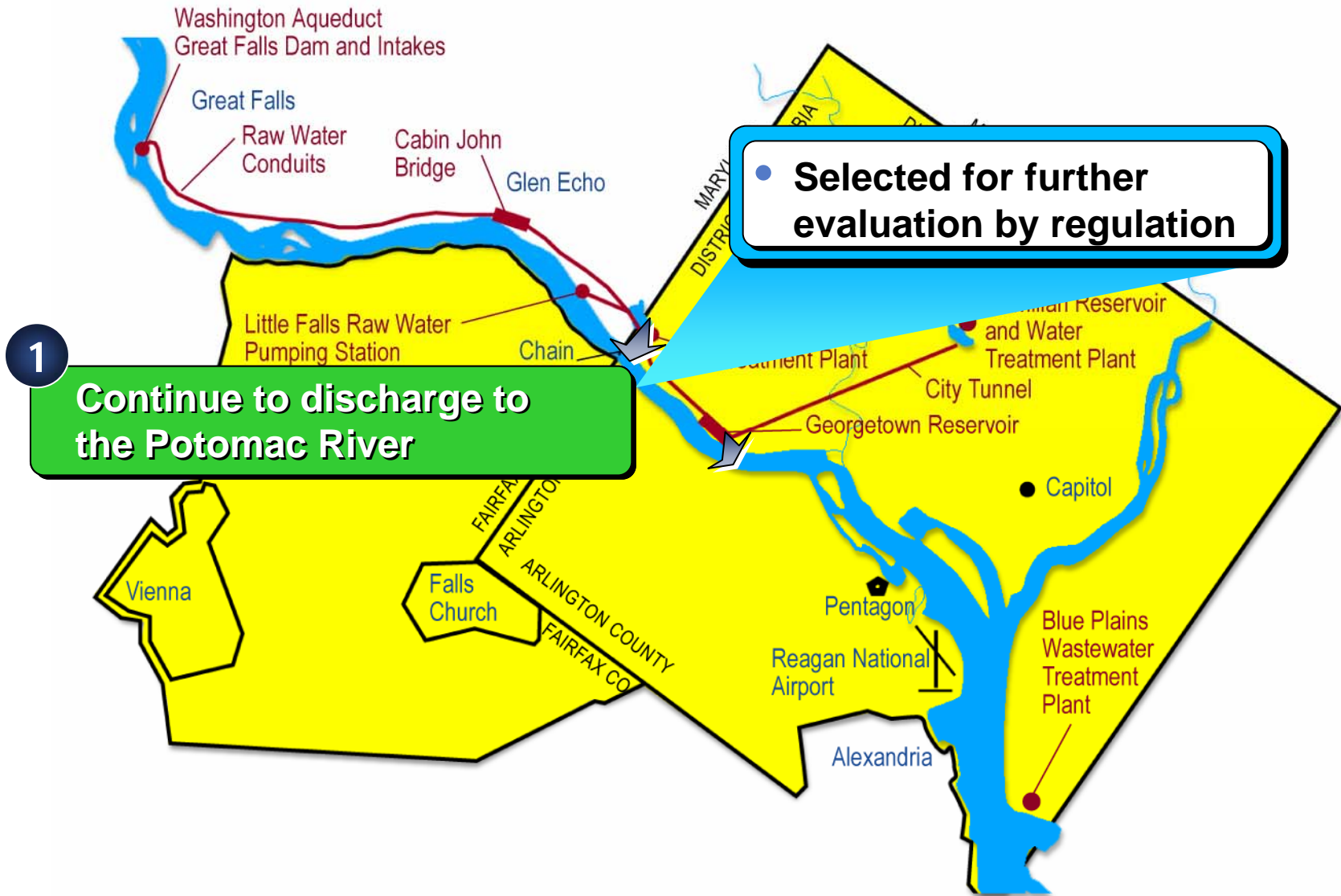




# No action alternative





# 7 alternatives do not require continuous trucking from the Dalecarlia WTP

3

Washington Aqueduct

Process water treatment & Forebay residuals at Dalecarlia and dispose in Dalecarlia monofill

2

Process water treatment residuals and dispose in Dalecarlia monofill: Periodically haul Forebay residuals offsite

7

Thicken at Dalecarlia and pump via pipeline to neighboring water utility

8

Thicken at Dalecarlia and pump via pipeline to dewatering location

5

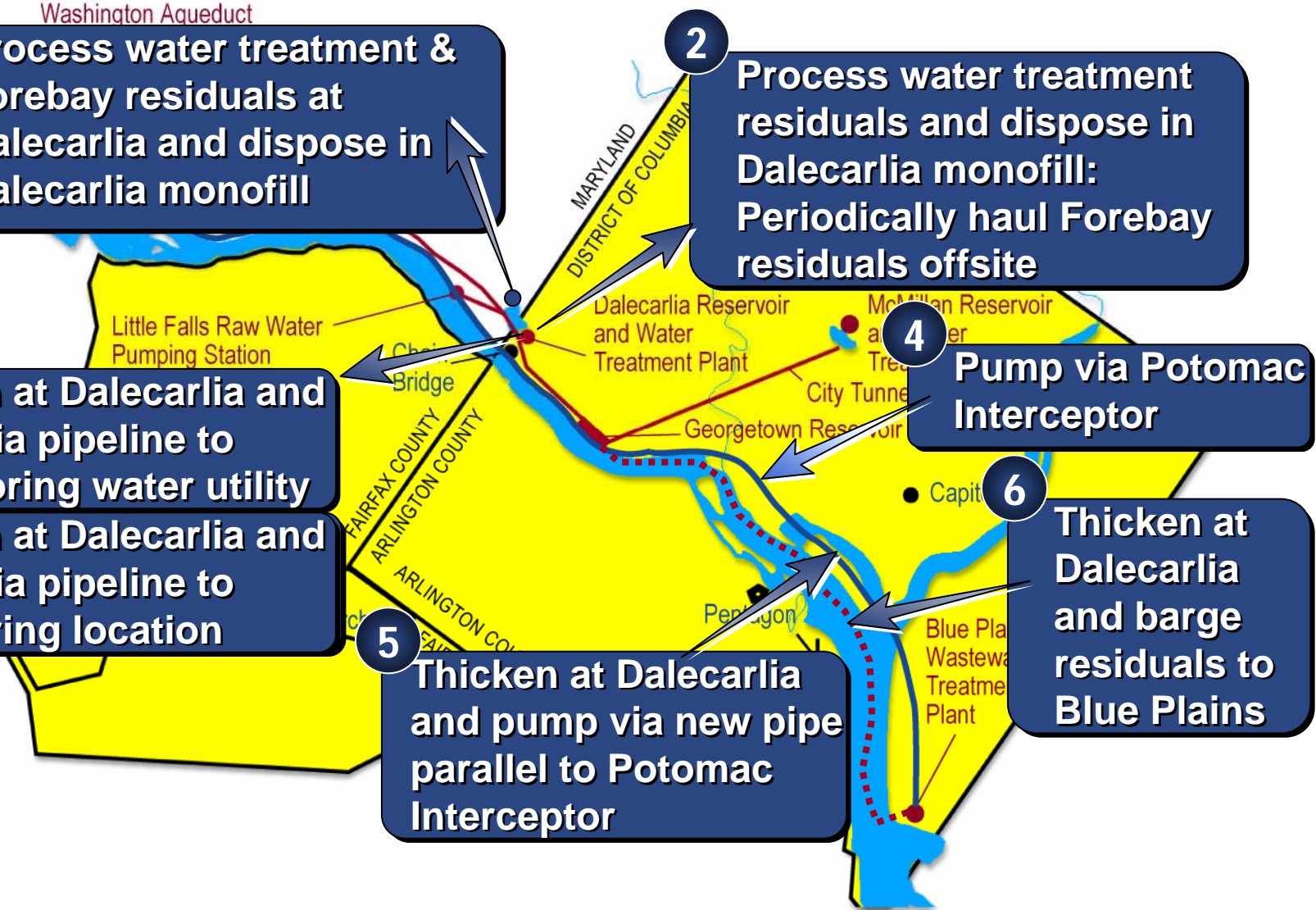
Thicken at Dalecarlia and pump via new pipe parallel to Potomac Interceptor

4

Pump via Potomac Interceptor

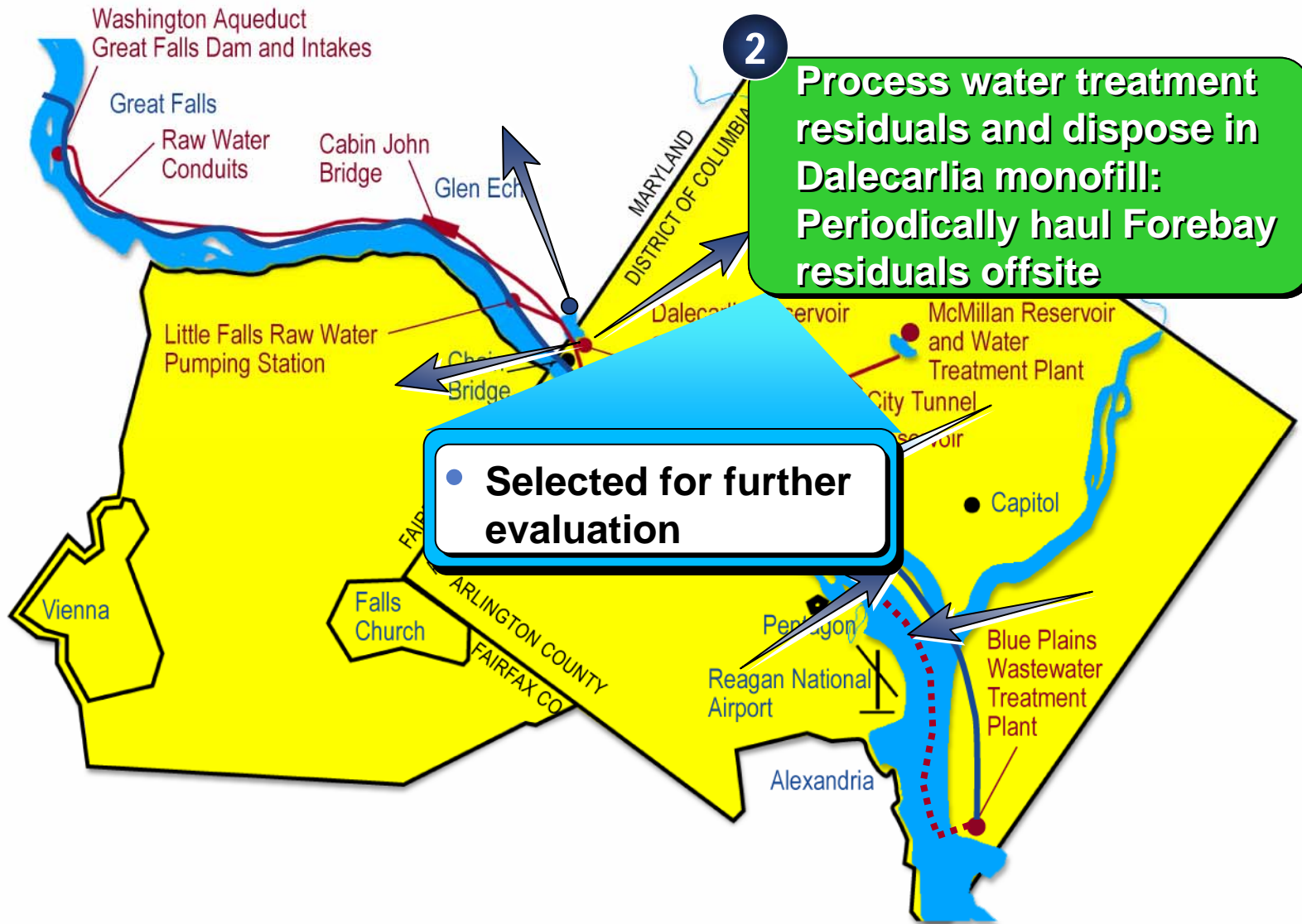
6

Thicken at Dalecarlia and barge residuals to Blue Plains





# 7 alternatives do not require continuous trucking from the Dalecarlia WTP







# 7 alternatives do not require continuous trucking from the Dalecarlia WTP

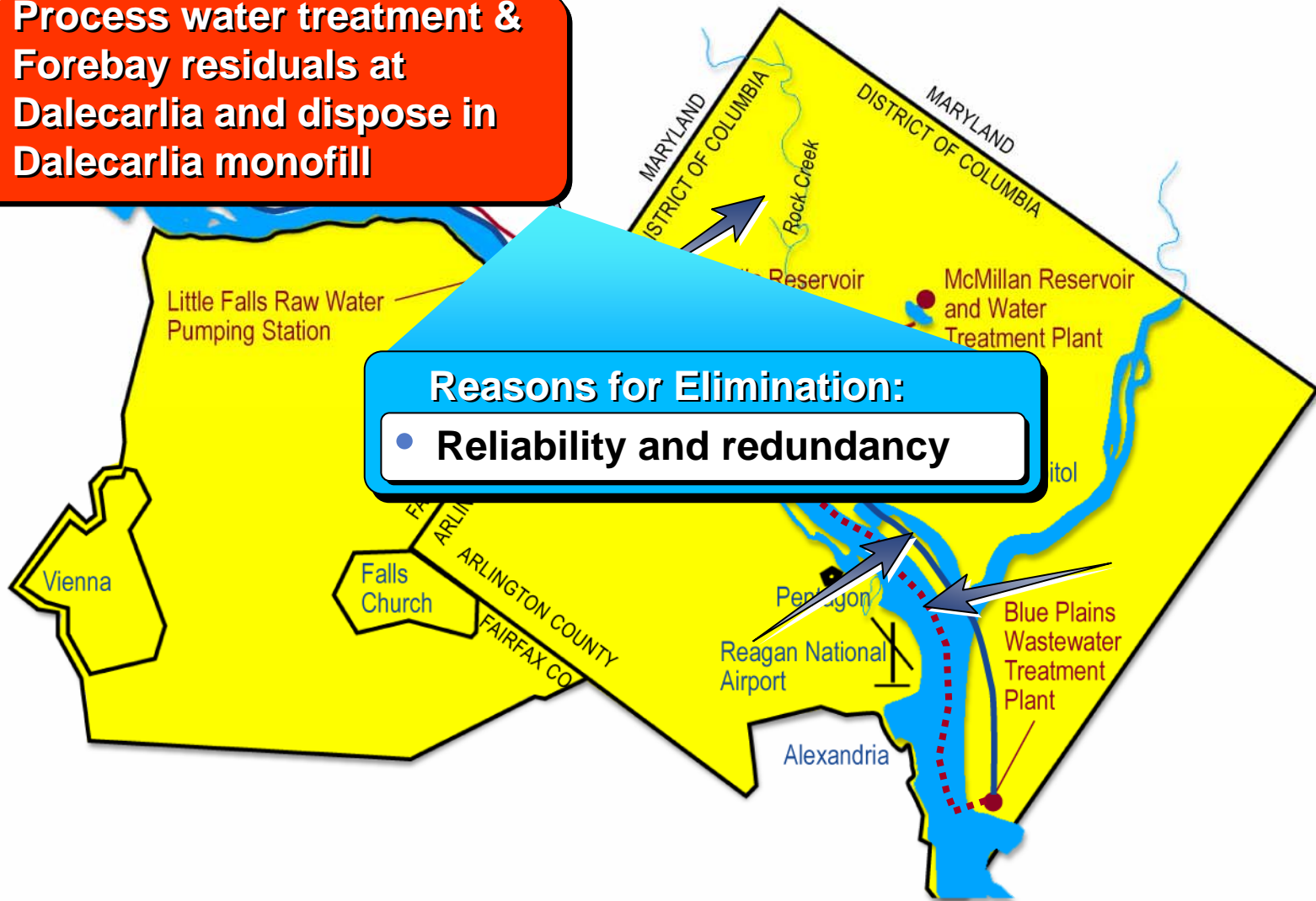
3

Washington Aqueduct

**Process water treatment & Forebay residuals at Dalecarlia and dispose in Dalecarlia monofill**

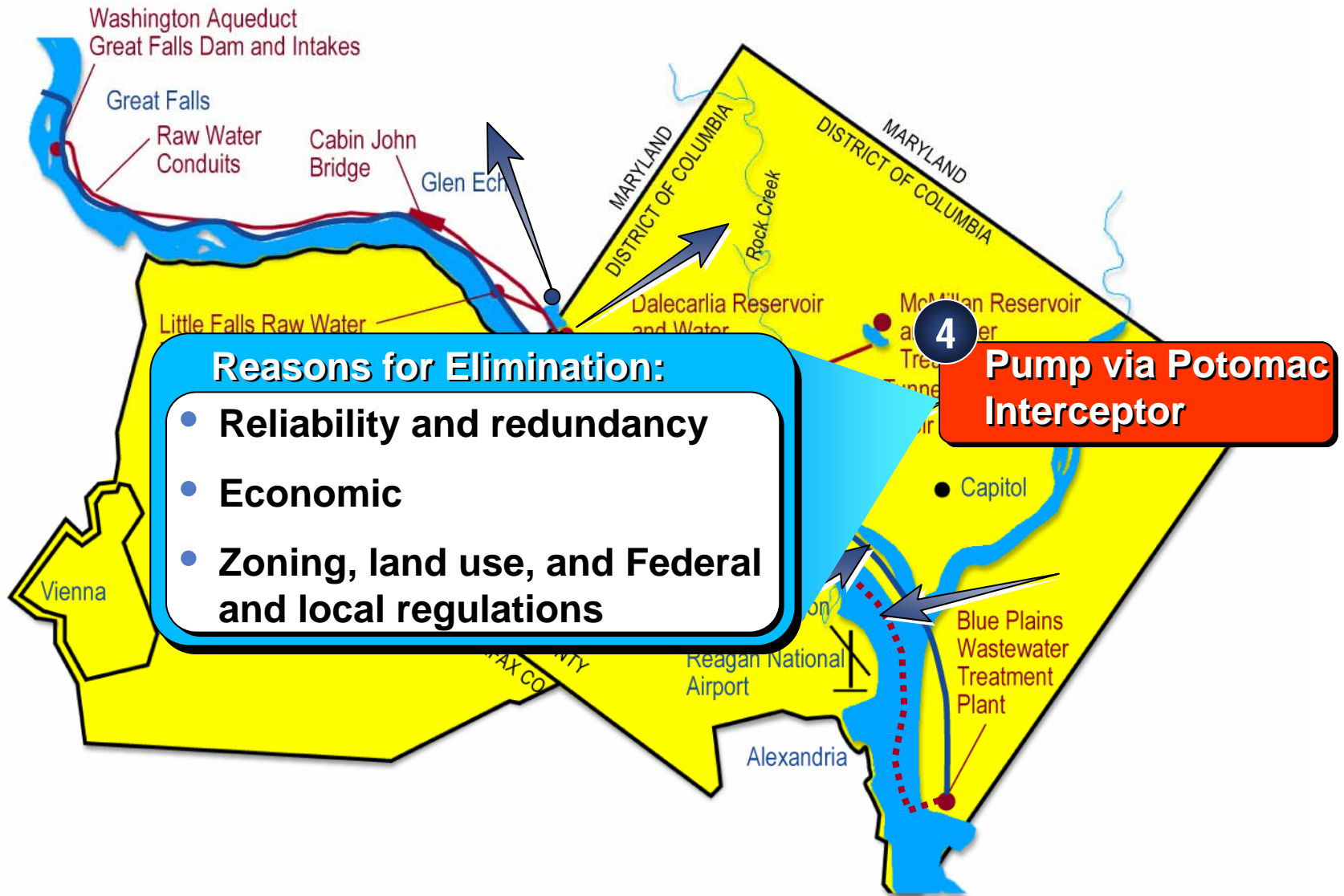
## Reasons for Elimination:

