

Strategic Option Overview

Department(s): Department of Environmental Services (DES); Department of Parks, Recreation, and Cultural Resources (DPRCR); Fire Department; Department of Management and Finance (DMF); Department of Community Planning, Housing, and Development (DCPHD)

Strategic Option Description: The County has long been committed to regional efforts to clean up the Chesapeake Bay and its tributaries, beginning with the adoption of the initial Chesapeake Bay Preservation Ordinance in 1992. Stormwater management is a critical component of Chesapeake Bay clean-up efforts, and Arlington, like its sister jurisdictions, is challenged by:

- Increasingly stringent State and Federal environmental requirements that will be reflected in future Municipal Separate Storm Sewer System (MS4) permits; and,
- Aging underground storm drainage infrastructure and its capacity to adequately deal with major storm events like the June 2006 storm.

In addition, Arlington faces the immediate requirements of an audit completed by the Virginia Department of Conservation and Recreation (DCR) and the U.S. Environmental Protection Agency (EPA) in Spring 2006 that called for increased monitoring and inspections.

Aging Infrastructure

The majority of the County's existing storm drainage system was built between 1930 and 1950. The system is nearing, or in some cases has already exceeded, its expected useful life. Major failures have and can occur. In addition, some localized components of the system may be undersized. Potential regulatory changes will also likely require retrofits of existing infrastructure to meet sediment and nutrient reduction goals in the Chesapeake Bay and other waterways. This proposal includes initial capital funding of \$1.3 million for maintenance capital and drainage improvements, including:

- Channel and environmental improvements;
- Storm drainage improvements;
- Stormwater maintenance capital; and,
- Adding two Watershed planner positions to plan and design stream restoration and urban stormwater facility retrofit projects

If, as now appears likely, the Chesapeake Bay does not meet water quality standards by 2010, even more stringent regulatory requirements are likely, including development of a Total Maximum Daily Load (TMDL) for the entire Bay watershed. Upgrading Arlington's stormwater system has been estimated to cost roughly \$500 million to meet these TMDL requirements, though urban stormwater retrofit costs would likely be phased in over a number of years, as is currently being done in Maryland.

The FY 2008 proposed budget also includes an initiative for enhanced curb and gutter installation that will help minimize flooding in certain situations. This initiative is discussed in more detail in Section O – Pay-As-You-Go Capital.

Near-Term Actions to Improve Water Quality & Ensure Regulatory Compliance

One of the most effective ways to quickly improve the County's stormwater management and ultimately water quality is to increase our "on the ground" forces that monitor potential sources of stormwater runoff. Enhanced enforcement will help ensure that commitments made by applicants during the plan review process are adhered to in the long run. The need for these enhancements were reinforced by the Spring 2006 audit by EPA and DCR. Fines or penalties could be incurred for

violations of the County's existing MS4 permit, particularly in the areas of stormwater facility inspections and pollution prevention/illicit discharges. This proposal includes a team of complementary resources to immediately enhance our existing monitoring and enforcement capabilities, including:

- Stormwater Facility Inspections & Maintenance Inspections;
- Pollution Prevention, Spill Response, & Illicit Discharge Inspections;
- Initial Building Permit & Site Plan Review;
- Landscape Conservation Plan Review; and,
- Construction Site Inspections focusing on erosion and sediment control

Long-Term Actions to Improve Water Quality and Ensure Regulatory Compliance

In addition to these very near-term requirements, Arlington's MS4 permit will be reissued in August 2007 for the next five-year term. Based on the draft permits for Norfolk and Fairfax County, it appears the next round of MS4 permits will be even more stringent — from increased inspections and monitoring to enforcement and reporting requirements.

The components of this longer-term effort will include special programs to:

- Begin critical updates of the stormwater system GIS inventory;
- Develop a County-wide stormwater hydraulic model to evaluate infrastructure capacity constraints;
- Update the 1999 stream inventory;
- Develop a comprehensive watershed management tracking database;
- Update the County's Stormwater Master Plan and develop construction standards and guidelines for use in stream restoration and infrastructure projects;
- Provide additional staff to respond to illicit discharges and spills and erosion and sediment control;
- Increase maintenance crew staffing for system inspection and public stormwater facility maintenance;
- Increase the current storm sewer inspection contract from a 40 year cycle to a 20 year cycle; and,
- Enhance building permit and plan review and ongoing compliance inspections and improve coordination of County-wide stormwater efforts.

