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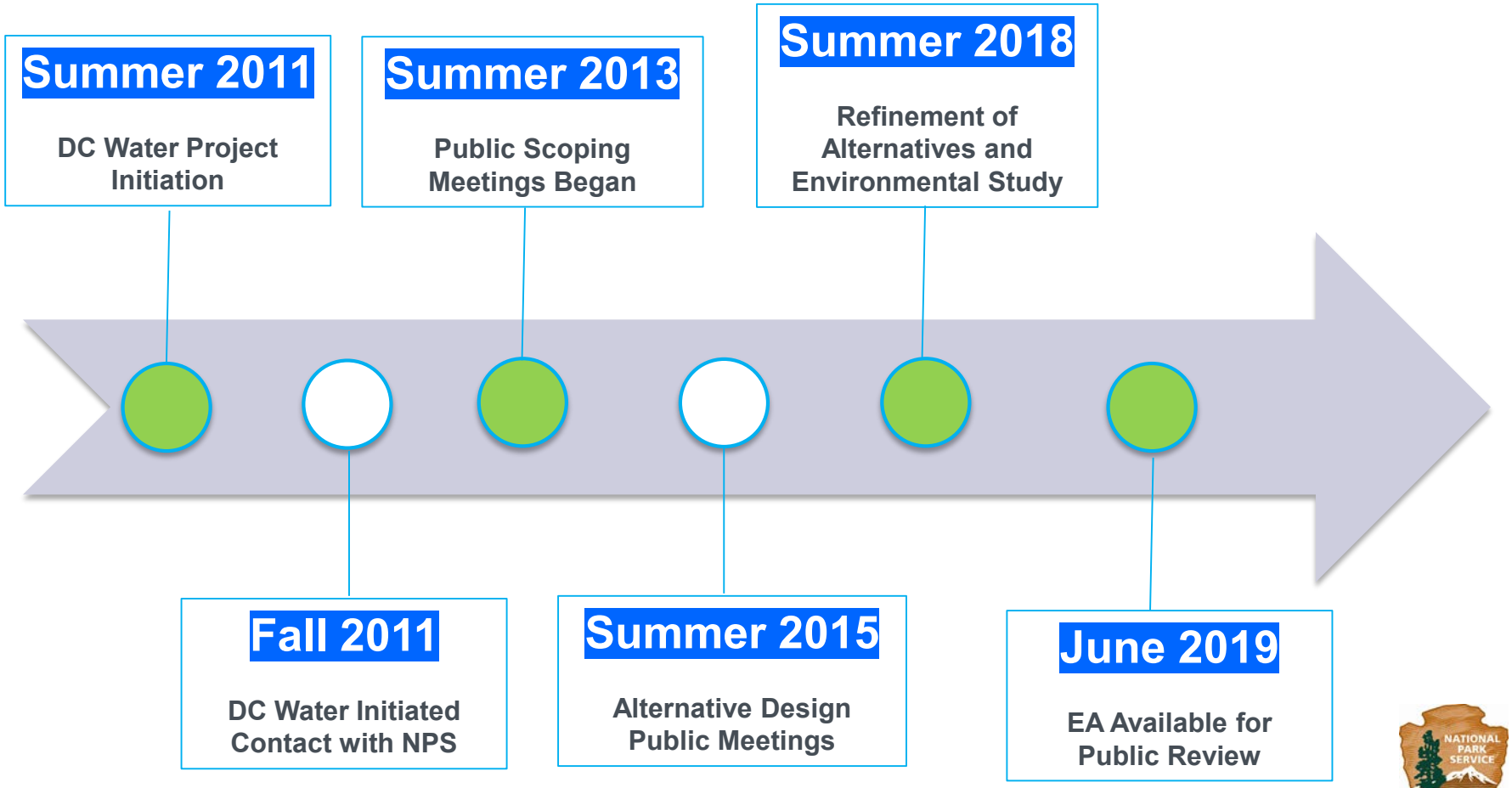
Soapstone Valley Park Sewer Rehabilitation Environmental Assessment (EA)

NATIONAL PARK SERVICE

Meeting Agenda

- **Welcome & Introductions**
- **Scoping**
- Purpose
- Need for Action
- Background
- Alternative 1: No Action Alternative
- Alternative 2: Trenchless Alternative
- Alternatives Considered and Dismissed
- National Environmental Policy Act (NEPA) and Section 106
- Point of Contact
- Questions

Scoping – Meeting Timeline



Scoping – Previous Presentations

Public Scoping Presentation from 2013

NEPA Compliance

- Vegetation
- Access

On this slide, access roads & trees were discussed.

Also, on this slide, trenchless Cured-in-Place-Pipe (CIPP) was discussed (CIPP UV is shown in the picture).

Other alternative options were also discussed in the presentation.

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Purpose

- To repair, rehabilitate, improve, and/or replace aging 18-inch-diameter sanitary sewer pipes within the Soapstone Valley sewer system while maintaining the functions of and limiting disturbance within the Soapstone Valley Park.

- To improve structural integrity of the sanitary sewer infrastructure, including pipes and manholes, while maintaining adequate hydraulic capacity.

Purpose

- To reduce stream and groundwater infiltration into the sanitary sewer pipes and reduce potential for sanitary sewer overflows (SSOs).

- To eliminate exposed sanitary sewer pipes and manholes to the extent possible.

- To meet the regulatory requirements of the DC Municipal Separate Storm Sewer System (MS4) permit.

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Need for Action

- The rehabilitation is needed because the sewer infrastructure in the Soapstone Valley sewer system has exceeded its design life and has multiple defects throughout the system including pipe and manhole cracks, fractures, root intrusion into pipes, and stream and groundwater infiltration.

- Over time, the condition of the sewers is expected to continue to deteriorate.

Need for Action

- The resulting diminished performance of the system would exacerbate local pollution and increase the frequency of structural failures and emergency repairs, which are environmentally destructive and costly.

Need for Action

- The Soapstone Valley Rehabilitation Sewer Project includes approximately 6,200 linear feet (LF) of sanitary sewer pipes, much of which is defective, 29 defective manholes, and six exposed stream crossings. These defects result in the potential for stream and groundwater infiltration and leaks.

Need for Action

- Groundwater and stormwater infiltration can increase the potential for SSOs which contaminate surface waters and impact public health.

- Additionally, exposed pipelines and manholes are subject to damage from stream and/or stormwater elements, which can lead to leaks into and out of the pipe.

Need for Action

- The District Department of Energy and Environment (DOEE) has identified two stormwater outfalls within the Soapstone Valley Rehabilitation Project area that require repair per DC's MS4 permit.

- Because of their proximity to the Soapstone Valley sanitary sewer system, the repair of the stormwater outfalls would be constructed simultaneously.

