

# Potomac Yard Metrorail Station Environmental Impact Statement

PYMIG Meeting  
October 10, 2012

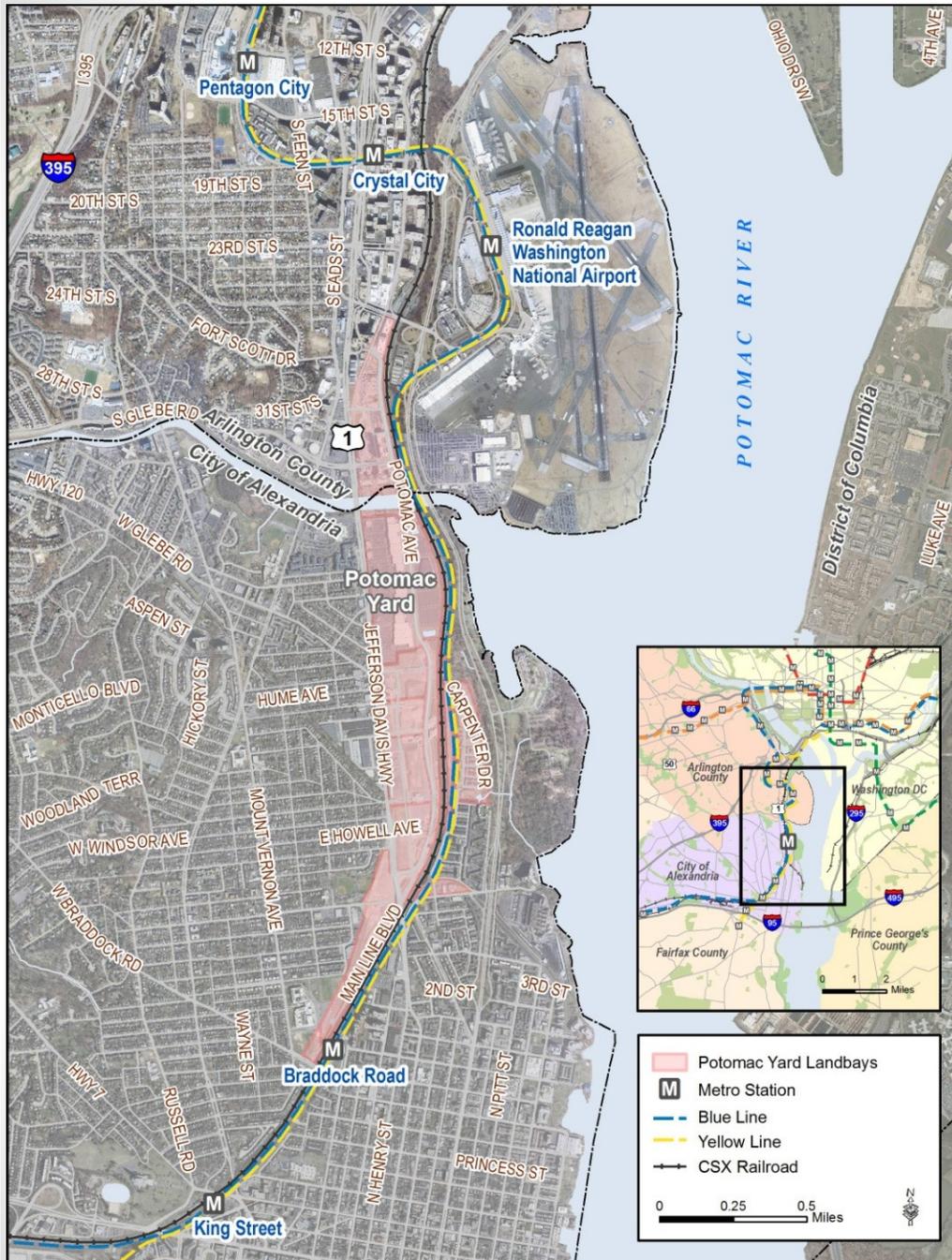




# Agenda

1. Welcome and Review of Project to Date
2. Results of Technical Reports completed to date
  - a. Soils and Geologic Conditions
  - b. Land Use
  - c. Ecosystems & Endangered Species
  - d. Water Resources
  - e. Noise and Vibration
  - f. Neighborhoods & Environmental Justice
  - g. Hazardous and Contaminated Materials
3. Draft Capital Cost Ranges
4. Schedule
5. Next Steps

# Study Area



Generally bounded by:

