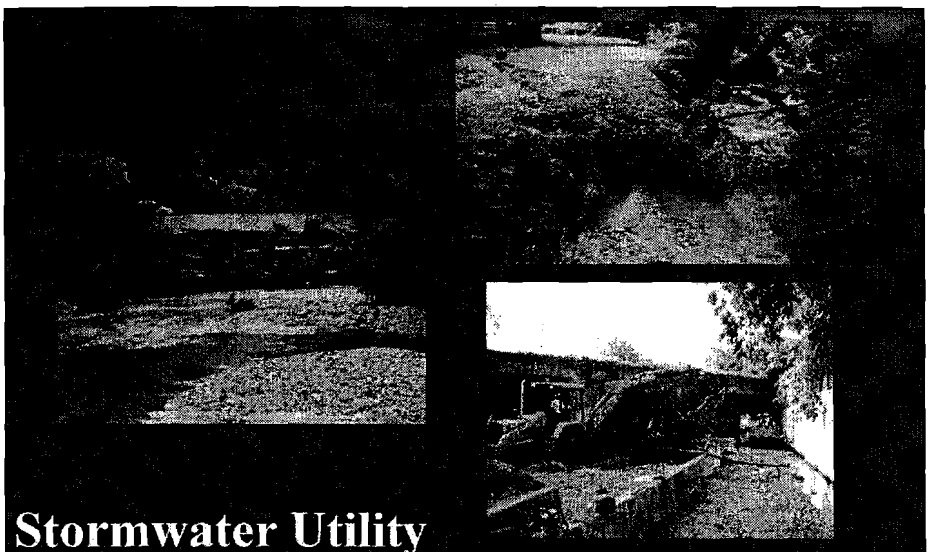


Stormwater Utility

City Council Budget Retreat

November 7, 2009

ECO-CITY ALEXANDRIA

Stormwater Utility Process and Evaluation

- **Process**
  - Virginia localities can create stormwater utilities; Code of Virginia Title 15.2, Chapter 21, Article 2, Section 2114 — 1991
  - City Council requests staff evaluate stormwater revenue options — FY 07
  - Staff evaluates stormwater utility with other funding options — FY 07-08
  - City Council approves Stormwater Working Group and staff conducts workshops and staff begins public outreach — FY 09
- **Funding options evaluated**
  - General Fund Revenue
  - Stormwater Utility Fee

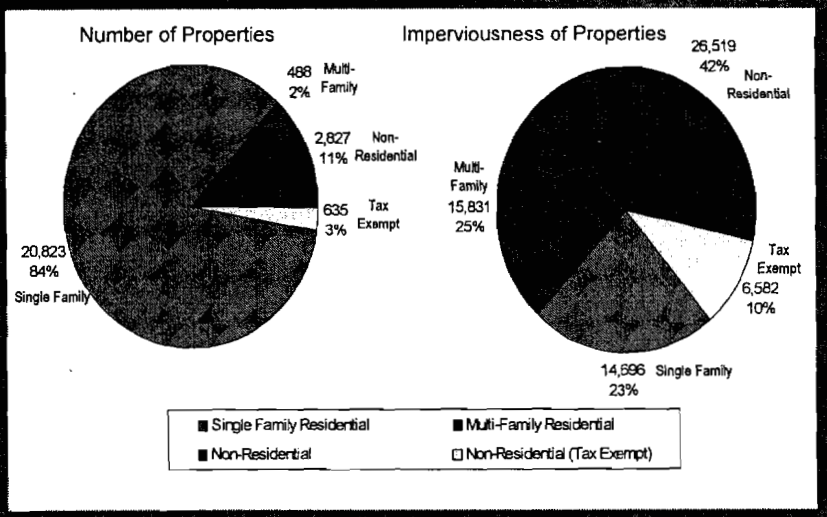
What is a Stormwater Utility?

- Dedicated funding generated specifically for stormwater services
- Similar to any other utility
  - Water
  - Sanitary
  - Natural Gas
  - Electricity

How Will It Be Financed?

- Owners of properties that contribute to stormwater runoff will be charged a user fee
- User fee based on amount of impervious surface contributing to stormwater runoff
- Properties with greater impervious area contribute more to stormwater needs
- Credits will be provided for on-site stormwater management

Stormwater Utility Fees Basing on Impervious Area



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Stormwater Program

- Infrastructure
  - Capital Improvement Projects
  - Operation & Maintenance
- Federal and State Environmental Regulations
- Climate Change

6

Stormwater Funding Options

Existing Stormwater Funding

- General Fund
- Competes with other city-wide priorities
- Each property's contribution based on property value

Proposed Stormwater Utility

- Typically set up as an enterprise fund
- Dedicated revenue for stormwater program
- Based on extent to which a property contributes to stormwater runoff (impervious area)

7

The selected rate structure should be fair and simple

Residential → Flat Fees

Non-Residential & Multi-Family Residential → Actual Impervious Area

Undeveloped → No Fees

8

How is a Stormwater Utility Fee Calculated? (Equivalent Residential Unit or ERU)

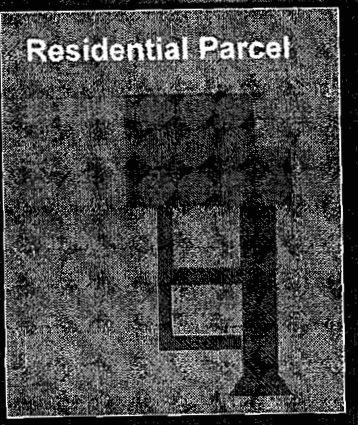
House	1,550 ft^2
Other Impervious	421 ft^2
Total	1,971 ft^2