- **Reliability and redundancy**



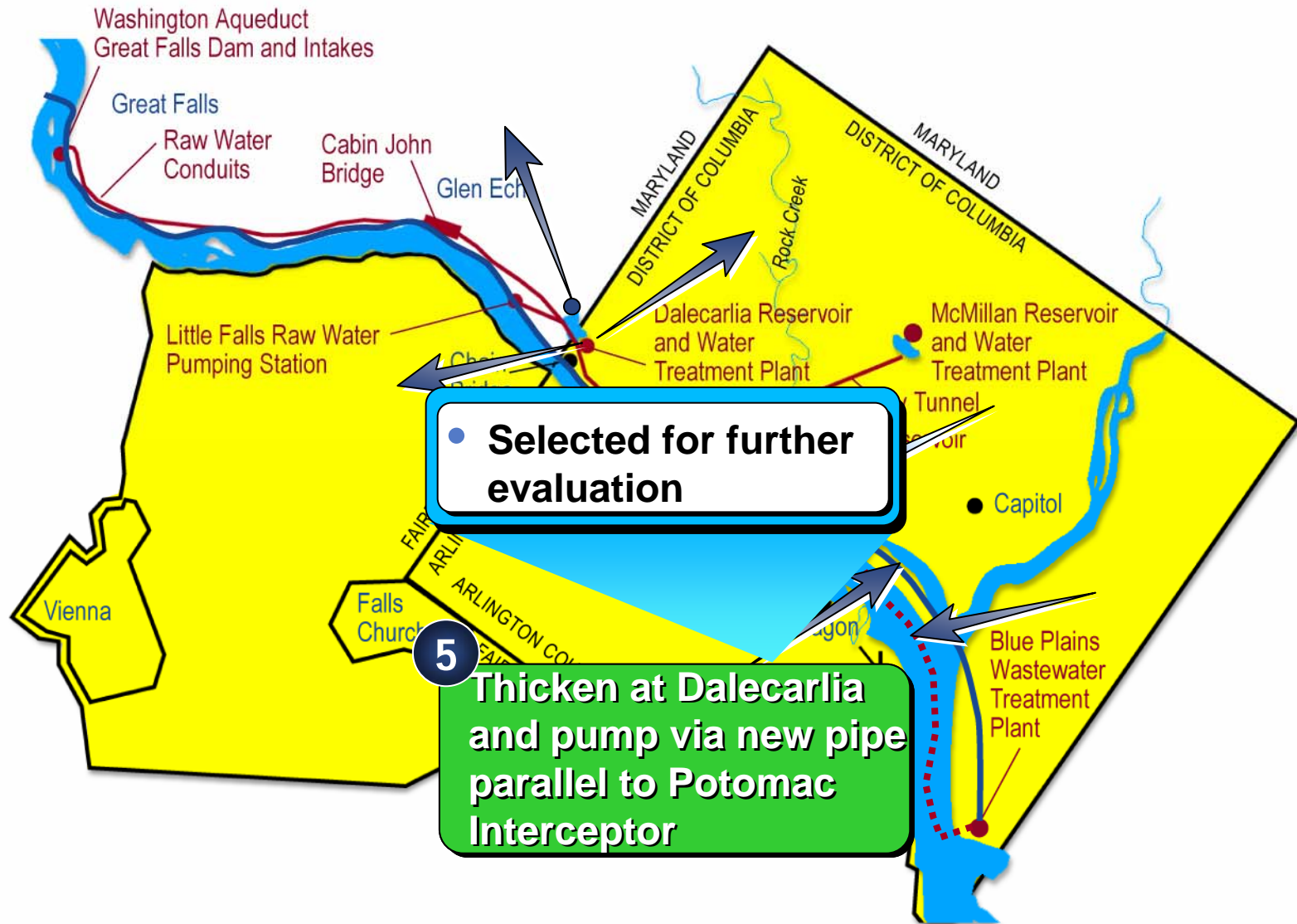


# 7 alternatives do not require continuous trucking from the Dalecarlia WTP





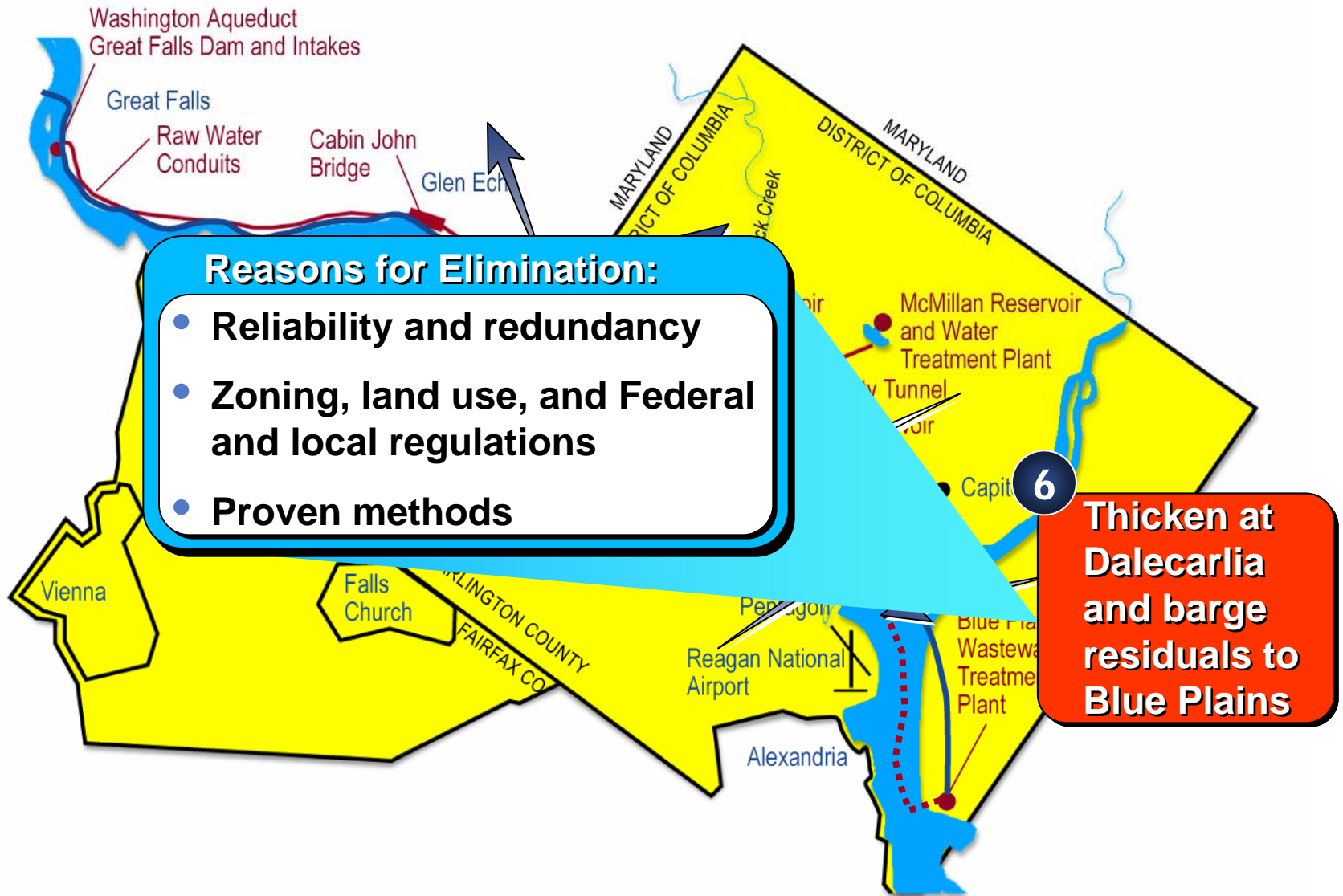
# 7 alternatives do not require continuous trucking from the Dalecarlia WTP







# 7 alternatives do not require continuous trucking from the Dalecarlia WTP

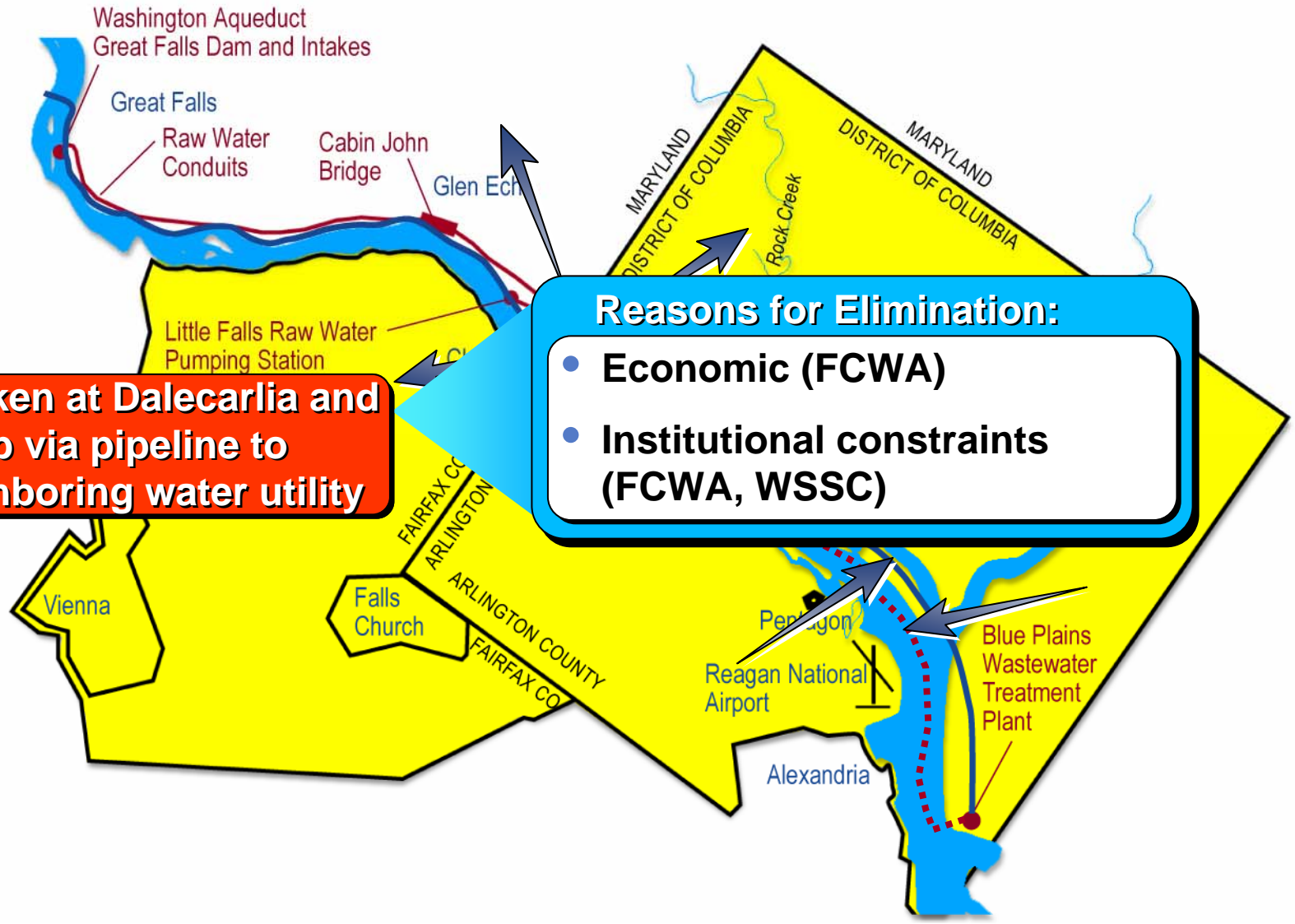




# 7 alternatives do not require continuous trucking from the Dalecarlia WTP

**7** Thicken at Dalecarlia and pump via pipeline to neighboring water utility

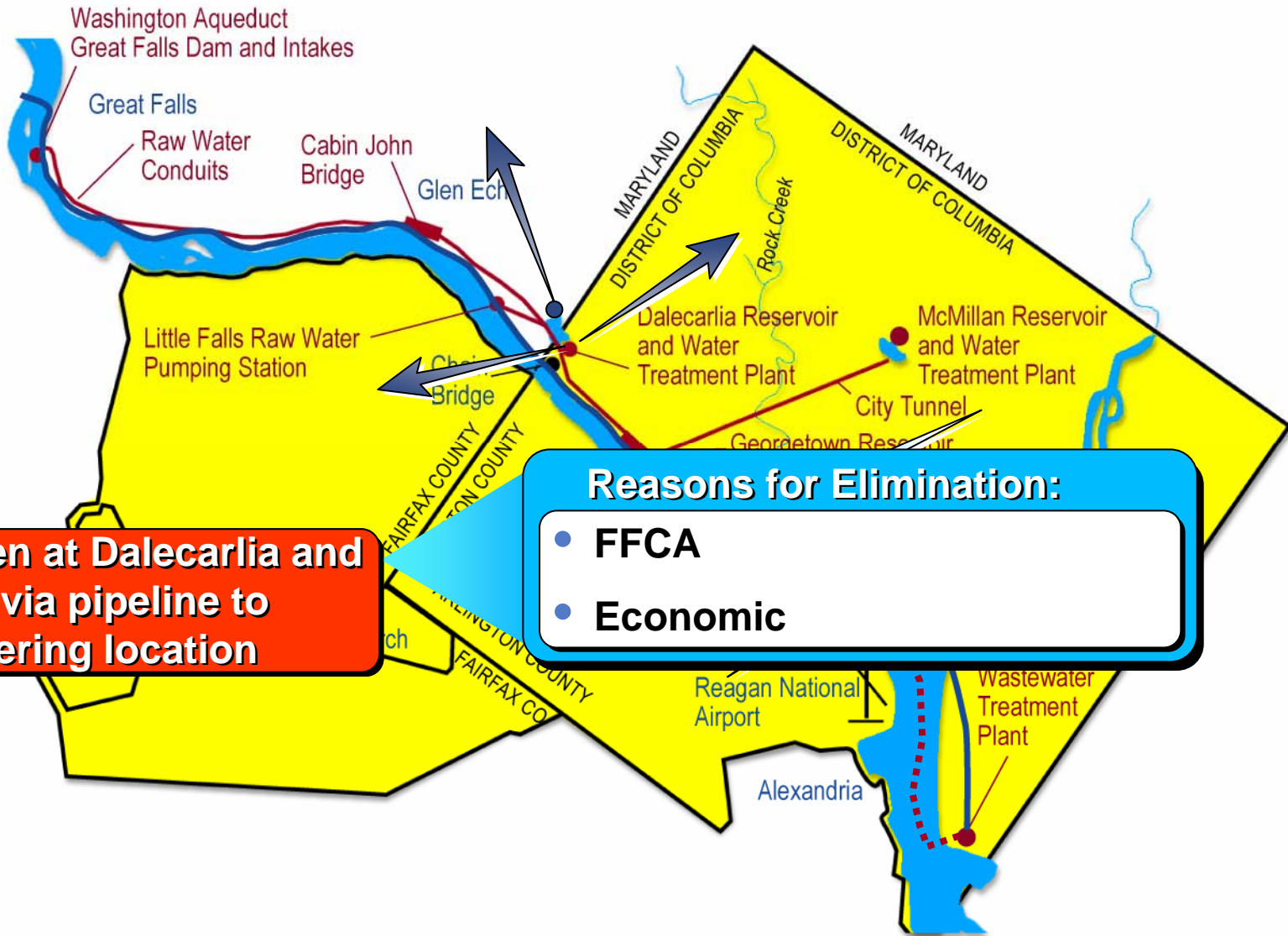
- Reasons for Elimination:**
- Economic (FCWA)
  - Institutional constraints (FCWA, WSSC)