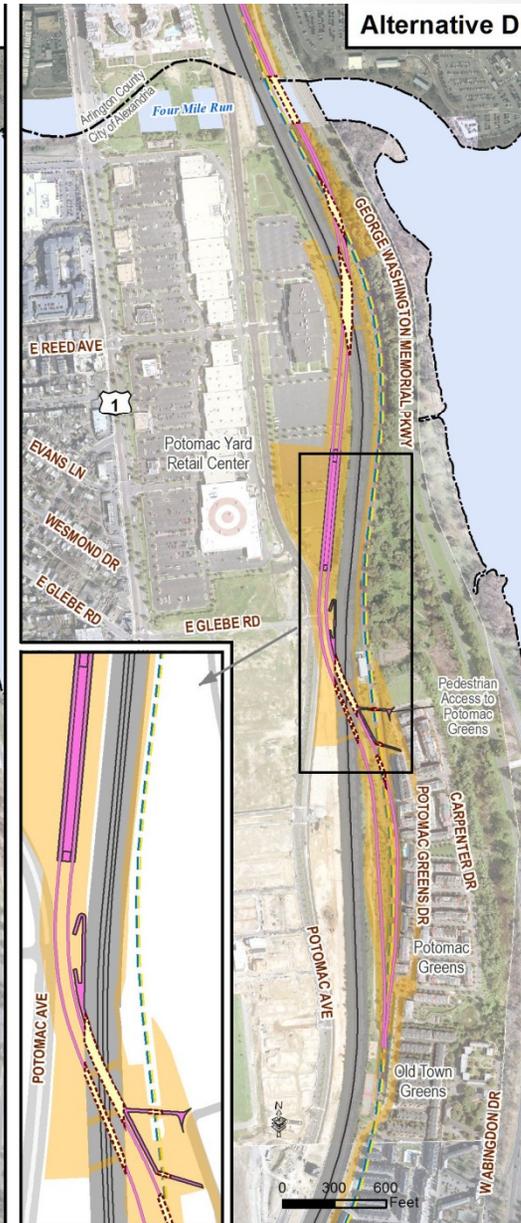
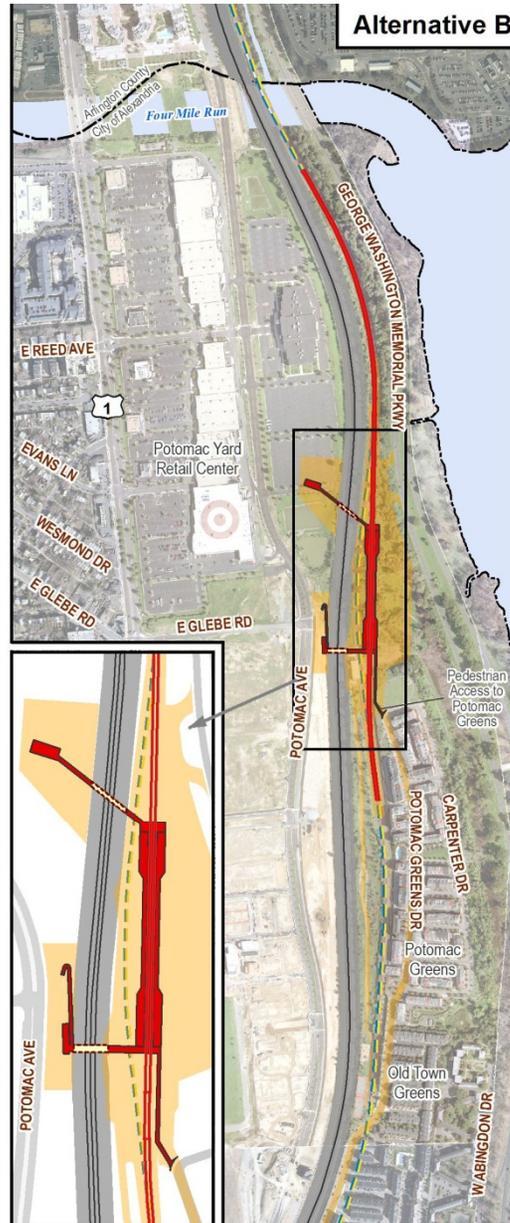
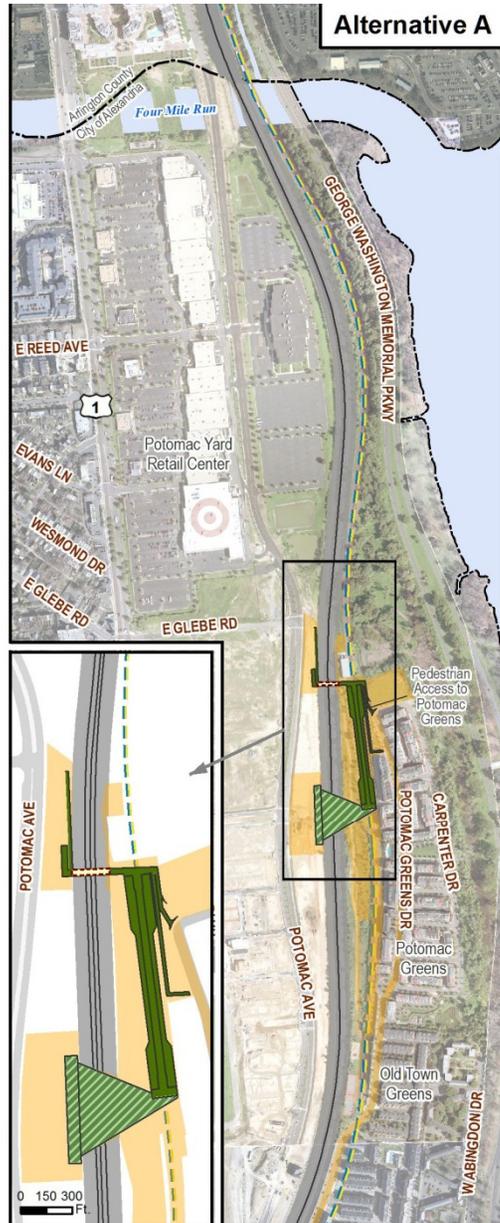
- Route 1 on the west
- George Washington Memorial Parkway and Potomac Greens Drive on the east
- Slaters Lane on the south
- Ronald Reagan National Airport Access Road on the north



## Process to Date

1. Potomac Yard Metrorail Station Concept Development Study (February 2010)
2. Scoping Report (June 2011) & first meeting of Potomac Yard Metrorail Implementation Group (PYMIG)
3. Screening Document and meeting of PYMIG (October 2011)
4. Refinement of Alternatives (October 2011)
5. Proposed Station Locations, and meeting of PYMIG (February 2012)
6. Review of Public Input and Decision Making (May 2012)
7. Review of 4f/6f/106 process (May 2012)
8. Socio, Economic, Environmental, and Transportation Impact Identification and Assessment (on-going)

# Build Alternatives





# Process to Date



↑  
2011-  
Early 2012

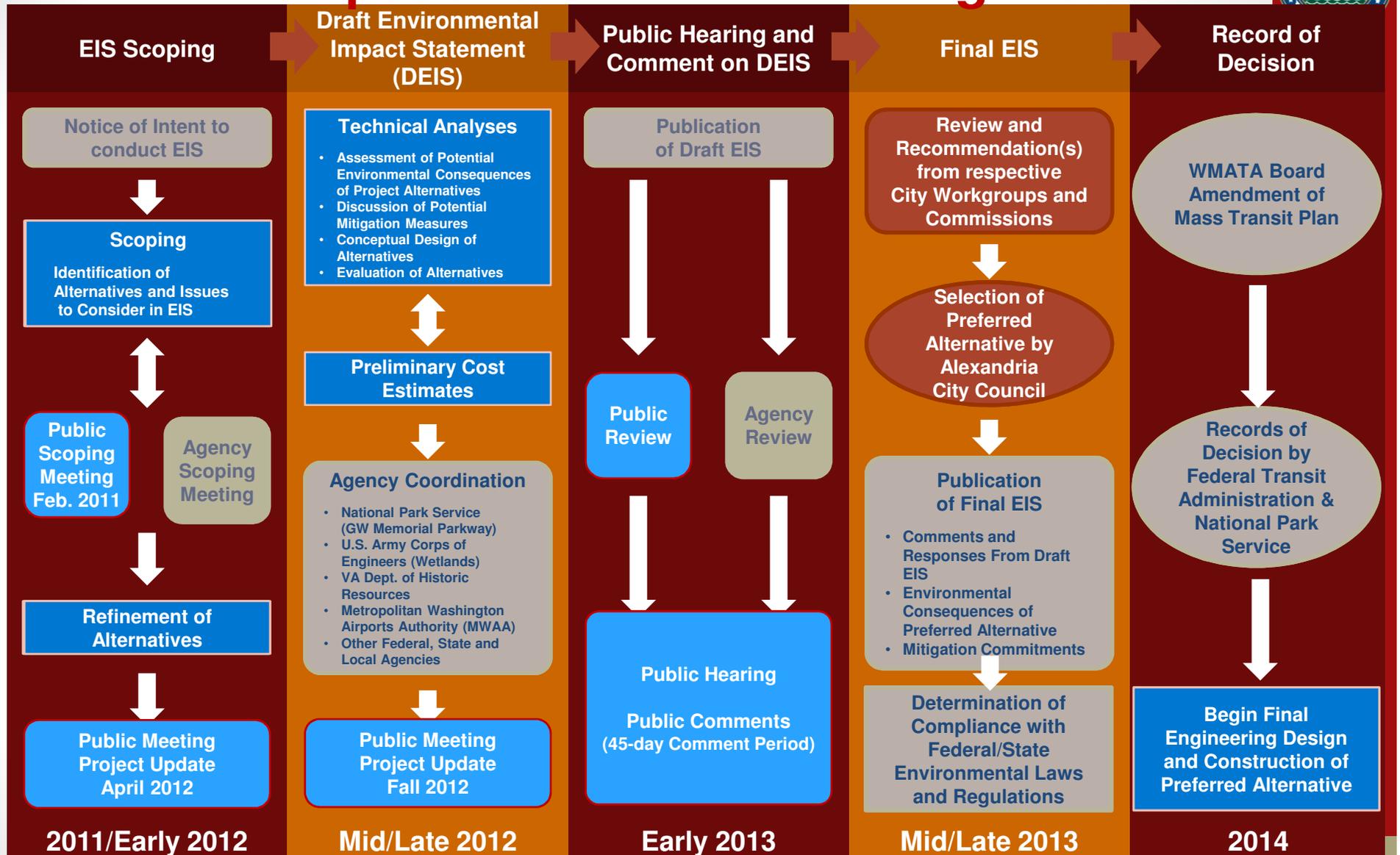
↑  
**We  
are  
Here**  
Mid/Late  
2012