Funding – Currently, stormwater management and compliance with the County's MS4 permit are coordinated by DES although responsibilities are spread across five departments. Current costs are budgeted in the General Fund, totaling approximately \$2.8 million, and include activities such as storm sewer maintenance, catch basin cleaning, plan review, inspections, reporting, water quality monitoring, and education and outreach. This strategic option assumes that the existing stormwater programs would continue to be funded through the General Fund.

A portion of the near-term enhancements in ongoing monitoring & inspections can be funded through new and/or increased permit review fees, with incremental revenues estimated at \$288,740. However, the Stormwater Facility Inspections & Maintenance Inspections position and the Pollution Prevention, Spill Response, & Illicit Discharge Inspections position must be in place by August 2007 to comply with the County's MS4 permit and this will require additional non-fee funding.

The funding for the remainder of the effort will be discussed during budget deliberations. Stormwater funding practices vary widely nation-wide, ranging from funding all costs through the general fund to special taxing districts to stand-alone stormwater utilities. An analysis of these

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funding options will be presented to the County Board as part of its review process.

It should be noted that the FY 2008 numbers presented below represent a partial year effort.

| Funding Information | FY 2008 | Projected FY 2009 |
|---|--------------------|------------------------------|
| Expense: | | |
| Building permit & plan review (0.5 FTE) | \$ 44,579 | \$ 46,808 |
| Contract erosion & sediment control inspector | 100,000 | 100,000 |
| Landscape conservation plan review & compliance (1.0 FTE) | 88,434 | 92,119 |
| Begin update of GIS inventory & other special programs (1.0 FTE) | 133,459 | 121,053 |
| Update Stormwater master plan (\$250,000) & develop new hydraulic model (1.0 FTE) | 434,141 | 395,294 |
| County-wide stormwater coordinator (1.0 FTE) | 105,926 | 146,171 |
| Water Quality and Stream Management | 20,000 | 81,250 |
| Operation and Maintenance (3.0 FTEs) | 243,378 | 496,302 |
| Regulation & Enforcement (4.0 FTEs) | 402,170 | 718,732 |
| Aging Infrastructure – new watershed planners (2.0 FTEs) | 0 | 195,006 |
| Equipment & Furniture | 41,000 | 14,000 |
| Rent & Overhead | 126,361 | 226,472 |
| Subtotal – Operating & Overhead | 1,739,448 | 2,633,207 |
| Capital | \$1,300,000 | \$3,535,000 |
| Total Expense | \$3,039,448 | \$6,168,207 |
| Revenue: | | |
| DES Plan review fees | \$ 200,000 | \$ 200,000 |
| Landscape Conservation Plan review fees | 88,740 | 88,740 |
| Total Revenue | \$ 288,740 | \$ 288,740 |
| Net Tax Support – see discussion under “Funding” above | \$2,750,708 | \$5,879,467 |
| New FTEs | 11.5 | 3.5 |
| Cumulative New FTEs | | 15.0 |

| Performance Measures | | | | | |
|--|----------------|----------------|----------------|-----------------|--|
| | FY 2005 | FY 2006 | FY 2007 | FY 2008* | Analysis |
| Compliance with MS4 permit conditions | 100% | 88% | 100% | 100% | Compliance during FY 2007 will require special efforts and is not sustainable without additional resources |
| Linear feet of stream restoration projects constructed | 150 | 3,000 | 500 | 1,000 | FY 2005 – Benjamin Banneker Park project; FY 2006 – Donaldson Run (Zachary Taylor Park); FY 2007 – Donaldson Run (Woodrow St.) |

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Performance Measures

| | FY 2005 | FY 2006 | FY 2007 | FY 2008* | Analysis |
|---|----------------|----------------|----------------|-----------------|--|
| Time dedicated to landscape conservation plan follow-up inspections | Negligible | Negligible | Negligible | 1,120 hours | Average of 3.66 hours per plan needed for inspection |

*Anticipated performance with strategic option approved