# 7 alternatives do not require continuous trucking from the Dalecarlia WTP



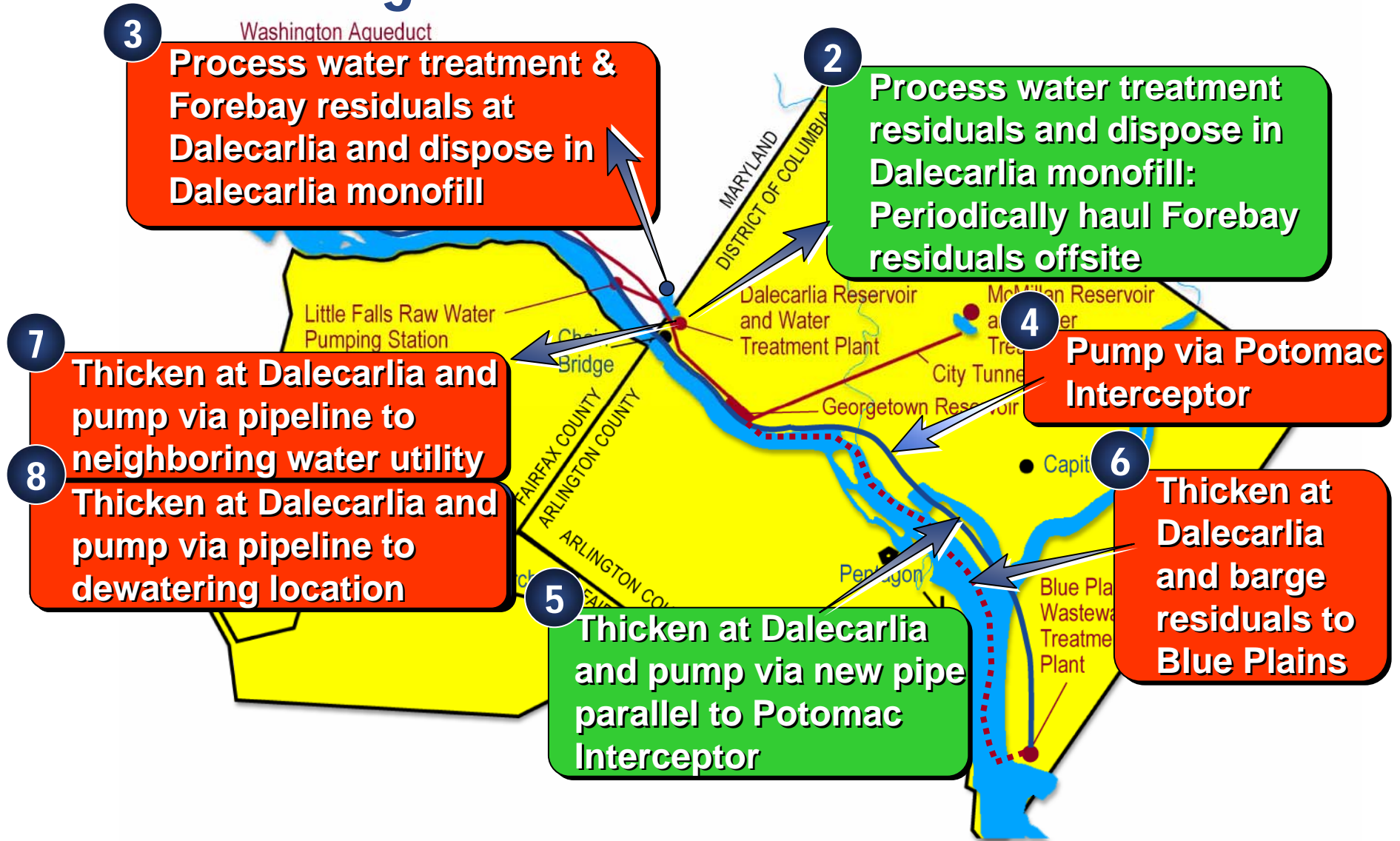
8 Thicken at Dalecarlia and pump via pipeline to dewatering location

**Reasons for Elimination:**

- **FFCA**
- **Economic**

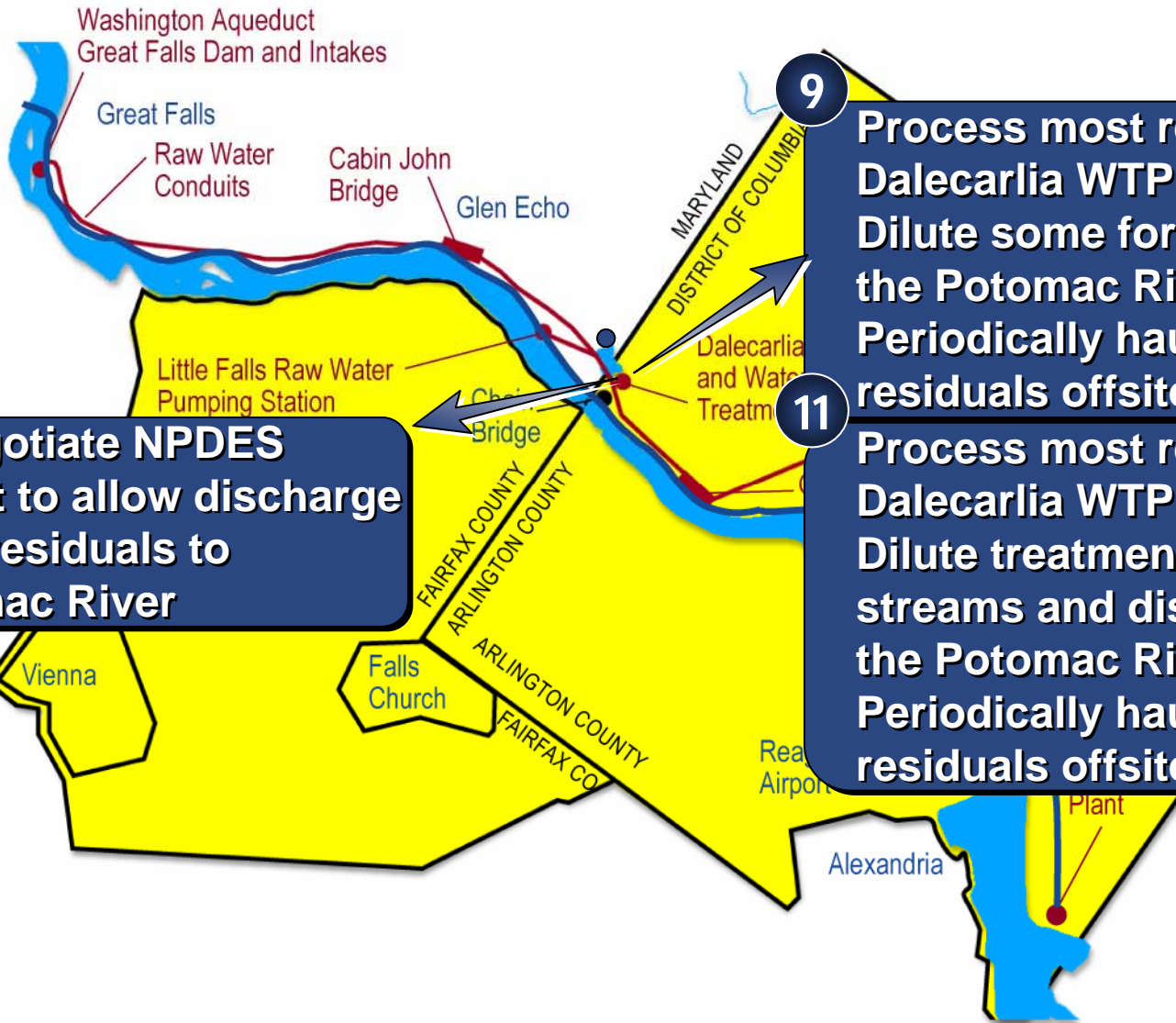


# 7 alternatives do not require continuous trucking from the Dalecarlia WTP





# Alternatives with a discharge to the Potomac River



**10**  
Renegotiate NPDES Permit to allow discharge of all residuals to Potomac River

**9**  
Process most residuals at Dalecarlia WTP: Haul offsite; Dilute some for discharge to the Potomac River; Periodically haul Forebay residuals offsite

**11**  
Process most residuals at Dalecarlia WTP: Haul offsite; Dilute treatment side streams and discharge to the Potomac River; Periodically haul Forebay residuals offsite





# Alternatives with a discharge to the Potomac River

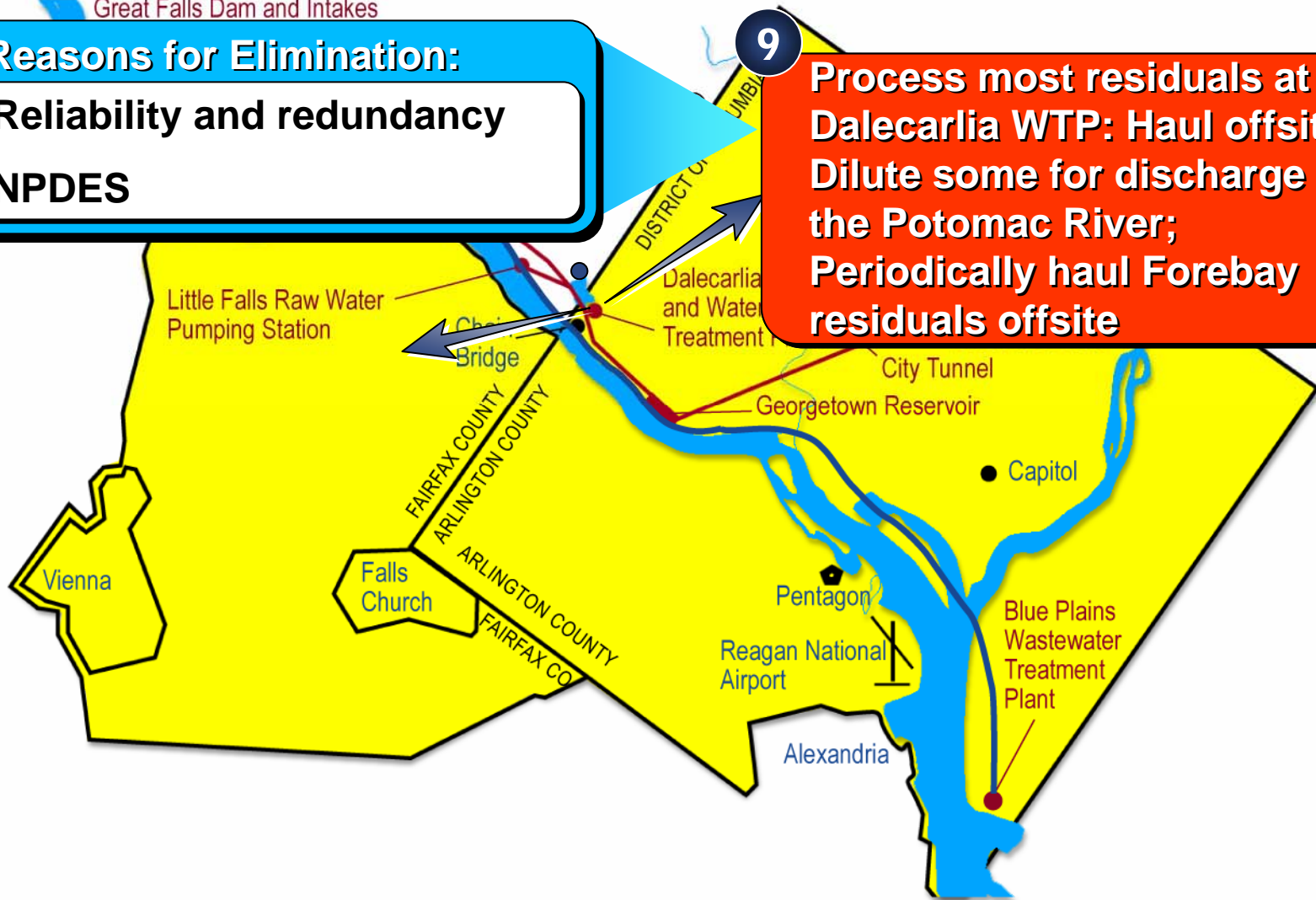
Washington Aqueduct  
Great Falls Dam and Intakes

## Reasons for Elimination:

- Reliability and redundancy
- NPDES

9

Process most residuals at Dalecarlia WTP: Haul offsite; Dilute some for discharge to the Potomac River; Periodically haul Forebay residuals offsite





# Alternatives with a discharge to the Potomac River

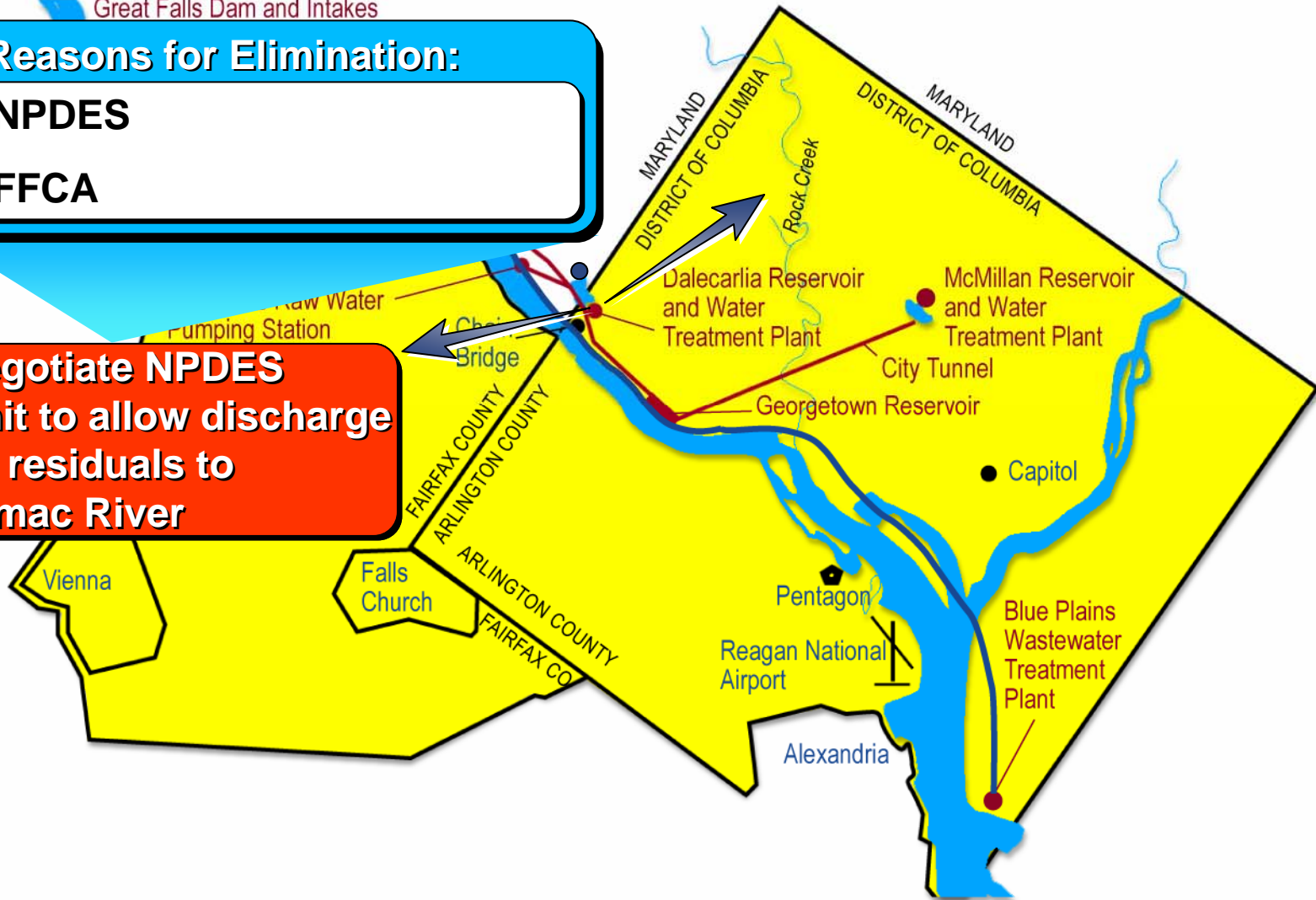
Washington Aqueduct  
Great Falls Dam and Intakes

