

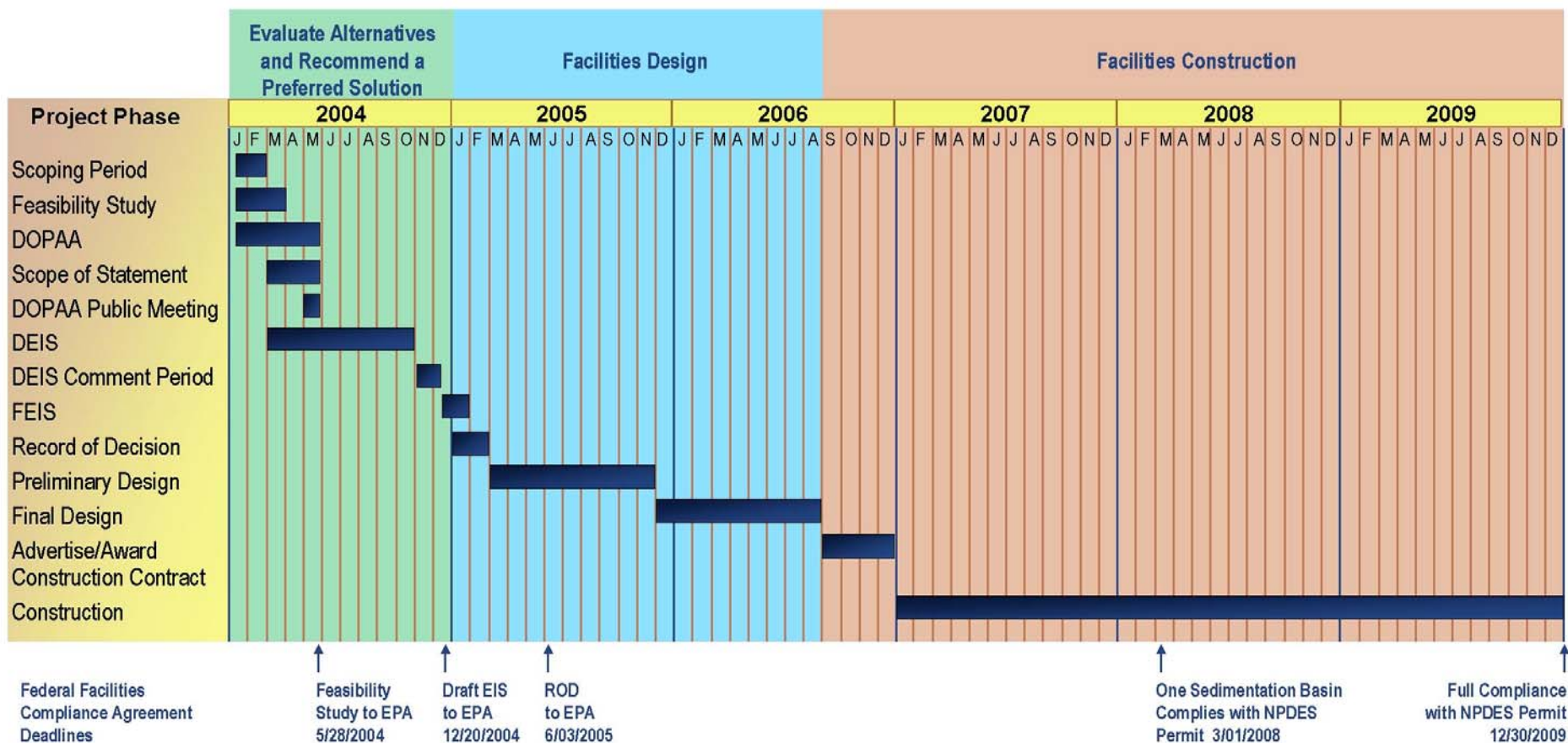


Draft Environmental Impact Statement for a Proposed Water Treatment Residuals Management Process