Single Family Detached < 3,942 ft^2 = **1 ERU**

Single Family Detached > 3,942 ft^2 = **2 ERU**

Single Family Attached = **0.43 ERU**

Single Family Semi-Detached = **0.43 ERU**



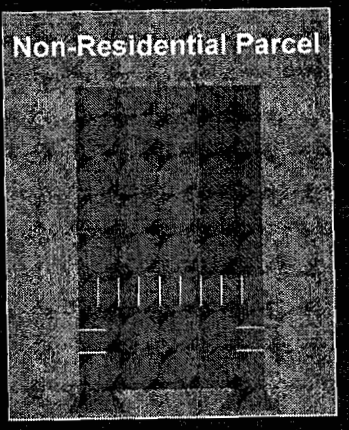
Single Family Detached

9

Non-Residential & Multi-Family billed as multiples of the ERU

Building	6,000 ft^2
Parking	10,000 ft^2
Other Impervious	3,710 ft^2
Total	19,710 ft^2

$$\frac{19{,}710\ ft^2}{1{,}970\ ft^2} = \mathbf{10\ ERU}$$



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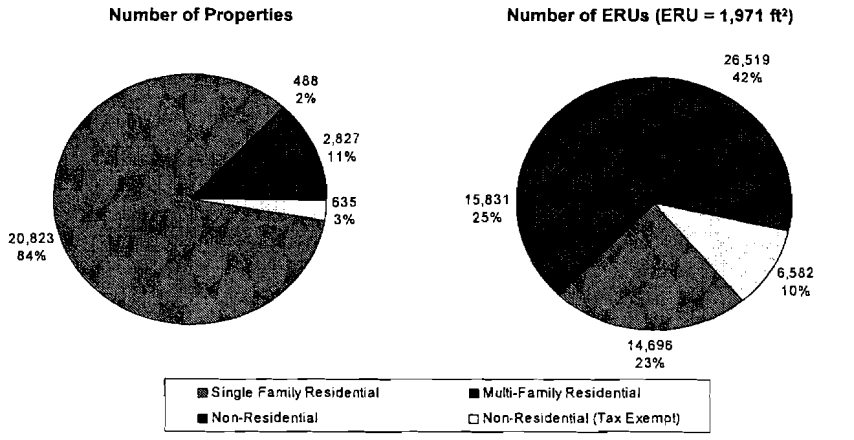
Stormwater Utility ensures equitable contributions from different property types



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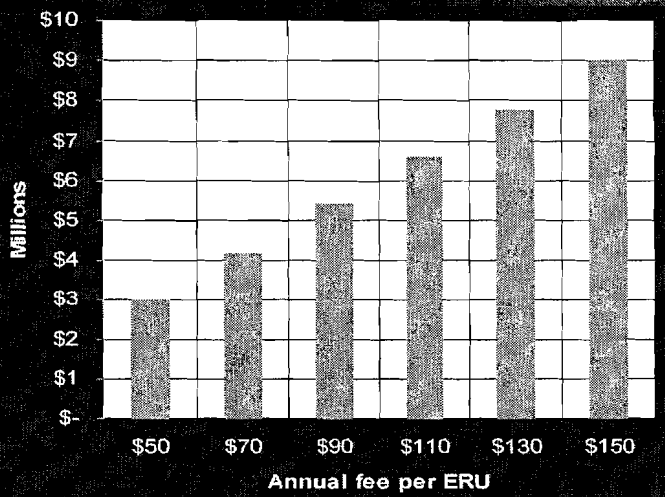
Estimated annual revenue by annual stormwater utility fee per ERU



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Proposed Stormwater Utility Rate Under Consideration

- Single Family (20,823 parcels)
  - Typical detached (8,570 parcels) $48/yr
  - Larger detached, 2 x typical (546 parcels) $98/yr
  - Attached & semi-detached (11,707 parcels) (0.43 x median) 20.64/yr

13

Proposed Stormwater Utility Rate Under Consideration

- Multi-Family (488 parcels) & Non-Residential (3,090 parcels)
  - Annual fee is dependent on impervious area
  - $48/year per 1,971 ft^2 of impervious area

14

Is There a Credit Policy?

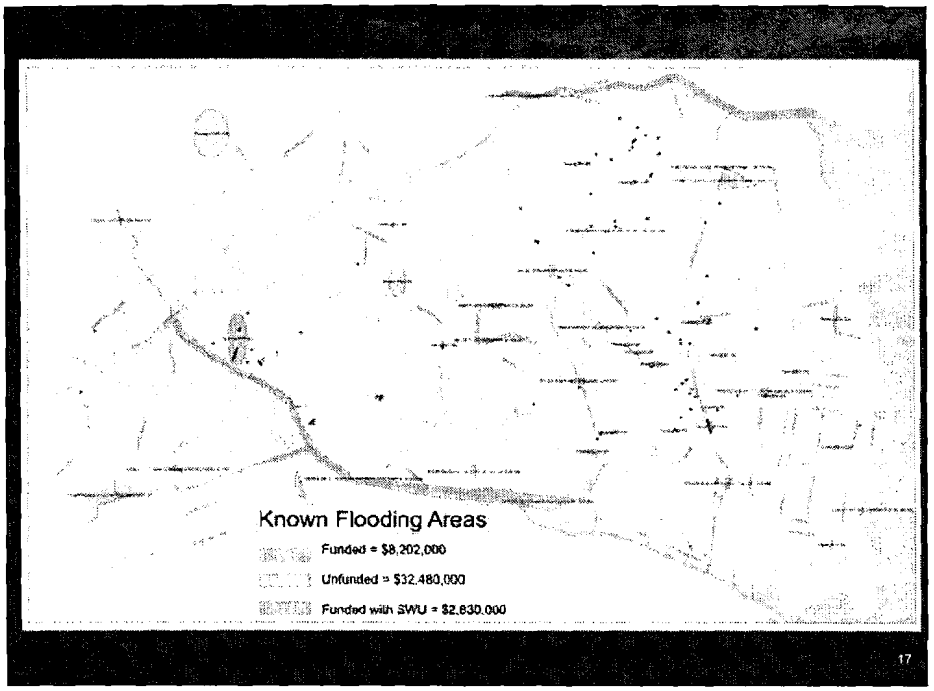
- Credits will be provided for on-site stormwater management
  - Private BMPs
  - Private stormwater detention
  - Low impact development practices