## Reasons for Elimination:

- NPDES
- FFCA

10

**Renegotiate NPDES Permit to allow discharge of all residuals to Potomac River**



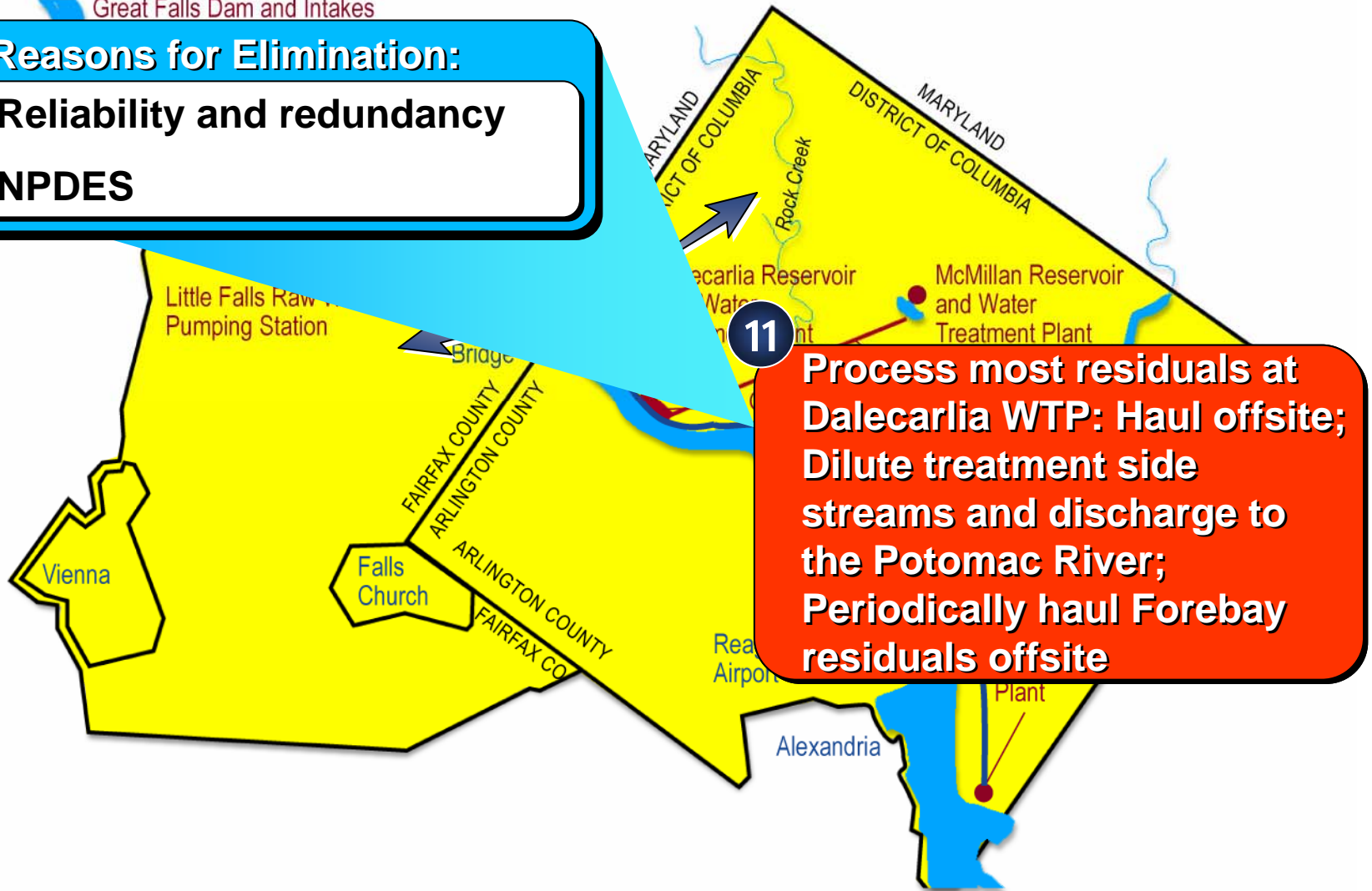


# Alternatives with a discharge to the Potomac River

Washington Aqueduct  
Great Falls Dam and Intakes

## Reasons for Elimination:

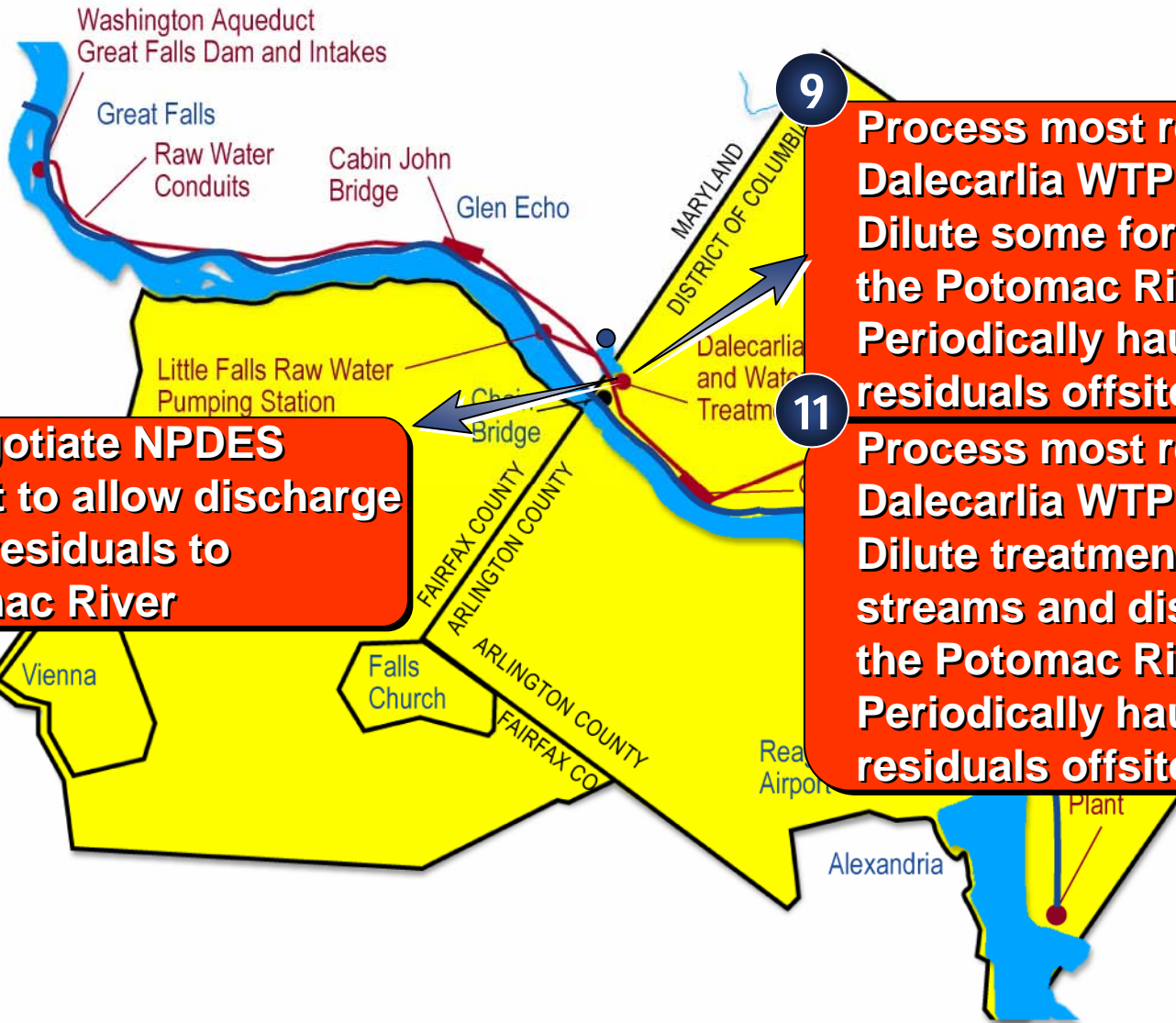
- Reliability and redundancy
- NPDES







# Alternatives with a discharge to the Potomac River



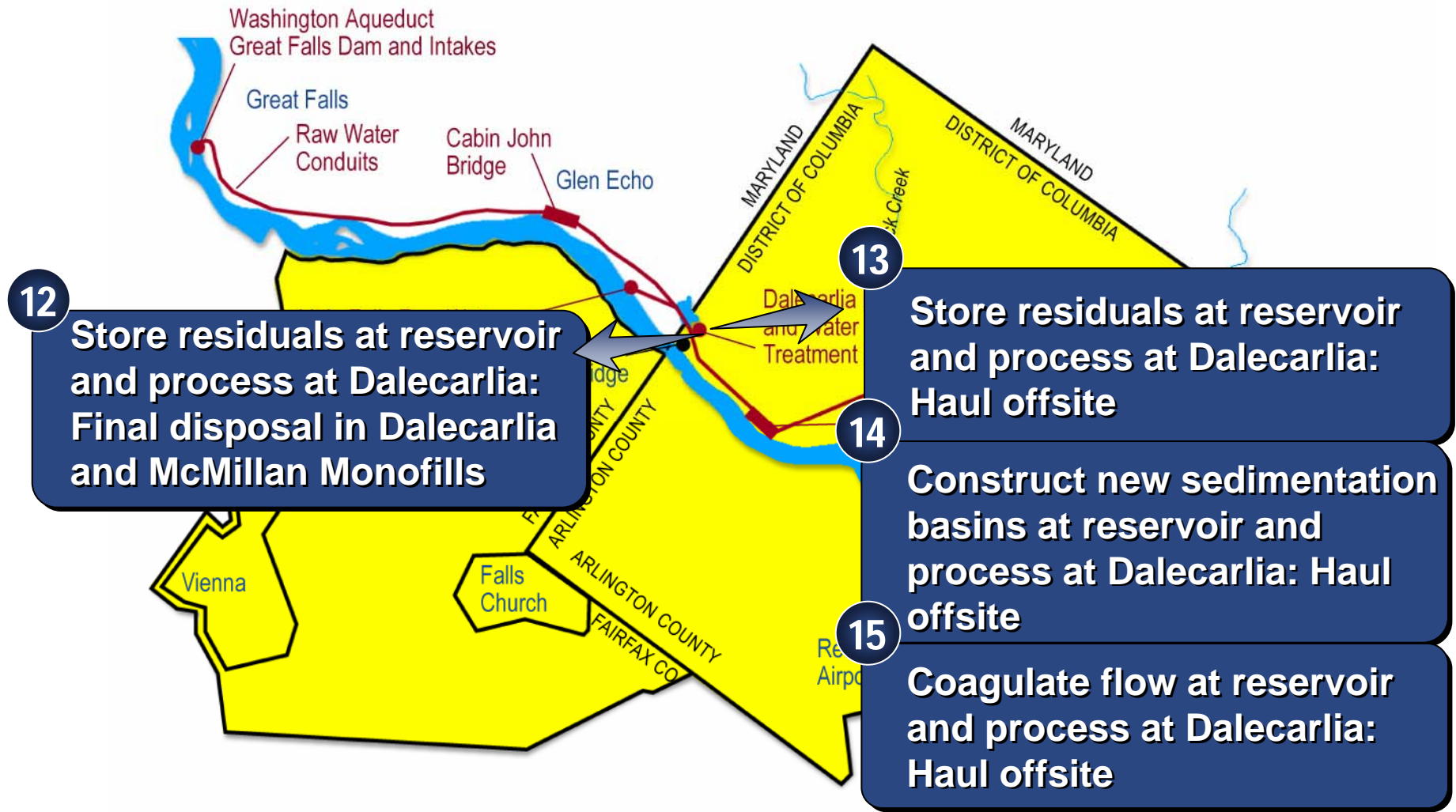
**10**  
**Renegotiate NPDES Permit to allow discharge of all residuals to Potomac River**

**9**  
**Process most residuals at Dalecarlia WTP: Haul offsite; Dilute some for discharge to the Potomac River; Periodically haul Forebay residuals offsite**

**11**  
**Process most residuals at Dalecarlia WTP: Haul offsite; Dilute treatment side streams and discharge to the Potomac River; Periodically haul Forebay residuals offsite**



# 4 alternatives involve the Dalecarlia Reservoir





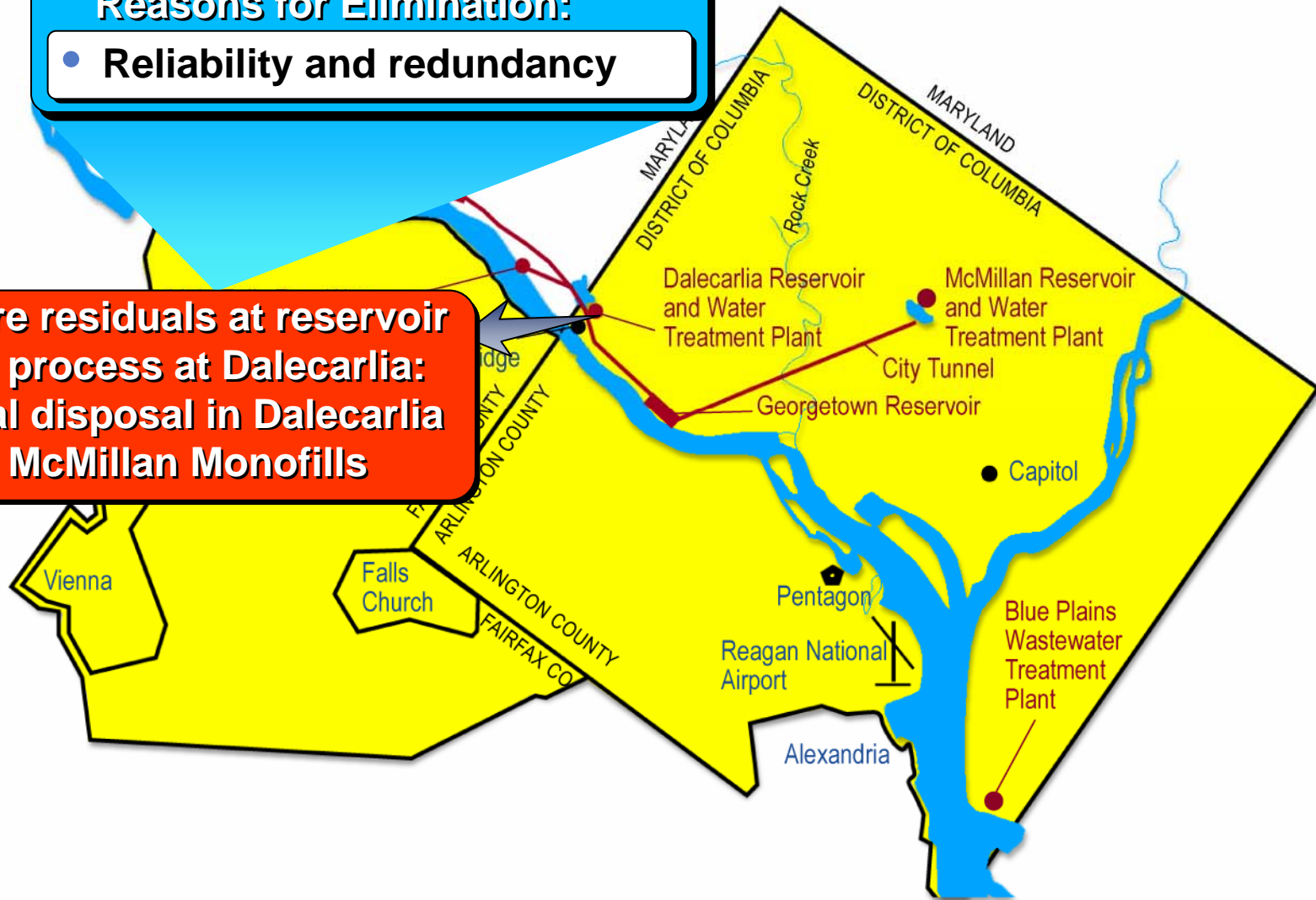
# 4 alternatives involve the Dalecarlia Reservoir

