

Four Mile Run Restoration Master Plan

Bridging Two Communities, Building One Future



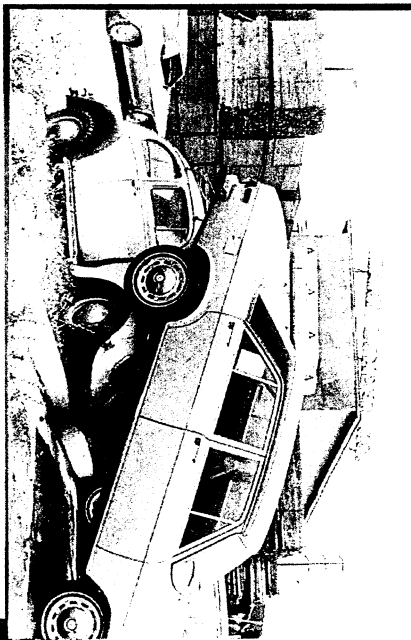
City of Alexandria City Council Meeting

March 14, 2006

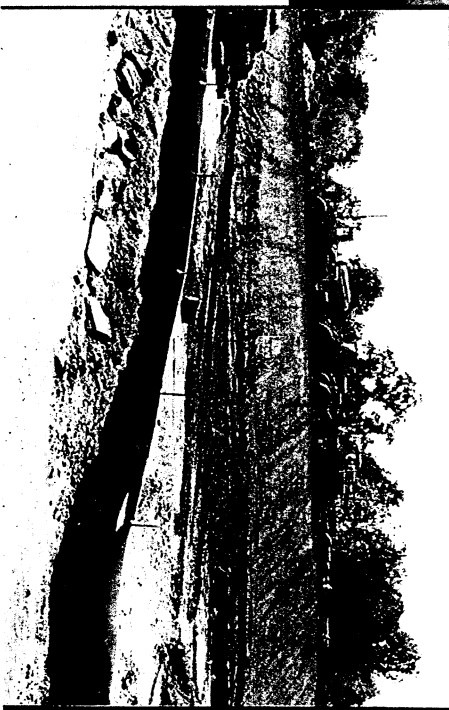


Capitol 1973 The Washington Post
Used with permission

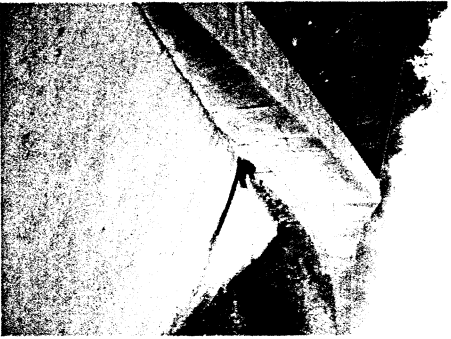
Flooding in the 1960s & 1970s



Led to Channel Construction



Project Area Today



3



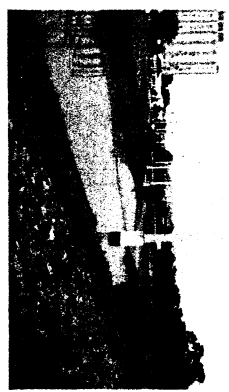
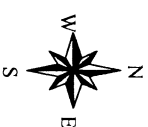
Catalyst for Improvement