15

Proposed Stormwater Utility Budget Under Consideration

- Stormwater Utility rate of $48 annual ERU ~ $2.6M estimated annual revenue
- Enhanced storm sewer maintenance ~ $250K
  - Increased inspection & cleaning of catch basins
  - Increased inspection & cleaning of storm sewers
- Proposed drainage infrastructure capital improvements ~ $2.35M
- Not currently proposed to eliminate stormwater reliance on General Fund
- Would be billed with the real estate tax bill

16



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Proposed Stormwater Utility Fee Funded CIP Drainage Improvements

- Street and basement flooding from right-of-way, Commonwealth Ave & Glebe Rd (Auburn Village), $650k
- Basement flooding adjacent to Hooff's Run Park, 60 - 120 blocks Commonwealth Ave, $500k
- Basement flooding from stream overflow, 300 block Beverly Drive, $500k
- Basement flooding from City right-of-way and properties, 900 block N. Paxton, 500 - 600 block N. Pegram, $500k

18

Proposed Stormwater Utility Fee Funded CIP Drainage Improvements

- Property flooding due to stormwater management pond overflow, Templeton Place, $500k
- Alley and basement flooding due to storm drain surcharging, E. Monroe & E. Nelson, 10 - 110 blocks, $100k
- Ponding due to undersized curb inlet, N. Henry at Montgomery, $50k
- Ponding in gutter, Adams Av, 200 block, $30k

19

Stormwater Utility Jurisdictions Comparison Virginia & Washington Metro Area

Jurisdiction	Land Area (Sq. Miles)	Approximate Population	Rate ($/Yr/Unit)
Norfolk, VA	66	241,727	96.96
Virginia Beach, VA	310	439,467	73.00
Portsmouth, VA	33	99,617	72.00
Newport News, VA	69	181,647	58.20
Hampton, VA	55	146,878	55.20
Chesapeake, VA	353	210,834	53.40
Takoma Park, MD	2	18,540	48.00
Montgomery Co., MD	496	932,131	45.00
Gaithersburg, MD	10	57,365	45.00
Richmond, VA	60	193,777	45.00
Prince William Co., VA	345	357,503	26.36

Rates as of June 2009

20

Why does the City need to protect stormwater quality?

- Environmental Action Plan 2030, Water Resources Principle Goal to establish funding source such as SWU
- State & Federal requirements:
  - Chesapeake Bay Preservation Act & Regulations
  - Presidential Executive Order and new EPA "Bay czar"
  - Virginia Stormwater Management Act & Regulations
  - VSMP Permit Regulations (amended Oct 2009)
  - VSMP Municipal Separate Storm Sewer System (MS4) Permit
  - Total Maximum Daily Loads (Local and Chesapeake Bay)
  - Erosion & Sediment Control Law & Regulations
  - National Flood Insurance Program requirements

Next Steps

- Community and stakeholder outreach: Fall – Winter 2009
- Recommendations to Council: February 2010
- Budget Action/Decisions on funding options: May 2010
- Implementation (if approved): November 2010

Thank You

Questions & Answers
Transportation & Environmental Services
703.746.4025

City of Alexandria, Virginia

MEMORANDUM

DATE: JANUARY 9, 2009

TO: JAMES K. HARTMANN, CITY MANAGER

THROUGH: RICHARD J. BAIER, P.E., DIRECTOR, T&ES

FROM: STORMWATER WORKING GROUP

SUBJECT: PRELIMINARY FINDINGS

ISSUE: This memorandum provides preliminary findings to the City Manager from the City's Stormwater Working Group, based on its activities during the period October 16, 2008 through January 8, 2009.

BACKGROUND: In June 2008 City Council authorized the City Manager to appoint a Stormwater Working Group to:

- Provide input on the City's stormwater program, including capital improvement projects and operations and maintenance programs.
- Provide input on various funding options.
- Serve in a representative capacity for the organizations that each SWG member represents, ensuring stakeholder interests and needs are adequately conveyed to the SWG.
- Serve as a co-convener with the City of Alexandria for community or stakeholder meetings and facilitate two-way communication as needed.

Attached are meeting agendas, presentations and meeting notes from the five Stormwater Working Group meetings held during the period October 16, 2008 through January 8, 2009.

RECOMMENDATION: That the City Manager accepts the preliminary findings of the Stormwater Working Group and informs the City Council of the need to identify a reliable funding source for the City's stormwater needs.

In addition, it is recommended that T&ES continue the public outreach efforts related to stormwater funding, as directed by City Council, using the Stormwater Working Group as a co-convener for future meetings with community representatives.

PRELIMINARY FINDINGS: The preliminary findings of the Stormwater Working Group are as follows:

1. The Stormwater Working Group urges the City to address significant stormwater needs in response to health and safety concerns and federal and state regulatory requirements.
2. The Stormwater Working Group believes strongly that there is a significant need for additional, dedicated funding for the City's stormwater program.
3. The Stormwater Working Group recommends that the City establishes a dedicated funding source to augment existing funding for the stormwater program.
4. Potential options for dedicated funding that should be considered include direct taxation (ad valorem), a stormwater utility or a combination of these funding options.
5. Potential safety, health, environmental, and economic impacts should be considered when the City establishes dedicated funding for the stormwater program.

SCHEDULE:

August - November 2009: Community outreach meetings
December 2009: Final recommendation
December 2010: Complete implementation
The Stormwater Working Group is available to brief the City Manager and/or City Council, if requested, during budget discussions.

FISCAL IMPACT: None at this time.

