



*Overview of Environmental
Progress & Accomplishments
Since Environmental/
Quality of Life Summit 1998*

January 23, 2007

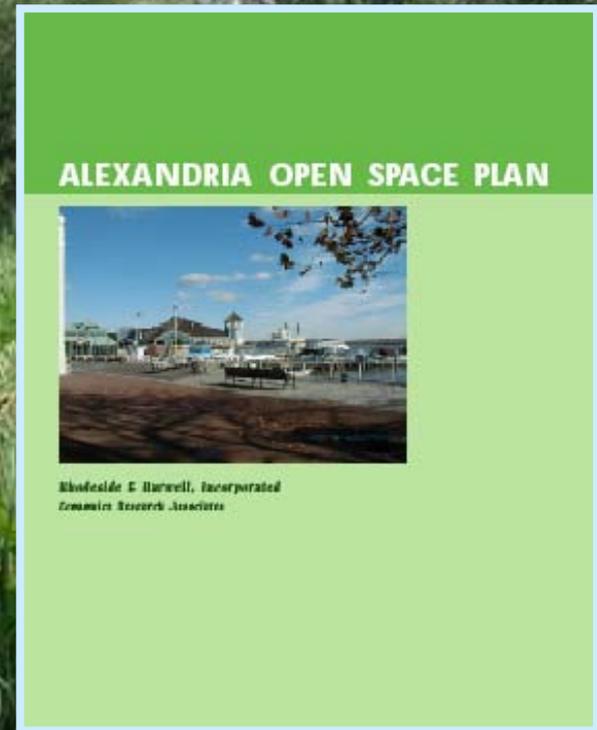
Environmental/Quality of Life Issues identified in 1998

- Open Space
- Transportation
- Solid Waste
- Water Resources
- Urban Development Issues
- Visual Impacts / Aesthetic Issues
- Historic / Cultural Resources



Open Space

- **Open Space Plan, adopted in 2003**
- **Open Space Committee**
- **Significant gains**
- **Prior to 2004:**
 - **60.0 ac. to be obtained from Potomac Yard development**
- **Since 2004:**
 - **21.4 ac. Purchased or dedicated**
 - **26.6 ac. Planned future**



Urban Forestry – Tree Planting

- Urban Forestry Steering Committee created to guide the City's tree preservation and expansion efforts.
- Master Plan for Trees to increase the City's canopy by encouraging planting, preservation and maintenance of trees.



Encouraging Increased Use of Transit

- Transportation Master Plan Update
- King Street Station North Entrance and Platform Extension
- DASH Service Improvements and Bus Maintenance Facility
- Crystal City/Potomac Yard Transit Corridor
- Pedestrian Access to Transit Stations and Stops



Improving Pedestrian and Bicycle Accommodations

- Neighborhood Traffic Calming
- Eisenhower Valley Multi-Use Trail
- Mount Vernon Trail Improvements – Jones Point and Oronoco
- Improved Bicycle Signing, Markings and Parking
- Pedestrian Connections - Ben Brenman Park to Holmes Run Trail
- Infill Sidewalks and Pedestrian Connections
- Pedestrian-Friendly Intersections (displays, crosswalks and signing)



Reducing Congestion

- Street Improvements – King at Beauregard, Eisenhower Avenue
- Signal Retiming and Coordination (Old Town, Route 1, Duke Street corridor)



Solid Waste



- Solid Waste Plan (2004)
- S.T.O.P. (Stop Throwing Out Pollutants)
 - Household Hazardous Waste and Electronics
- New Multi-family Residential and Business Recycling Program (2006)
- Expanded Leaf Collection / Mulch Programs
- Spring Clean-up
- Composting Program
- Potomac River Watershed Trash Treaty Clean-up

Hazardous Waste Information

City of Alexandria, Virginia
Department of Transportation and Environmental Services
Office of Recycling

S.T.O.P. Program
Stop Throwing Out Pollutants

Improper disposal of the products listed below pollutes our environment and could cause injury to collection workers. City of Alexandria residents will now be able to take these products to a site in Alexandria for environmentally-safe disposal by a licensed hazardous waste disposal firm. Starting June 4, 2001, the site at 3000 Wheeler Avenue will be open every Monday (except for holidays), from 10 a.m. to 5 p.m. Please bring products in the originally labeled containers only. Containers should be sealed and properly packaged for safe transportation. Proof of residency is required. Waste from Conditionally Exempt Small Quantity Generators will be accepted by appointment only. For more information, call the Office of Recycling at 703-751-6072.