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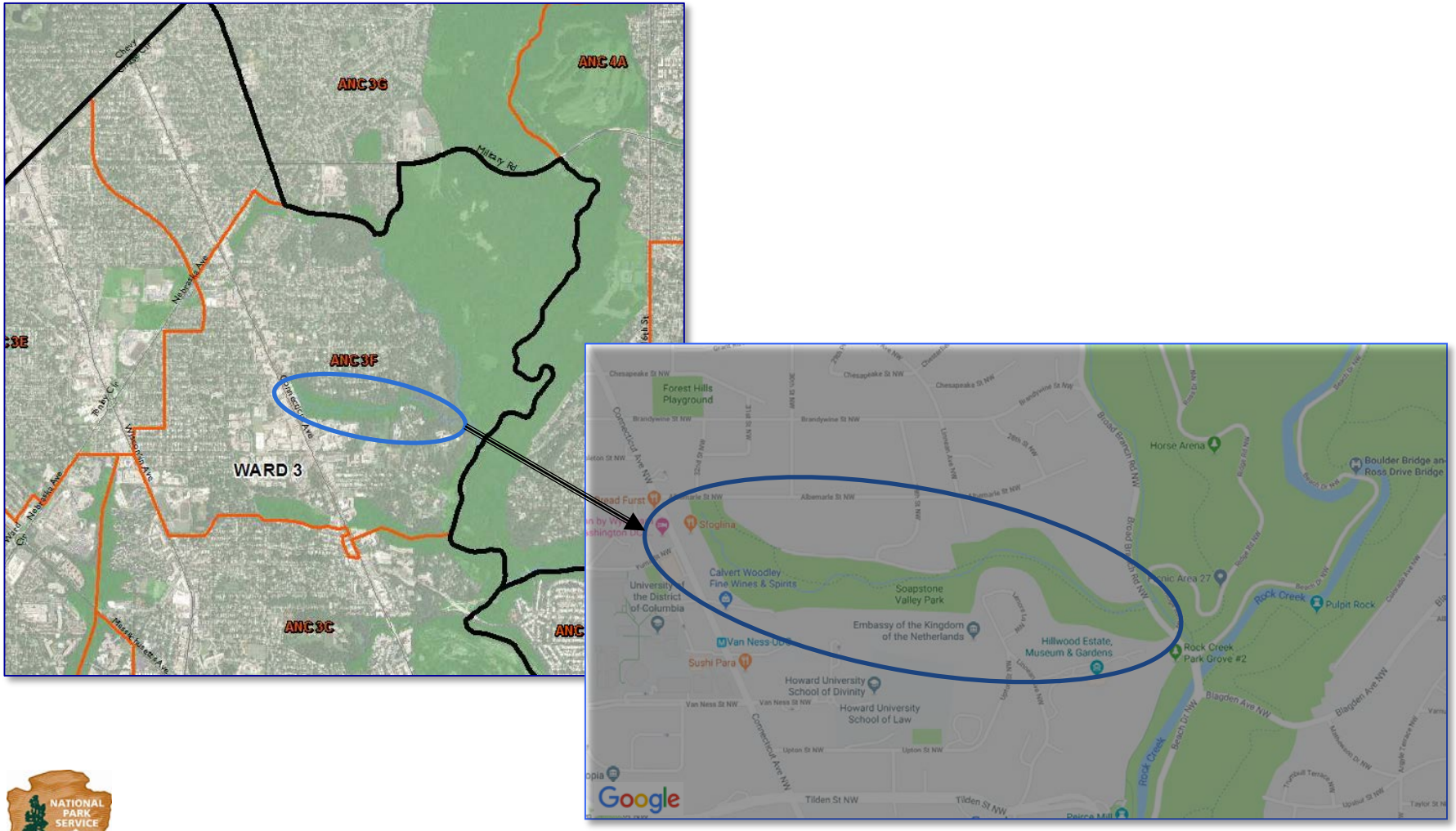
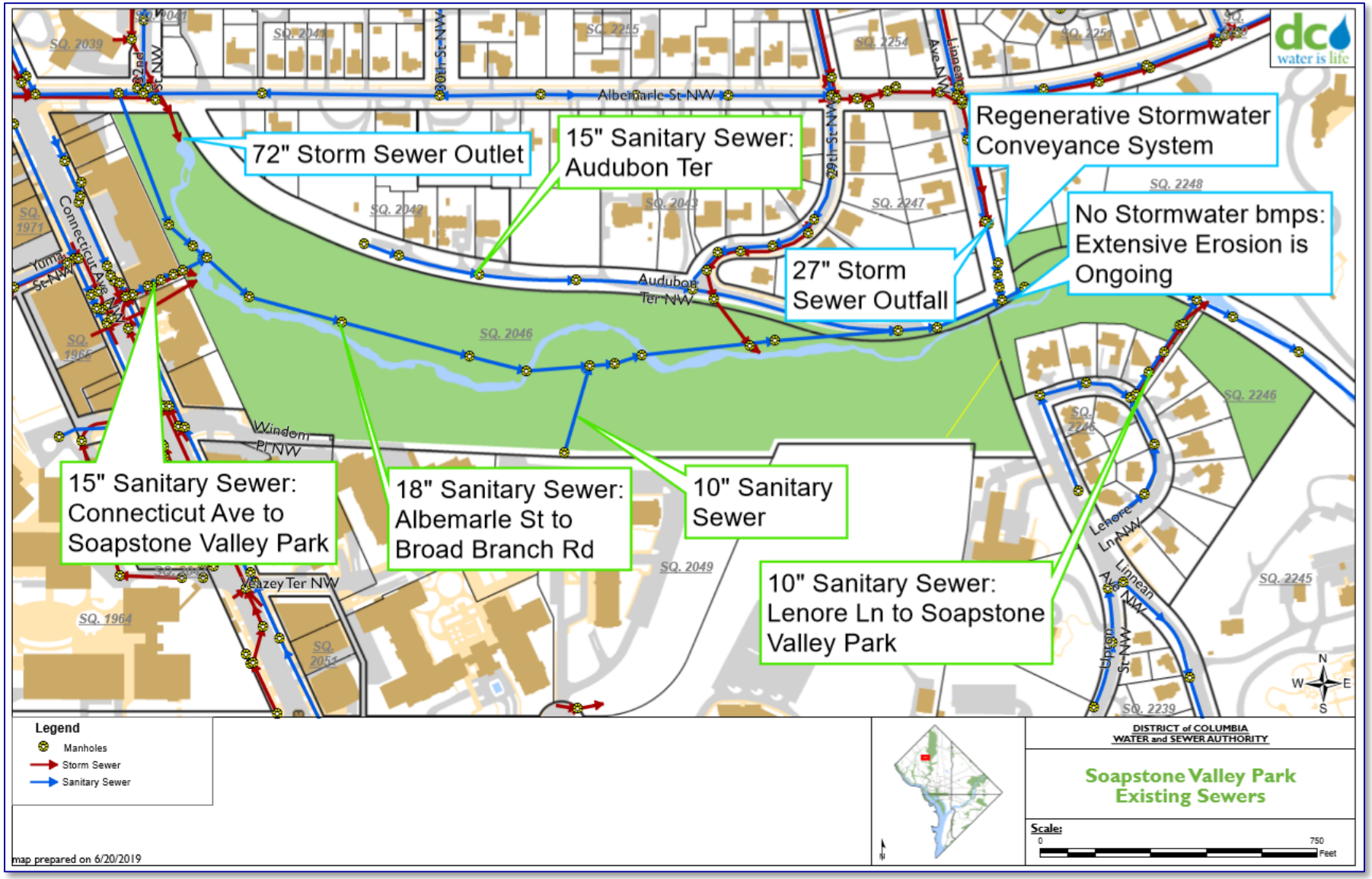
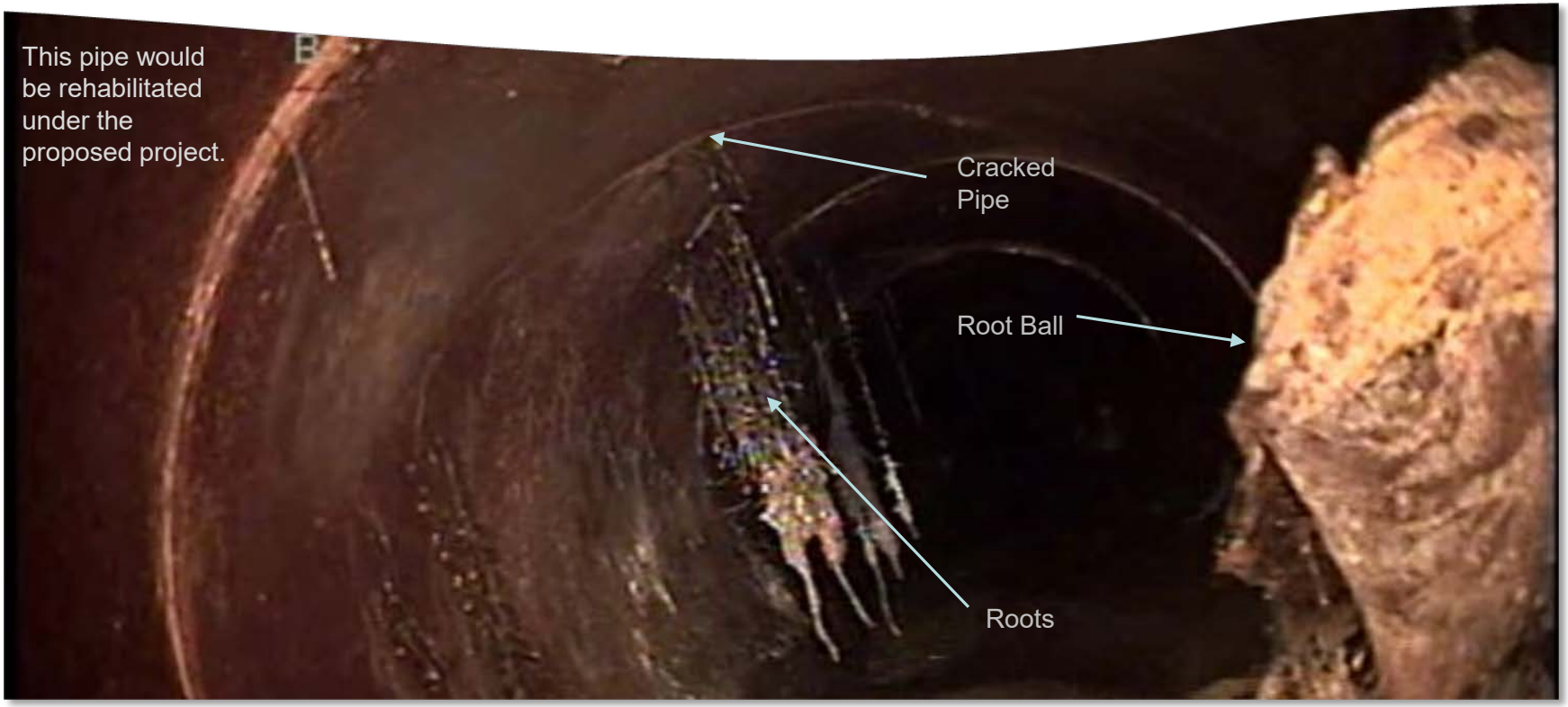
Background - General Vicinity of Soapstone Valley Park