STAFF:

Mark Jinks, Deputy City Manager
Bruce Johnson, Director OMB
Emily Baker, P.E., City Engineer, T&ES
Maurice Daly, P.E., Division Chief, T&ES
Stormwater Working Group:
Jim Butler, Budget & Fiscal Affairs Advisory Committee
Keith Freihofer, Environmental Policy Commission
Joseph A. Grigg Jr., residents for Planning District 3
Lyn Gubser, residents for Planning District 2
Deborah D. Johnson, businesses for Planning District 1
Mark D. Koppenhaver, businesses for Planning District 3
Bob Larson, businesses for Planning District 2
Debra Sabourin, residents for Planning District 1
Michael Wenk, Budget & Fiscal Affairs Advisory Committee

EXHIBIT NO. 1

31
6-10-08

City of Alexandria, Virginia

MEMORANDUM

DATE: JUNE 3, 2008

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

FROM: JAMES K. HARTMANN, CITY MANAGER

SUBJECT: CREATION OF A STORMWATER WORKING GROUP

ISSUE: Creation of a Stormwater Working Group.

RECOMMENDATION: That Council authorize the City Manager to appoint a Stormwater Working Group with membership as outlined below.

BACKGROUND: In January 2008, Council authorized the Eco-City project that included the development of an Eco-City Environmental Charter that outlines the City's environmental vision and principles and a complementary Environmental Action Plan that implements it. The City's Environmental Action Plan will include specific environmental actions the City will carry out over the next 10 to 20 years.

The draft Eco-City Charter has already been developed and will be considered by the City Council for adoption in June 2008. The Environmental Action Plan will build upon efforts by the City's Environmental Policy Commission (EPC) to develop a new strategic environmental planning process that addresses environmental issues that emerged since the 1998 Environmental/Quality of Life Summit. Since the Quality of Life Summit, the City has made significant progress on Water Quality issues, but, as evident by 2006 flooding, addressing the City's aging stormwater infrastructure and emerging challenges such as flooding as the result of global warming needs to be among the priorities. In addition to addressing the water quality and emerging issues, the Charter addresses transportation, energy, building green, solid waste, and environmental health.

Under the Eco-City Charter and still to be developed Environmental Action Plan, the challenge before the City therefore is going to be to determine how to effectively:

1. Prioritize maintenance of its aging stormwater infrastructure in ways that address pressing environmental needs;
2. Assure the necessary funding to address capital and operating maintenance needs; and

3. Structure the funding to support meeting the need in as fair and equitable a manner as possible.

Current Stormwater Services. The stormwater services provided by the City are delivered by three Divisions of the Department of Transportation & Environmental Services: Engineering, Environmental Quality and Operations. The stormwater-related services include:

- Site plan review
- Development site inspection
- Permitting
- Construction management
- Floodplain management
- Stormwater capital projects
- Stormwater sewer maintenance
- Water quality
- Street sweeping

Other City departments that deliver stormwater-related services that are ancillary to their primary missions include General Services and Recreation, Parks, and Cultural Activities. The Alexandria Public Schools also deliver stormwater related services associated with their facilities. In addition, the City has a Capital Improvement Program (CIP) that includes projects for Community Development (e.g., stream assessment and restoration, stream maintenance, and flood damage restoration) and Sewers (e.g., repairs and improvements, capacity analysis, flood damage restoration, and stormwater permit support). However, the current CIP funding for to-be-identified stormwater capital projects is likely far less than what the stormwater capital needs are. In order to address how to fund future stormwater management needs, City staff has been, and will continue to be, undertaking a study of financing alternatives, including the establishment of a stormwater utility fund and studying of potential dedicated funding sources.

Create Stormwater Working Group (SWG). It is recommended that Council authorize the City Manager to appoint a SWG that will:

- Provide input on the City's stormwater program, including capital improvement projects and operations and maintenance programs.
- Provide input on various funding options.
- Serve in a representative capacity for the organizations that each SWG member represents, ensuring stakeholder interests and needs are adequately conveyed to the SWG.
- Serve as a co-convener with the City of Alexandria for community or stakeholder meetings and facilitate two-way communication as needed.

The membership of the SWG will include:

- One resident from each Planning District (3 participants)
- One Business Representative from each Planning District (3 participants)
- Budget and Fiscal Affairs Advisory Committee (2 participants)
- Environmental Policy Commission (1 participant)

The SWG will assist staff and the City Manager in making a recommendation to City Council on prioritizing stormwater capital projects and corresponding funding for the FY 2010 budget cycle.

FISCAL IMPACT: The SWG will be staffed by T&ES (lead), OMB and consultants at a cost of $50,000.

STAFF:

Mark Jinks, Deputy City Manager
Richard J. Baier, P.E., Director, T&ES
Emily Baker, P.E., City Engineer, T&ES
Bill Skrabak, Director, Office of Environmental Quality, T&ES

City of Alexandria
Department of Transportation & Environmental Services (T&ES)
Engineering Division
703.746.4045
alexandriava.gov/StormwaterUtility
StormwaterUtility@alexandriava.gov

September 2009
(Revised October 2009)

1. **What is a Stormwater Utility Fee?**

   Just like water, sewer, gas, and other vital utility services, users would be charged a fee for the service of controlling stormwater. The stormwater fee would apply to all developed properties, including homes, businesses, and non-profit organizations. These fees would be a dedicated revenue stream, which would be restricted for use only on stormwater system maintenance and operations, planning and construction. The City will consider whether or not to adopt a stormwater utility fee in conjunction with the adoption of the FY 2011 City budget in May of 2010.

2. **What would the Stormwater Utility fee pay for?**

   The Stormwater Utility would provide funding to minimize flooding and drainage problems by implementing new programs for preventive maintenance, repair and improvements to the City's storm drain system. With these programs, entire storm drain systems in large areas of the City of Alexandria would be systematically cleaned on a more frequent basis before serious flooding problems occur. Funding from the Stormwater Utility would also allow for improvements that directly target local flooding problems.