## Reasons for Elimination:

- Reliability and redundancy

12

**Store residuals at reservoir and process at Dalecarlia:  
Final disposal in Dalecarlia and McMillan Monofills**



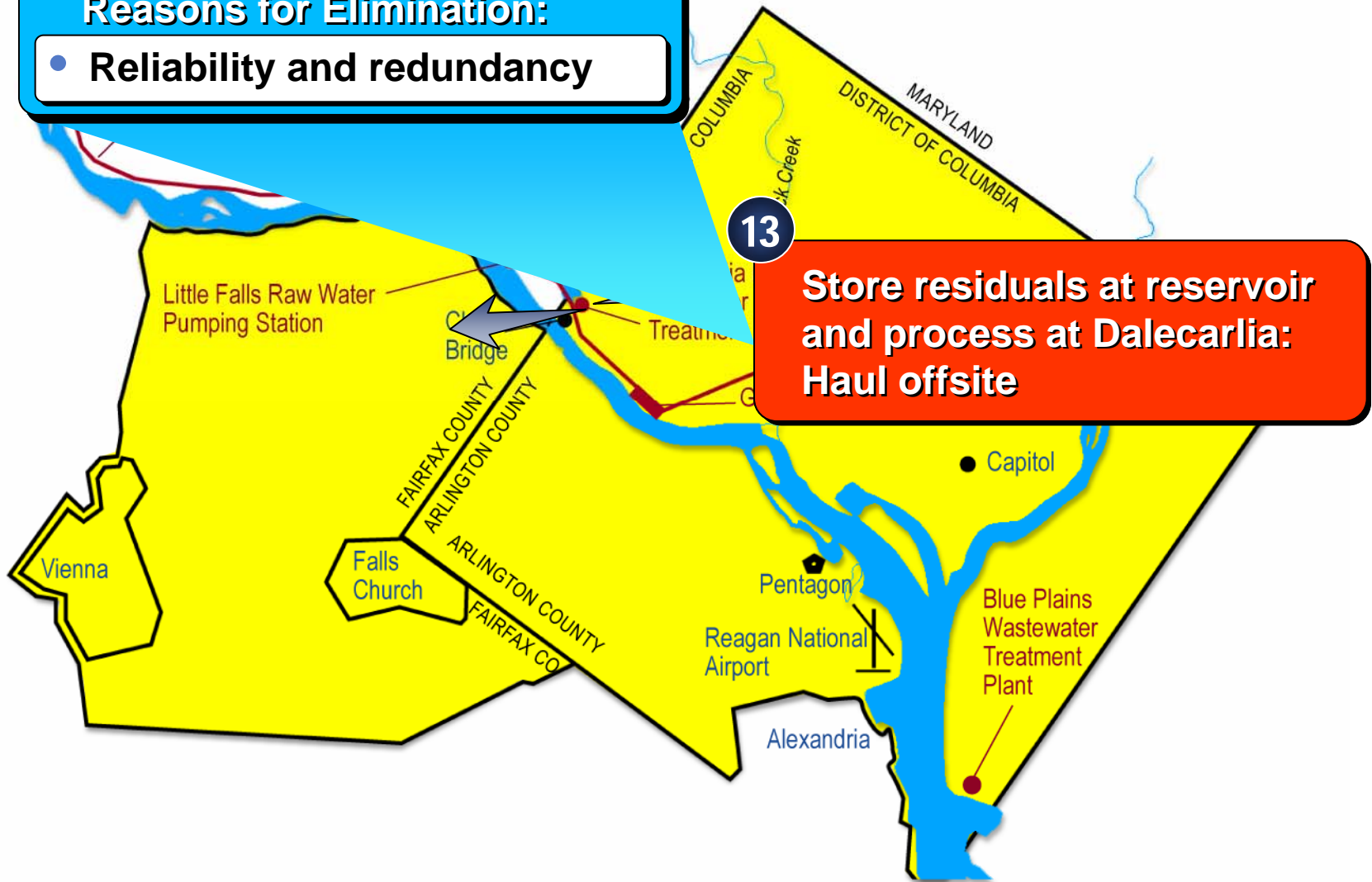




# 4 alternatives involve the Dalecarlia Reservoir

## Reasons for Elimination:

- Reliability and redundancy





# 4 alternatives involve the Dalecarlia Reservoir



## Reasons for Elimination:

- Reliability and redundancy

**Construct new sedimentation basins at reservoir and process at Dalecarlia: Haul offsite**



# 4 alternatives involve the Dalecarlia Reservoir



## Reasons for Elimination:

- Reliability and redundancy

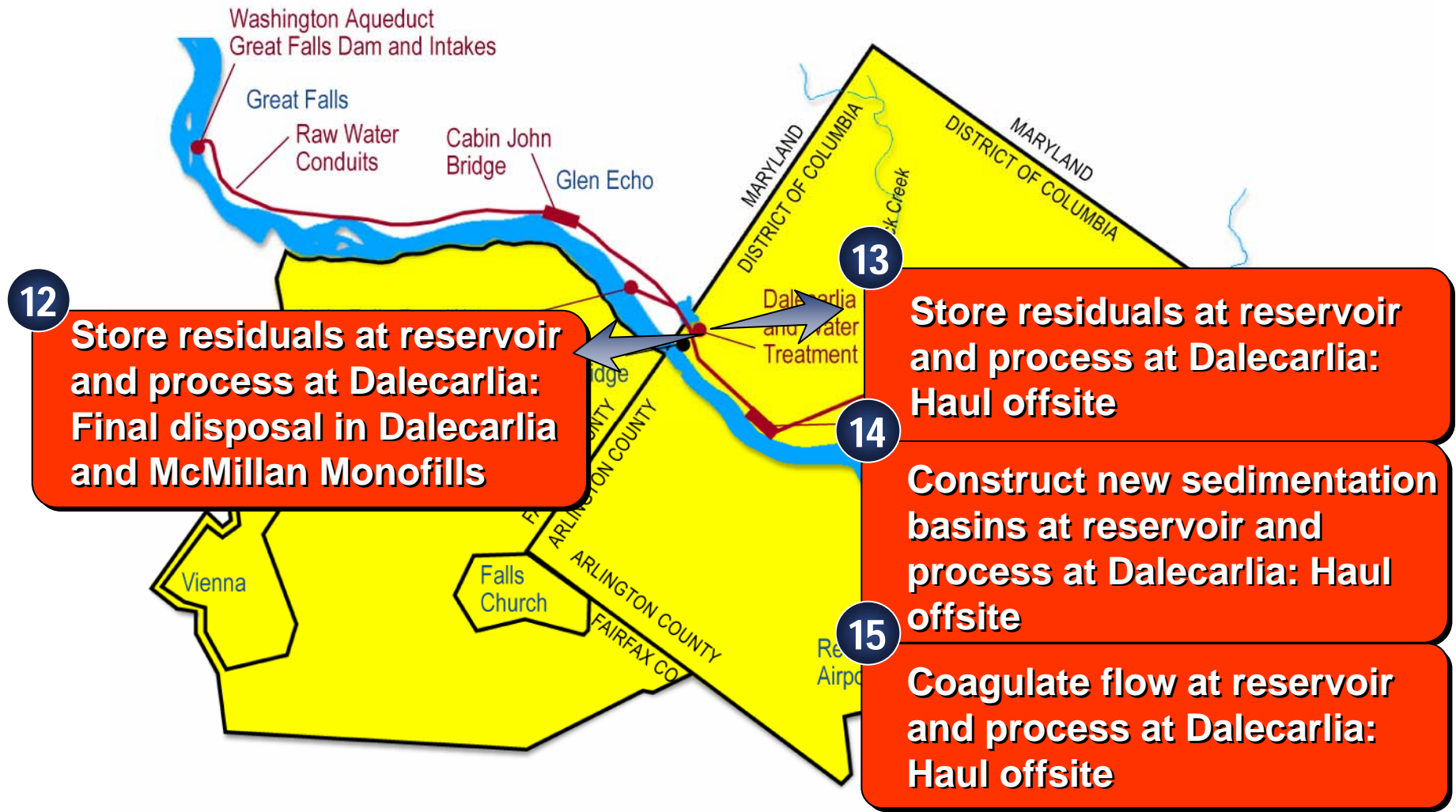
15

Coagulate flow at reservoir and process at Dalecarlia:  
Haul offsite





# 4 alternatives involve the Dalecarlia Reservoir





# 8 alternatives with facilities at the McMillan WTP

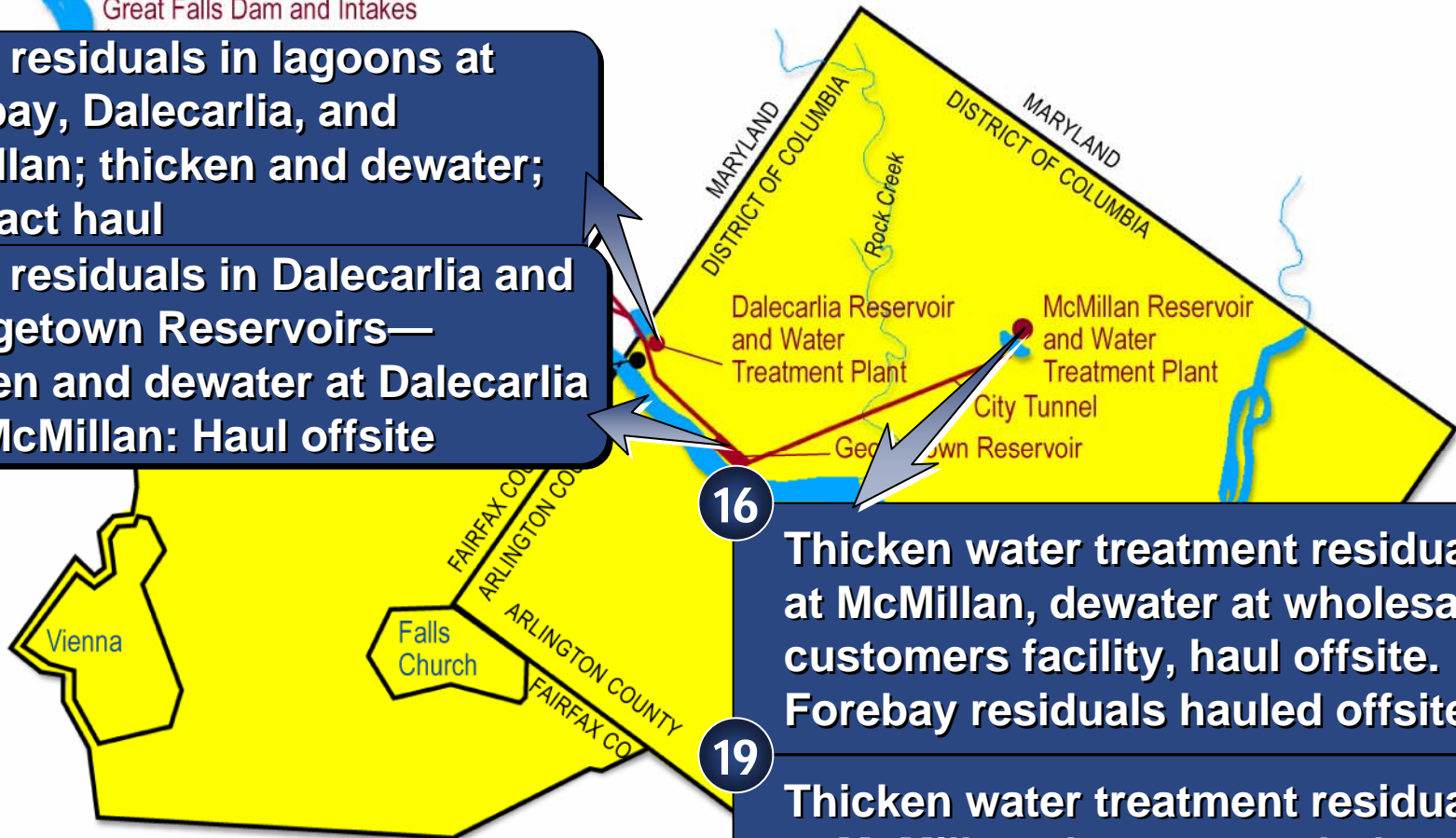
Washington Aqueduct  
Great Falls Dam and Intakes

21

Store residuals in lagoons at Forebay, Dalecarlia, and McMillan; thicken and dewater; contract haul

22

Store residuals in Dalecarlia and Georgetown Reservoirs—thicken and dewater at Dalecarlia and McMillan: Haul offsite



16

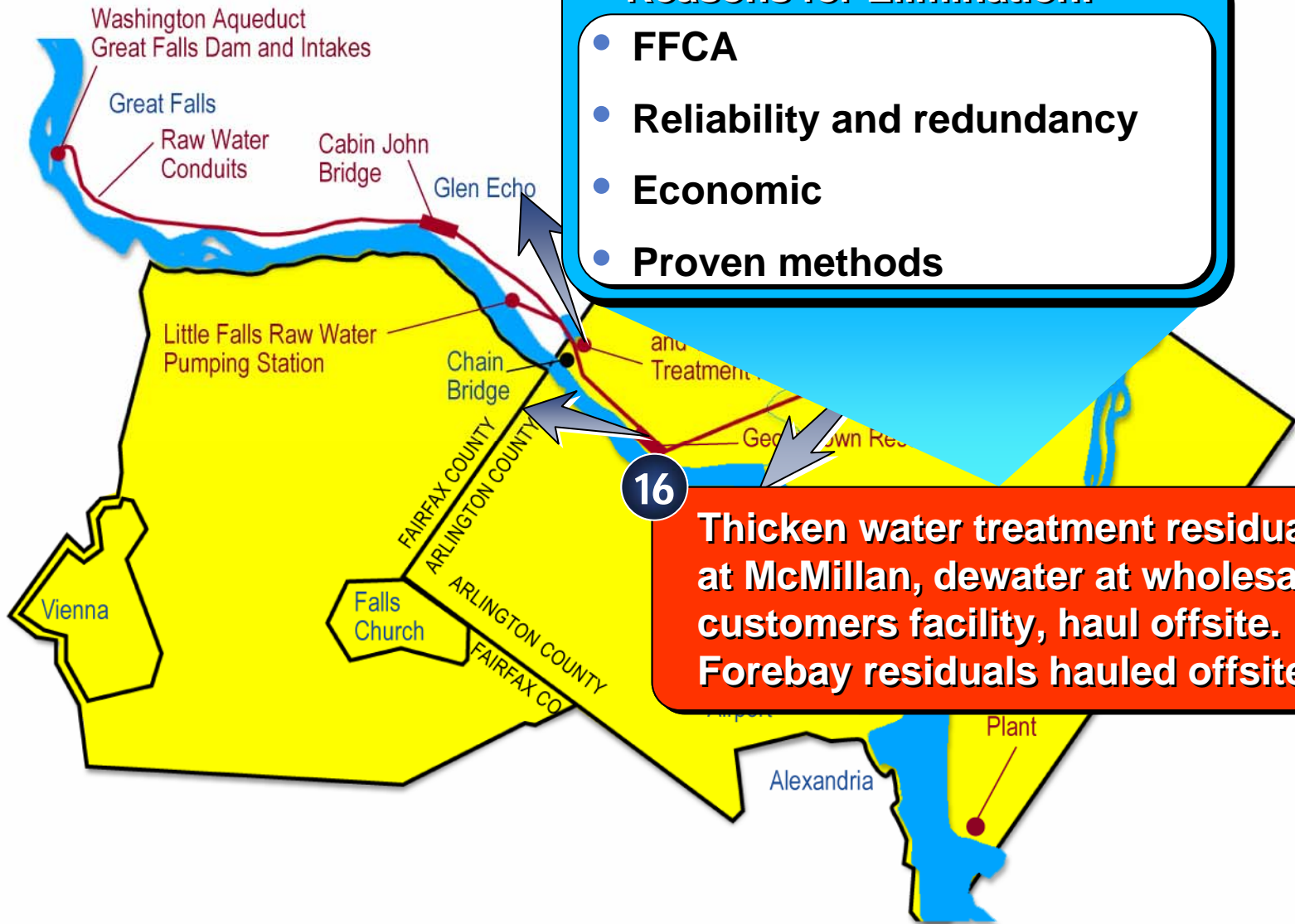
Thicken water treatment residuals at McMillan, dewater at wholesale customers facility, haul offsite. Forebay residuals hauled offsite

19

Thicken water treatment residuals at McMillan, dewater at wholesale customers facility, haul offsite. Forebay residuals to Potomac River



# 8 alternatives with facilities at the McMillan WTP



## Reasons for Elimination:

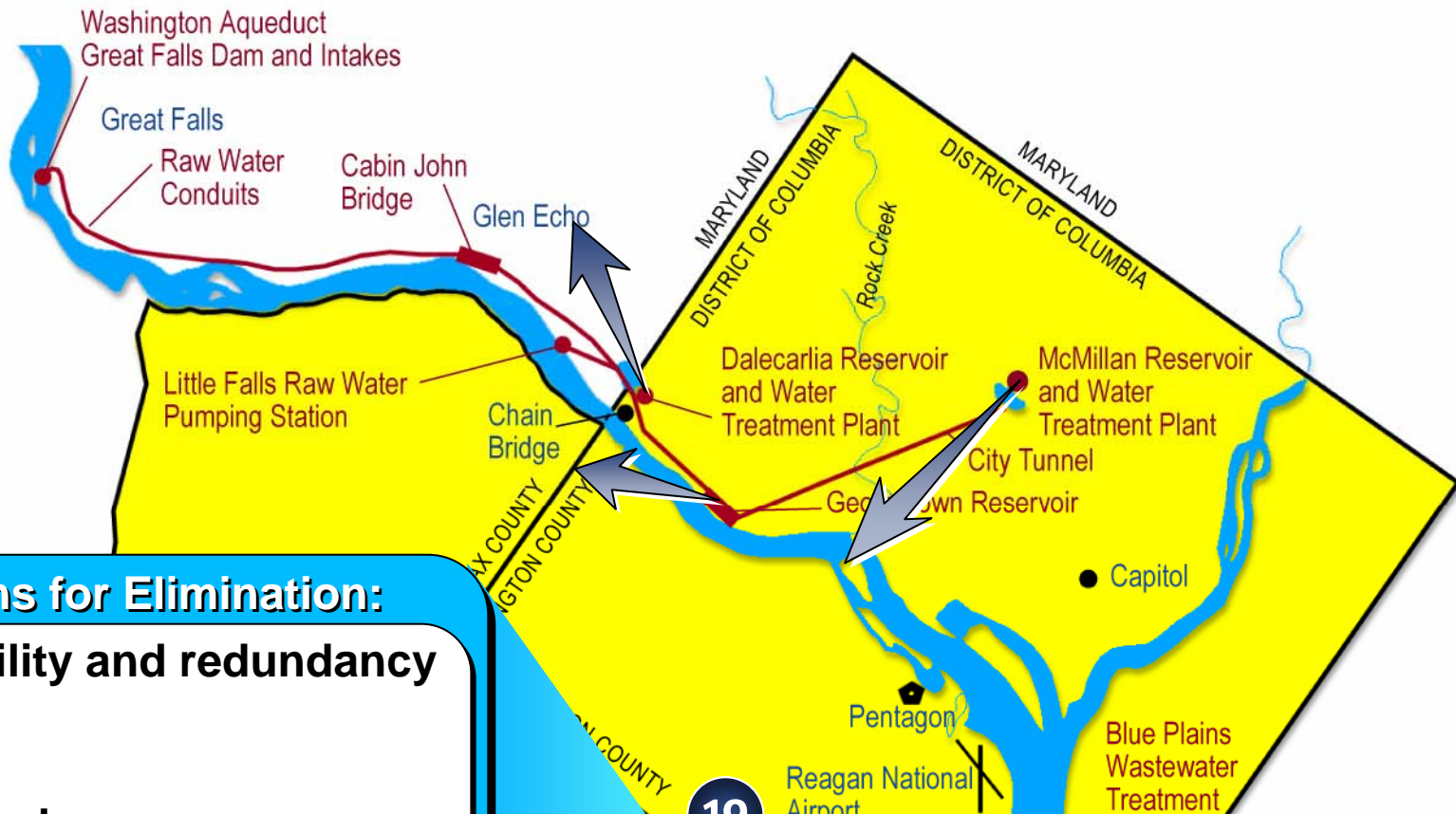
- **FFCA**
- **Reliability and redundancy**
- **Economic**
- **Proven methods**

**Thicken water treatment residuals at McMillan, dewater at wholesale customers facility, haul offsite. Forebay residuals hauled offsite**





## 8 alternatives with facilities at the McMillan WTP



### Reasons for Elimination:

- Reliability and redundancy
- FFCA
- Economic
- Proven methods
- NPDES

19

Thicken water treatment residuals at McMillan, dewater at wholesale customers facility, haul offsite. Forebay residuals to Potomac River