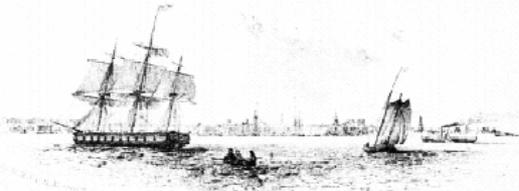
| ACCEPTABLE Items | | |
|------------------------------|-----------------------------|-------------------------|
| Antifreeze | Fire Extinguishers | Lawn Care Products |
| Battery Acid | Household Cleaning Products | Garden Products |
| Gasoline | Flammable Waxes & Abrasives | Herbicides |
| Motor Oil | Driveway Sealer | Pesticides |
| Auto Cleaning Products | *Household Batteries | Ant Ball or Trap |
| Car Batteries | Drain Cleaners | Rodent Control Products |
| Oil-Based Paints | Propane Tanks | Insect Spray Cans |
| Flammable Caulks & Adhesives | Pet Supplies | Computers |
| Lacquers | Photographic Chemicals | Televisions |
| Spray Can Paint | Developers | VCRs |
| Varnishes | Fixers | Printers |
| Thinners | | Cellular phones |
| Mineral Spirits | | Other |



Water Quality In Alexandria

CITY OF ALEXANDRIA MASTER PLAN

*Water Quality Management
Supplement*



Adopted January 13, 2001

- City Council adopted and added the Water Quality Management Supplement to the City's Master Plan in January 2001.
- Serves as a road map for the City's efforts to protect and improve water quality.

Chesapeake Bay Program



- Revised City Environmental Management Ordinance 2003
- Stream Assessment Ph I for Stream Classification
- Establishes hierarchy of required protection by establishing:
 - RPA (Resource Protection Areas)
 - RMA (Resource Management Areas)

City's Chesapeake Bay Program

- Requirements more stringent than the state minimums
- Requires the “First Flush” of storm water from all impervious areas be treated through BMPs before discharging to our streams
- Protects perennial streams with a 100’ buffer and natural intermittent streams with a 50’ buffer
- Establishes Water Quality Improvement Fund
- Provides for “Tool Box” approach to address Alexandria’s needs