Alternatives to be Evaluated in the Draft EIS

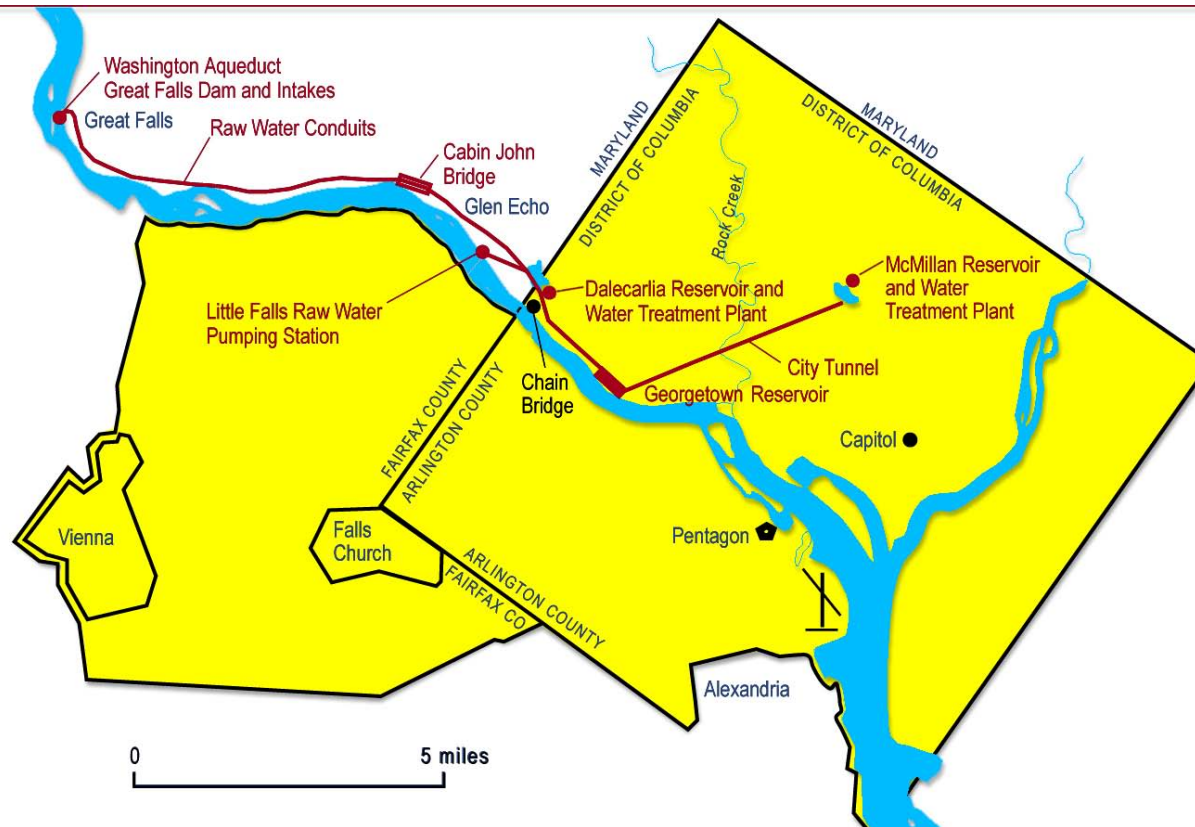


Three Project Phases Lead to Full Permit Compliance by the End of 2009





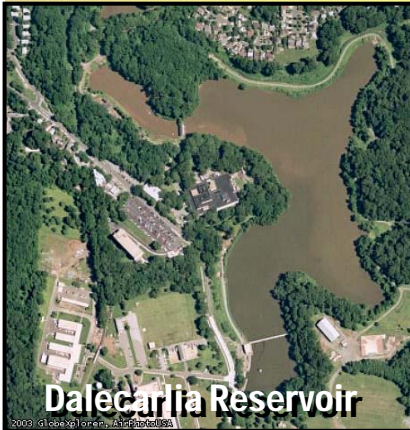
The Washington Aqueduct Produces Drinking Water for 1 Million Citizens in Washington, DC and Northern Virginia