Redevelopment of Potomac Yard

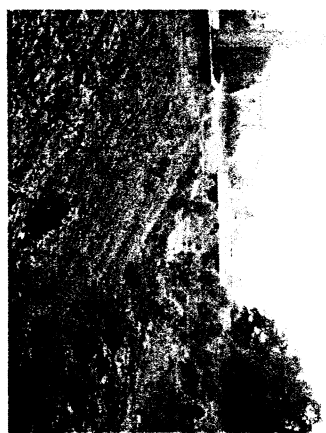


0.5 0 0.5 1 1.5 2 Miles

Orthophotography from
USGS 1998 dataset



7 7
7 7



Four Mile Run Master Plan

Developing Partnerships & Cooperation



**US Army Corps
of Engineers®**



Master Planning Project



Four Mile Run Restoration Master Plan



http://www.novaregion.org/master_plan.htm

ARLINGTON COUNTY &
CITY OF ALEXANDRIA

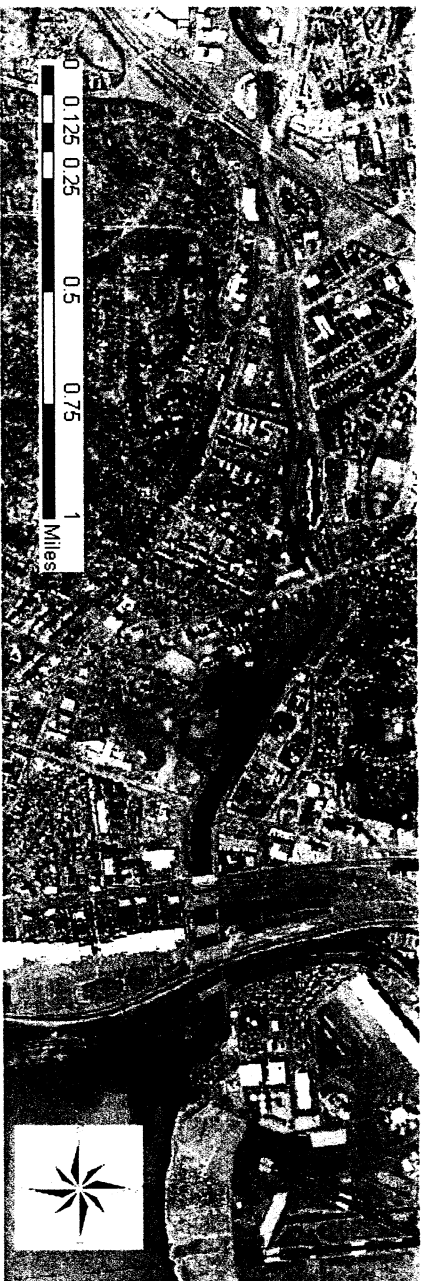
RHODESIDE & HARWELL,
INCORPORATED

CH2MHILL

BIOHABITATS, INCORPORATED
WATERSCAPES / DREISEITL

DRAFT

Aerial Photography from Virginia Base Mapping Program 2002 Dataset



RHODESIDE
HARWELL
INCORPORATED



Biohabitats
Investment in Nature



CH2MHILL

WATERSCAPES
ATELIER DREISEITL



Four Mile Run Citizen Joint Task Force (JTF)



7



Intra-Jurisdictional Community Participation

JTF Meetings

- Began meeting Summer 2003

Roundtable Series - 2005

- Environmental Groups
- Civic Associations & Businesses
- Infrastructure Groups
- Latino

Visioning Session

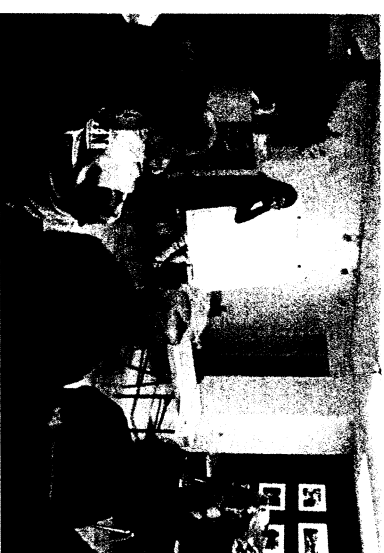
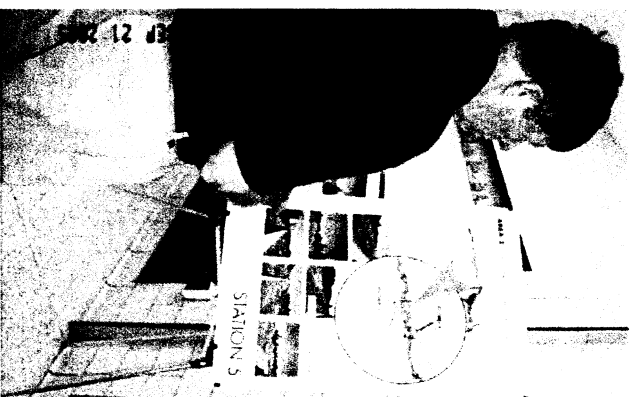
- February 2005