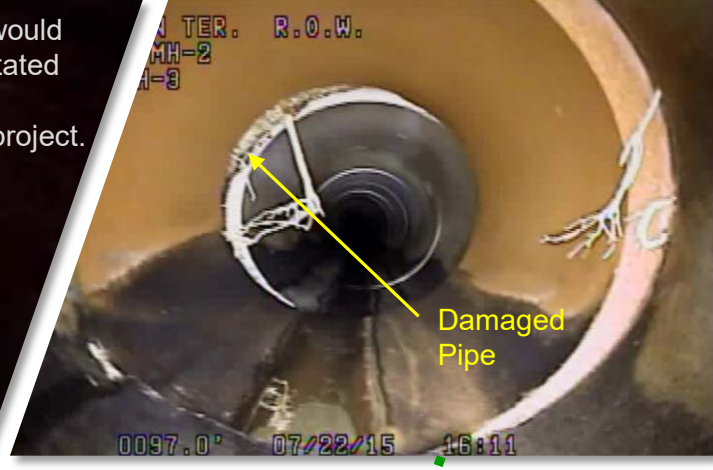
Background- Existing Sewers



Background - CCTV Data



This pipe would be rehabilitated under the proposed project.



Condition Assessment results were completed within 2010 to 2011. Review of CCTV and field findings found:

- Multiple internal structural defects
- Exposure of assets in stream due to erosion
- Risk of leaks & infiltration due to pipe condition and exposures

Background - CCTV Data

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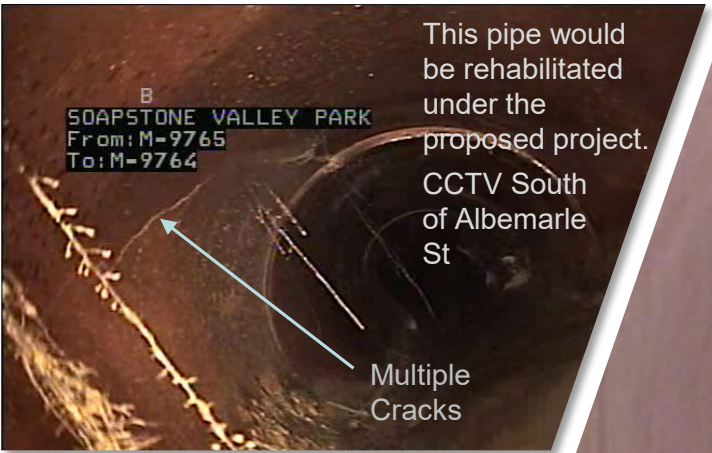
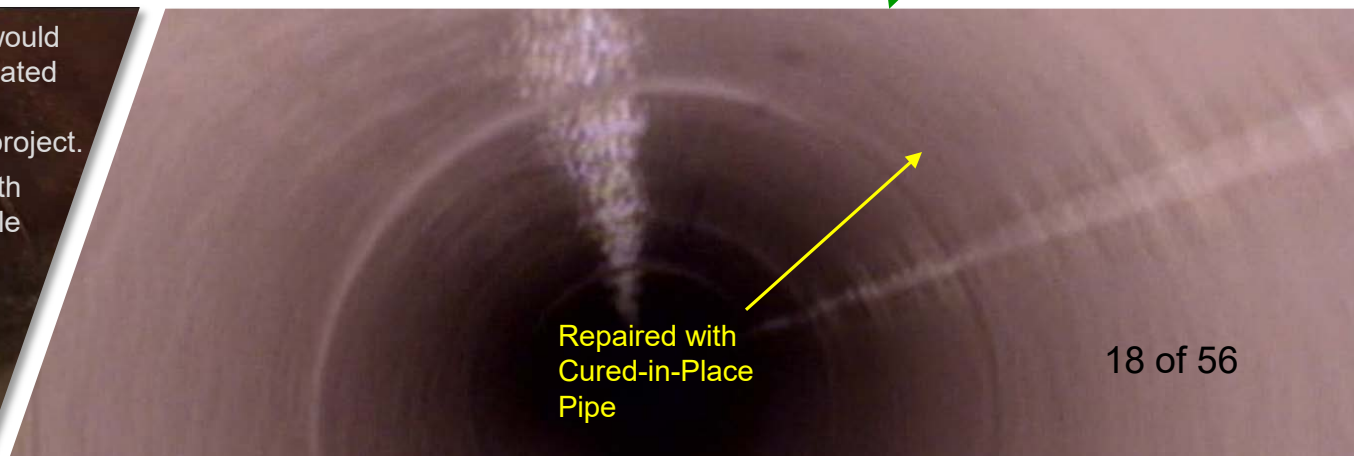
Emergency Repair – 2015 Audubon Terrace NW



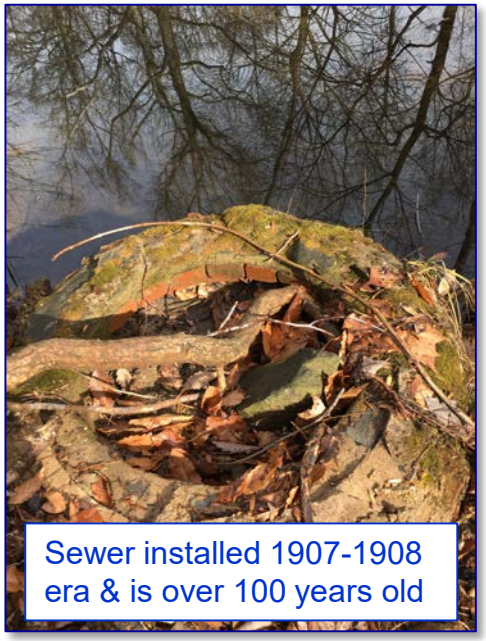
This pipe would be rehabilitated under the proposed project.

CCTV South of Albemarle St



Manhole near stream and exposed sanitary sewer pipe

Structural integrity of pipe/encasement is compromised. Cracks in sanitary sewer encasement, water flows over and under the compromised pipe/encasement.