BMP Retrofits Park Center Pond Retrofit



Before



After

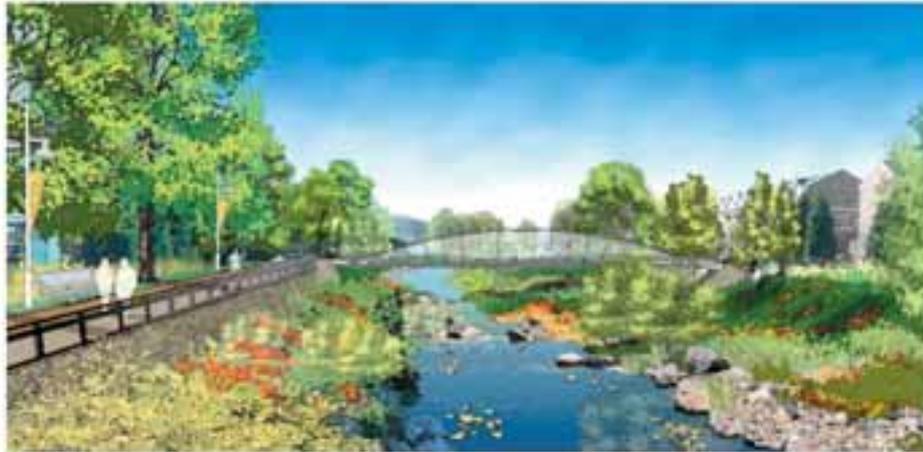


Stream Restoration with Redevelopment



Taft Avenue
Project

Four Mile Run Master Plan



Four Mile Run Restoration Master Plan



Prepared for
ARLINGTON COUNTY &
CITY OF ALEXANDRIA

Created by
BRUCE/IDE & HARBELL,
INCORPORATED
CHERRYHILL
BIOHABITATS, INCORPORATED
WATERSCAPES / DESIGN/LLC

January 2008

DRAFT

Partnership project to "restore" a two mile section of Four Mile Run which is highly degraded and impacted



Four Mile Run Wetlands & Buffer



Cameron Run / Holmes Run Feasibility Study

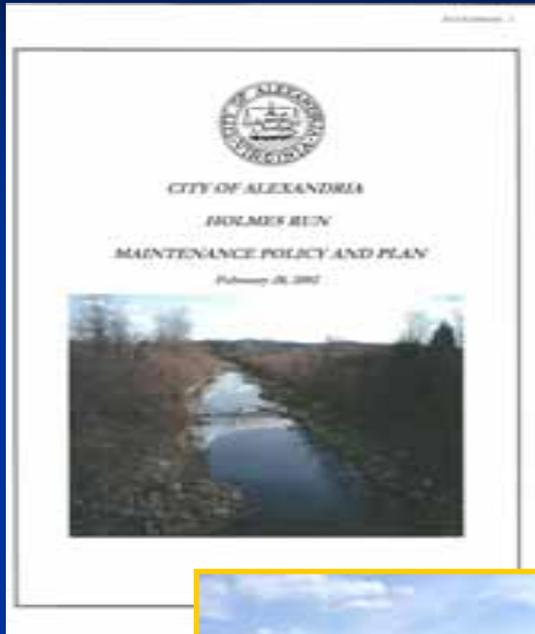


- Partnerships with Fairfax County, the Corps of Engineers, Northern Virginia Regional Commission and City of Alexandria
- Improve biotic integrity in the Cameron Run Watershed – restoration of the stream corridor and improve watershed health
- First Public Meeting: February 5, 2007

Floodway / Stream Maintenance

Development of Environmentally Sensitive Stream Maintenance Plan after extensive Public Outreach

- Cameron Run (2002)
- Holmes Run (2003/4)
- Four Mile Run Plan



MS4 – VPDES Permit

- Public education & outreach on SW impacts
- Public involvement / participation
- Illicit discharge detection & elimination
- Construction site SW runoff control
- Post construction SW management in new & redevelopment
- Pollution prevention and best management practices for municipal operations

Erosion & Sediment Control



- Virginia Law
- Alexandria Code
- Chesapeake Bay Program for projects > 2500 sq. ft of land disturbance
- Environmental benefits

Public Outreach



Earth Day 1998 - 2006



Public Outreach & Participation



Watershed Cleanups

- Annual Potomac Watershed Cleanup
- International Coastal Cleanup
- Cameron Run Cleanup
- Holmes Run Cleanup
- Four Mile Run Cleanup
- Over 250 volunteers in 2006
- **Est. 10-12 tons of trash removed from Alexandria streams**