The Treatment Process Removes Solid Particles From the Potomac Supply Water

Sediment from the Potomac River settles at the bottom of the Dalecarlia Reservoir



Sediment that collects in the reservoir is periodically dredged and land applied

Alum Added

Additional sedimentation occurs in the Dalecarlia Sedimentation Basins and the Georgetown Reservoir



Residuals from the bottom of the Dalecarlia Sedimentation Basins and the Georgetown Reservoir are known as treatment residuals

Residuals must be removed from the basins to sustain the process



Treatment residuals are currently discharged to the Potomac River.

All drinking water facilities treating surface water produce residuals.

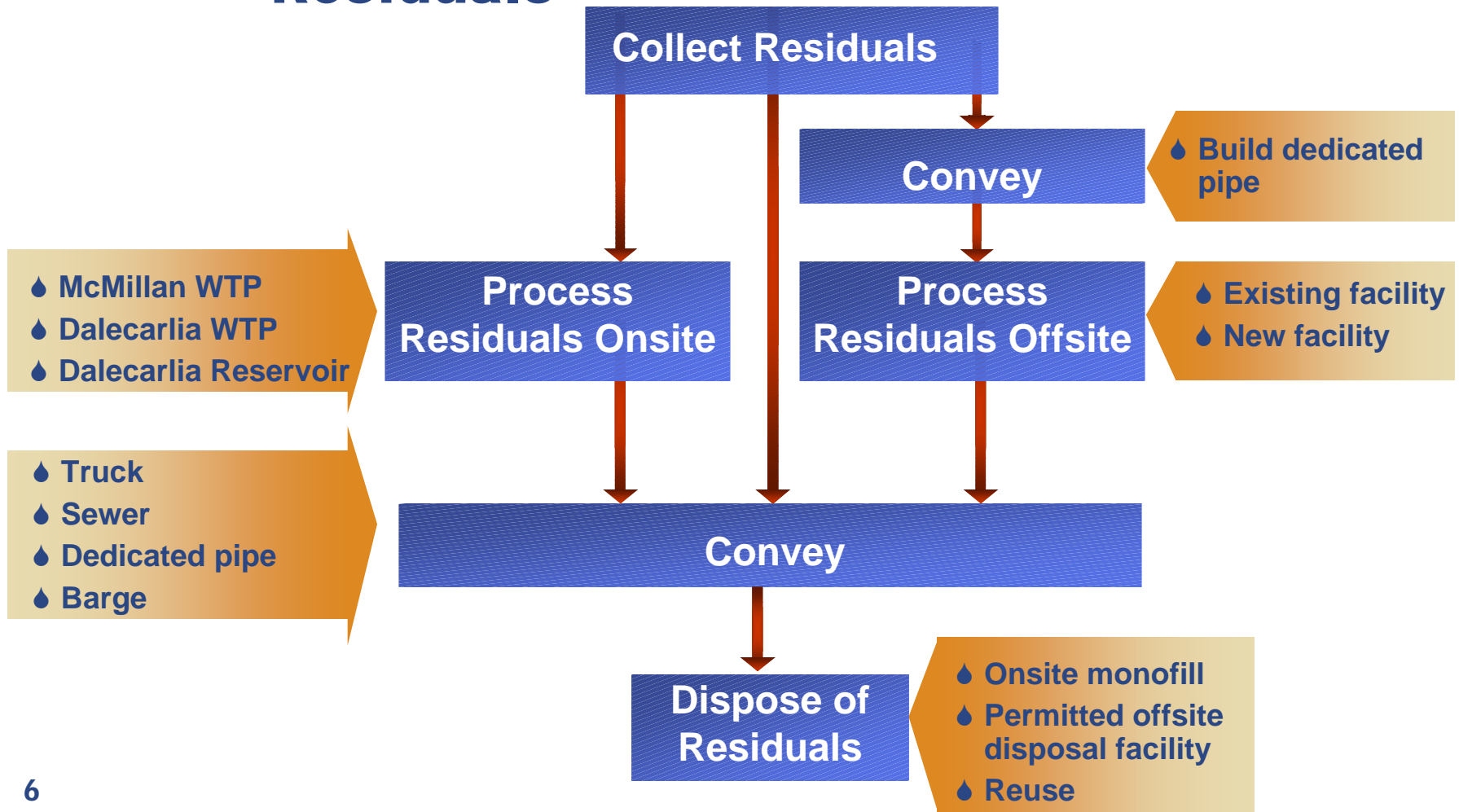


Washington Aqueduct Must Develop a New Residuals Management Process to Meet the Conditions of the New NPDES Permit

- ◆ **NPDES Permit DC0000019 became effective April 15, 2003.**
- ◆ **Federal Facilities Compliance Agreement (FFCA) finalized on June 12, 2003 allows for water to be produced while a new management process is being developed.**



There Are Multiple Options for Processing and Disposing of Washington Aqueduct's Residuals





Reasonable and Feasible Alternatives Will Be Carefully Evaluated Through an Environmental Impact Statement

Possible Alternatives for Residuals Management



- ★
 -
 -
 - ⬡
- Only alternatives meeting the project's purpose and need will be evaluated in detail in the EIS



Project Purpose and Need

- 💧 **Comply with NPDES Permit**
- 💧 **Preserve reliability of current and future operations**
- 💧 **Reduce (if possible) quantity of sediments**
- 💧 **Minimize (if possible) impacts on stakeholders and environment**
- 💧 **Design a cost effective process**



Twenty Six Alternatives Have Been Evaluated in a Feasibility Study

- ◆ **Historical Alternatives**
- ◆ **Newly Developed Alternatives**
- ◆ **Ideas From the Public Scoping Period**