3. **What is stormwater runoff?**

   Stormwater runoff is the portion of rain and melting snow that does not soak into the ground. It runs off driveways, parking lots, roads, and other impervious surfaces that do not allow the water to soak through to the ground below.

4. **What is an impervious surface?**

   Impervious areas are surfaces that have been paved or otherwise covered with material that is resistant to infiltration by water, therefore hindering infiltration of rainwater into the ground. Impervious surfaces are mainly constructed surfaces - rooftops, sidewalks, roads, and parking lots - covered by impenetrable materials such as asphalt, concrete, brick, and stone.

5. Why do we need a stormwater utility?

A stormwater utility yields a dedicated funding source which will provide the City with many benefits:

For residents:

- Improved public health and safety
- Improved customer service and a reduced backlog of customer complaints related to flooding and drainage
- Reduction of long-term capital costs for the stormwater system through proactive maintenance
- Protection of property value
- Resources to help mitigate flooding

For business:

- Improved city services related to stormwater
- Cleaner and safer streets, which help improve the business climate
- Support of economic development objectives

For environmental quality:

- Healthier habitats for the Potomac River and associated tributaries
- Cleaner waterfront and park areas.
- Reduces chance of sewer back-ups
- Reduces threat of West Nile Virus

6. Isn't there already a fund for stormwater or drainage issues?

Historically, money from the City's General Fund has provided limited funding for stormwater program. However, these funds are used for many other City programs and the funds are not adequate for the necessary improvements and maintenance to the stormwater system and the reduction of potential pollutants into our streams and creeks.

7. Is this being done elsewhere?

Yes, there are approximately 400 stormwater utilities nationwide and several in Virginia, including the Cities of Portsmouth, Richmond, Norfolk, Virginia Beach, Hampton, Chesapeake, and Newport News. The municipalities that adopted stormwater utilities selected this approach because it is both fair and equitable.

8. Who would have to pay?

All developed properties would be charged a stormwater fee. Properties paying the fee would include residential properties, commercial and industrial properties, and whether or not schools and tax exempt properties are charged is under evaluation.

9. How would the fee be billed to me?

The fee would be included with the annual real estate tax bill.

10. Would properties be eligible for credits or reductions for the fee?

Yes, a program could be developed to allow property owners to apply for partial credits if they have private systems in place on their property to minimize the impacts of stormwater on the City's infrastructure.

11. What is Low Impact Development (LID)?

The practice of using techniques in building and construction that minimize the effect that development will have on the quality of the surrounding environment.

12. Would tax exempt properties have to pay?

Most jurisdictions with a Stormwater Utility apply the fee to all developed properties, including tax exempt properties because the Stormwater Utility Fee would be assessed based on how much the property contributes to the amount of stormwater runoff. This issue is under evaluation.

13. Would I have to pay for any undeveloped properties that I own?

No, if there is no impervious area associated with your property.

14. Would I have to pay for any unoccupied developed properties that I own?

Yes, if that property contains impervious area.

15. Would I have to pay when I do not have any drainage problems?

Everyone in the City of Alexandria benefits from the stormwater maintenance program. If stormwater runs off your property, the City must have a program and funding to manage the increase in runoff and pollutants. Direct benefits include protecting your property from upstream runoff, protecting properties downstream from your runoff, and improving water quality in the Potomac River.

16. Why is the Stormwater Utility being considered?

1. **A more equitable system**: all the contributors to stormwater runoff share the costs of maintaining and improving the storm drainage system.

2. **A stable level of funding:** ensures that stormwater management receives adequate support, independently of the City's tax rate and General Fund.

3. **A dedicated fund**: revenues are used solely for management of the stormwater system.

As with any new program, it will take time for the full effect of the stormwater utility to show. However, you should be able to see the effects of ongoing improvements in drainage and maintenance.

17. When are storm drains cleaned?

The Department of Transportation & Environmental Services regularly cleans and clears the storm drain system by following a bi-yearly cleaning schedule for over 10,000 City maintained inlets and catch basins. Some have a history of problems and are cleaned monthly. Storm drain inlets may not have debris on or around them, but the pipes underground may be clogged, causing a water backup and flooding. The Department of Transportation & Environmental Services welcomes calls from the public notifying us of problem storm drains and encourages residents to help by keeping storm drains near their homes and businesses clear of debris. To report a problem, please call 703.838.4488.

How will the City of Alexandria Pay for Stormwater Flooding Issues?

All owners of developed properties that contribute to stormwater runoff and pollution could be charged a fee under a stormwater utility. This potential funding source could treat runoff from residential properties, commercial and industrial properties, non-profit organizations, schools, churches, and parking lots within the City of Alexandria.

How a Fee Could be Calculated?

- A fee is based on an Equivalent Residential Unit or ERU.
- An ERU equals 1970 square feet of impervious area. It was determined by calculation the median impervious area of all residential parcels within the City of Alexandria.
- Single Family Residential parcels could pay a flat fee, based on one ERU times the rate for an ERU.
- The fee for Non-residential and Multi-Family Residential could be based upon the number of ERUs a parcel has, times the rate for an ERU.
- Properties may be eligible for partial credits that meet defined criteria.
- Undeveloped properties that are pervious would be exempt.
- Current state law does not provide adjustments based on income levels.
- How schools and other tax exempt properties are handled is under consideration.

The City's Infrastructure

Approximately two-thirds of the City of Alexandria is served by a Municipal Separate Storm Sewer System (MS4). This mixture of underground storm sewer systems and open channels are separate from the sanitary sewer system.

The drainage system includes man-made components (ditches, pipes, inlets, catch basins, and ponds) and natural components (streams, flood plains, wetlands) that control the quantity of flow and enhance the quality of stormwater.

There are approximately 13,520 drainage structures, 185 miles of storm drainage pipe, and 25 miles of streams throughout the City of Alexandria. Annual maintenance includes cleaning catch basins and repairing storm drains.