↑  
Early  
2013

↑  
Mid/Late  
2013

↑  
2014

# EIS Public Input and Decision Making Flowchart

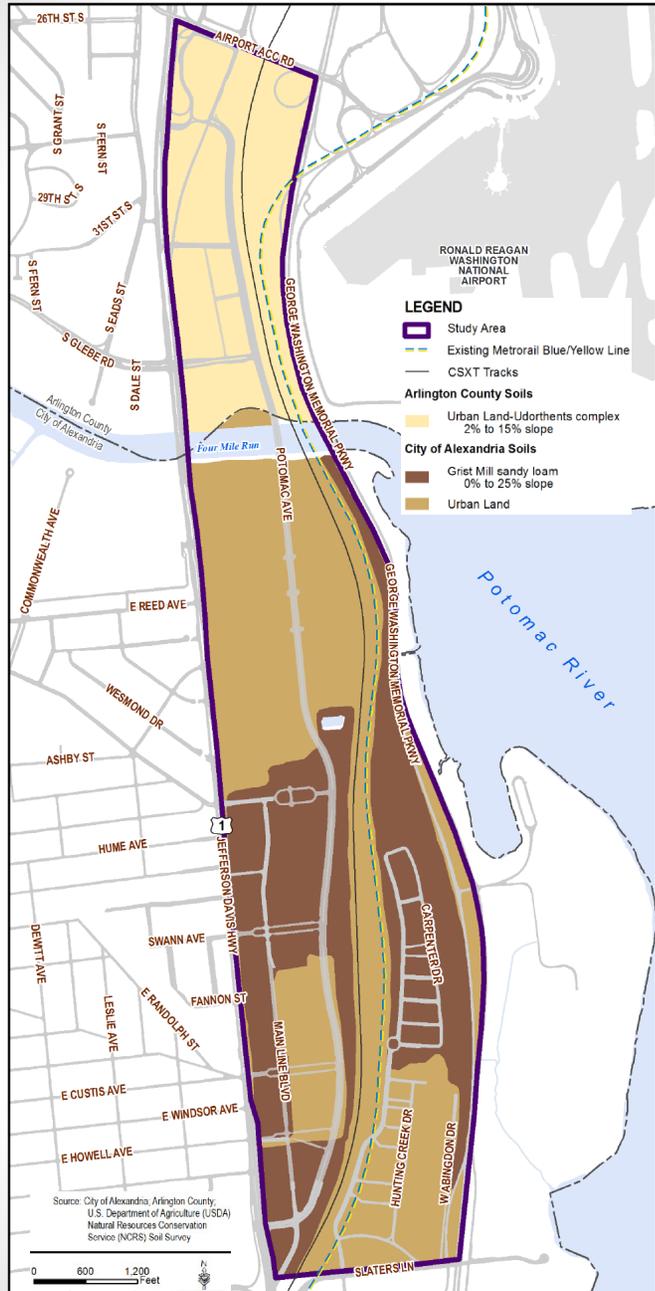


  = Public Involvement Milestone    
   = Agency Review    
   = City of Alexandria Review/Recommendation  
  = Technical Task    
   = Agency Decision    
   = City of Alexandria Decision

# Soils and Geologic Conditions

## Items Reviewed:

- Soil
- Geology
- Ground Water
- Topography





# PRELIMINARY Impacts – Soils and Geologic Conditions

Alternative	Permanent Impacts				Temporary Impacts
	Soil	Geo-logy	Ground-water	Topo-graphy	
No-Build	None	None	None	None	None
Alternative A	None	None	None	None	Leveling for tracks and structures, clearing, grubbing, construction of piers, bents, and structural foundations, erosion and sedimentation
Alternative B	None	None	None	Minor @ station	
Alternative D	None	None	None	Minor @ bridges	

Further investigation of the preferred alternative will be completed in association with the FEIS and prior to final design





# PRELIMINARY Impacts – Land Use

Alternative	LU	Zoning	Amendments	Consistency with Local Plans
No-Build	None	F limited to 3.7 mill sf	None	Inconsistent with NPYSAP Inconsistent with CoA-MP Inconsistent with PY/PG SAP
Alternative A	Metrorail Reservation	F limited to 3.7 mill sf	Would require amendments to CDD 10 & 9CDD 19	Inconsistent with NPYSAP Consistent with CoA-MP for Metro in PY area Consistent with PY/PG SAP
Alternative B	Scenic Easement & Park	F limited to 7.5 mill sf	None	Consistent with NPYSAP Consistent with CoA-MP Consistent with PY/PG SAP
Alternative D	Commercial Development	F limited to 3.7 mill sf	Would require amendments to CDD10 & CDD19	Inconsistent with NPYSAP Consistent with CoA-MP for Metro in PY area Consistent with PY/PG SAP

F – Landbay F

NPYSAP – North Potomac Yard Small Area Plan

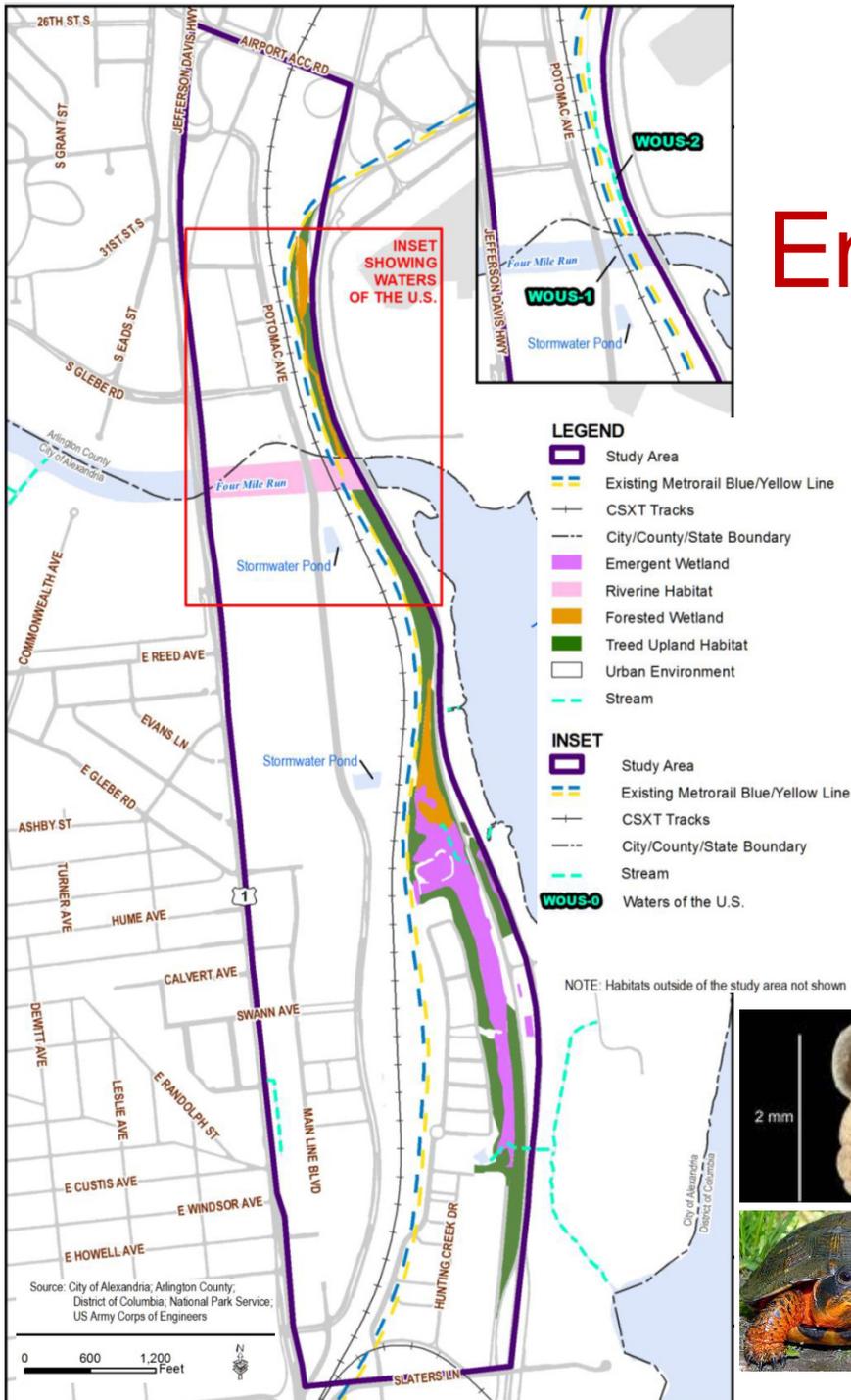
CoA-MP – City of Alexandria Transportation Master Plan