Categories of Alternatives

Category Number	Category Description	Number of Alternatives
I.	Alternatives Without Continuous Off-site Trucking From Dalecarlia WTP	7
II.	Alternatives Including Some Discharge to the Potomac River	3
III.	Alternatives Involving Modified Use of Dalecarlia Reservoir	4
IV.	Alternatives Including Facilities at McMillan WTP	8
V.	Alternatives Including Facilities at Dalecarlia WTP	3
VI.	No Action Alternative (Required By Law)	1



Screening Criteria Were Used to Identify Alternatives Meeting the Project's Purpose and Need and That Were Legally and Institutionally Possible

Screening criteria include:

- ✓ Meets the FFCA* schedule
- ✓ Preserves reliability and redundancy of the system
- ✓ Uses design and processes proven in the water treatment industry
- ✓ Complies with NPDES Permit DC0000019
- ✓ Considers economic effects
- ✓ Avoids undue impairment of jurisdictional wetlands
- ✓ Conforms with ESA**
- ✓ Avoids significant alteration of important cultural resources
- ✓ Complies with existing plans and institutional considerations

* Federal Facilities Compliance Agreement

** Endangered Species Act



Four alternatives will be carried into the EIS for detailed evaluation

Alternative Number	Alternative Description	Category
2	Process residuals at the Dalecarlia WTP and dispose of them in a monofill on the Dalecarlia Reservoir property	I. Alternatives Without Continuous Off-site Trucking From Dalecarlia WTP
5	Convey thickened residuals in a dedicated pipe and dewater at the Blue Plains Wastewater Treatment Facility	
25	Process residuals at the Dalecarlia WTP and truck them off-site	V. Alternatives Including Facilities at Dalecarlia WTP
1	No Action Alternative (required by law)	VI. No Action Alternative



Dalecarlia Water Treatment Plant Residuals Processing with Disposal in Monofill on Dalecarlia Reservoir Grounds Alternative



