in fall 2007. Funding for additional programs is currently being sought.

Resources

Estimated funding needs are \$75,000. NVSWCD would need to re-allocate ½ of a staff person to implement this program at an annual cost of \$50,000. Grant funding or partnerships will be utilized to provide establish the citizen/school plant grant programs. Additional supplies and materials are estimated to cost \$25,000.

EIP08-ES08-09 (C) Promoting the use of Natural Landscaping Practices by Private Sector

Description of Action

This action focuses on efforts to promote the use of natural landscaping practices by the private sector. On June 21, 2004 the BOS directed staff to identify County properties where natural landscaping could be used to reduce maintenance practices that can cause harmful environmental impacts such as air pollution, and reduce the need and expense of mowing, pruning, edging, and using fertilizers, pesticides, and herbicides. In response, a Natural Landscaping Committee (NLC) was formed to identify practices, policies and a Countywide implementation plan. An initial report and recommendations of the NLC was presented to the Board's Environmental Committee and approved by the BOS on July 11, 2005.

The NLC realize that implementation of natural landscaping practices by citizens on privately owned properties has significantly more potential to deliver positive environmental benefits than implementation on public property alone; according, two major goals of the NLC report focus on:

1. **Public Education** – Promoting the use of natural landscaping on private property by providing opportunities to observe the application of specific natural landscaping practices that have been deployed and explained via signage on the grounds of highly-trafficked governmental facilities.
2. **Community Engagement** – Increasing neighborhood pride and environmental stewardship by encouraging civic or student groups that have interest in implementing natural landscaping practices on common open space, and by encouraging public involvement in the maintenance of landscaping projects installed at libraries, recreational centers, schools and governmental centers.

The following activities could be used to educate and engage the community about the value of implementing natural landscaping:

- Development of educational materials such as brochures, web pages, videos and desktop exhibits that highlight the use of natural landscaping on County property and promote its use on private property
- Incorporate interpretive signage into multi-function natural landscaping exhibits
- Develop public service announcements for various news and media outlets
- Promote natural landscaping at the County's Earth Day/Arbor Day Celebration and similar events
- Encourage gardening groups such as the Virginia Cooperative Extension Master Gardeners to attend Natural Landscaping workshops
- Encourage local landscape businesses to participate in Natural Landscaping workshops to encourage the development of natural landscaping services for private landowners
- Develop programs that encourage individual or groups interested in planting and maintaining natural landscape gardens and exhibits on County property

Environmental Agenda Objectives Supported:

Environmental Stewardship 1, 2, 3, 4
Parks Trails and Open Space (General)
Air Quality & Transportation (General)
Water Quality 1, 7, 9, 10

Other Plans or Documents where this action appears or that it supports:

Benefits and Application of Natural Landscaping and Five-year Implementation Plan (The report prepared for the BOS by the NLC)
New Millennium Occoquan Watershed Task Force Report

Lead Agency:

DPWES—Urban Forest Management

Status/Plans/Outcomes

This action complements the implementation of natural landscaping projects on County-owned properties such as governmental centers, libraries, fire stations, parks and schools over the next five fiscal years (FY 2008 through FY 2013) and is largely hinged on the funding of natural landscaping projects identified in EIP08-PT08-06 (C) Implementing Natural Landscaping Practices on County Properties, and EIP08-PT-07 (C): Planting Trees for Energy Conservation at County Facilities. Emulation of natural landscaping practices by citizens could greatly amplify the level of environmental benefits derived from public natural landscaping projects. Funding for this project would be used to produce educational materials, produce and install interpretive signs, and to host workshops featuring natural landscaping practices.

Resources

Funding needed: \$30,000

EIP08-ES08-10 (C) Partnering with Non-Profit Tree Planting Groups in Establishing a Countywide Tree Planting Program

Description of Action

This action builds upon the success that has resulted from partnerships formed between Fairfax County and non-profit tree planting groups and complements an existing BOS directive to establish a tree fund and a countywide tree planting program for air quality improvement.

Each year, non-profits such as Fairfax ReLeaf, Inc. and Earth Sangha grow native trees and organize tree planting and forest restoration projects on public lands and on common open space. These efforts result in thousands of trees being planted on an annual basis; but, just as importantly, these groups provide opportunities for citizens to connect with nature and to learn lessons in civic responsibility and environmental stewardship. These groups connect volunteers such as Girl Scouts, Boy Scouts, student clubs, garden clubs, church groups and homeowners associations with opportunities to collect native seeds, propagate plants, and plant trees. Many of their activities directly support County efforts relating to riparian restoration, forest habitat restoration, and street tree plantings. Here are examples of ways that Fairfax County interacts with non-profit tree planting groups at present:

- Fairfax County provides a small office space, telephone service, and conference area for Fairfax ReLeaf, which serves as that organization's headquarters.
- The Urban Forest Management Division, DPWES provides a staff liaison to attend Fairfax ReLeaf Board meetings and to help support their tree nursery and tree planting activities.
- Fairfax ReLeaf sends representatives to the monthly Tree Commission meetings in order to interact with the Tree Commission on tree-related issues and projects.
- FCPA provides Earth Sangha with a space to operate a native plant nursery at Franconia Park. This nursery produces thousands of native plants per year, many of which make their way to County properties via forest restoration and tree planting projects.
- FCPA and Earth Sangha signed an agreement with the Fairfax County Park Authority to develop a "Native Arboretum" at the 20-acre Marie Butler Leven Preserve in McLean. The development of the arboretum will gradually transform the Preserve into a comprehensive display of plants native to our region.
- In 2006, the Stormwater Business Area, DPWES provided \$10,000 to support Fairfax ReLeaf's 2006 Trees Campaign. This project, which is being done in partnership with the Tree Commission and the NVSWCD will result in over 2,000 trees being planted on public property and common open space in Fairfax County.