Open Houses - 2005

- April (2)
- September
- December

Public Hearing Process

- March 2006



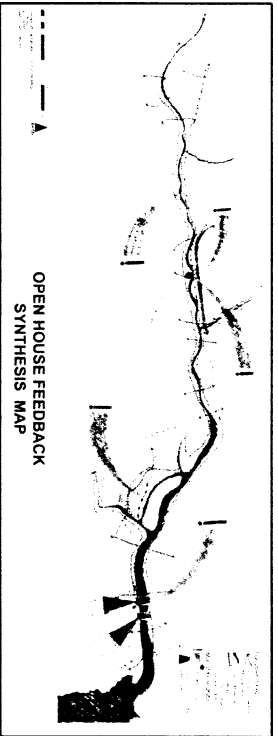
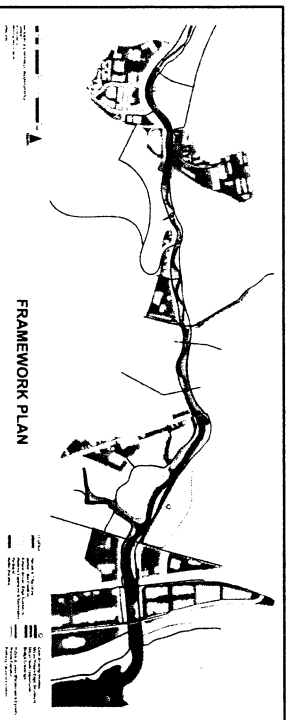
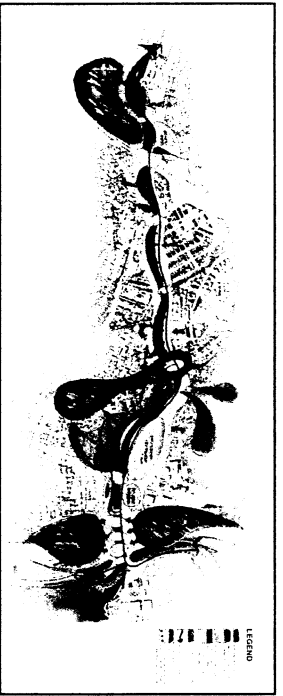
Master Plan Goals & Vision

PROJECT VISION:

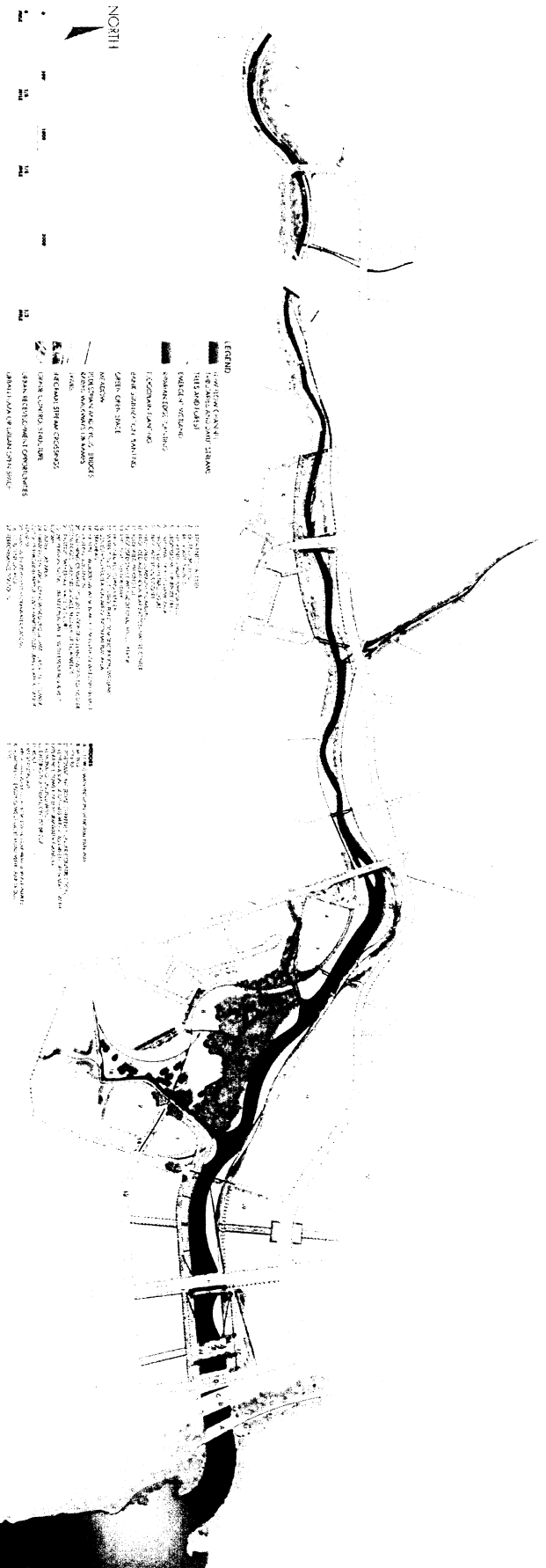
“Four Mile Run will become a model of urban ecological restoration. Through the sensitive and sustainable integration of a restored natural stream channel with an active urban environment the Four Mile Run corridor will be a place where the communities of Arlington County and the City of Alexandria can gather, recreate and celebrate a shared waterfront legacy.”