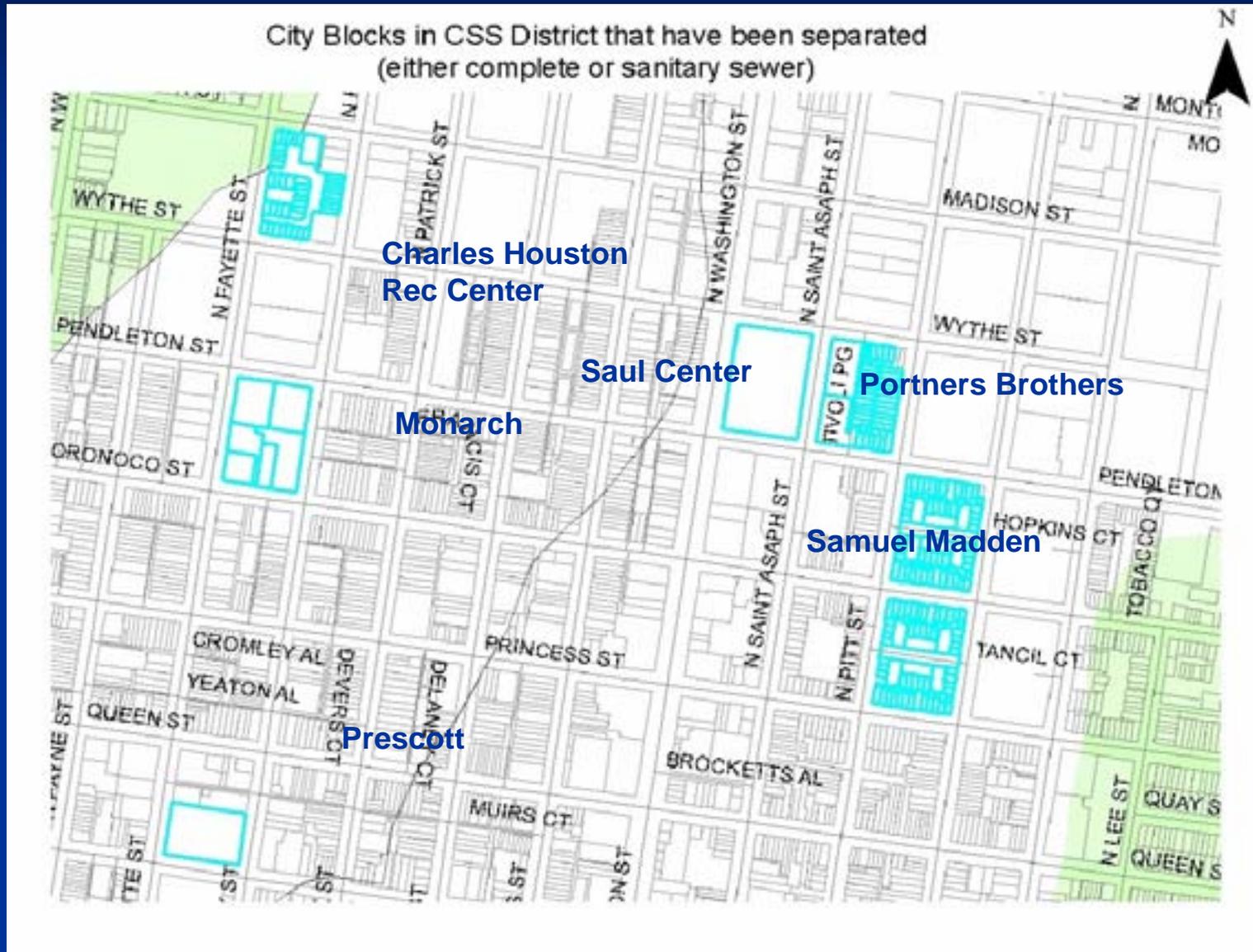


Sewer Improvements – I / I Studies

- Infiltration / Inflow Studies and Rehabilitation
 - Four Mile Run (57,000 linear ft)
 - Commonwealth (71,000 linear ft)
 - Taylor Run (on-going)
- Sanitary Sewer Inspection
- Sewer Mapping Project



Combined Sewer System Area Reduction Plan



Storm Water Utility Study

- Per Council's direction
 - Process fast tracked
 - Funding identified
- Scope for RFP complete
 - Contracting options currently being evaluated
- Elements of the Study
 - Utility Feasibility
 - Program Implementation