Sewer installed 1907-1908 era & is over 100 years old

Background -

Existing Sanitary Sewer

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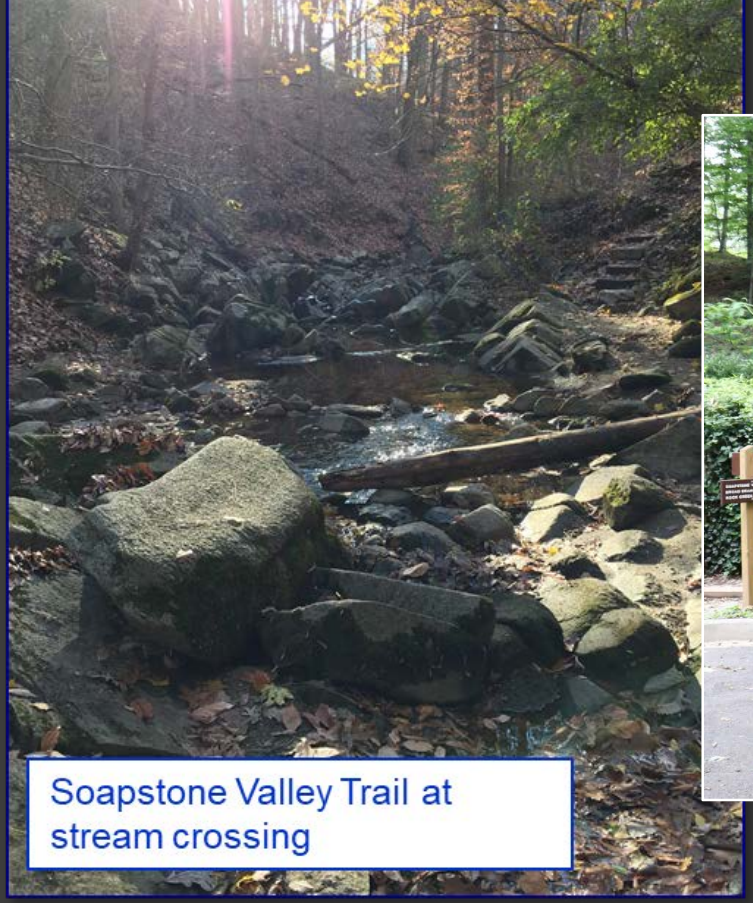

Soapstone Valley Trail at stream crossing

Soapstone Valley Trail at Audubon Terrace NW

Exposed pipe can be damaged by debris during high water flows or vandalism. An emergency repair to repair the hole in the pipe was completed following this picture.

Background – Existing Sanitary Sewer and Trails

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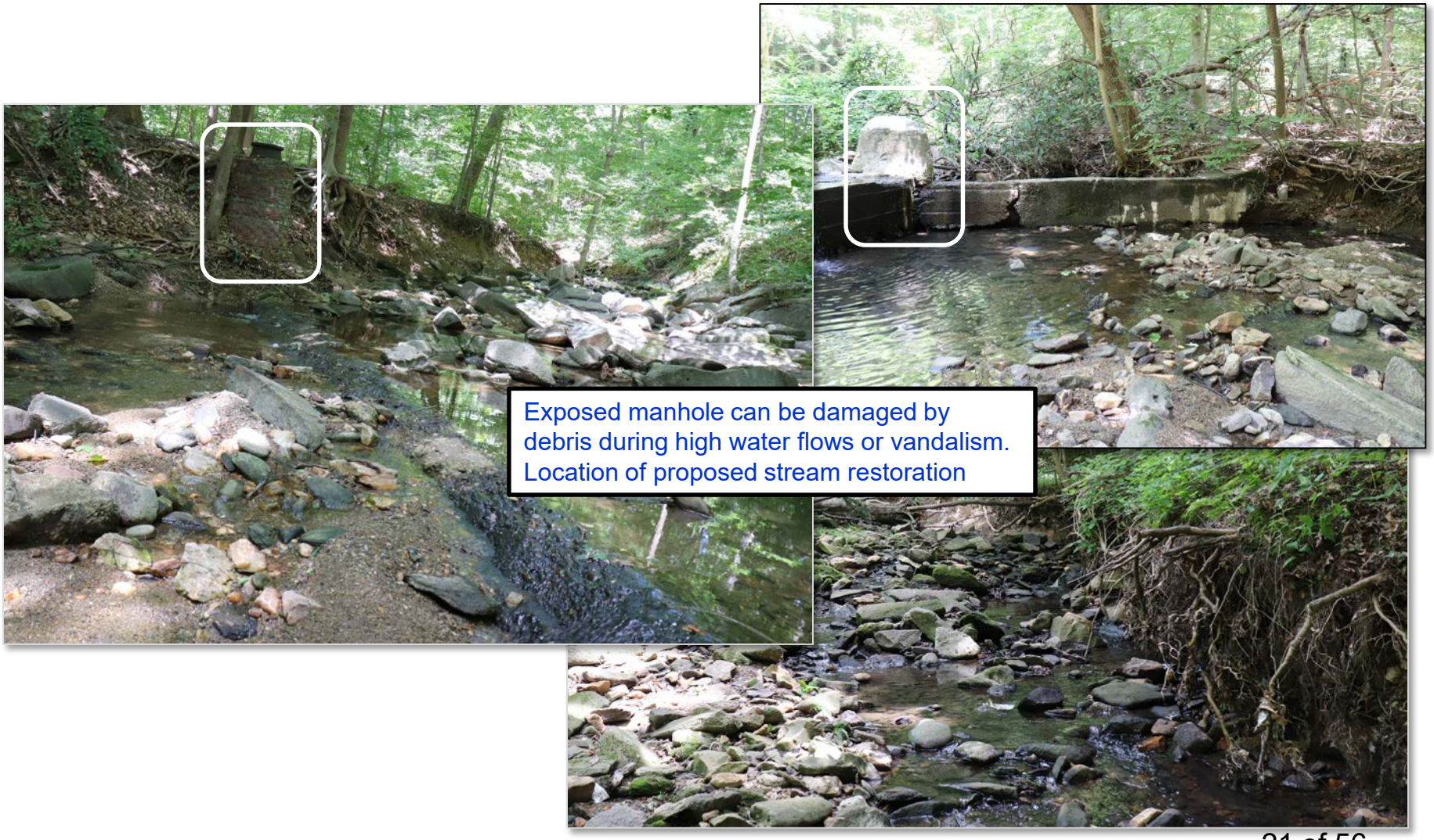
Background – Ongoing Erosion Near Sewers



Ongoing Erosion between RSCS on Linnean Ave NW and Soapstone Valley Creek

72" Storm Sewer, crack in crown

Background – Existing Stormwater Outfalls

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Alternative 1: No Action Alternative

There will be no changes to the current conditions.

The 1907-1908 sanitary sewer infrastructure will continue to age.

Alternative 1: No Action Alternative

Alternative 1: No Action Alternative

Exposed sewer assets will continue to be the subject of environmental forces including stream flows, stormwater, debris and human contact.

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Alternative 1: No Action Alternative