Flood Protection	Integration & Balance
Environment	Access & Connectivity
Aesthetics & Design	Education & Interactivity
Recreation & Urban Life	Planning Horizon

Evolution of the Master Plan



Draft Illustrative Master Plan



Flood Protection/Hydrology & Hydraulics (H&H)

Major Flood Events in 1969 and 1972

Flood Control Project constructed by U.S. Army Corps of Engineers, dedicated in 1980

Design discharge of 22,500 cfs for 100-year flood



H&H Analysis

Hydrologic Analysis performed by H&H Committee, led by NVRC

**100-year flood discharge revised to 15,970 cfs
Decrease of 30%**

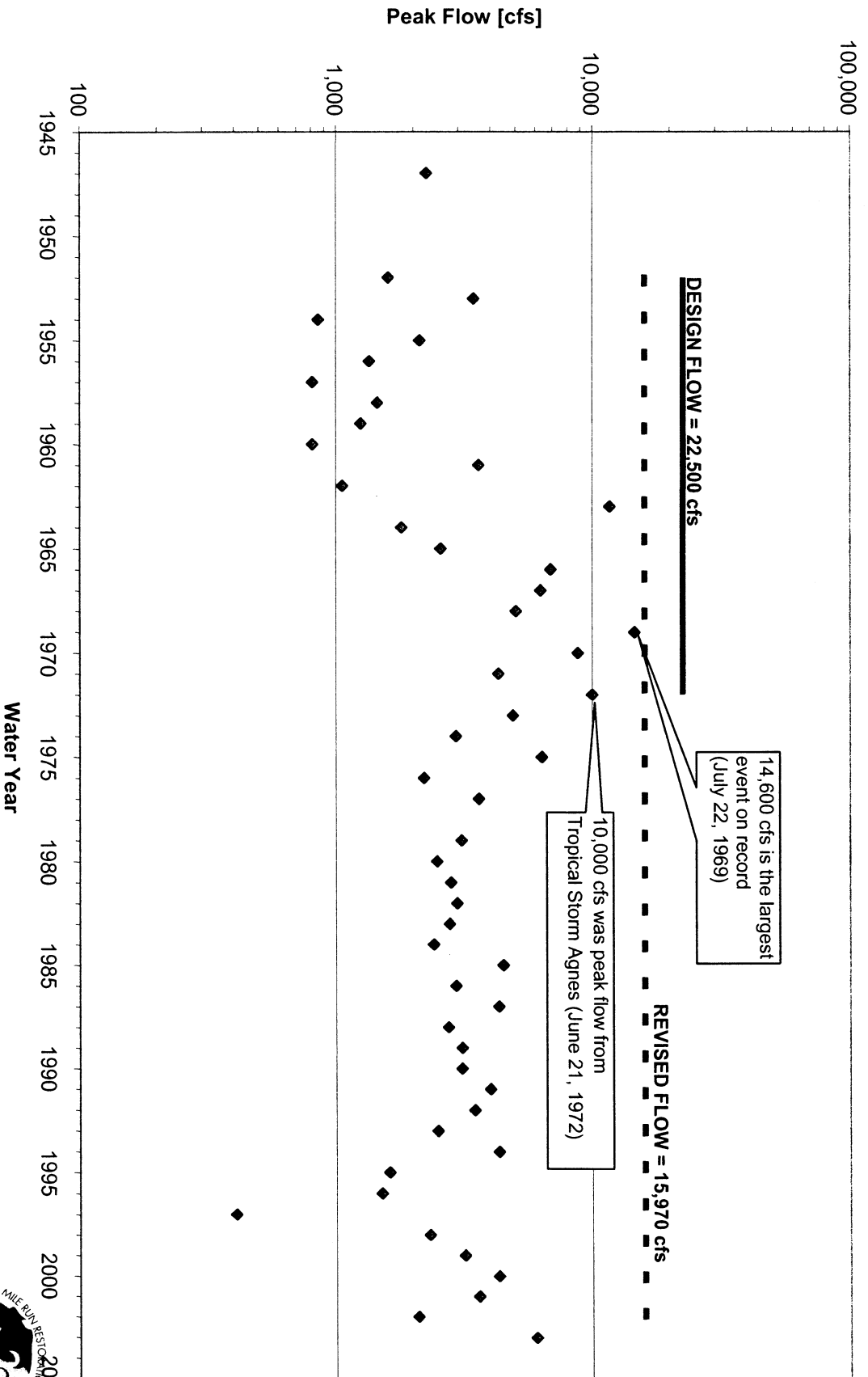
Mapped water-surface elevations (Flood Depths) decrease 1 to 3 feet