# 8 alternatives with facilities at the McMillan WTP

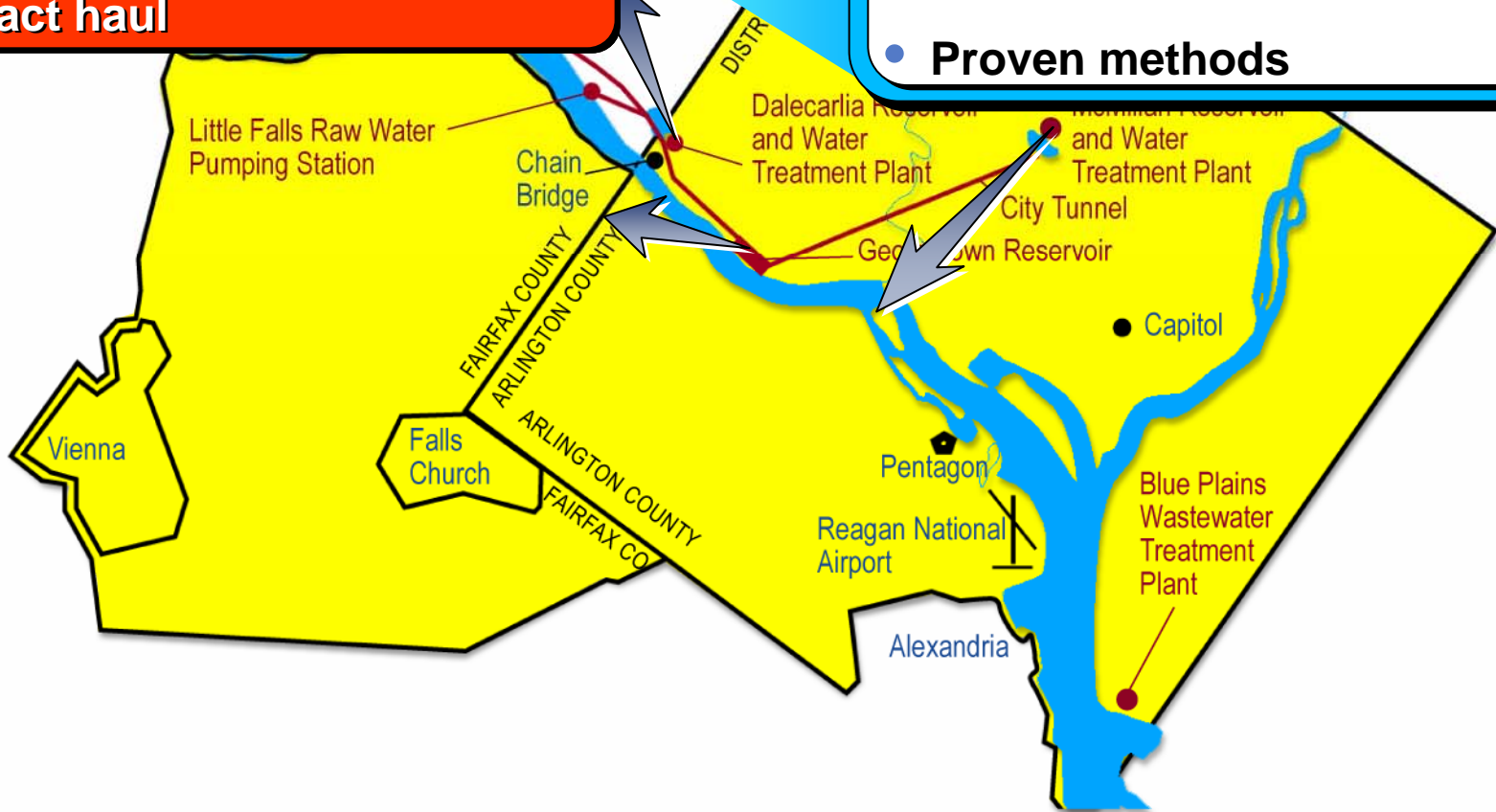
21

Store residuals in lagoons at Forebay, Dalecarlia, and McMillan; thicken and dewater; contract haul

Washington Aqueduct  
Great Falls Dam and Intakes

## Reasons for Elimination:

- FFCA
- Reliability and redundancy
- Economic
- Proven methods





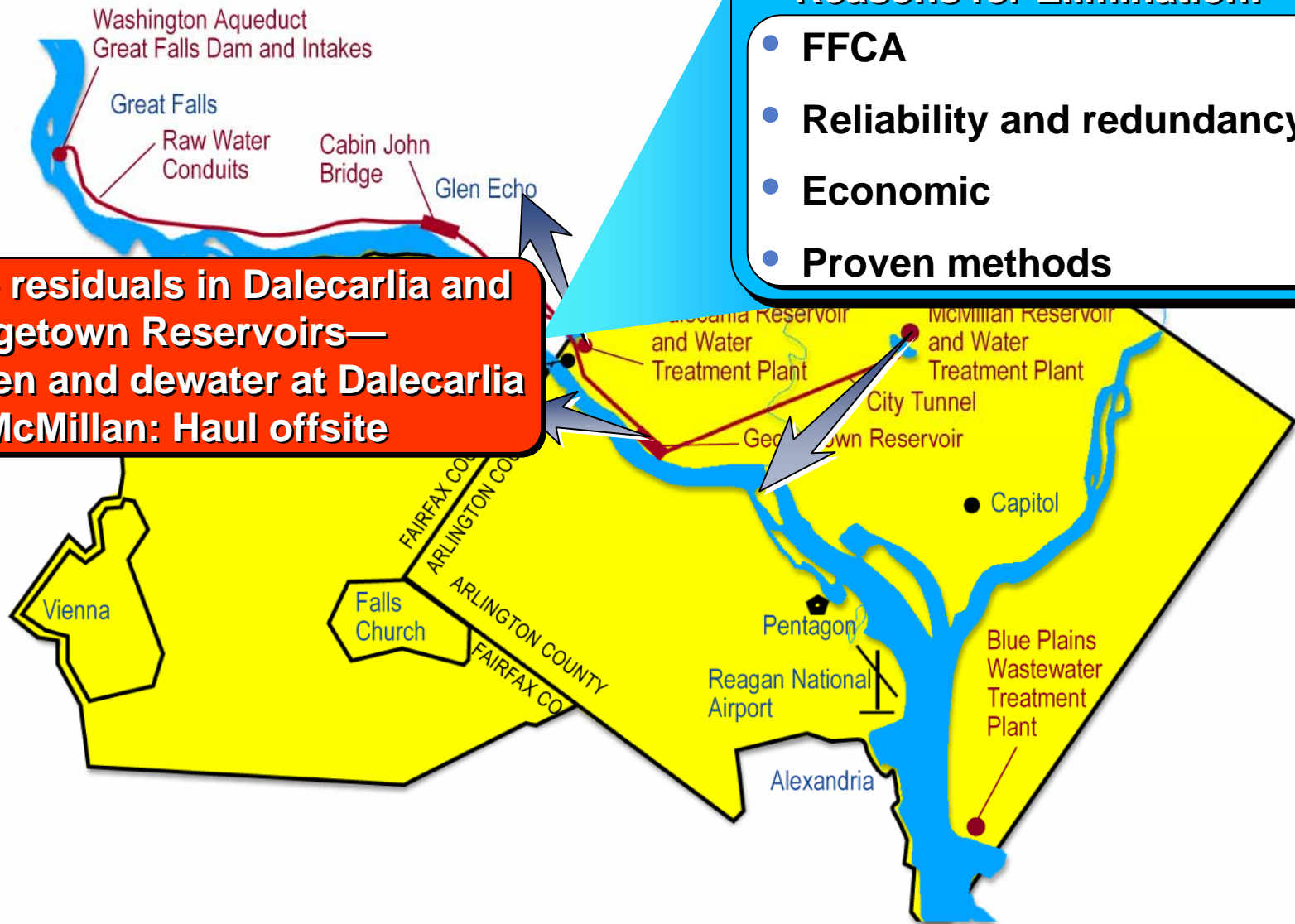
# 8 alternatives with facilities at the McMillan WTP

22

**Store residuals in Dalecarlia and Georgetown Reservoirs—thicken and dewater at Dalecarlia and McMillan: Haul offsite**

## Reasons for Elimination:

- **FFCA**
- **Reliability and redundancy**
- **Economic**
- **Proven methods**







# 8 alternatives with facilities at the McMillan WTP

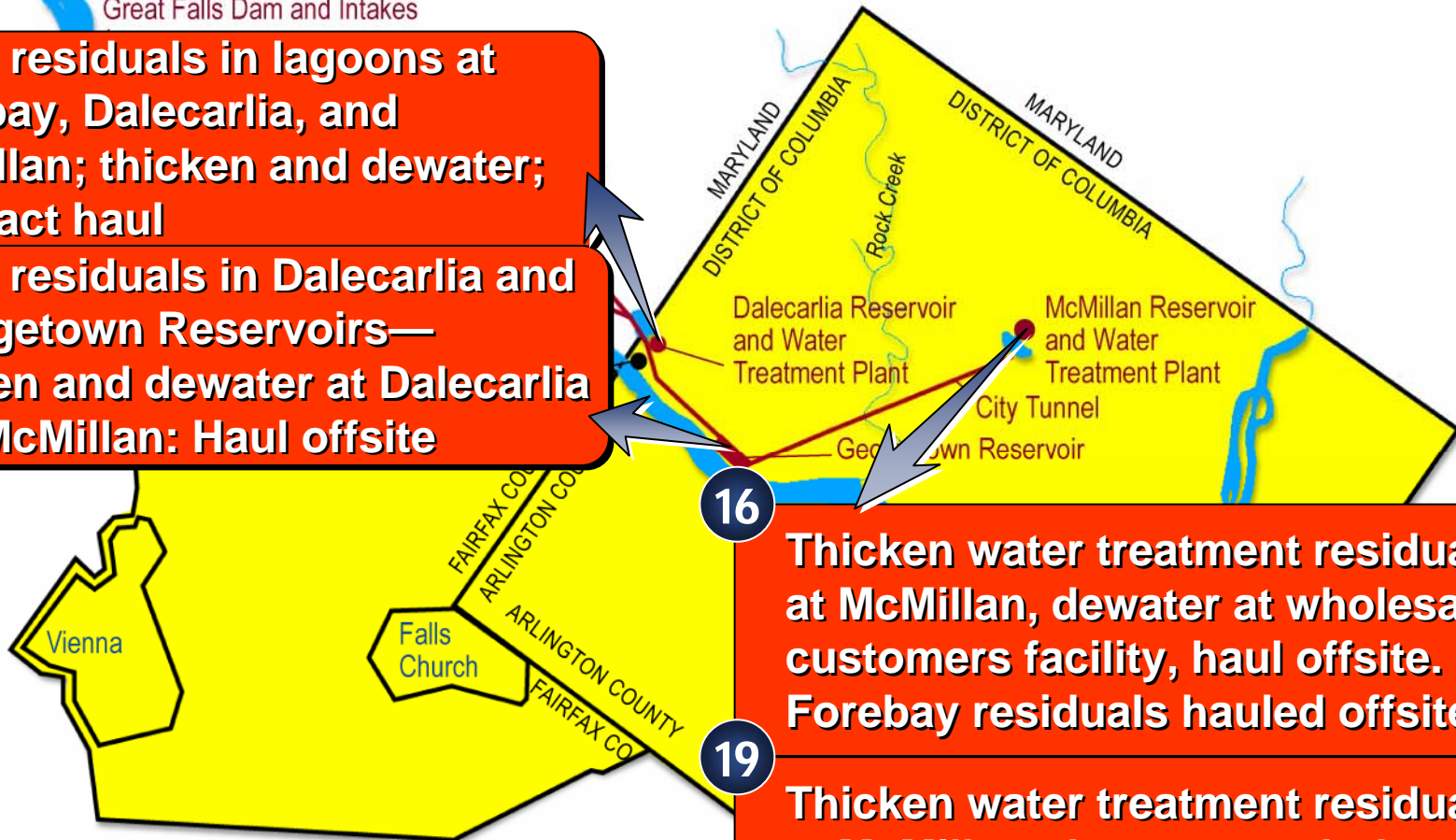
Washington Aqueduct  
Great Falls Dam and Intakes

21

Store residuals in lagoons at Forebay, Dalecarlia, and McMillan; thicken and dewater; contract haul

22

Store residuals in Dalecarlia and Georgetown Reservoirs—thicken and dewater at Dalecarlia and McMillan: Haul offsite



16

Thicken water treatment residuals at McMillan, dewater at wholesale customers facility, haul offsite. Forebay residuals hauled offsite

19

Thicken water treatment residuals at McMillan, dewater at wholesale customers facility, haul offsite. Forebay residuals to Potomac River



# 8 alternatives with facilities at the McMillan WTP

Washington Aqueduct  
Great Falls Dam and Intakes

17

Coprocess Forebay and water treatment residuals at McMillan: Haul offsite

18

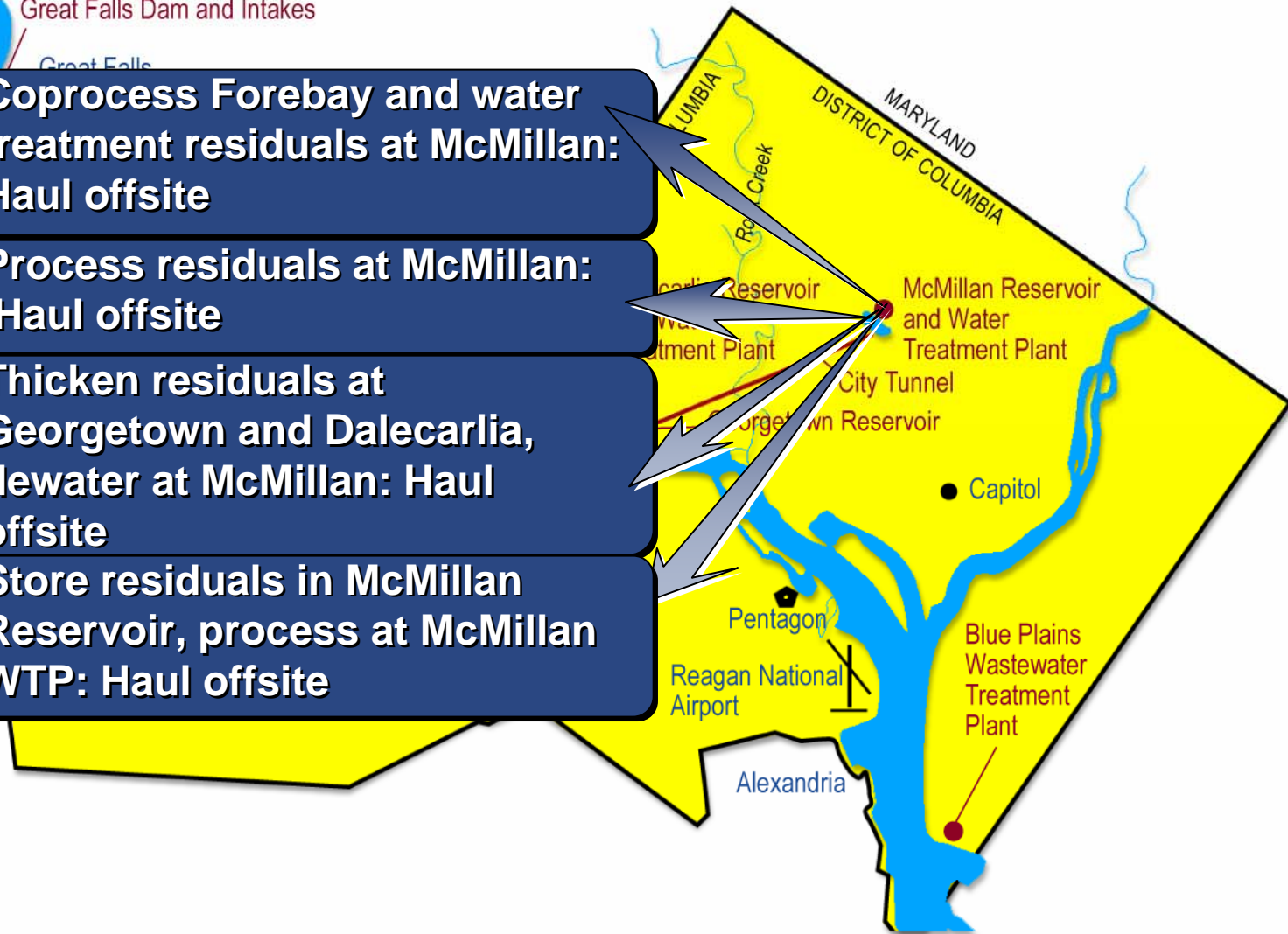
Process residuals at McMillan: Haul offsite

20

Thicken residuals at Georgetown and Dalecarlia, dewater at McMillan: Haul offsite

23

Store residuals in McMillan Reservoir, process at McMillan WTP: Haul offsite





# 8 alternatives with facilities at the McMillan WTP

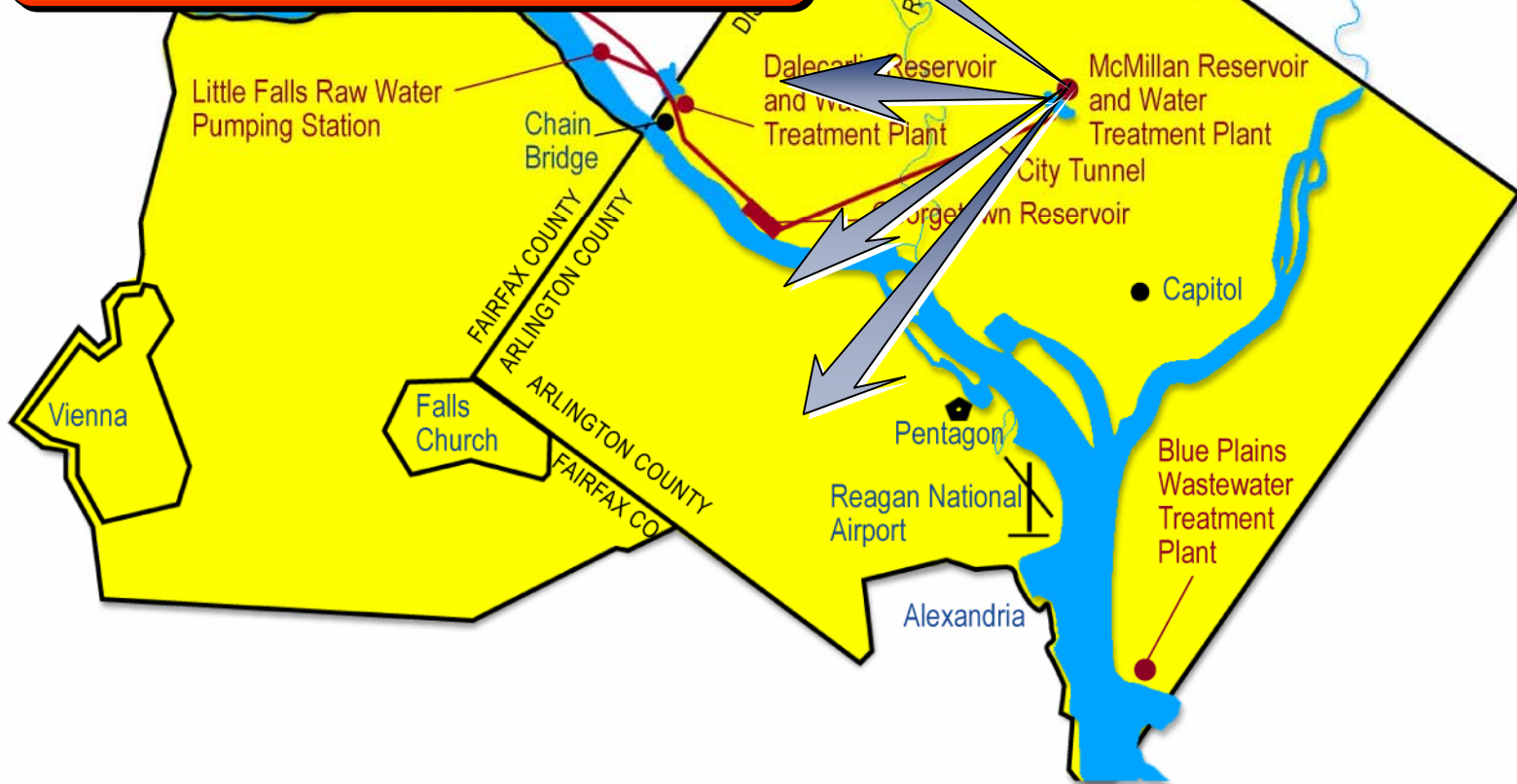
Washington Aqueduct  
Great Falls Dam and Intakes