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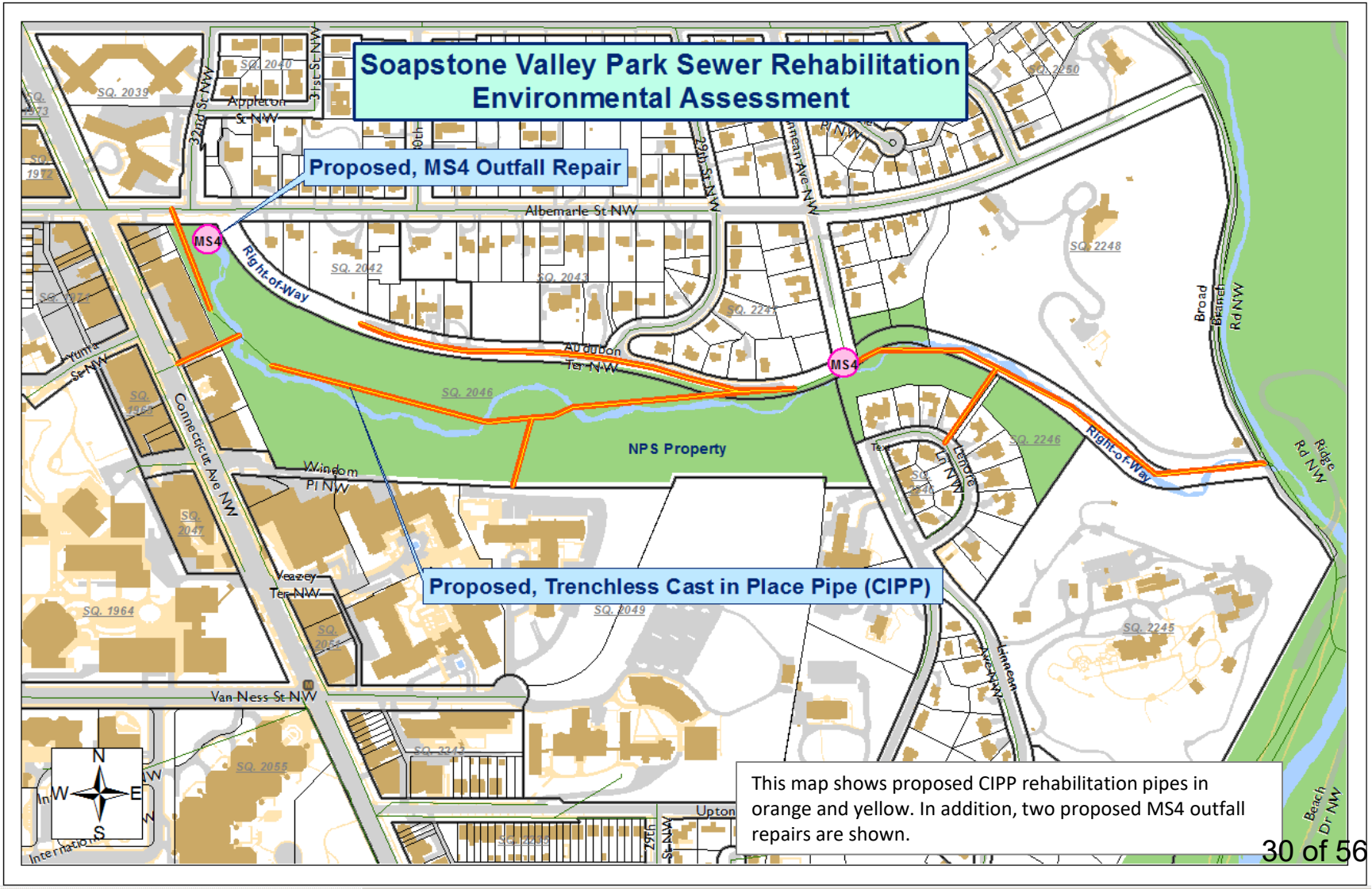
Alternative 2: Trenchless Alternative

Trenchless Alternative Summary	
Alternative	Trenchless Alternative
Objective	Use trenchless technology to repair defective infrastructure
Methodology	• Use Cured-In-Place Pipe (CIPP) to provide structural rehabilitation of defective pipe segments. CIPP lining proposed requires temporary access paths and staging areas for lining equipment and setup vehicles. • Protect assets within stream from erosion effects. • Repair defective stormwater outfalls (F-117 and F-140) and manholes.

Alternative 2: Trenchless Alternative



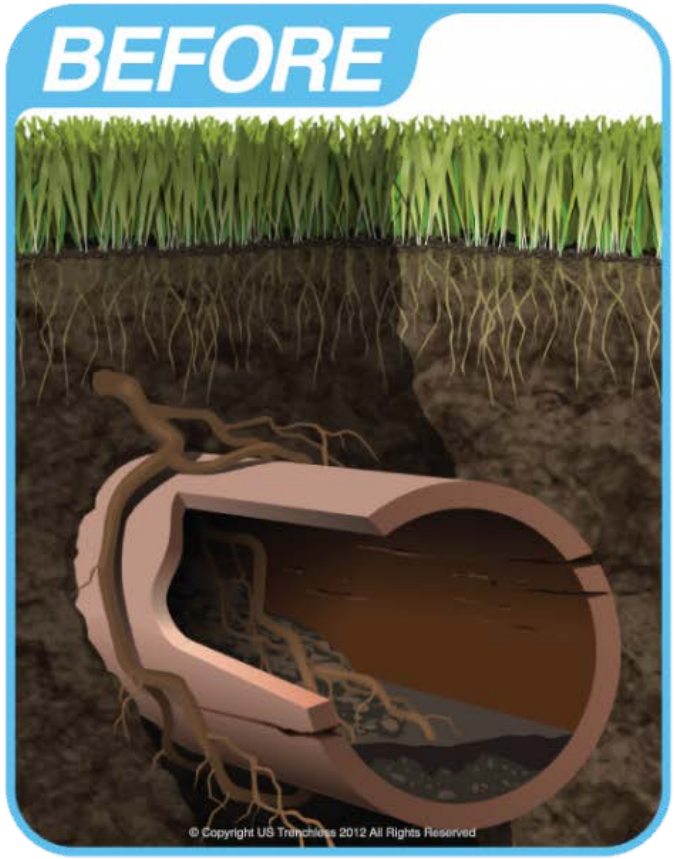
This map shows proposed CIPP rehabilitation pipes in orange and yellow. In addition, two proposed MS4 outfall repairs are shown.

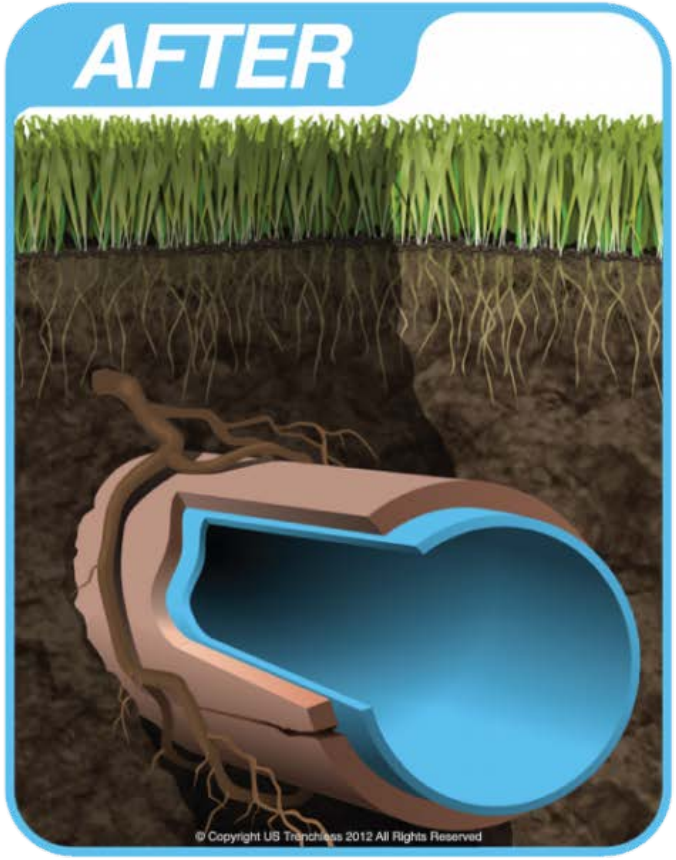
Alternative 2: Trenchless Alternative

- Cured-in-Place Pipe
  - What is it?
  - How is it installed?
  - How strong is it?
  - What is the expected life span?
    - What happens then?

Alternative 2: Trenchless Alternative

- Cured-In-Place Pipe (CIPP)