Impacted Area decreases



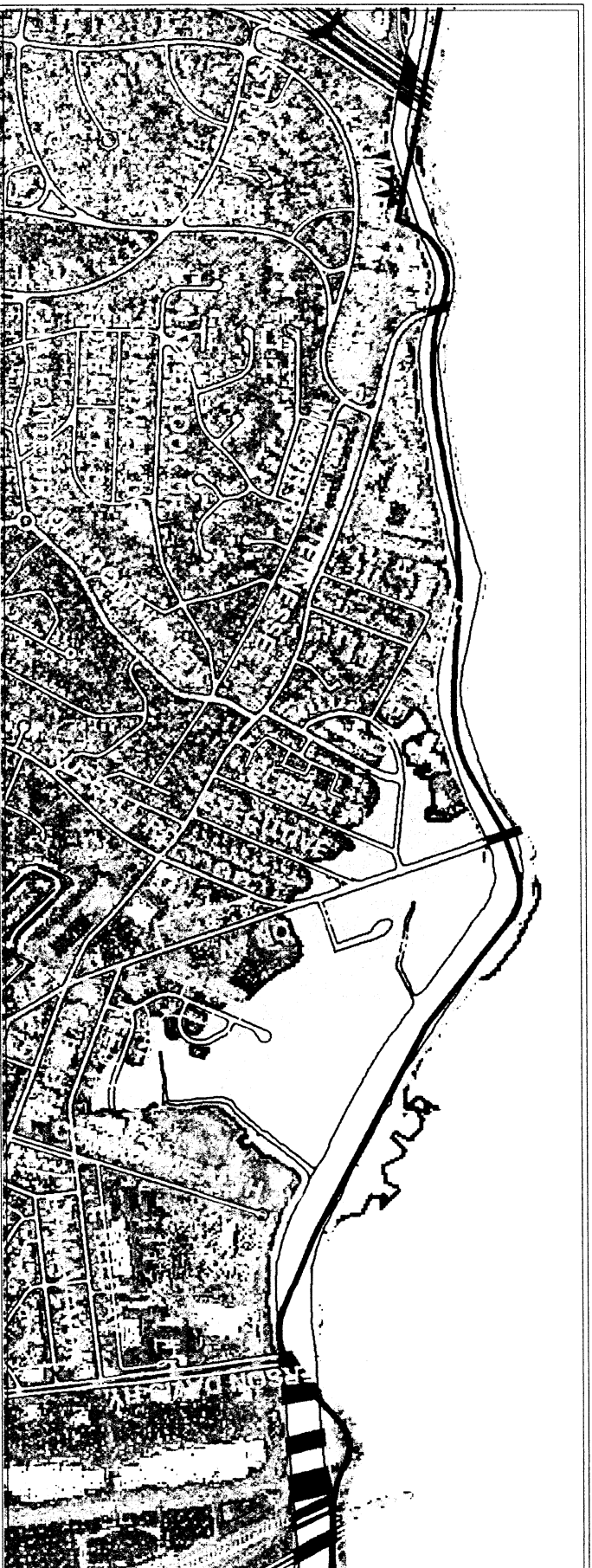
H&H: Revised Discharge

Four Mile Run at Shirlington Road (USGS Gage 01652500)



H&H: Existing Conditions

Old Discharge (22,500 cfs) vs. New Discharge (15,970 cfs)



Legend

Existing 100-year

Existing Design

H&H: New Discharge (15,970 cfs)

Existing Conditions vs. Proposed Conditions



Legend

Proposed 100-year

Existing 100-year

H&H: Summary and Next Steps

FEMA update of Flood Insurance Rate Map (FIRM)

Flood Insurance Impacts

- Insurance no longer mandatory for some properties
- Insurance available at lower rates for some properties

Mitigation being evaluated for properties affected by proposed plan

City and FEMA will conduct outreach effort to educate community

Four Mile Run at Mt. Vernon Ave.