PY/PG SAP – Potomac Yard/Potomac Greens Small Area Plan

# Ecosystems and Endangered Species

## Items Reviewed:

- **Ecosystems**
  - Emergent wetlands
  - Riverine habitat
  - Forested Wetlands
  - Treed uplands
- **Endangered Species**
  - Sensitive Joint-Vetch (Federally Threatened)
  - Bald Eagle (Federally Protected)
  - Appalachian Springsnail (State listed endangered)
  - Wood Turtle (State listed threatened)





# PRELIMINARY Impacts— Ecosystems and Endangered Species

Alternative	Emergent Wetland		Riverine Habitat		Forested Wetland		Treed Upland	
	Perm	Temp	Perm	Temp	Perm	Temp	Perm	Temp
No-Build	-	-	-	-	-	-	-	-
Alternative A	0.01	0.01	-	-	-	-	0.01	0.1
Alternative B	2.3	0.8	-	-	1.5	0.3	0.5	1.2
Alternative D	-	0.1	0.2	0.02	0.2	0.4	1.0	2.6

Numbers shown above were measured in acres and include wetlands delineated by both USACE and NPS methodologies.

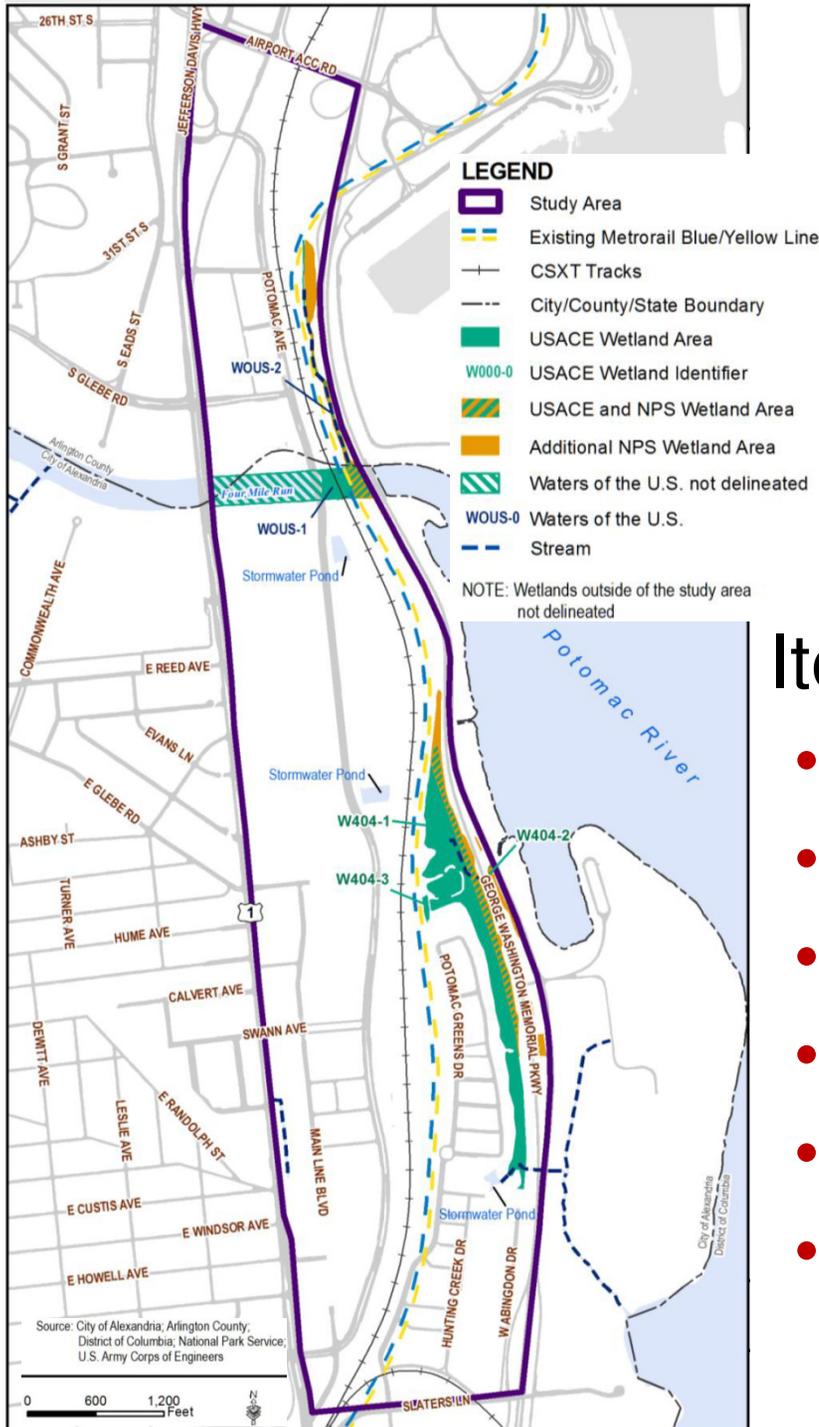
## Endangered Species:

- Field Study did not detect **Sensitive Joint-Vetch** in area.
- Study area is not located within 660-feet of a **bald eagle** nest.
- VDGIF did not provide comment on presence/habitat of **Appalachian Springsnail** in area, However potential occurrence in Study Area is limited.
- VDGIF did not provide comment on presence/habitat of **Wood Turtle** in area.
- Review and comment by US Fish and Wildlife Service is pending.