17

**Coprocess Forebay and water treatment residuals at McMillan: Haul offsite**

## Reasons for Elimination:

- Reliability and redundancy
- FFCA
- Economic and Proven methods





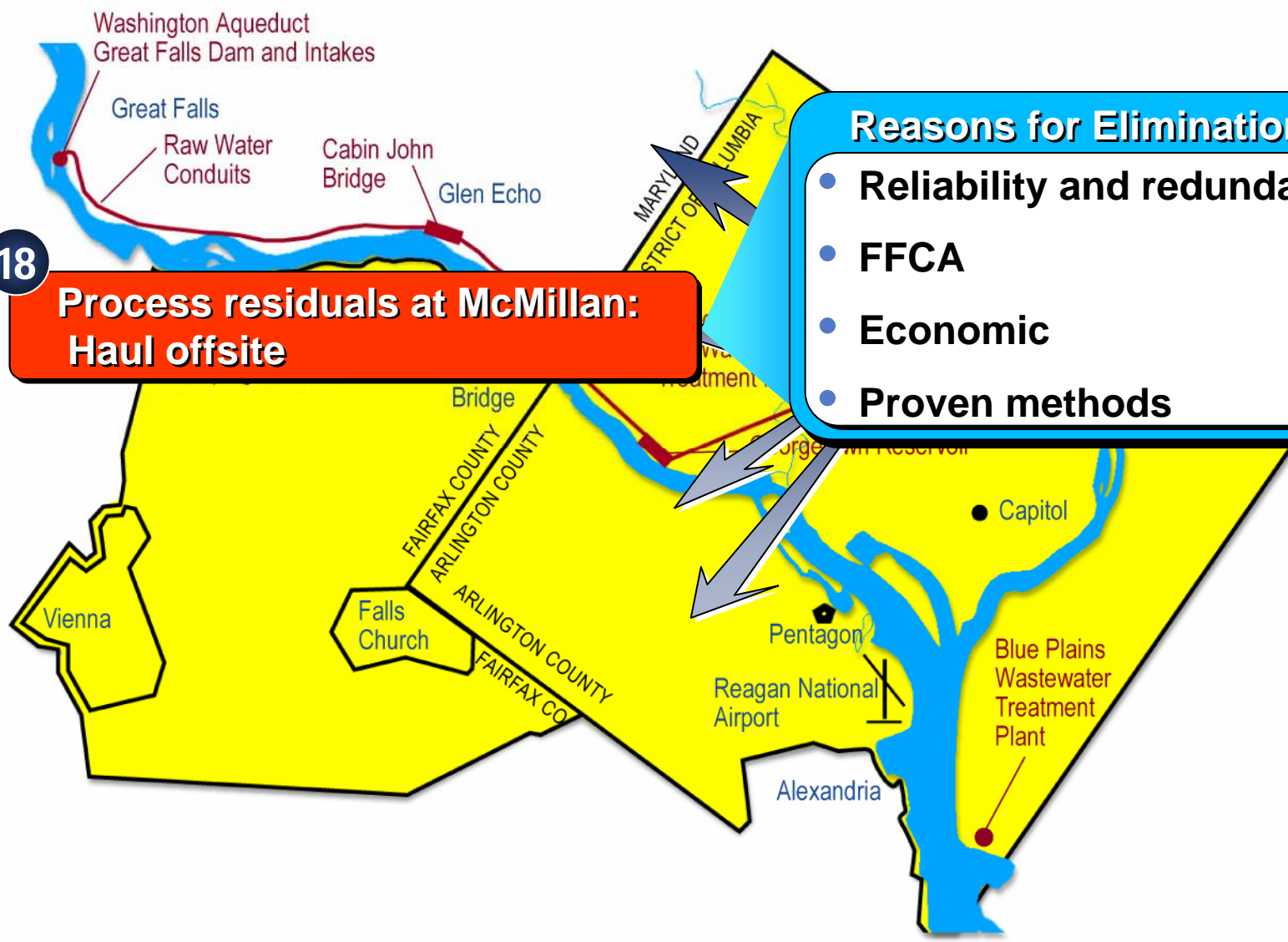


# 8 alternatives with facilities at the McMillan WTP

18

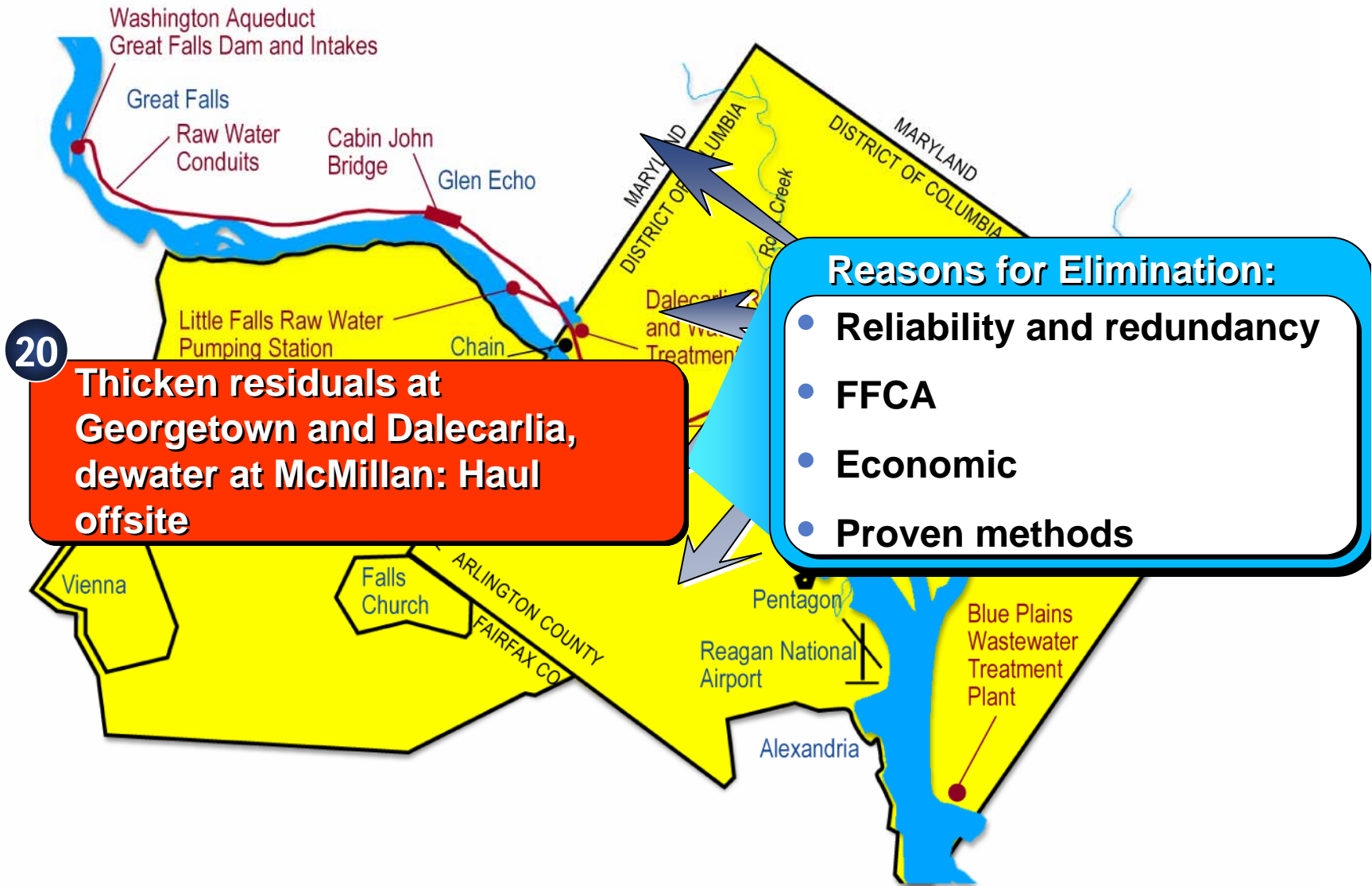
**Process residuals at McMillan:  
Haul offsite**

- Reasons for Elimination:**
- Reliability and redundancy
  - FFCA
  - Economic
  - Proven methods



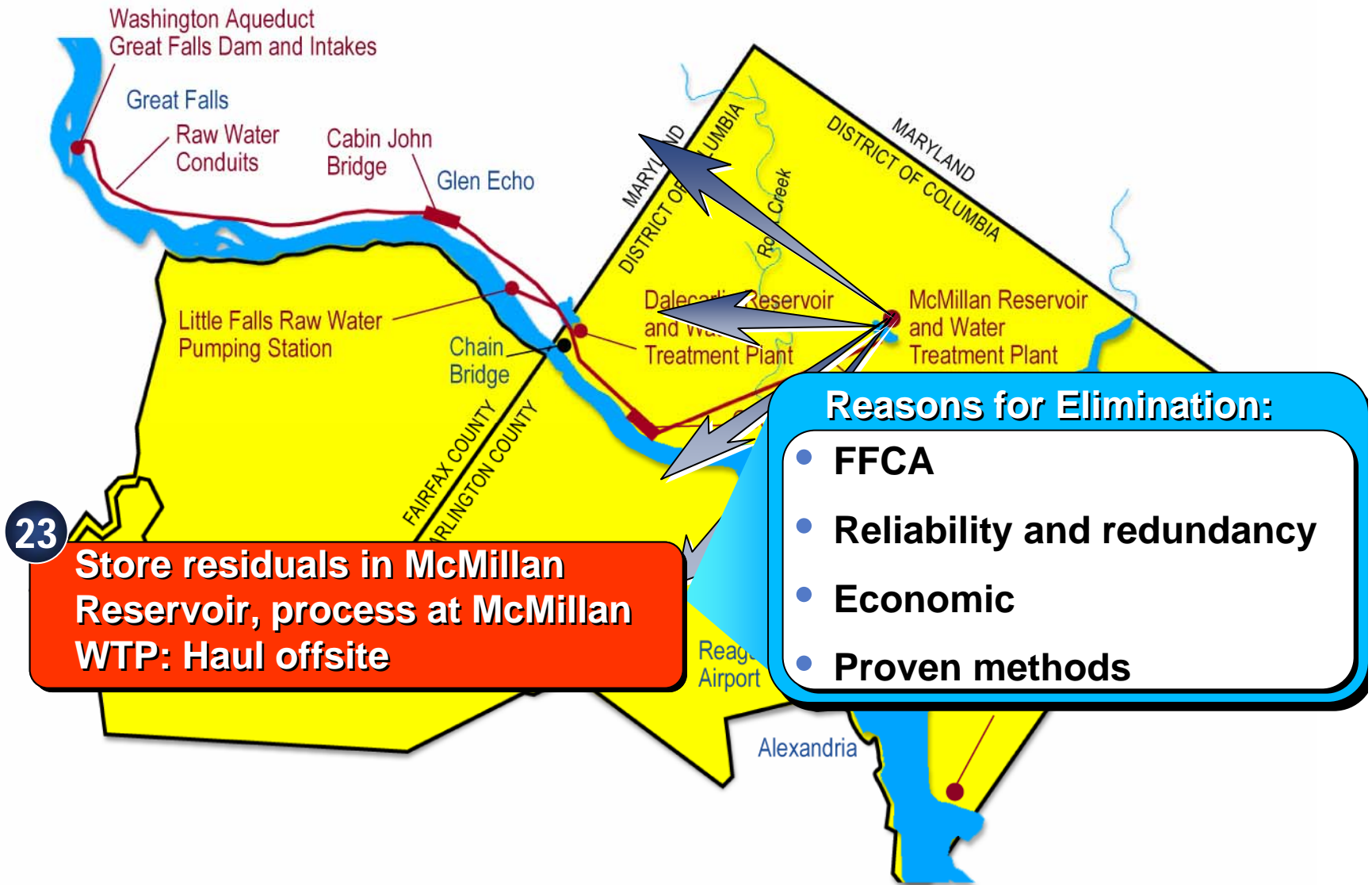


# 8 alternatives with facilities at the McMillan WTP





## 8 alternatives with facilities at the McMillan WTP







# 8 alternatives with facilities at the McMillan WTP

Washington Aqueduct  
Great Falls Dam and Intakes

17

Coprocess Forebay and water treatment residuals at McMillan: Haul offsite

18

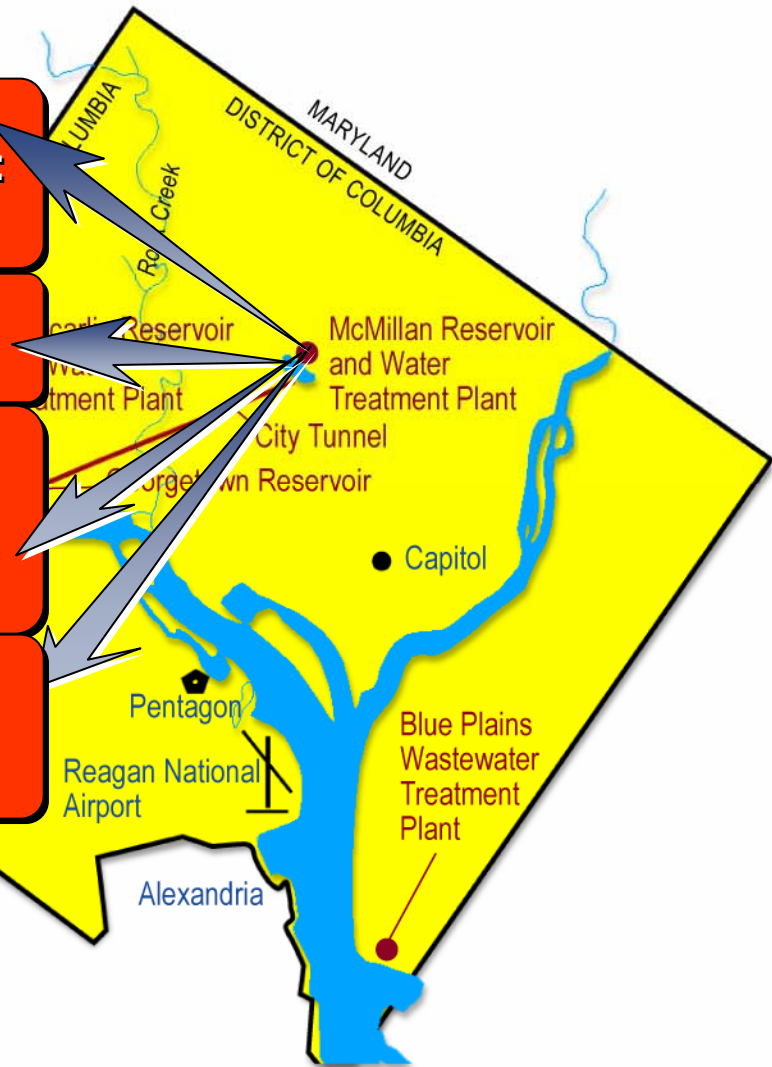
Process residuals at McMillan: Haul offsite

20

Thicken residuals at Georgetown and Dalecarlia, dewater at McMillan: Haul offsite