Monofill Alternative

- ◆ **Residuals from the Dalecarlia and Georgetown Sedimentation basins are collected, thickened and dewatered at the Dalecarlia WTP.**
- ◆ **Processed residuals will be trucked from the Dalecarlia WTP property west of MacArthur Boulevard to the Dalecarlia Reservoir property on the east side of MacArthur Boulevard.**



Dalecarlia Reservoir Property Occupies Several Hundred Acres on Macarthur Blvd in Northwest Washington, DC





Dalecarlia Monofill Will Occupy Approximately 30 Acres and Range From 50 to 80 Feet High





Areas of Concern in the Environmental Impact Statement for Monofill Alternative

- ◆ **Land Use Impacts, on Site and Adjacent Land**
- ◆ **Biological Resources**
- ◆ **Visual**
- ◆ **Hazardous Materials and Waste**
- ◆ **Soils**
- ◆ **Groundwater**
- ◆ **Surface Water**



Blue Plains Alternative



Blue Plains Alternative

- ◆ **Residuals from the Dalecarlia Sedimentation basins and the Georgetown Reservoir are collected and thickened at the Dalecarlia WTP.**
- ◆ **Construct a 12-inch dedicated pipe within the Potomac Interceptor Pipe right-of-way to carry the residuals to Blue Plains.**
- ◆ **Dewater residuals at Blue Plains.**