# Water Resources

## Items Reviewed:

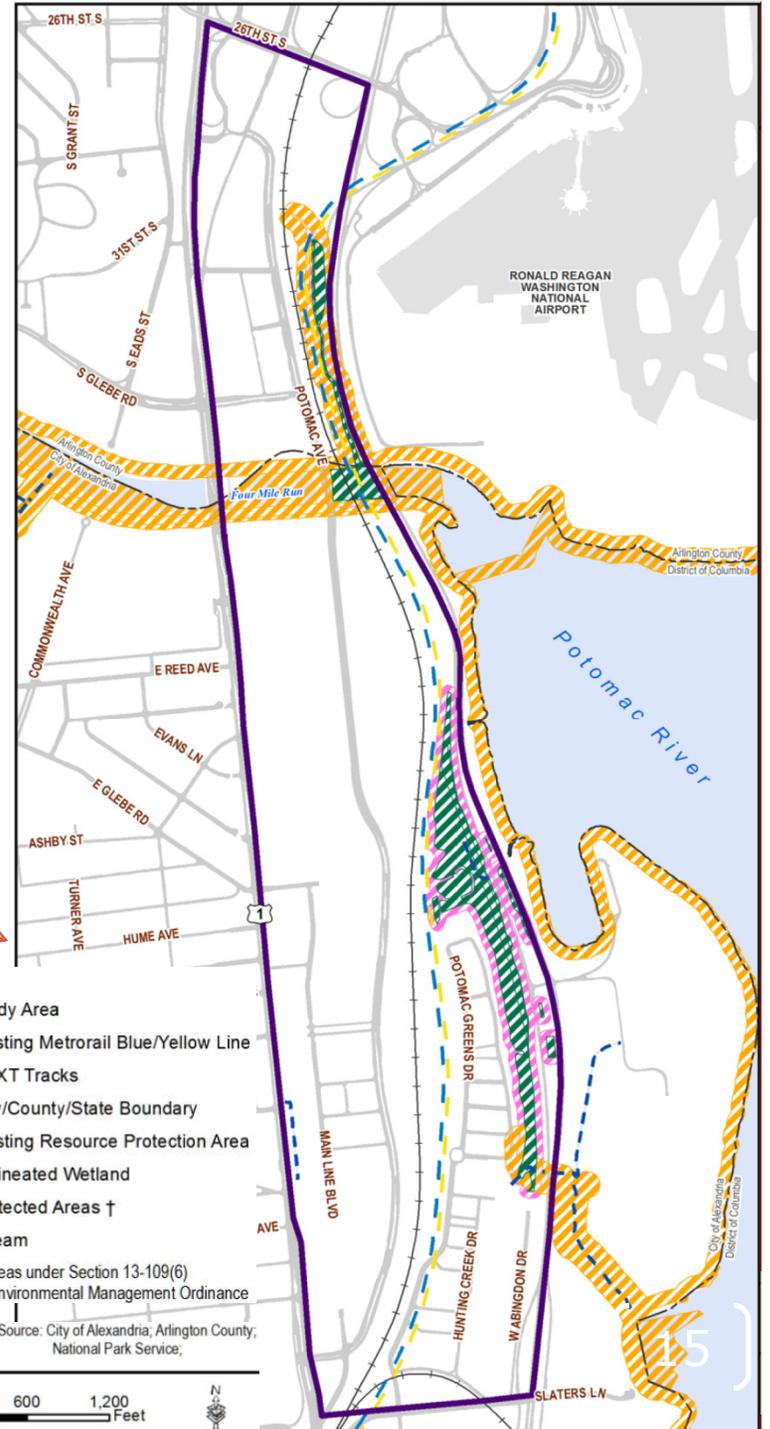
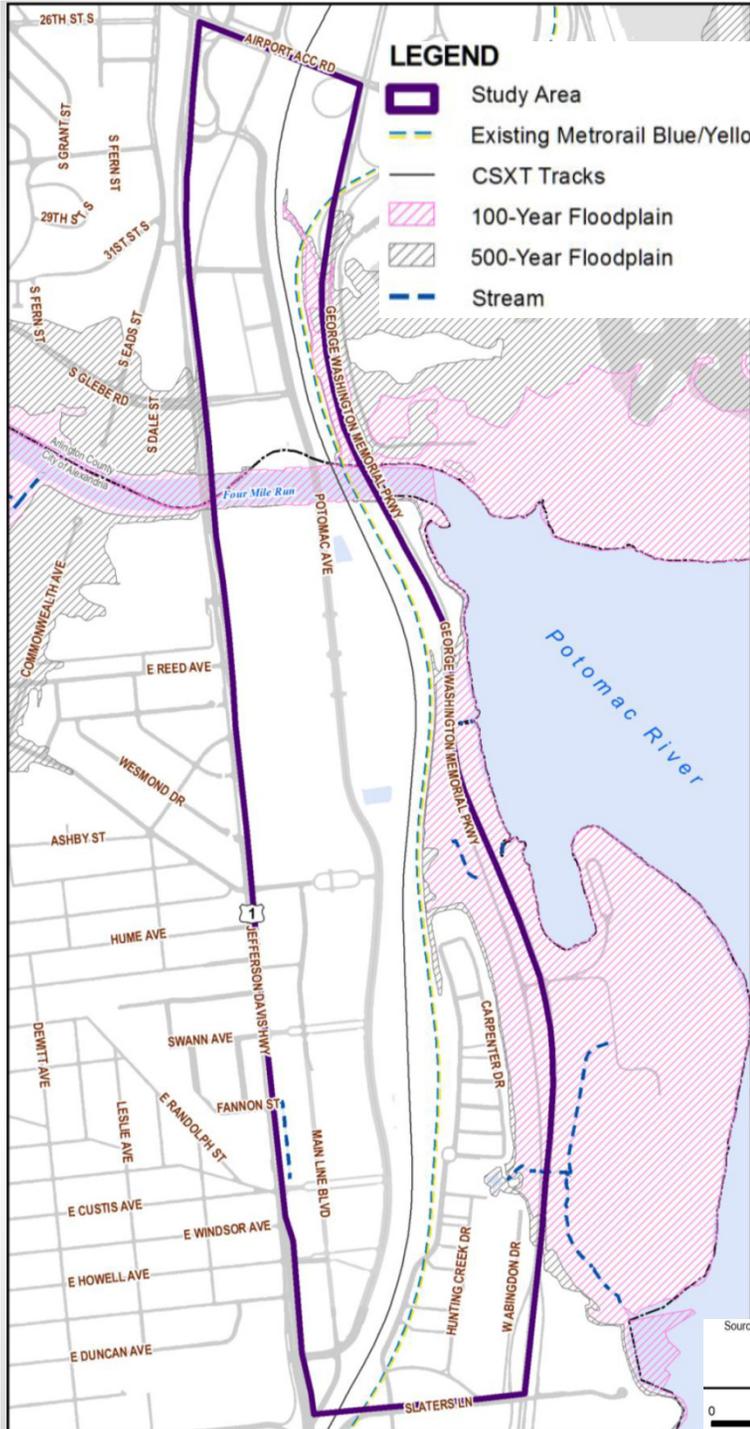
- Wetlands
- Water Quality
- Floodplains
- Coastal Zones
- Navigable Waterways
- Designated Scenic Rivers



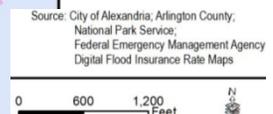
# Water Resources

Floodplain

Resource Protection Areas



- LEGEND**
- Study Area
  - Existing Metrorail Blue/Yellow Line
  - CSXT Tracks
  - City/County/State Boundary
  - Existing Resource Protection Area
  - Delineated Wetland
  - Protected Areas †
  - Stream
- † Protected areas under Section 13-109(6) under the Environmental Management Ordinance





# PRELIMINARY Impacts— Water Resources

Alternative	Wetlands <sup>1</sup> - NPS and USACE		New Imper- vious Surface	Floodplain			Coastal Zones & Chesapeake Bay Preservation Areas <sup>2</sup>		Navigable Waterways
	Perm- anent	Temp- orary		100-year		500- year <sup>1</sup>	Perm	Temp	
				Perm	Temp				
No-Build	-	-	-	-	-	-	-	-	No impact
Alternative A	0.01	0.01	1.82	-	-	0.36	0.37	0.07	No impact
Alternative B	1.14	3.73	1.66	1.39	3.90	0.90	2.89	4.57	No impact
Alternative D	0.39	0.52	9.24	0.70	1.30	0.21	1.73	1.99	New bridge built over Four-Mile Run

Note: All measurements are in acres

Temporary impacts refer to impacts during construction only.