Air Quality

- Environmental Enforcement
 - Mirant
 - VA Paving
- Particulate Air Monitoring Station in West End
- Air Quality Action Day Program
- Incorporation of Low Emission / Hybrid Vehicles into City Vehicle Fleet
- Energy Efficiency
- Promote Environmental Friendly Transportation
- School bus retrofit grant
- Participation in regional air quality planning efforts



Mirant

- Established and support Mirant Community Monitoring Group
- Closely monitoring and engaged in regulatory actions at agencies, state and federal level
- Succeeded in having VDEQ require PM2.5 and air toxics stack testing at Mirant
- City actions resulted in VDEQ to initiating an NSR review/analysis
- Succeeded in convincing Air Pollution Control Board to assert its oversight of Mirant permitting issues

Alexandria/Arlington Waste-to-Energy Facility

- 25 MW clean, renewable energy: Meets needs of 23,000 homes
- Consistent with by US Mayors Climate Protection Agreement
- Installed MACT (Maximum Achievable Control Technology) Pollution Controls
 - Completed in December, 2000
 - Total cost approx. \$ 46 million
 - Fabric Filters for particulate control
 - Scrubbers with lime injection for control of acid gases
 - Carbon Injection for reducing metal emissions
 - Continuous Emissions Monitoring and computer controls

Green Initiatives (including Climate Change)

- U.S. Mayors Climate Protection Agreement, Feb 2005
- Potomac River Watershed Trash Treaty, Nov. 2005
- Sierra Club recognizes City as a “Cool City”, Nov. 2005

Green Building - What is Alexandria Doing?

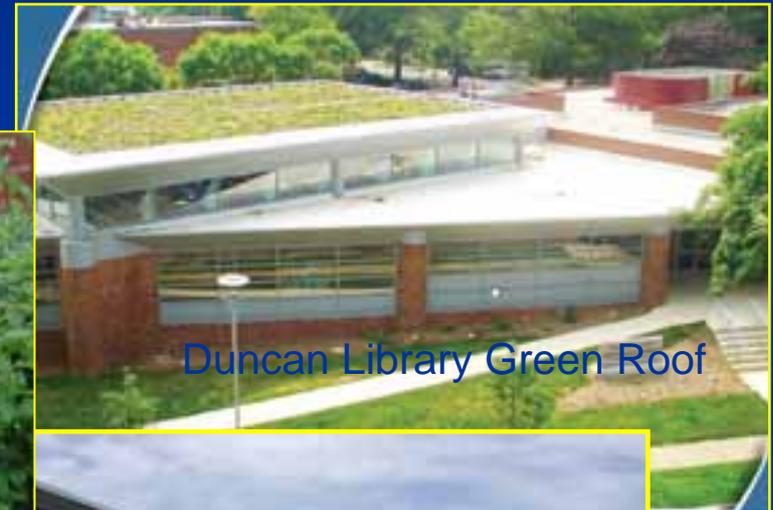
- **New developments in the City must provide information on how it will voluntarily comply with LEED requirements**
 - **LEED assessment checklist included on all site plan submissions**
- **Development of Green and Sustainable Building Checklist**
- **The City's goal is to obtain a LEED – Silver rating or equivalent for all new City facilities**

Green Building - What is Alexandria Doing?

- Department of General Services adopted program for incorporating “Green” building measures in City facilities
- Green roofs on several City facilities
- T C Williams High School Project
- USGBC registered projects:
 - Charles Houston Community Center
 - DASH Bus Maintenance Facility
 - total > *\$50 million* in sustainable construction.
 - Fire Station 209, City Sports Facility and new Police Facility to pursue LEED certification totaling \$75 million.

Urban Development & Infrastructure Upgrades

- Green Building / Green Roof
- Low Impact Development techniques in Site Design



Alexandria Health Dept - Green Roof Project



The green roof system was constructed over the existing ballast stone roof.



Re-vegetated modules were installed over foam matting and filter fabric.