Before



After



Tidal Area near Four Mile Run Park Wetlands



Before



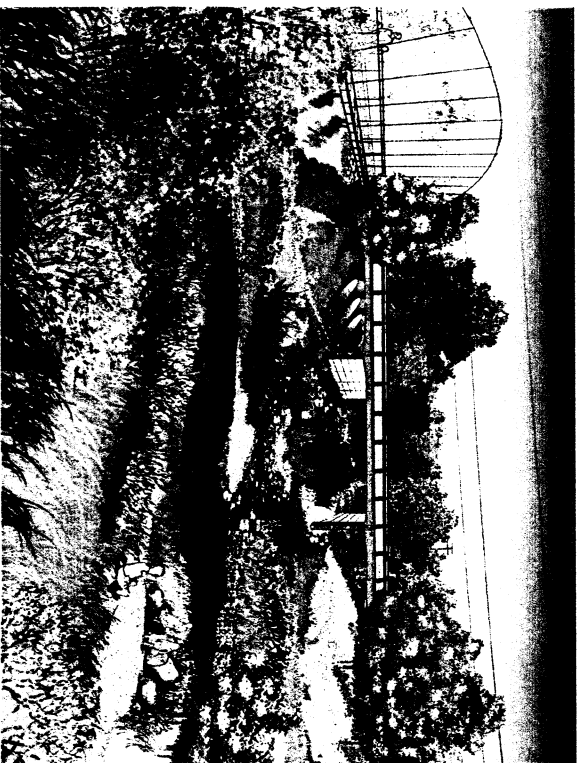
After

Mouth of Long Branch

Arlington County

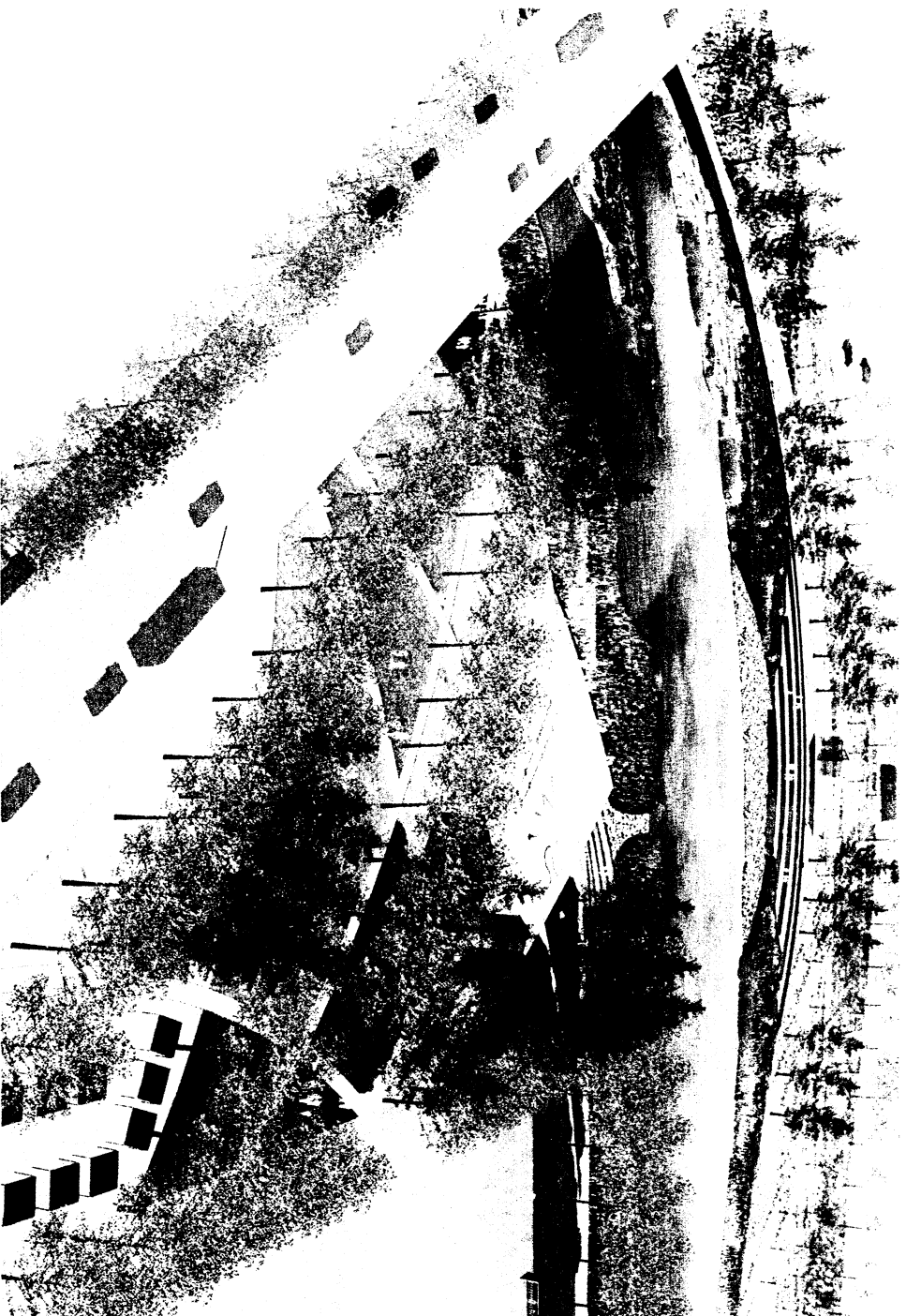


Before

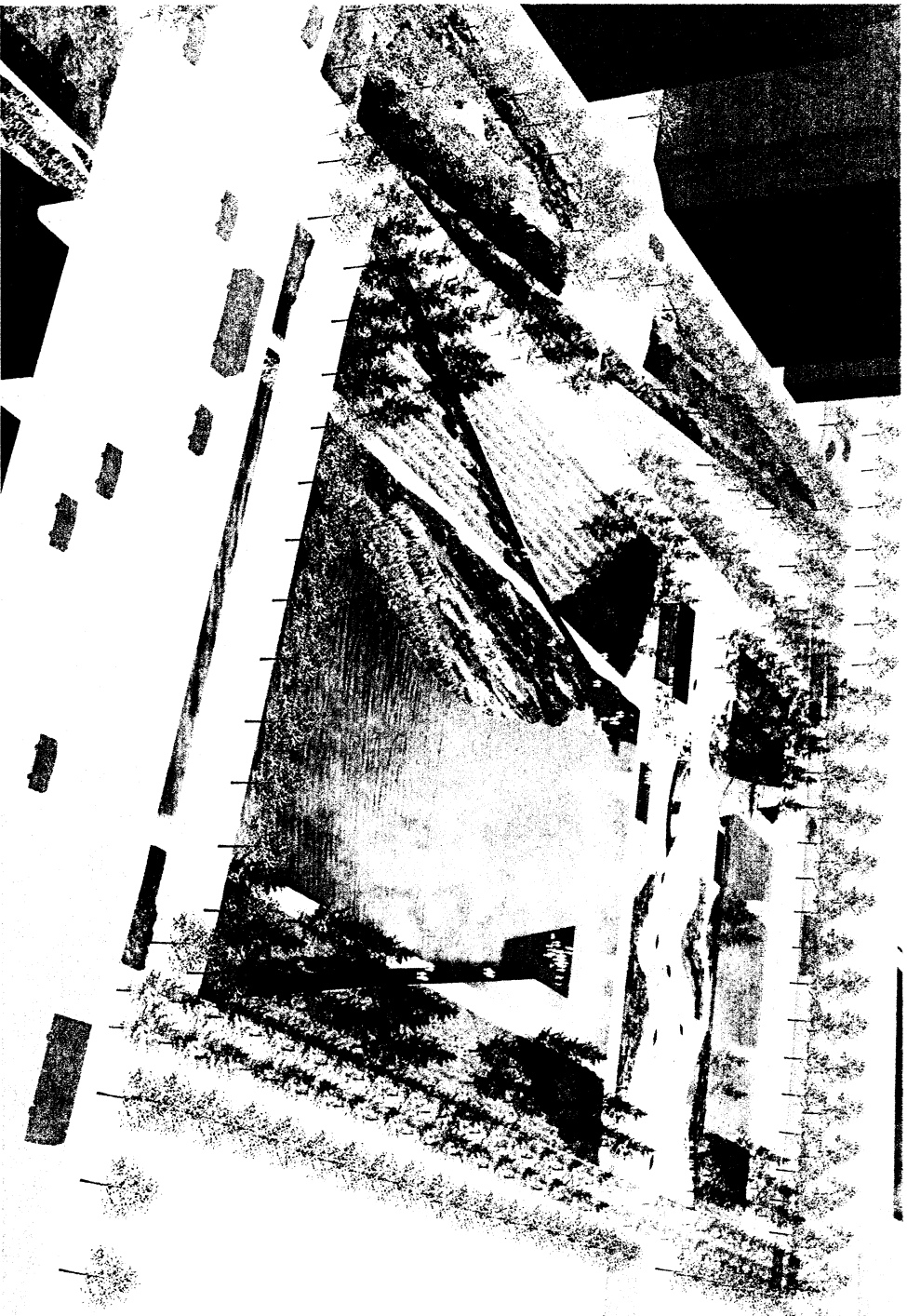


After

Gateway to Mt. Vernon Avenue and Arlandria



Potomac Yard



Implementation

Provides roadmap and vision for the future of Four Mile Run

Does not commit City to implement the Master Plan

\$261 million total estimated cost (2006 dollars)

- Excludes \$94 to \$175 million in utility undergrounding costs