<sup>1</sup>Acresage excludes areas in 100-year floodplain

<sup>2</sup>RPA impact estimates include both existing RPA and additional designated protected area (delineated wetland areas and 50-foot buffer)

# Noise and Vibration

## Items Reviewed:

- Noise

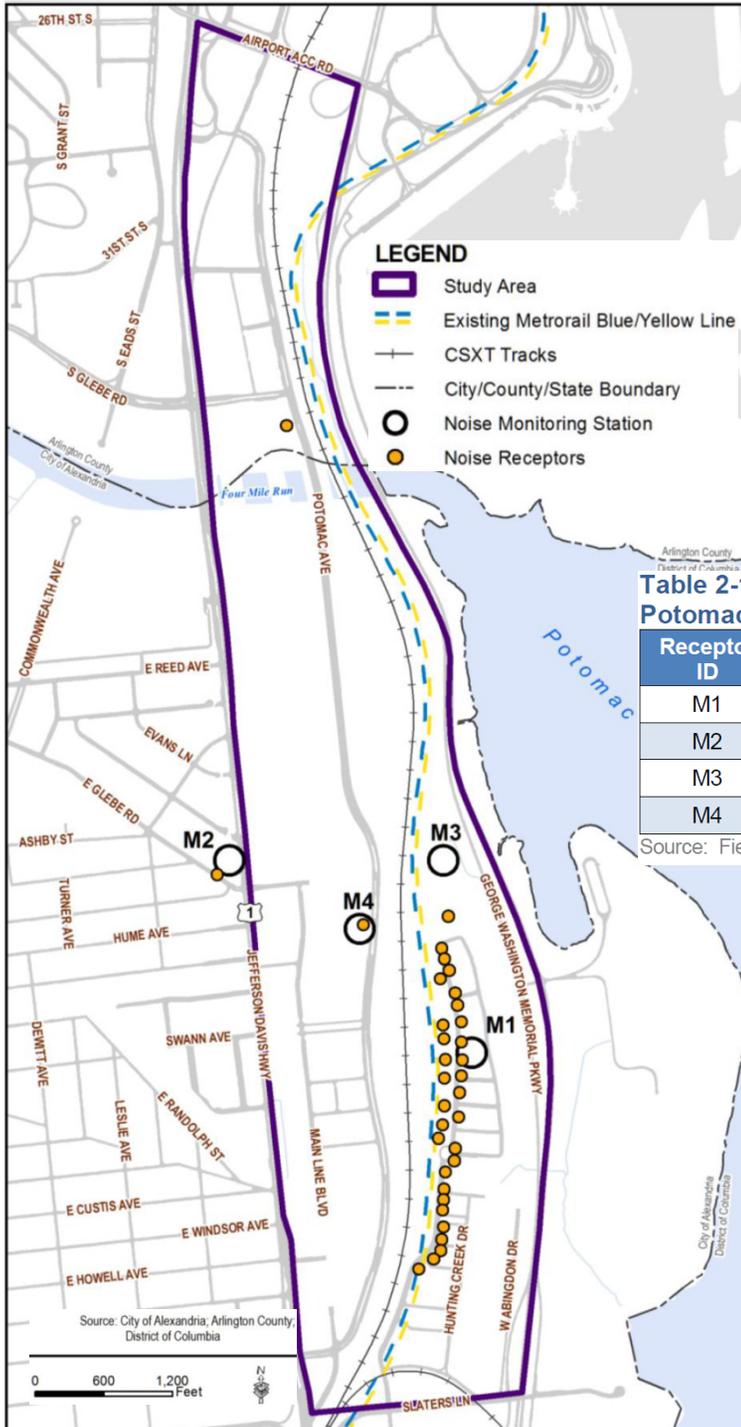


Table 2-1: Existing Noise Levels at Representative Locations in the Vicinity of the Proposed Potomac Yard Metrorail Station

Receptor ID	Description	Land Use Category	Peak-Hour $L_{eq}$ (dBA)	24-Hour $L_{dn}$ (dBA)
M1	Potomac Greens, Potomac Greens Drive	Residential	63	63
M2	Lynhaven Community, East Glebe Road	Residential	72	72
M3	Potomac Greens Park/Trail (north of Potomac Greens)	Park	63	--
M4	Potomac Yard (proposed development)	Residential	60	62

Source: Field measurements, June 2012.