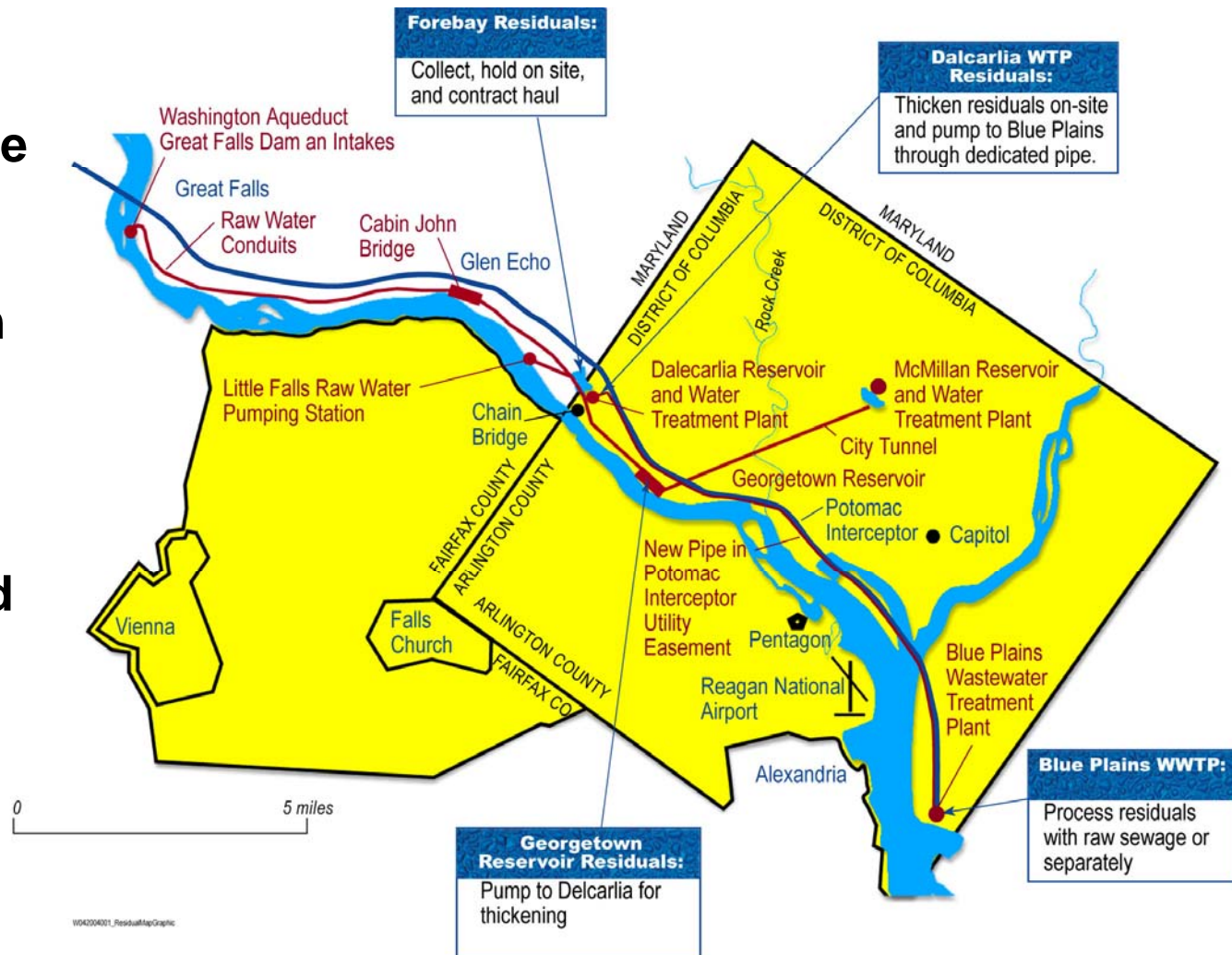


Aqueduct Residuals Cannot Be Mixed Directly With the Wastewater in the Potomac Interceptor

- ◆ **Blue plains plant does not have the capacity to receive the additional influent solids at the plant.**
- ◆ **Inert residuals compromise biological processes at the treatment plant.**
- ◆ **Residual flow would contribute to the interceptor's existing combined sewer overflow problem.**

The New Pipe Follows the Existing Potomac Interceptor Pipe Corridor

- This alternative eliminates trucking of residuals from the Dalecarlia WTP.
- Residuals will still be trucked from Blue Plains.





Potomac Interceptor Corridor Passes Near a Number of Sensitive Land Uses

- ◆ **National Park Service land**
- ◆ **Bolling AFB**
- ◆ **Tidal Basin**
- ◆ **Anacostia River**



Potomac Interceptor Corridor Passes Near a Number of Sensitive Land Uses





Areas of Concern in the Environmental Impact Statement for Blue Plains Alternative

- ◆ **Economic Impact**
- ◆ **Land Use**
- ◆ **Infrastructure**
- ◆ **Cultural Resources**
- ◆ **Schedule and Permit Compliance**



Dalecarlia Water Treatment Plant Residuals Processing with Disposal by Trucking Alternative



Dalecarlia Water Treatment Plant Residuals Processing with Disposal by Trucking Alternative

- ◆ **Residuals from the Dalecarlia Sedimentation basins and the Georgetown Reservoir are collected, thickened and dewatered at the Dalecarlia WTP.**
- ◆ **Contract haul water treatment residuals from the Dalecarlia WTP to an existing permitted disposal facility.**