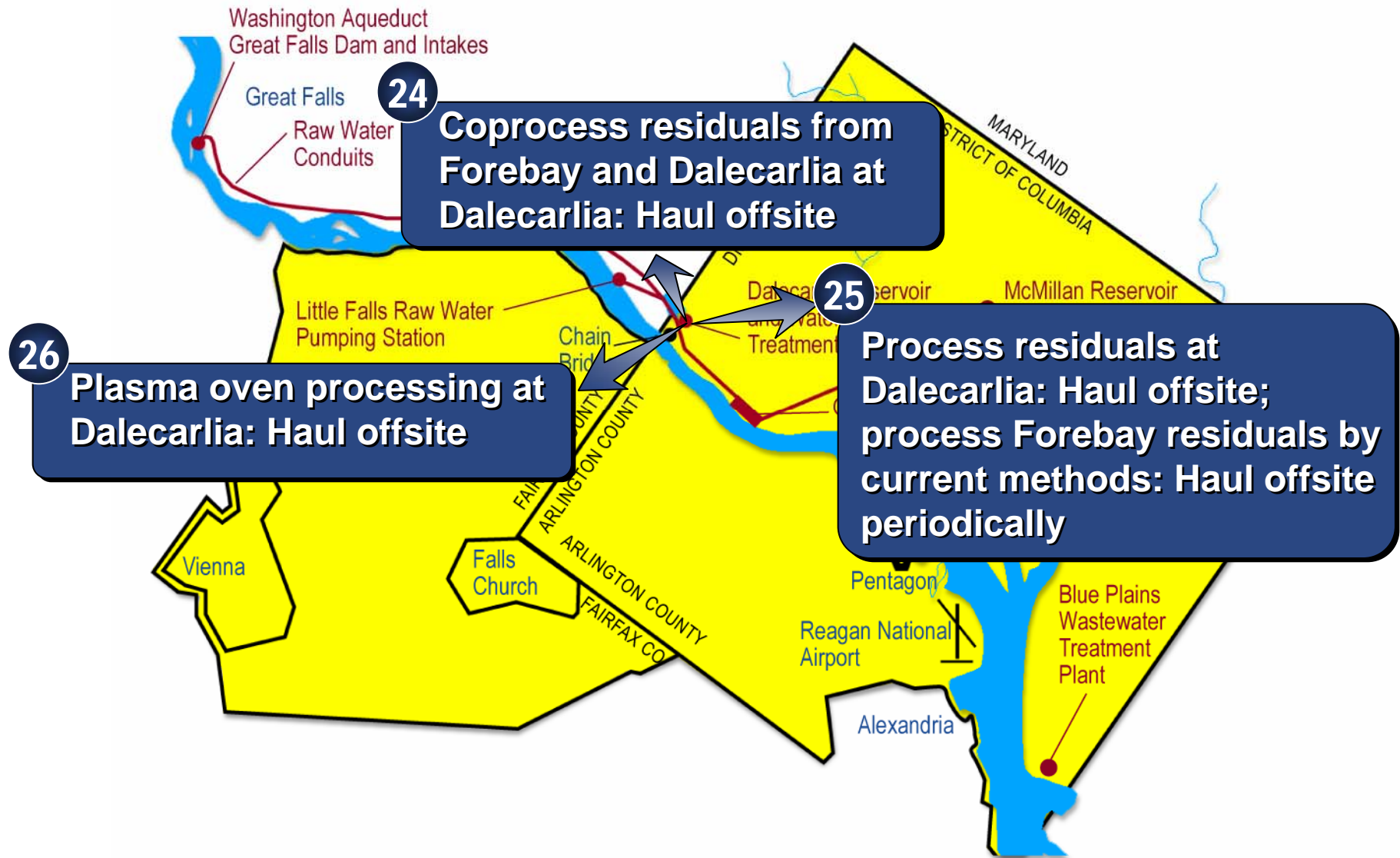
23

Store residuals in McMillan Reservoir, process at McMillan WTP: Haul offsite





## 3 alternatives with facilities at the Dalecarlia WTP

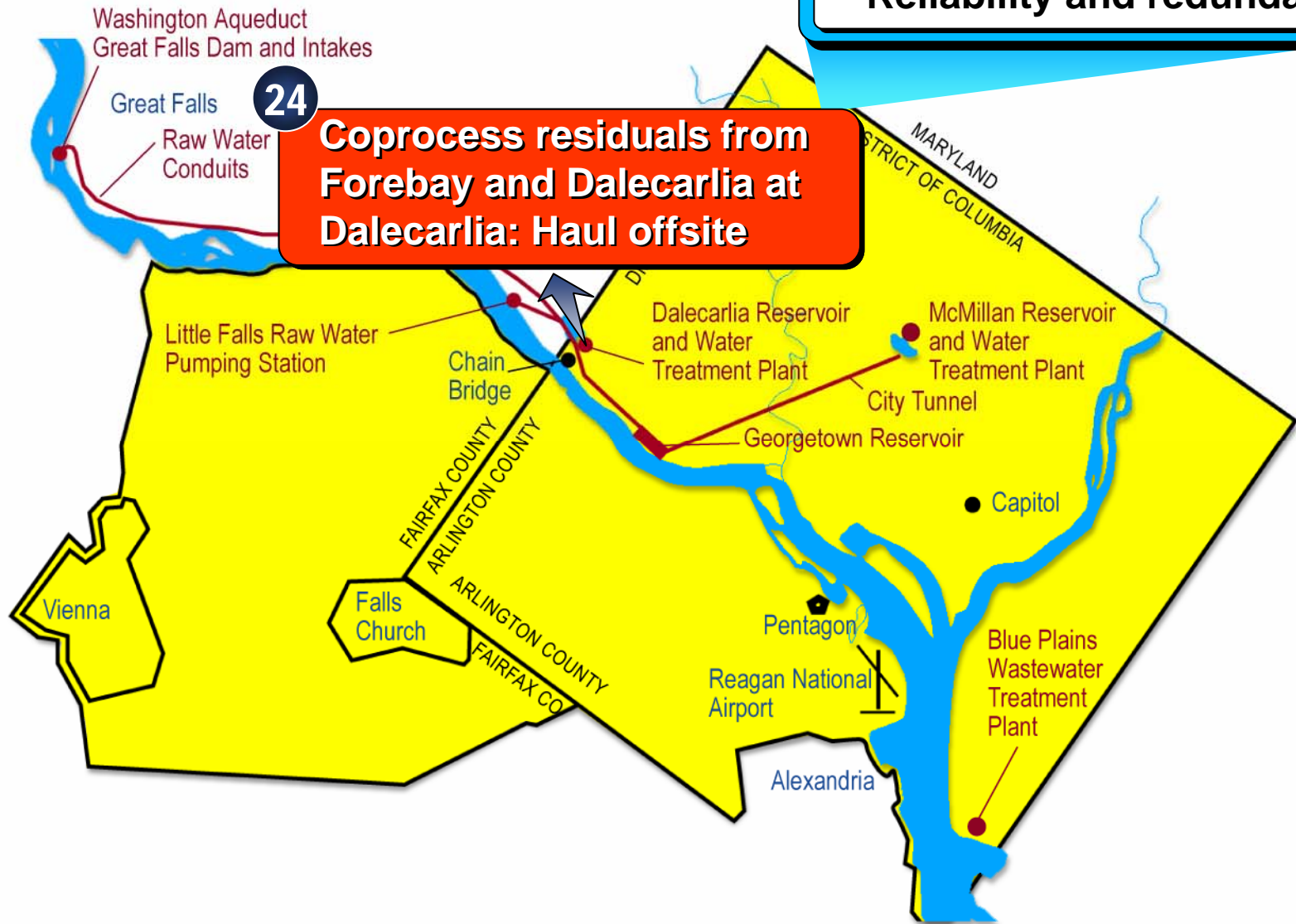




# 3 alternatives with facilities at the Dalecarlia WTP

**Reasons for Elimination:**

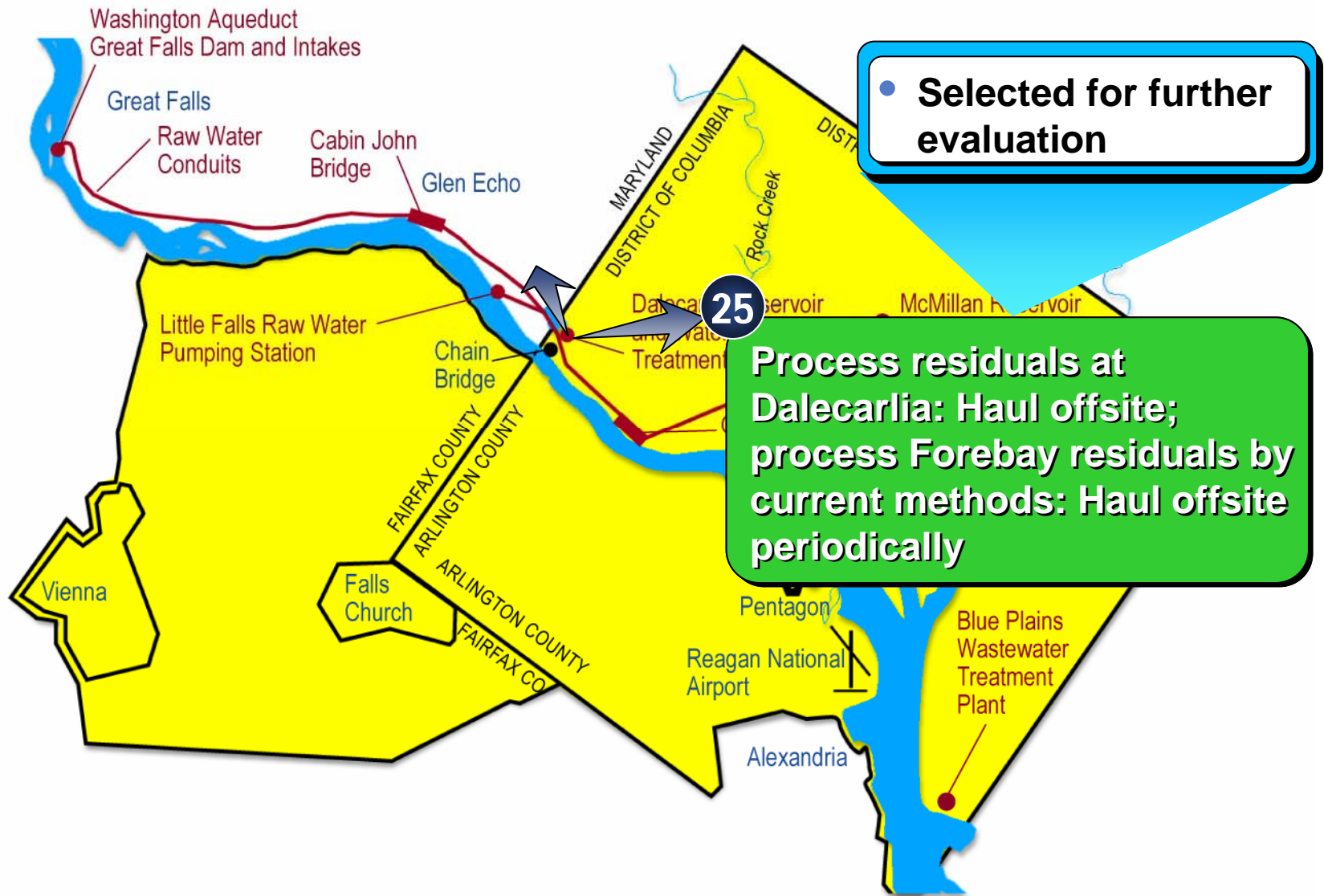
- **Reliability and redundancy**





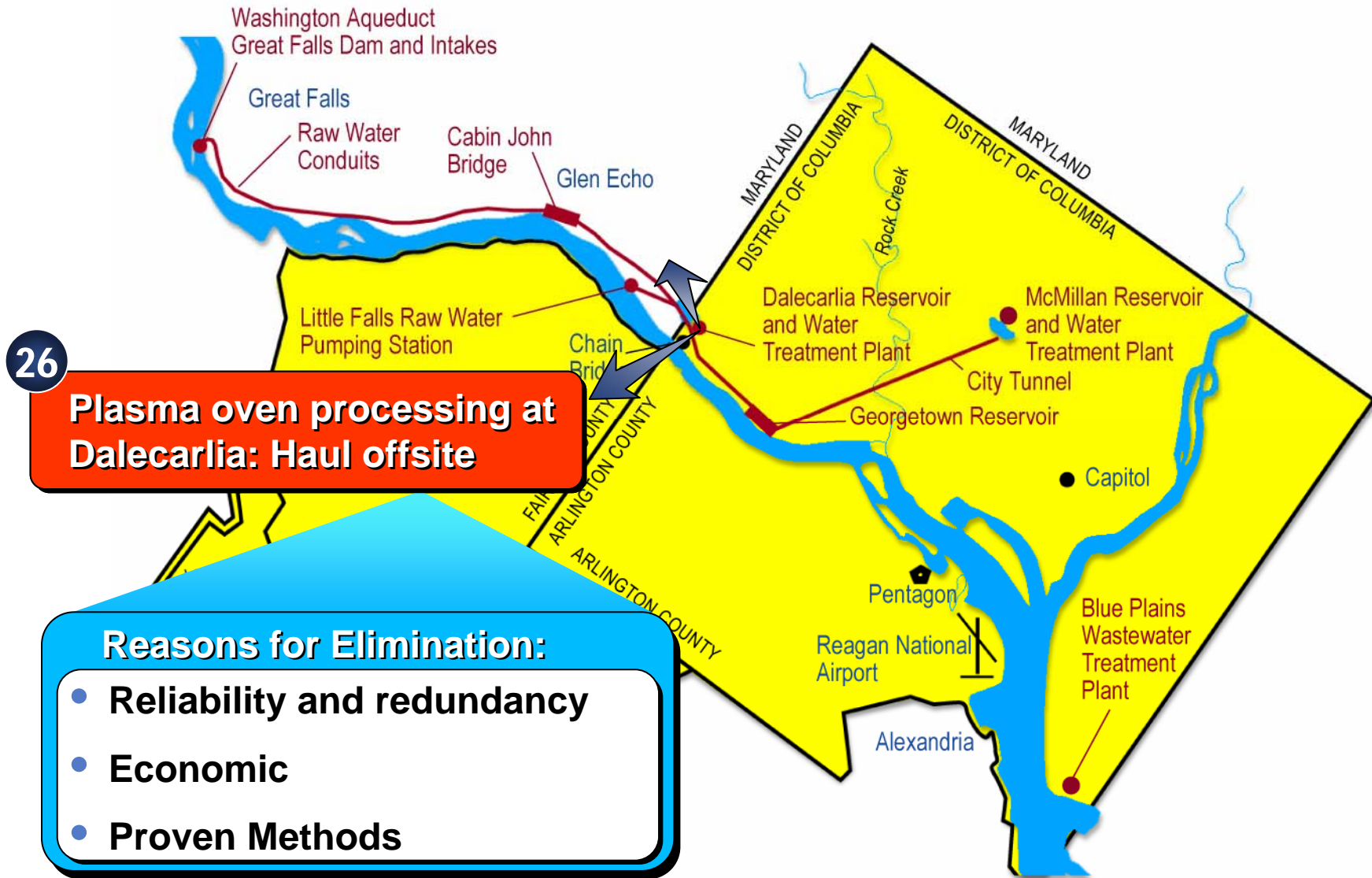


# 3 alternatives with facilities at the Dalecarlia WTP



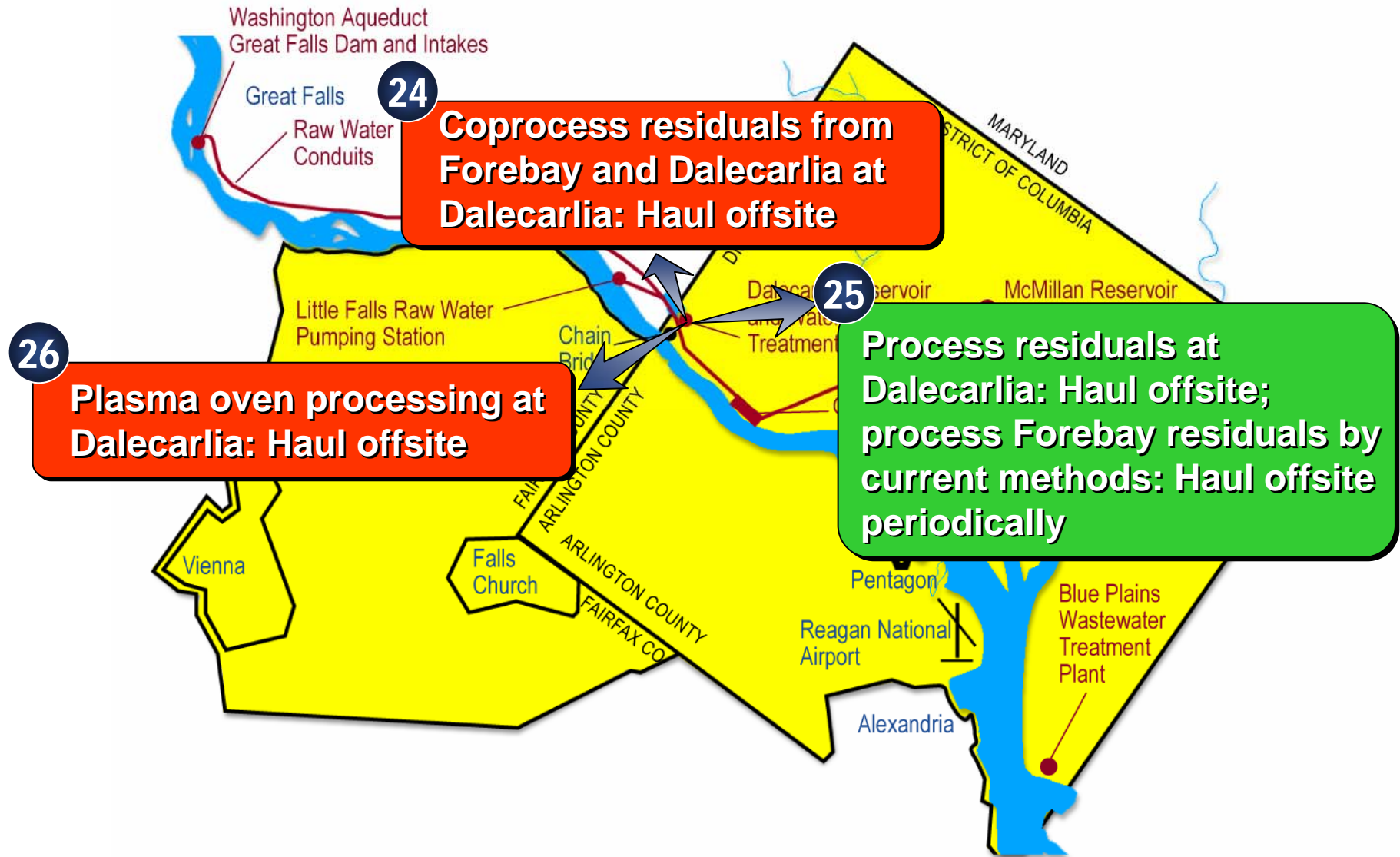


## 3 alternatives with facilities at the Dalecarlia WTP





## 3 alternatives with facilities at the Dalecarlia WTP







# Summary of Alternatives selected for further evaluation