- Vibration

- Existing plus new

- FTA – increase of 3VdB and exceed 72VdB
- WMATA – exceed 80VdB



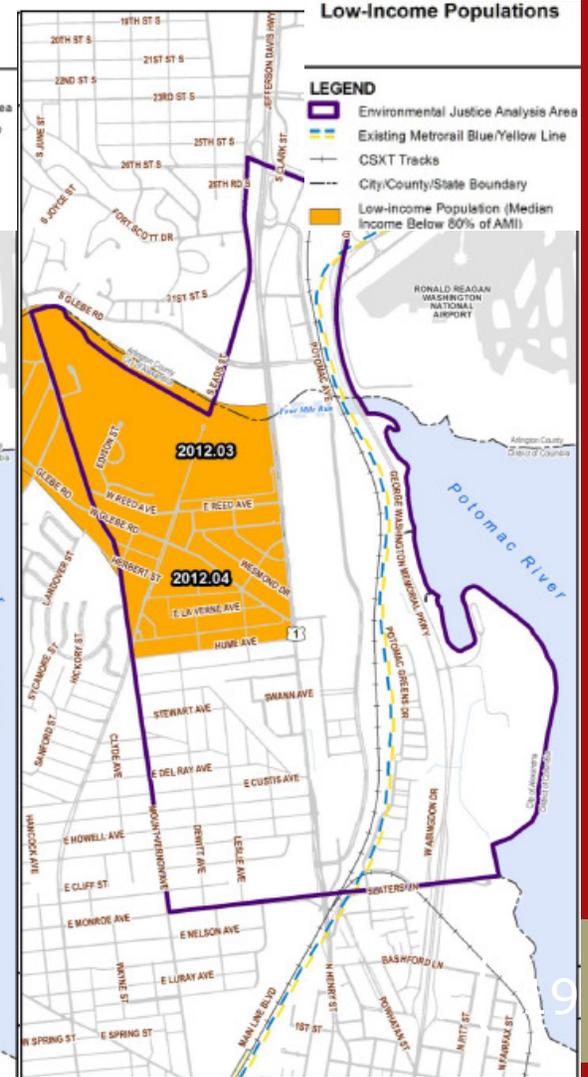
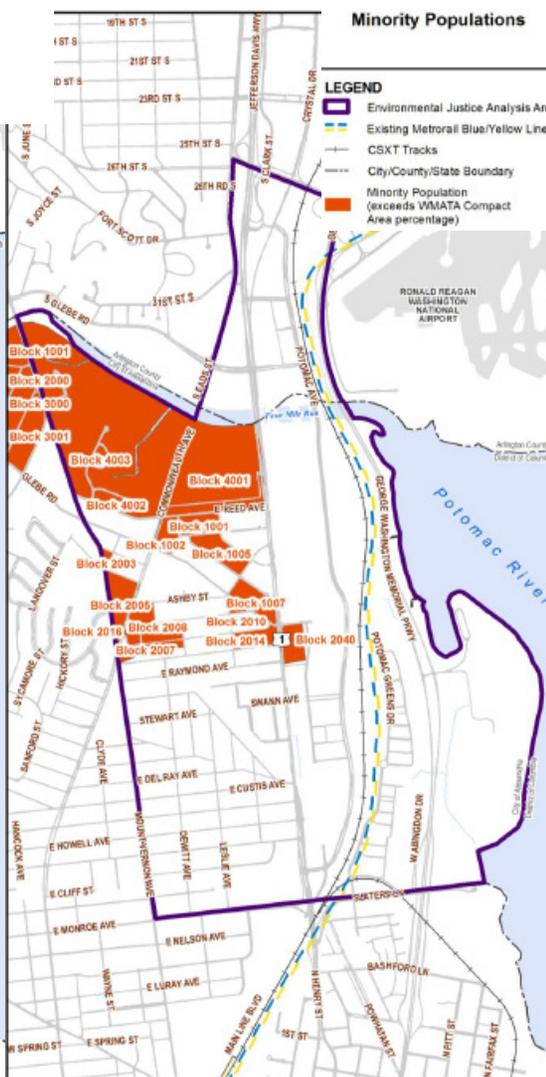
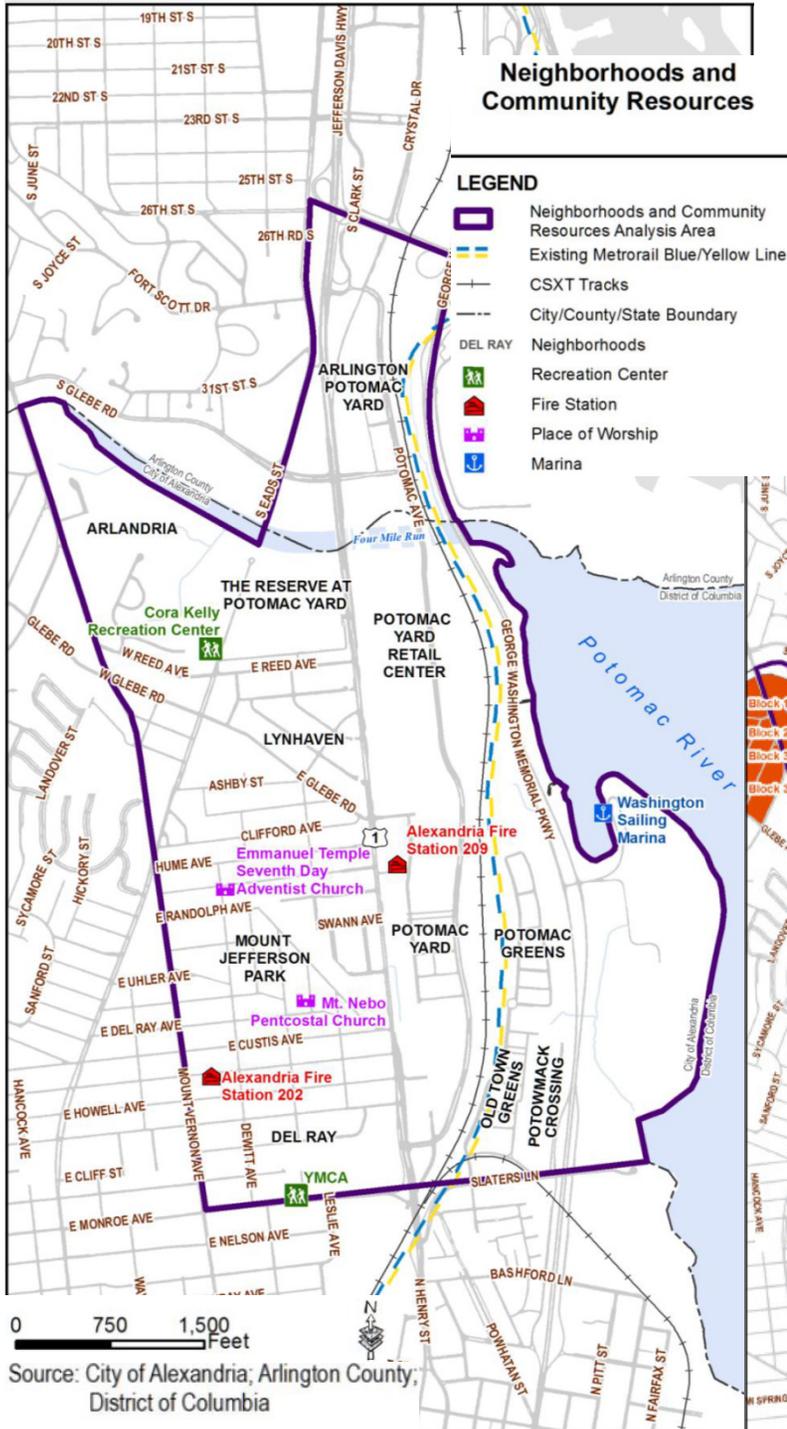
# PRELIMINARY Impacts– Noise & Vibration

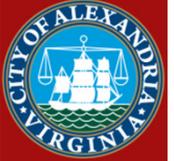
Alternative	Noise*		Vibration		Construction Impacts	
	FTA	WMATA	FTA	WMATA	Noise	Vibration
No-Build	0	7	No change		No Change	
Alternative A	1 Moderate (residence)	7	6	1	Anticipated at closest residences & commercial properties	
Alternative B	1 Moderate (residence)	7	0	0		
Alternative D	8 Moderate (residences)	3	7	0		

Noise is measured in the number of exceedence of the standard for moderate (M) or severe (S).  
 NOTE: FTA criteria accounts for the change in noise level from baseline conditions.  
 WMATA does not account for a change in the baseline but at a point in time.