Residuals Processing Would Occur on Six Acres of the Dalecarlia Treatment Plant





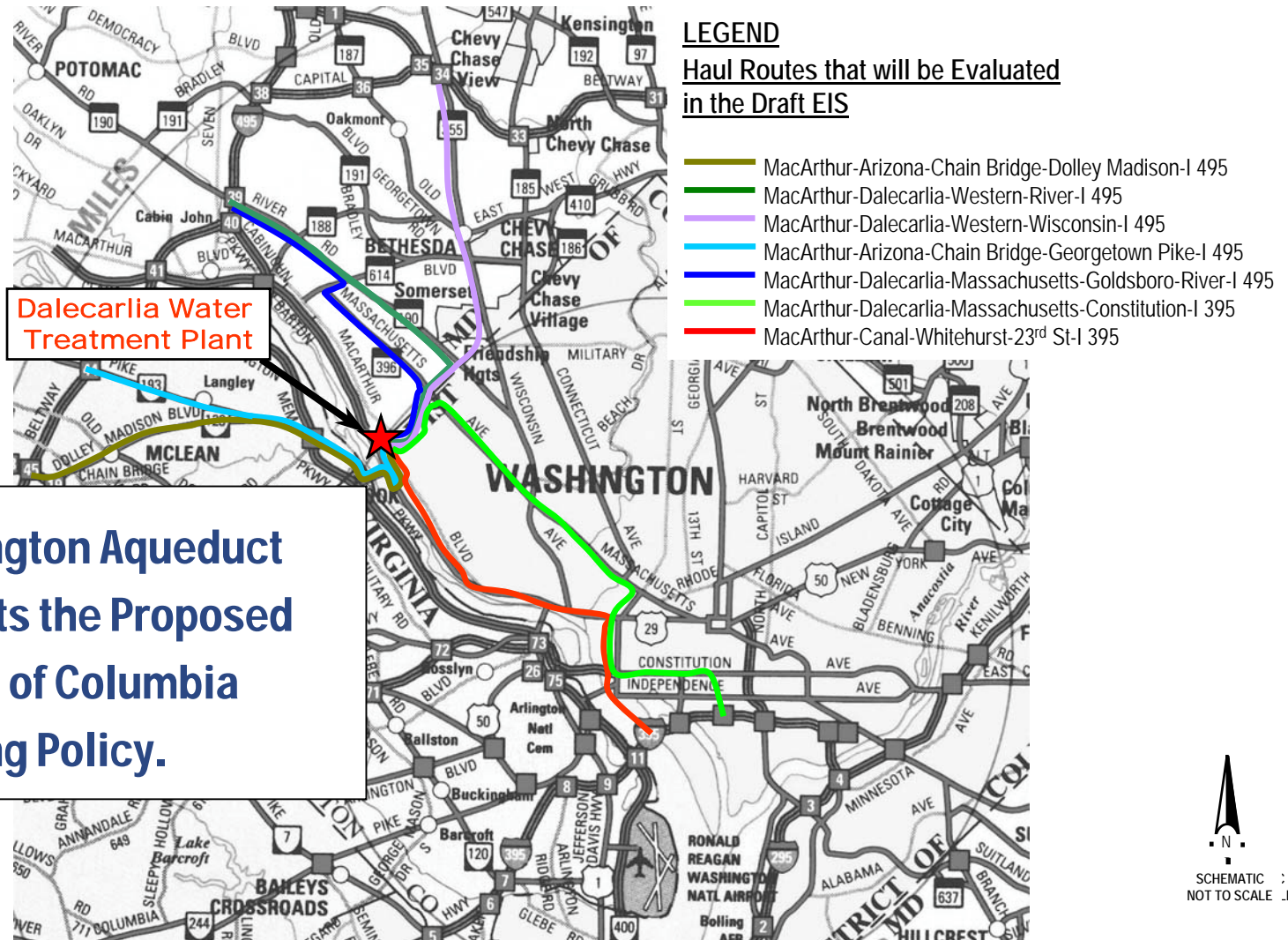
Water Treatment Residuals Would Be Trucked to an Existing Permitted Facility



Daily Average (M - F) Number of Loads			
20 Ton Trucks		10 Ton Trucks	
Current	20 Year Projection	Current	20 Year Projection
9	10	16	20



Potential Truck Routes that will be Evaluated in the Draft EIS for Dalecarlia Water Treatment Plant Alternative





Multiple Truck Routes Will Be Investigated to Allow for:

- ◆ **Operational Flexibility Within Context of District of Columbia Proposed Trucking Policy**
- ◆ **To Understand the Full Range of Impacts on Neighborhood Traffic**