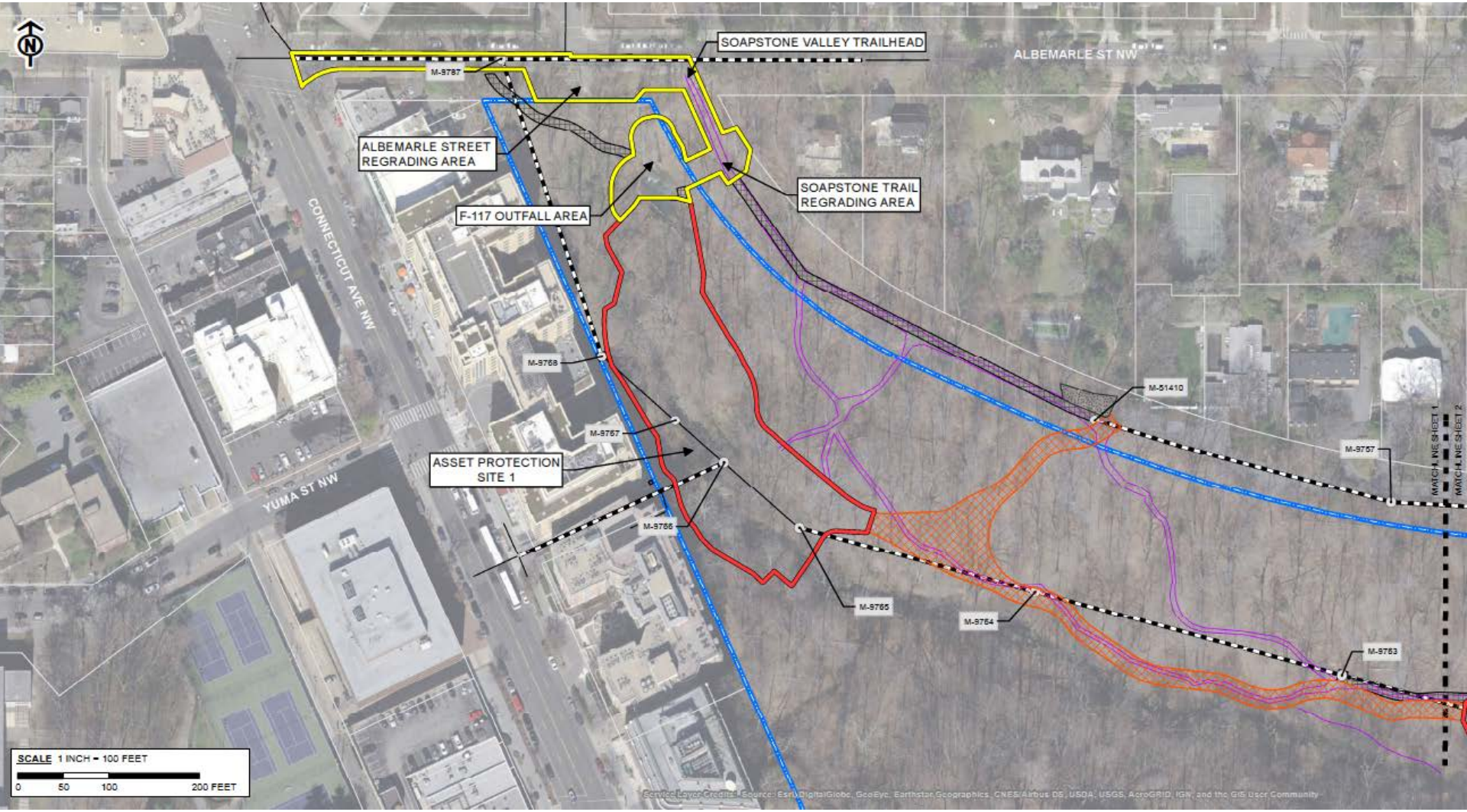




Alternative 2: Trenchless Alternative

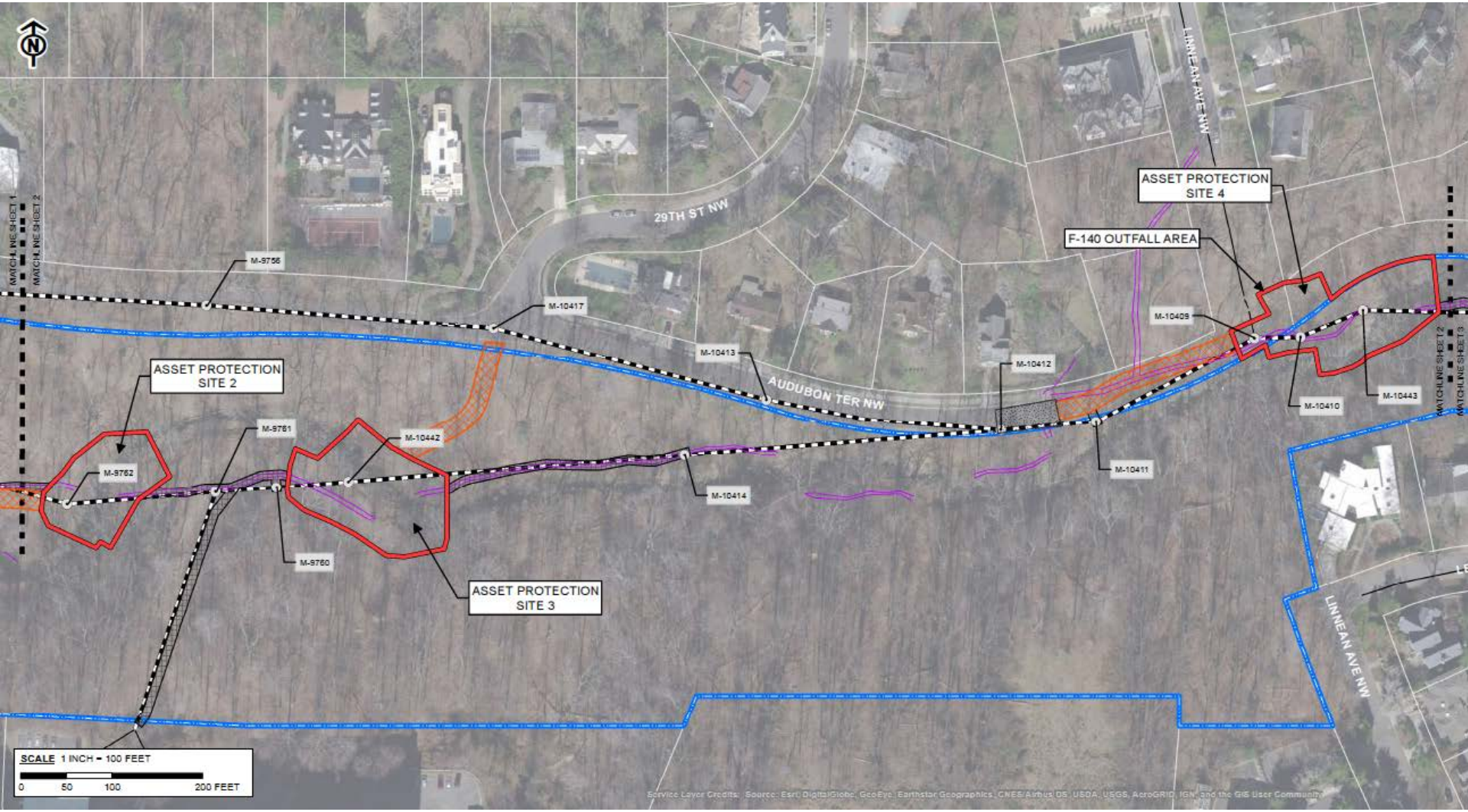
- Benefits of CIPP
  - No excavation required!
  - Resin saturated tube
  - Liner is installed then cured
  - The lined pipe will have the same structural integrity as the host pipe
  - 50-year life expectancy