- Utility undergrounding unlikely due to cost

Funding of this magnitude would likely need to be spread over decades



Implementation

Local costs Four Mile Run Plan to be shared between City and County

- Local CIP funding currently very tight
- Any new projects such as Four Mile Run would need to compete for CIP funding with other City needs
- Local funding dependent on substantial federal and state financial support

Implementation subject to future funding and resource allocations

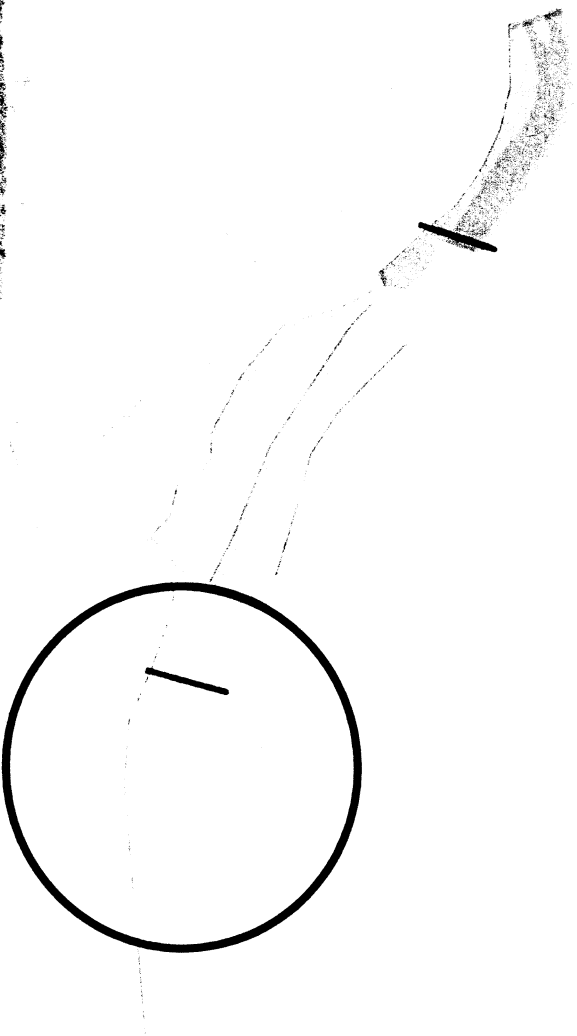
- Possible funding sources include:
 - State and Federal Funds, including cost-sharing with USACE
 - Grants

Local CIP funds from Arlington County and City

Other sources



Demonstration Project



To fulfill the original EPA grant requirements
From Route 1 to Mt. Vernon Avenue,
focusing at Commonwealth Avenue



Project Timing

Alexandria and Arlington County Public Hearings... March 2006

Master Plan Adoption..... March 2006

Demonstration Project..... 12 to 18 Months

Master Plan Implementation..... 2006 & Beyond

- EPA Grants
- Local Actions
- USACE Feasibility
- Other