Stormwater Management Program Objectives

- Protection of people and property from flood hazards
- Prevention of infrastructure failures
- Improvement of water quality by the reduction of non-point source pollution
- Prevention of stream bank erosion

What is Eco-City Alexandria?

Beginning in spring 2007, the City of Alexandria partnered with Virginia Tech's School of Urban Affairs and Planning (UAP) to design and facilitate a new, strategic collaborative planning process, called Eco-City Alexandria. This collaborative process ultimately created an Eco-City Charter adopted by City Council in June 2008 and an Environmental Action Plan adopted by City Council in June 2009. These documents will guide the City of Alexandria and residents towards environmental sustainability over the next thirty years.

The effort to explore a Stormwater Utility is consistent with mid-term actions in the Eco-City Environmental Action Plan 2030, which calls for establishing long-term dedicated funding mechanisms such as a Stormwater Utility fee.

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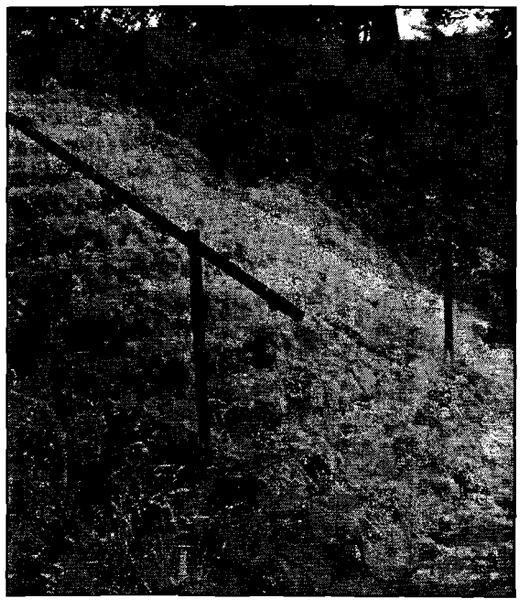
Revised October 2009

City of Alexandria



STORMWATER

What You Need to Know

Department of Transportation &
Environmental Services (T&ES)
Engineering Division

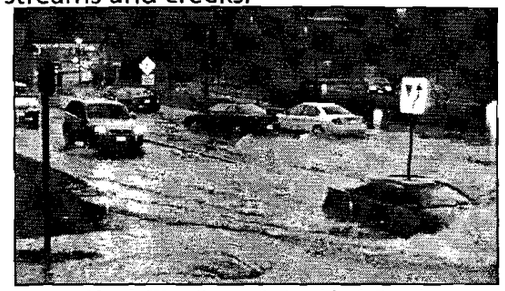
ECO-CITY ALEXANDRIA

Why the City of Alexandria Needs Additional Stormwater Funding

Anyone living in the City of Alexandria knows the problems a heavy rainfall or severe thunderstorm can create. Roads become flooded and standing water remains long after the storm passes.

Although destructive flooding is rare, less severe storms can result in public safety hazards, health risks, and environmental threats.

Past and present funding sources for stormwater management in the City are inadequate to address the critical need areas of stormwater runoff. Historically, money from the City's General Fund has provided limited funding for stormwater operations. However, the General Fund is needed for many other City services and the current level of funding is inadequate to maintain the existing stormwater system and fund the necessary improvements to address drainage problems and reduce pollution to the Potomac River and its tributary streams and creeks.



North West Street & Braddock Road

What is Stormwater Runoff?

Stormwater runoff is precipitation from rain or snow that does not soak into the ground. Impervious surfaces such as driveways, parking lots, roads, sidewalks, streets and roofs prevent stormwater runoff from naturally soaking into the ground.

The Issues:

- Flooding – Stormwater runoff from intense rainfall can at times exceed the carrying capacity of the stormwater piping system, creating a backup in the system, flooding of roads, and yards.

- Water Quality – When it rains stormwater mixes with spilled motor oil, pet waste, pesticides, paint, grease, and litter. This polluted stormwater is conveyed through the storm drain system and discharged to our local streams, which eventually flow to the Potomac River and the Chesapeake Bay. This may contribute to increased concentrations of nutrients, suspended solids, bacteria and other substances which effects water quality and may lead to low dissolved oxygen levels, entanglement, and smothering that harm aquatic life. The City must meet State and Federal water quality regulations.

- Soil Erosion – Uncontrolled stormwater rapidly increases the amount of water flowing into a stream, which, over time, can wash away stream banks.

How Could It Be Financed?

Users could be charged a fee for the service of controlling stormwater runoff from their property in order to reduce flooding and protect water quality in our rivers and streams, just like the fees paid for water and sewage treatment, natural gas, and other vital utility services such as electricity and telecommunications. The City will consider this fee as part of the FY2011 budget process.

Engineering & Maintenance of City's Infrastructure

Benefits of a Dedicated Funding Source

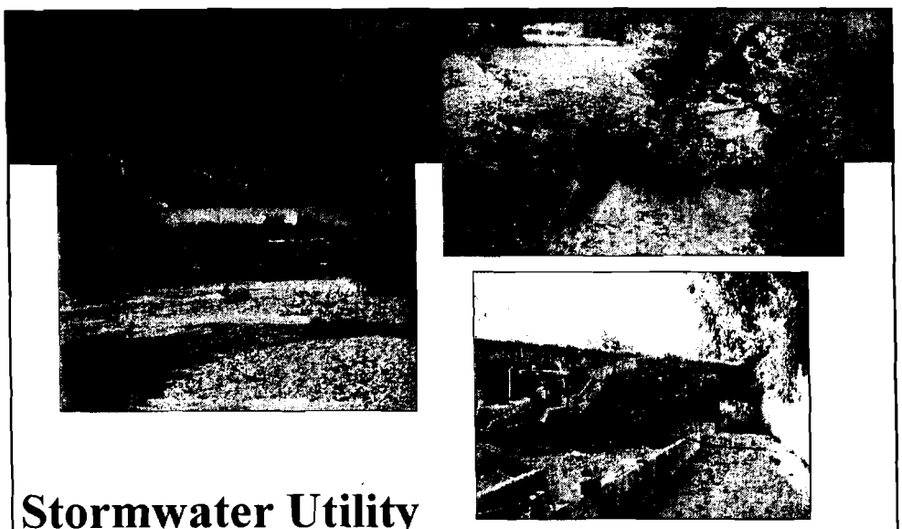
The stormwater utility is needed to provide a proactive, strategic and customer service driven approach to stormwater management that will produce increased benefits and improved services to residents and business owners.