Alternative 2: Trenchless Alternative



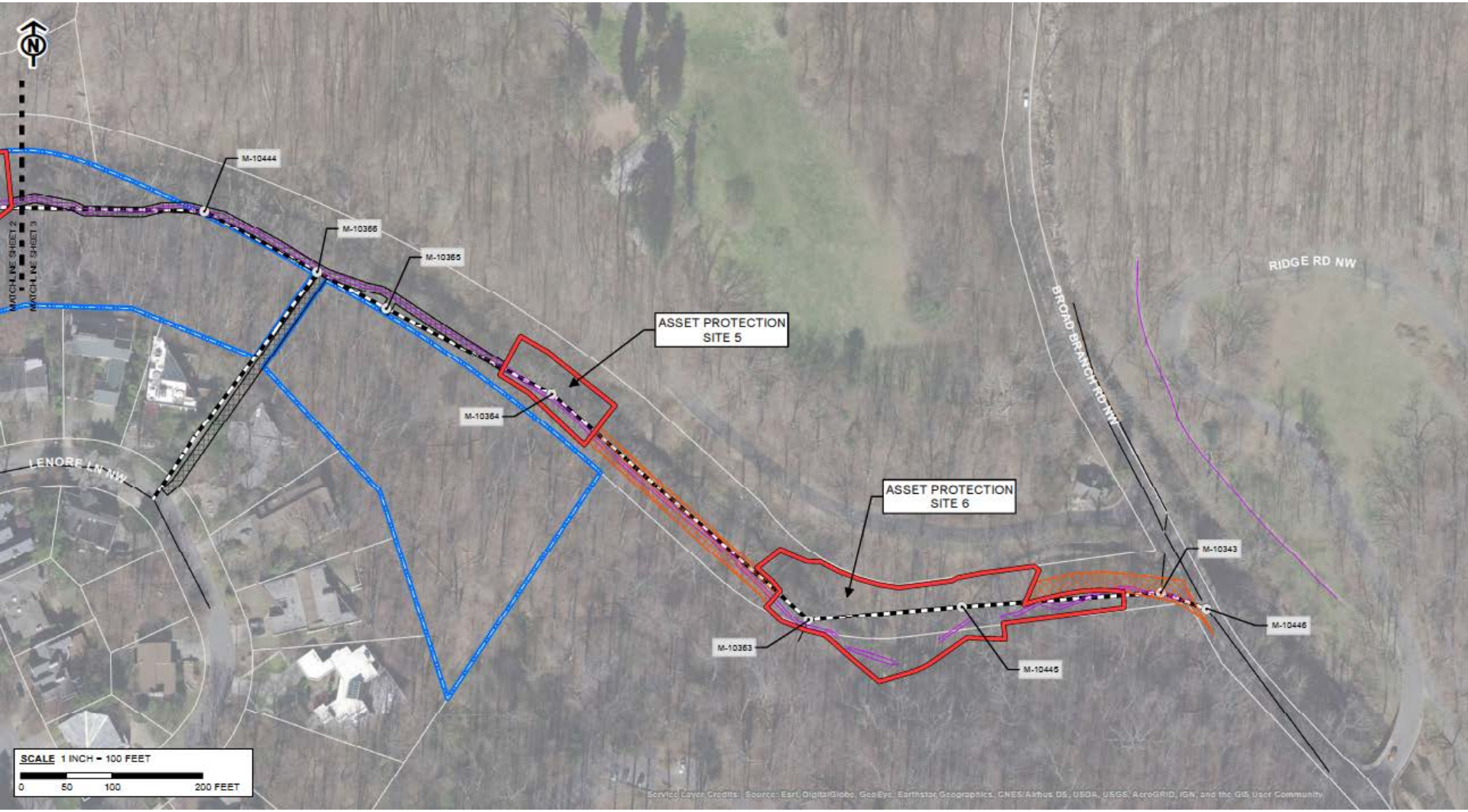
- Limits of Disturbance Map 1/3

Alternative 2: Trenchless Alternative



- Limits of Disturbance Map 2/3

Access Paths and Construction Impacts



- Limits of Disturbance Map 3/3

Example of Sanitary Sewer (Asset) Protection

Example of Manhole Protection

Alternative 2: Trenchless Alternative

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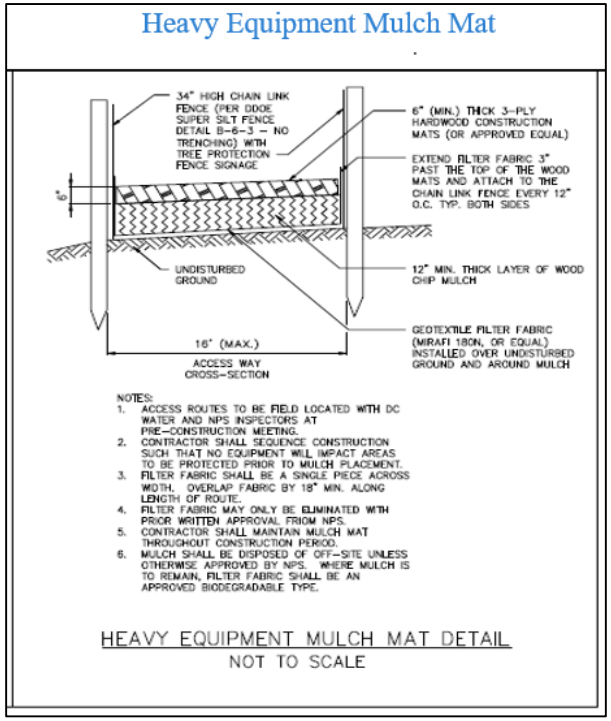


Alternative 2: Trenchless Alternative

Alternative 2: Trenchless Alternative

TABLE 6: TREE IMPACTS FOR ALTERNATIVE 2

	Total Trees Removed	Total Trees Trimmed
Tree Impacts on NPS Property	236	41
Tree Impacts on DDOT Property	129	32
Tree Impacts on Private Property	6	1
Total Tree Impacts	**371**	**74**

TABLE 7: TREE HEALTH SUMMARY FOR ALTERNATIVE 2

Health	Percentage
Very Good	3%
Good	18%
Good - Fair	24%
Fair	25%
Fair - Poor	12%
Poor	14%
Very Poor	4%

Alternative 2: Trenchless Alternative

TABLE 8: TREES REMOVED ON DDOT PROPERTY FOR ALTERNATIVE 2	
Tree Size (DBH)	**Quantity**
Street Trees	
2 – 6 inches	2
6.1 inches and greater	0
Non-Special Trees	
2 – 17.4 inches	98
Special Trees	
17.5 inches and greater	29
Total	**129**

TABLE 9: TREES REMOVED ON NPS PROPERTY FOR ALTERNATIVE 2	
Tree Size (DBH)	**Quantity**
4 – 14.9 inches	153
15 – 24.9 inches	52
Greater than 25 inches	31
Total	**236**

Alternative 2: Trenchless Alternative

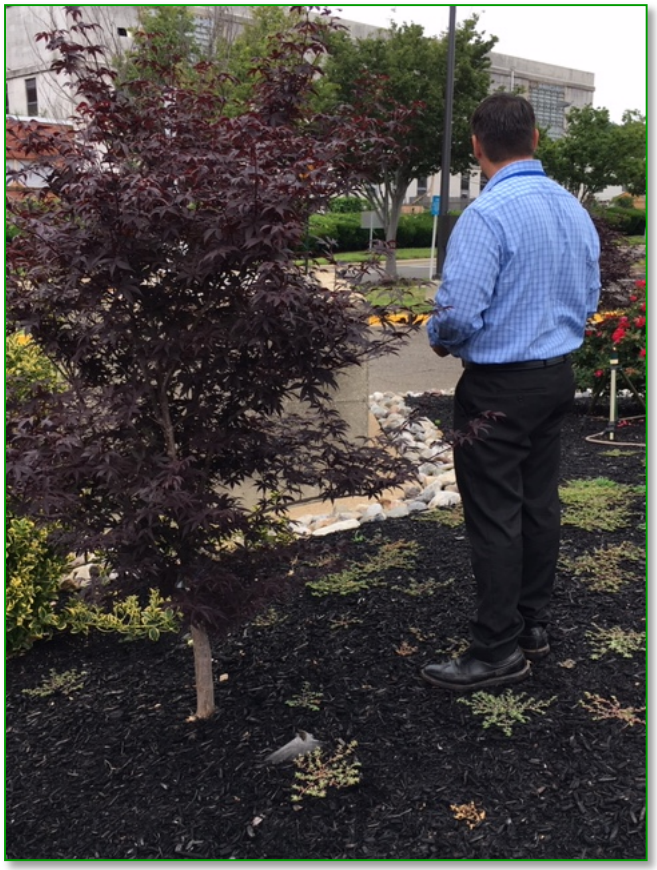
Impacts to Trees* on all Property Types (NPS, DDOT, and others)			
	Trees Removed	Trees Trimmed	Total
Trenchless Alternative	Up to 371	Up to 74 trees	Up to 445
Impacts to Trees* on NPS Property			
Trenchless Alternative	Up to 236	Up to 41 trees	Up to 277

*The width of the current Limit of Disturbance (LOD) allows for the construction contractor to maneuver around trees if possible to minimize vegetation impacts. During final design, the LOD would be refined and DC Water would include incentives in the construction bid documents for tree retention.

Impacts would be minimized by using super silt fencing and tree protection fencing; using the least impactful equipment necessary for the work; using geotextile, mulch, and wooden mats to reduce compaction of soil and adjacent tree root systems; implementing BMPs during construction to reduce introduction and/or spread of non-native invasive species; and environmental construction monitoring by ISA Certified Arborist.