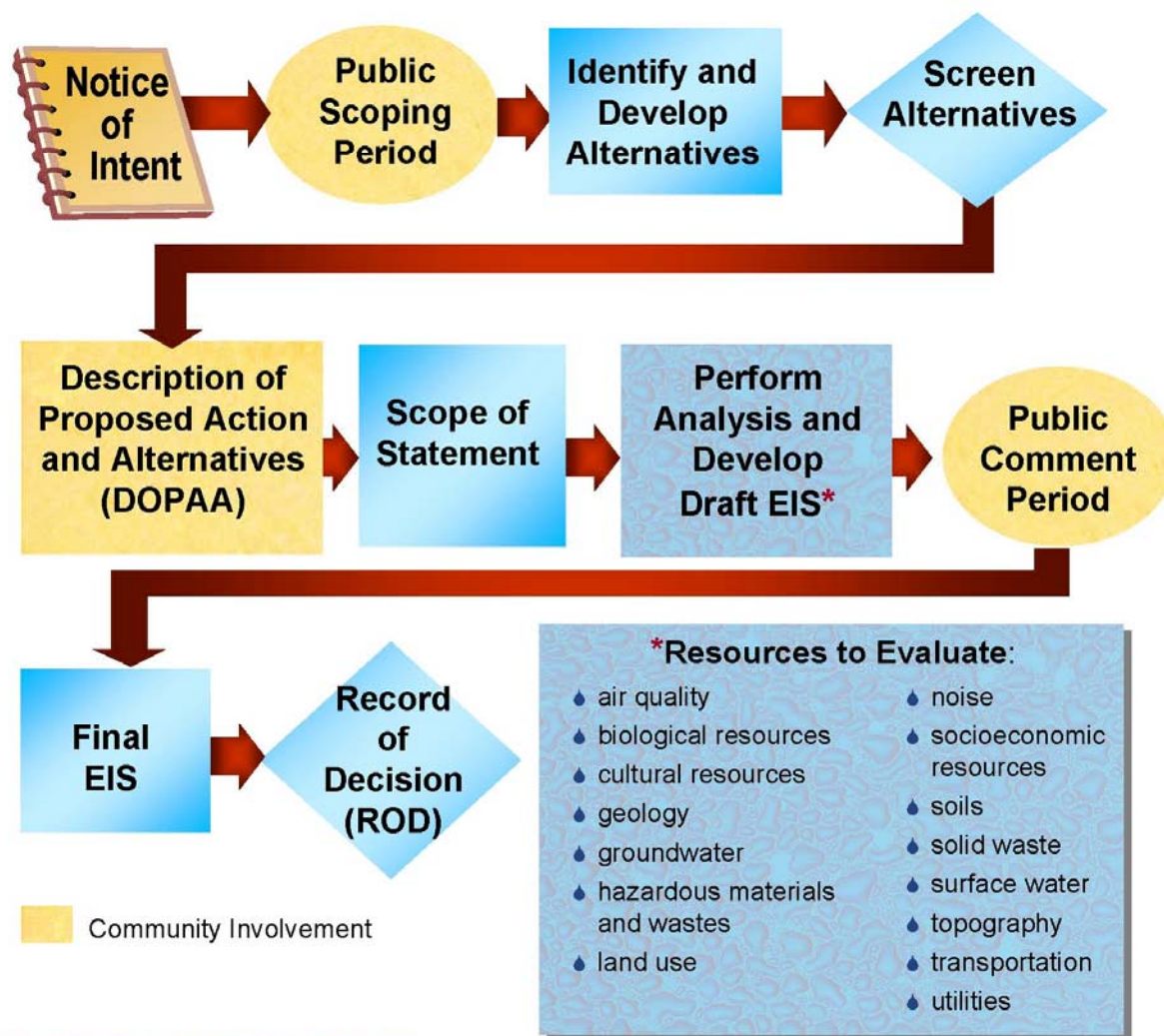


Areas of Concern in the Environmental Impact Statement for Dalecarlia Water Treatment Plant Alternative

- ◆ **Truck traffic**
- ◆ **Noise**
- ◆ **Visual**



EIS Examines All Issues and Involves the Public and Regulatory Agencies



EIS's provide full and fair discussion of significant environmental impacts and inform decision makers and the public of reasonable alternatives to avoid or minimize adverse impacts



Three Project Phases Lead to Full Permit Compliance by the End of 2009