Holmes Run, 2005

Dedicated funds for stormwater management will provide:

- Enhanced public safety and health
- Resources to help mitigate flooding
- Increased maintenance actions
- Resources to meet existing and future regulatory requirements

As with any new program, it will take time for the full effect of the stormwater utility to be realized. However, substantial improvements in maintenance services and better drainage should be visible shortly after implementation of the utility.



Stormwater Utility

City Council Budget Retreat

November 7, 2009

ECO-CITY ALEXANDRIA

- **Process**
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  - **Staff evaluates stormwater utility with other funding options** — **FY 07-08**
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- **Funding options evaluated**
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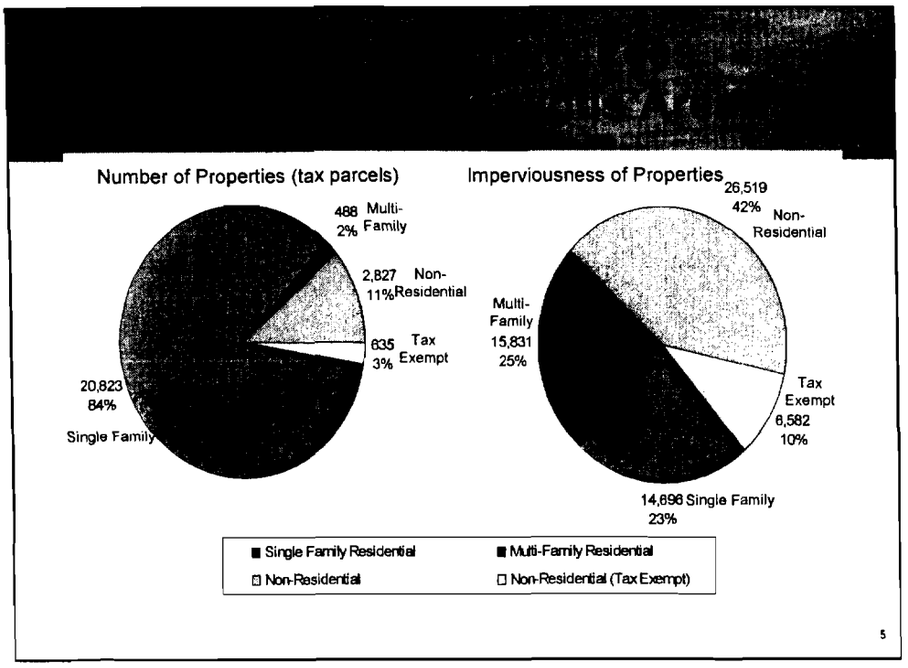
- Properties with greater impervious area contribute more to stormwater needs
- Credits will be provided for on-site stormwater management



5

- **Infrastructure**
  - **Capital Improvement Projects**
  - **Operation & Maintenance**
- **Federal and State Environmental Regulations**
- **Climate Change**

6

Existing Stormwater Funding

- General Fund
- Competes with other city-wide priorities
- Each property's contribution based on property value

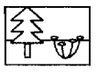
Proposed Stormwater Utility

- Typically set up as an enterprise fund
- Dedicated revenue for stormwater program
- Based on extent to which a property contributes to stormwater runoff (impervious area)

7

Residential → Flat Fees

Non-Residential & Multi-Family Residential → Actual Impervious Area



Undeveloped → No Fees

8

House	1,550 ft^2
Other Impervious	421 ft^2
Total	1,971 ft^2

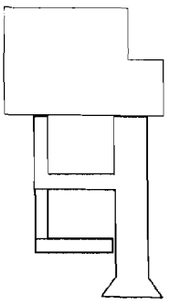
Single Family Detached < 3,942 ft^2 = **1 ERU**

Single Family Detached > 3,942 ft^2 = **2 ERU**

Single Family Attached = **0.43 ERU**

Single Family Semi-Detached = **0.43 ERU**

Residential Parcel



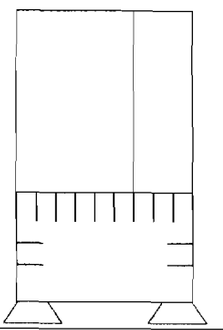
Single Family Detached

9

Building	6,000 ft^2
Parking	10,000 ft^2
Other Impervious	3,710 ft^2
Total	19,710 ft^2

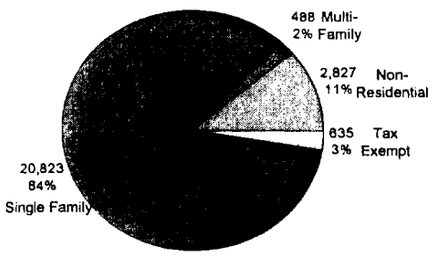
$\frac{19{,}710\ ft^2}{1{,}971\ ft^2}$ = **10 ERU**

Non-Residential Parcel

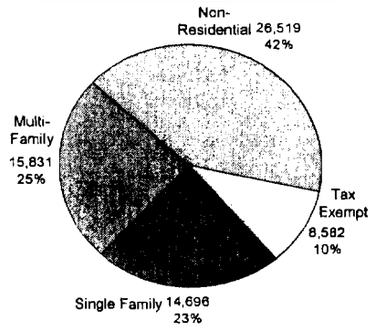


10

Number of Properties (tax parcels)