# Neighborhood and Environmental Justice





# PRELIMINARY Impacts-Neighborhood & EJ

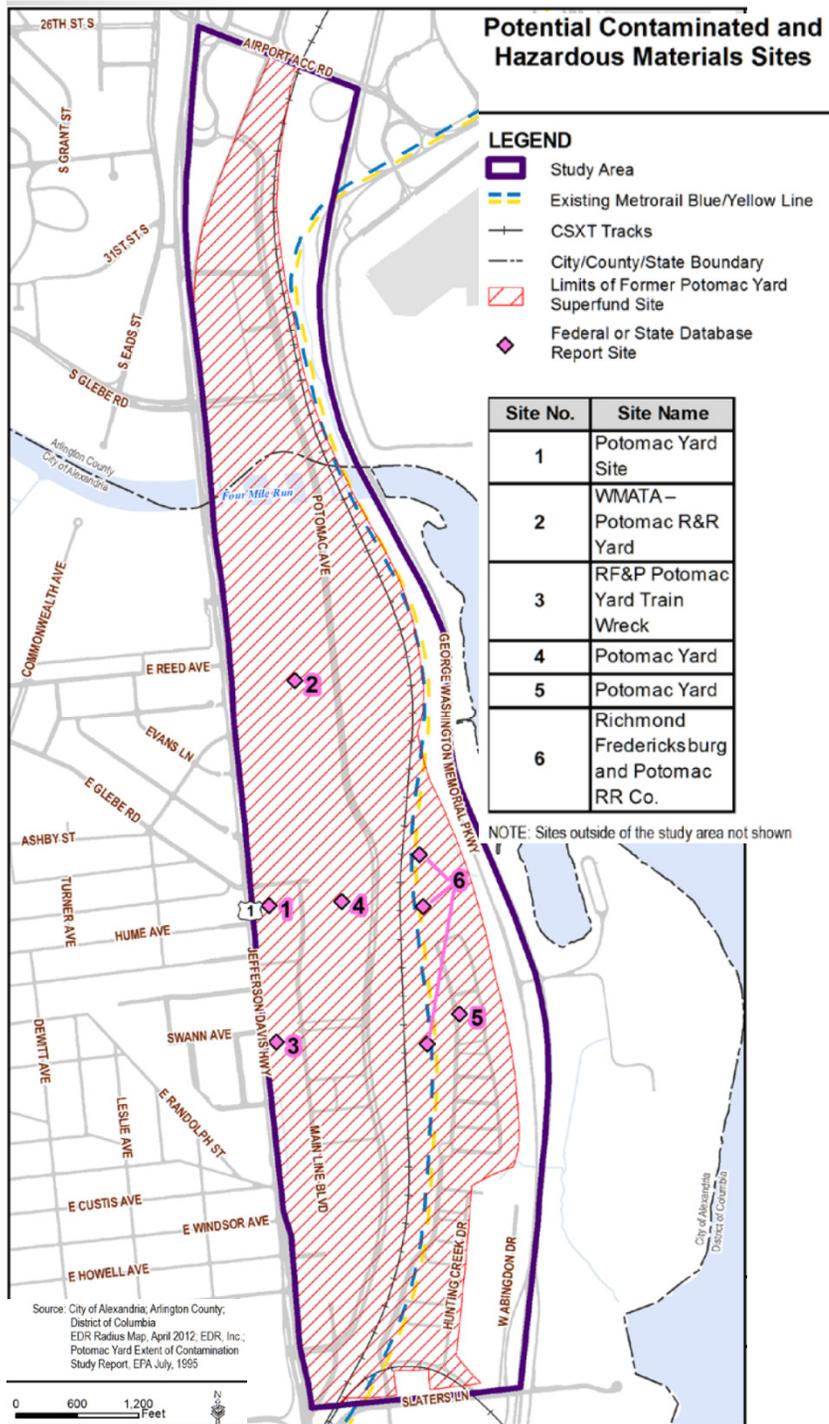
	No-Build	Alternative A	Alternative B	Alternative D
Community Co-hesion/Interaction	Increased interaction via new pedestrian connection and amenities for PG, OTG, Potomack Crossing			
Isolation effects	Isolation of PG/OTG decrease with pedestrian bridge			
Social values	No effect	No effect	No effect	No effect
Barrier effects	No effect	No effect	No effect	No effect
Consistency with Local Plans	Inconsistent	Station further south than NPYSAP	Station most closely resembles location in NPYSAP	Station occupies portion of buildable land in NPYSAP
Economic Conditions	Increase in retail, employment base in PY			
Access Changes	No effect	Increases transit access to PY, PG, OTG		
Community facility impacts	No effect	Occupy land for station entrances in PY Park	Occupy land for station facility & entrances in PY Park	
Safety	No effect	No effect	No effect	No effect
Displacement	No effect	No effect	No effect	Displacement of movie theater short-term Long-term-no effect

**PY** – Potomac Yard    **PG** – Potomac Greens    **OTG** – Old Town Greens    **NPYSAP** – North Potomac Yard Small Area Plan  
 The following items impact are under review: Changes in population and employment, Noise and Vibration, traffic effects, and Physical intrusions – dust, odor, light.

# Hazardous and Contaminated Materials

## Items Reviewed:

- Residual Fly Ash
- TPH and Free Product – Central Operations Sub Area
- Cinder Ballast
- Groundwater
- Oil/water separator ponds





# PRELIMINARY Impacts – Hazardous & Contaminated Materials

Alternative	Flyash*	TPH & Free Product	Cinder Ballast	Ground -water	Oil/ Water Separator
No-Build	No impact	No impact	No impact	No impact	No impact
Alternative A	Elevated concentrations of arsenic, TPH-DRO, lead, and copper	Levels of up to 11-feet	Elevated levels of lead and arsenic	Potential for residual low levels of TPH, VOC's, SVOC's and metals	Not applicable
Alternative B					Potential residual TPH, PCB's and contaminants
Alternative D					Not applicable

\* In addition to the contaminants listed above, for Alternative A and D, Silver was also elevated  
**TPH** – Total Petroleum Hydrocarbons    **TPH-DRO** – Total Petroleum Hydrocarbons Diesel Range Organics  
**VOC** – Volatile Organic Compounds    **SVOC** – Semi-Volatile Organic Compounds  
**PCB** – Polychlorinated Biphenyl



# Cost Estimate Inputs

- Environmental Process (EIS)
  - Concept Design
  - Environmental Impact Statement
  - Financial Analysis
- Design Build
  - Guideway and Track Elements
  - Station, Stops, Terminals
  - Sitework and special conditions
  - Systems
  - IT Equipment
- Utilities
  - Coordination with Dominion, Washington Gas, Water & Sewer, Verizon and Miscellaneous
- Real Estate
- Contingency



# DRAFT Capital Cost Range

## Summary

	Low	High	85% of High*
Alternative A	\$119 mil	\$228 mil	\$195 mil
Alternative B	\$149 mil	\$293 mil	\$250 mil
Alternative D	\$275 mil	\$538 mil	\$462 mil

\*85% of the High number accounts for all fixed costs (at 100% including EIS, Art-in-transit, preliminary engineering, etc) and 85% of unknown costs (e.g., design/build contract, contingency, utility coordination, etc). All financial plans will be based on this 85% of High.



# Financial Plan Assumptions

- Station Funding:
  - Revenue from:
    - Net new tax revenue
    - Special Tax Districts
    - Developer contributions
  - Bonds to be issued to finance station
  - Design and construction cost for station
  - Potential federal/state funds
- Improvements from previous studies
  - More accurate development timeline
  - Better calculations of property values/taxes anticipated
  - More information on WMATA operating subsidy



# Schedule

Delay from original schedule due to:

- Archeological investigation
- Additional visual surveys

Item	Original Completion	Updated/ Anticipated
Draft Environmental Impact Statement	Jan 2013	March 2013
Public Hearing	Feb 2013	April 2013
City determination of Locally Preferred Alternative	March-May 2013	May-July 2013
Final Environmental Impact Statement	Feb 2014	March 2014
Begin Design/Build	Mid 2014	Mid 2014
Complete Design/Build	Late 2016	Late 2016
Opening of Station	Late 2016	Late 2016



# Next Steps

- Continue environmental impact analysis for each of the proposed alternatives
  - Visual Resources
  - Cultural Resources
  - Transportation
  - Air Quality
  - Construction
  - Economic impacts
  - Summary of impacts
- Financing Plan for each Alternative
- Next meeting  
(tentatively late January 2013 / early February 2013)



For more information on this project or other capital or planning projects in Potomac Yard:

[www.alexandriava.gov/potomacyard](http://www.alexandriava.gov/potomacyard)

For the project website see:

[www.potomacyardmetro.com](http://www.potomacyardmetro.com)