Non-profit tree planting groups typically struggle to find funding needed to purchase trees and for operating expenses. Out of necessity, the time and energy these groups expend pursuing grants and soliciting donations often exceeds the time and energy they expend on tree planting.

EIP08-ES08-10 (C). Partnering with Non-Profit Tree Planting Groups in Establishing a Countywide Tree Planting Program
Continued

If funded, this project would provide a modest level of financial support to non-profit tree planting groups over a five-year period. In return, the County would gain substantial ecologic and socio-economic benefits associated with the planting of thousands of trees on an annual basis, and with that tree planting program, community involvement in its environmental stewardship efforts. The funding for this project would be administered through the County's Tree Preservation and Planting Fund (TPPF). The TPTF was set up in response to a June 20, 2005 Board Matter directing County staff to establish a funding mechanism for a County-wide tree planting program. Staff was also directed to establish criteria to govern disbursement, tracking and annual reporting for any funds used from the TPPF. This existing mechanism and process would provide for fiscal accountability, and a methodology for the County to evaluate the effectiveness and progress of tree planting programs.

Environmental Agenda Objectives Supported:

Environmental Stewardship 1, 2, 3 and 4
Parks Trails and Open Space (General)
Air Quality & Transportation (General)
Water Quality 1, 7, 9, 10

Other Plans or Documents where this action appears or that it supports:

Lead Agency:

DPWES—Urban Forest Management Division (UFM)

Status/Plans/Outcomes

Funding for this project would be placed into the TPTF and administered by UFM which will review the requests for funding from non-profits using TPTF disbursement criteria. The funding for this project would be used over a five-year period for variety of purposes that would support non-profit tree planting activities including:

- purchasing trees, planting supplies, and tools
- purchasing signs and banners
- purchasing office supplies and equipment
- Providing compensation for non-profit paid-staff hours

UFM would prepare an annual report of proposed TPTF projects for review by the ECC and the Board's Environmental Committee. The TPTF report would quantify the success of the County's Tree Planting Program and would detail the activities of non-profit tree planting activities funded by this project.

EIP08-ES08-10 (C). Partnering with Non-Profit Tree Planting Groups in Establishing a
Countywide Tree Planting Program
Continued

It is conservatively estimated that providing \$60,000 annually to non-profit tree planting groups for the next five years could result in over 25,000 trees being planted in that same timeframe (or 5,000 trees per year). The tree cover gains from this project could possibly be used as a credited air quality improvement practice in future Washington Metropolitan Air Quality Plans. Expenditures from this project would also be used to help qualify Fairfax County for the annual Tree City USA Award. Tree planting programs should include measures to protect plantings from herbivory.

Resources

Funding needed: \$300,000. Total amount of funding is to be disbursed over a five-year period.

EIP08-ES08-11 (C) Promoting Stewardship Of Urban Forest Resources

Description of Action

This action builds on goals from the Tree Action Plan to foster an appreciation for trees and urban forests by the residents of Fairfax County, and to compel residents to protect, plant and manage their trees.

During the BOS Environmental Committee review of the preliminary Tree Action Plan recommendations, several BOS members noted concern about a growing number of complaints relating to the removal of healthy, mature trees on private properties. The BOS Environmental Committee requested that the Tree Action Plan Work Group pay extra attention in the development of educational and outreach actions in order to minimize the unnecessary removal of trees by private citizens. Accordingly the Tree Action Plan contains the following strategies to accomplish these goals:

- Develop an outreach and education plan with clear targets and measurable results.
- Fund and implement an outreach and education program.
- Provide technical assistance and training to the public.
- Develop incentives and an awards and recognition program and pursue grants.
- Provide examples via demonstrations on public lands.

Environmental Agenda Objectives Supported

Environmental Stewardship (general)

Air Quality and Transportation (General)

Water Quality 1, 7 and 10

Other Plans or Document where this action appears or that it supports

Watershed Management Plans

New Millennium Occoquan Watershed Task Force Report

Lead Agency

DPWES-Urban Forest Management Division

Status/Plans/Outcomes

The Tree Action plan provides the following actions to promote stewardship of the County's urban forest resources by residents:

- Form an inter-agency team for education related to urban forestry.
- Inventory existing outreach efforts and publications.
- Develop a scope of work for the education and out reach plan. Determine budget and timeline for in house and outsourced options.
- Identify and propose potential demonstration projects.
- Develop an education and outreach plan (funding required).
- Identify staff and budget needs to implement the education and outreach plan.

EIP08-ES08-11 (C). Promoting Stewardship Of Urban Forest Resources

Continued

- Outline an outreach and technical assistance program and identify resource needs.
- Define role of UFM in outreach and training for HOAs and residents.
- Define role of UFM in providing consulting and technical assistance for tree management on county land.
- Inventory existing awards and recognition programs.
- Compile list of applicable grants.
- Initiate demonstration projects on public property
- Develop informational brochures and expand the County's web page section regarding trees and urban forestry.
- Quantify and publishing the environmental and economic benefits of trees and forests

Tree planting programs should include measures to protect plantings from herbivory. This action also complements efforts of the Natural Landscaping Committee.

Resources

Funding needed: \$35,000

Funds will used to develop an education and outreach plan and to develop and print educational materials