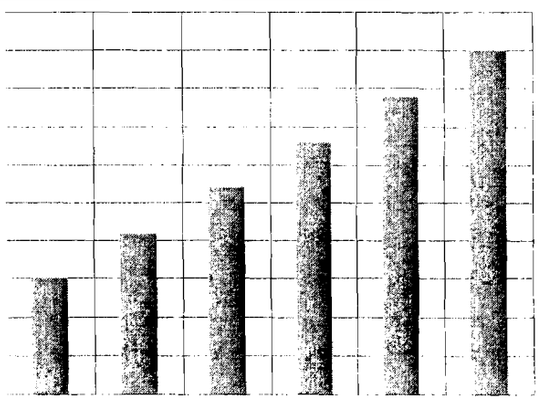


Number of ERUs (ERU = 1,971 ft²)



■ Single Family Residential
■ Multi-Family Residential
□ Non-Residential
□ Non-Residential (Tax Exempt)

11



12

- **Single Family (20,823 parcels)**
  - Typical detached (8,570 parcels) $48/yr
  - Larger detached, 2 x typical (546 parcels) $98/yr
  - Attached & semi-detached (11,707 parcels) (0.43 x median) 20.64/yr

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- **Multi-Family (488 parcels) & Non-Residential (3,090 parcels)**
  - Annual fee is dependent on impervious area
  - $48/year per 1,971 ft^2 of impervious area

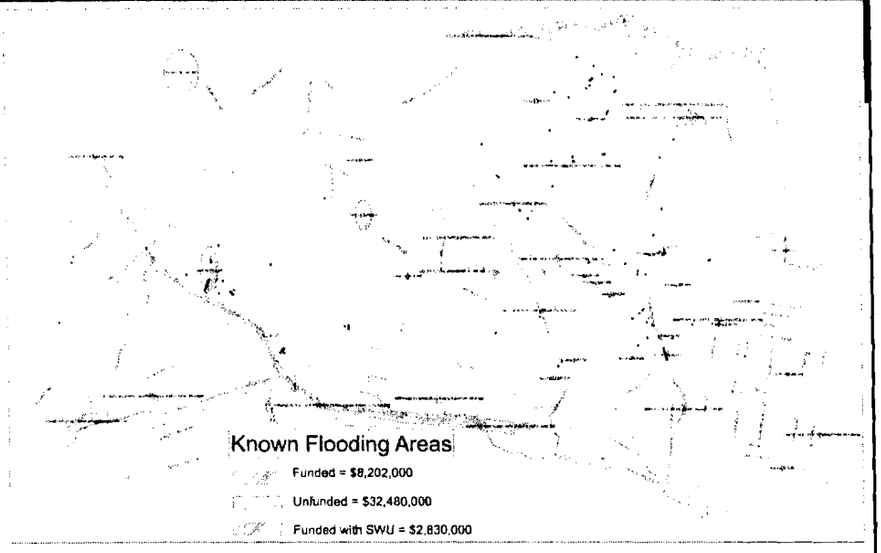
14

- Credits will be provided for on-site stormwater management
  - Private BMPs
  - Private stormwater detention
  - Low impact development practices

15

- Stormwater Utility rate of $48 annual ERU ~ $2.6M estimated annual revenue
- Enhanced storm sewer maintenance ~ $250K
  - Increased inspection & cleaning of catch basins
  - Increased inspection & cleaning of storm sewers
- Proposed drainage infrastructure capital improvements ~ $2.35M
- Not currently proposed to eliminate stormwater reliance on General Fund
- Would be billed with the real estate tax bill

16



17

- **Street and basement flooding from right-of-way, Commonwealth Ave & Glebe Rd (Auburn Village), $650k**
- **Basement flooding adjacent to Hooff's Run Park, 60 - 120 blocks Commonwealth Ave, $500k**
- **Basement flooding from stream overflow, 300 block Beverly Drive, $500k**
- **Basement flooding from City right-of-way and properties, 900 block N. Paxton, 500 - 600 block N. Pegram, $500k**

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- Property flooding due to stormwater management pond overflow, Templeton Place, $500k
- Alley and basement flooding due to storm drain surcharging, E. Monroe & E. Nelson, 10 - 110 blocks, $100k
- Ponding due to undersized curb inlet, N. Henry at Montgomery, $50k
- Ponding in gutter, Adams Av, 200 block, $30k

Jurisdiction	Land Area (Sq. Miles)	Approximate Population	Rate ($/Yr/Unit)
Norfolk, VA	66	241,727	96.96
Virginia Beach, VA	310	439,467	73.00
Portsmouth, VA	33	99,617	72.00
Newport News, VA	69	181,647	58.20
Hampton, VA	55	146,878	55.20
Chesapeake, VA	353	210,834	53.40
Takoma Park, MD	2	18,540	48.00
Montgomery Co., MD	496	932,131	45.00
Gaithersburg, MD	10	57,365	45.00
Richmond, VA	60	193,777	45.00
Prince William Co., VA	345	357,503	26.36

Rates as of June 2009

- Environmental Action Plan 2030, Water Resources Principle Goal to establish funding source such as SWU
- State & Federal requirements:
  - Chesapeake Bay Preservation Act & Regulations
  - Presidential Executive Order and new EPA "Bay czar"
  - Virginia Stormwater Management Act & Regulations
  - VSMP Permit Regulations (amended Oct 2009)
  - VSMP Municipal Separate Storm Sewer System (MS4) Permit
  - Total Maximum Daily Loads (Local and Chesapeake Bay)
  - Erosion & Sediment Control Law & Regulations
  - National Flood Insurance Program requirements

- Community and stakeholder outreach: Fall – Winter 2009
- Recommendations to Council: February 2010
- Budget Action/Decisions on funding options: May 2010
- Implementation (if approved): November 2010

Questions & Answers
Transportation & Environmental Services
703.746.4025