- Six story, 60,000 square foot building, built in 1986

Site covers 34,840 square feet. Approximately 96% of the site was originally impervious and the building components offered no storm water retention/rate release system

Retrofitting the roof with a green roof system increased the site's pervious surface by 33% and reduced stormwater discharge by 10,000 gallons for a 1.5" rainfall per 24 hour period

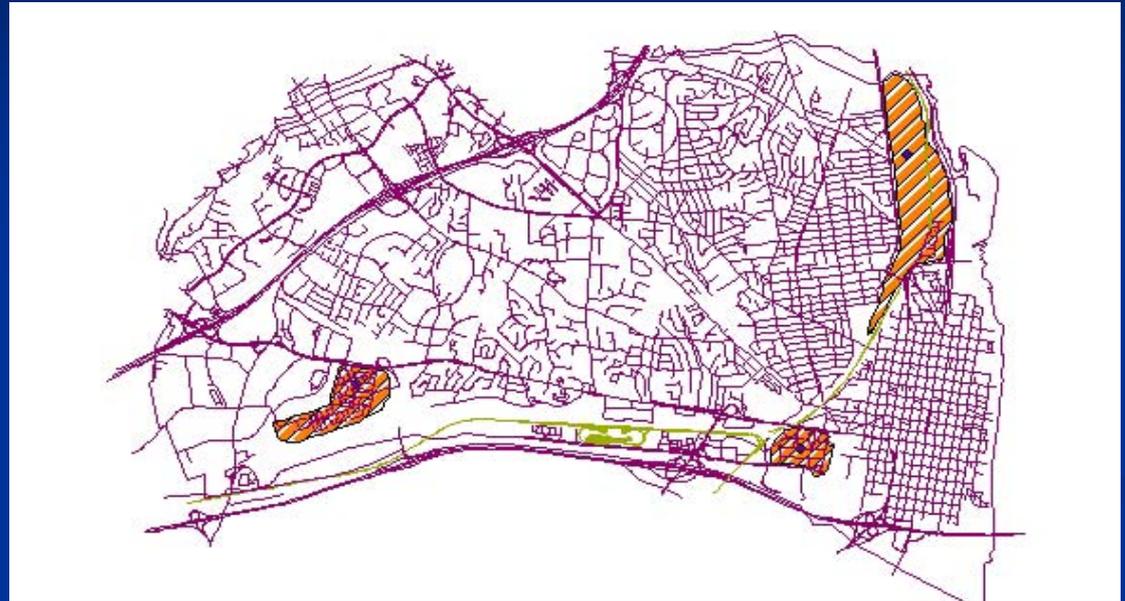
Redevelopment of Contaminated Land / Brownfields

- **Site Characterization (Sampling)**
- **Risk Analysis (Exposure pathways)**
- **Remediation Plan (Clean up or other corrective action)**
- **Health & Safety Plan**

Redevelopment Successes



Cameron Station



Carlyle



Potomac Yard

Since Environmental/Quality of Life Summit/Report (1998)

- **Significant Progress (Achievements)**
 - Open Space
 - Water Quality
 - Solid Waste
- **Significant Progress (Planning)**
 - Transportation
 - Urban Forestry

Moving Forward

- **Environmental Action Plan**
 - **Develop an action plan that is modeled after City Council's Strategic Plan**
 - **To be developed in 3 Phases**
 - **Recommend moving forward with Phase I tonight, in partnership with VA Tech.**
 - **Review & Summary of existing programs**
 - **Research and analysis of best practices, policies and programs from other model jurisdictions**

Moving Forward

- **Environmental Action Plan**

 - Phase II**

 - Finalize scope of work
 - Develop draft action plan
 - Public outreach and input

 - Phase III**

 - Design and facilitate Eco-City summit
 - Adoption of the Plan

Moving Forward

- **Environmental Action Plan**
 - **Areas of emphasis and Interest**
 - Air and Water Quality
 - Transportation
 - Green Building Technology
 - Low Impact Development
 - Sustainable development
 - Energy
 - Green
 - Renewable
 - Efficiency
 - **Global Climate Change**
 - **Public Education and Outreach**



Thank you

Questions?