Alternative 2: Trenchless Alternative

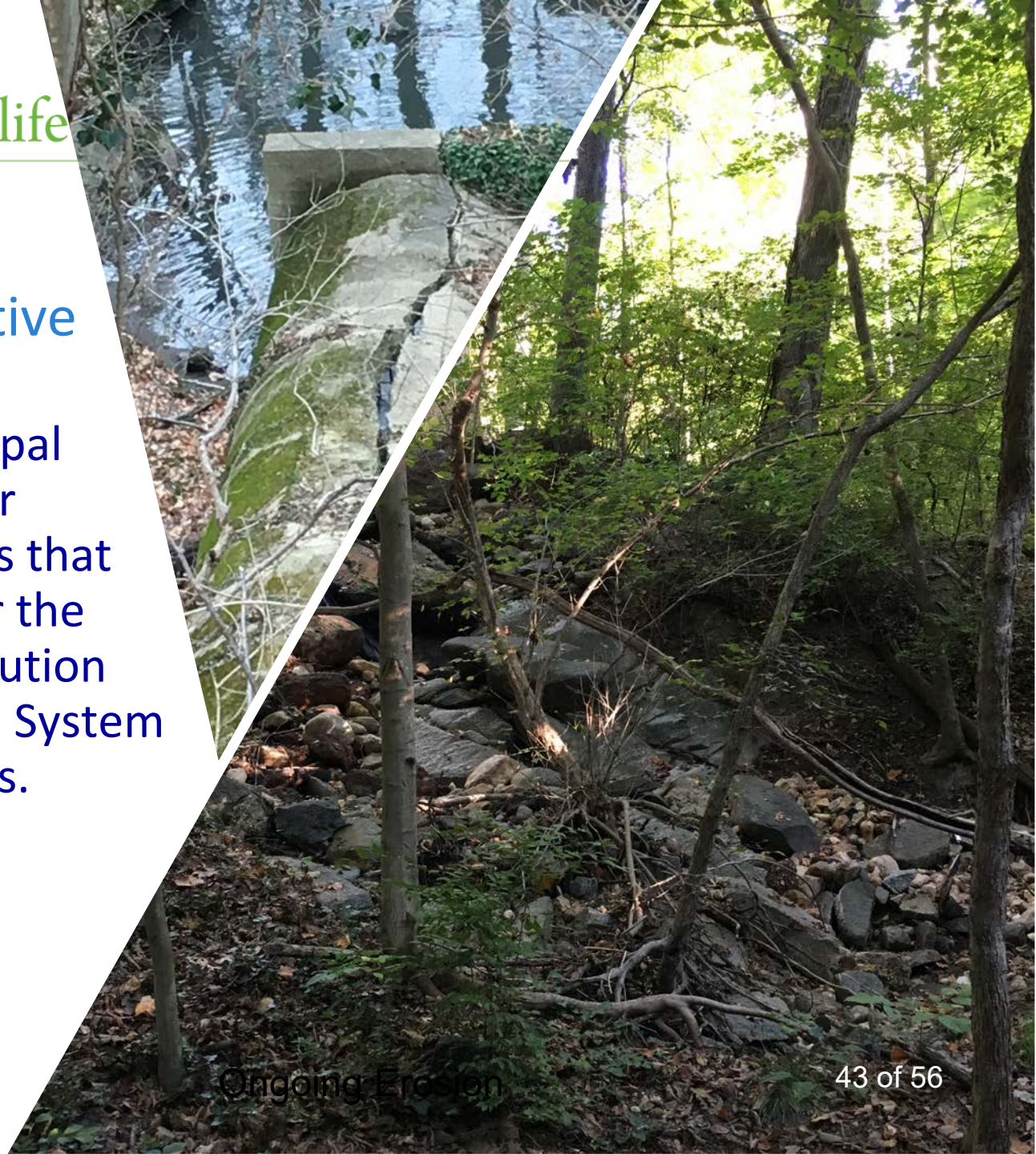
This is a 2” tree. Following construction 2.5” to 3” trees will be planted.



This is a 2” tree. Following construction 2.5” to 3” trees will be planted.

Alternative 2: Trenchless Alternative

There are two Municipal Separate Storm Sewer Systems (MS4) outlets that must be repaired, per the Districts National Pollution Discharge Elimination System (NPDES) requirements.



Ongoing Erosion

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Alternatives Considered and Dismissed

- Trenchless Pipe Relocating Along Aububon Terrace NW or Albemarle Street NW

- Open-Cut Pipe Replacement in Same Location

- Open-Cut Pipe Replacement in New Location Within the Park

Alternatives Considered and Dismissed

- Trenchless Construction Replacement Within Same Alignment
- Trenchless Construction in New Location Within the Park
- Installation of a Siphon

Alternatives Considered and Dismissed

- Trenchless Pipe Rehabilitation Options
  - Spiral Wound Pipe
  - Fold-and-Form
  - Horizontal Directional Drilling (HDD)
  - Pipe Bursting
  - Pipe Ramming

- Reroute Alternative

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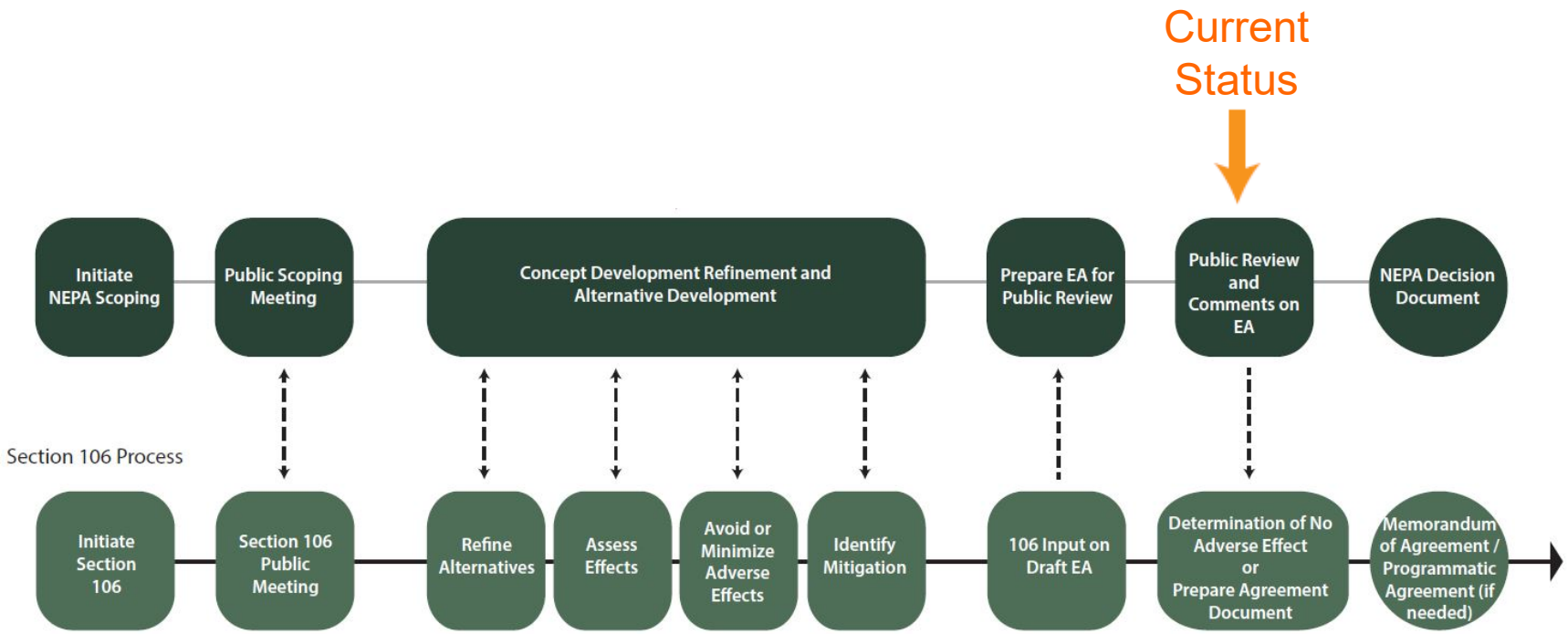
What is an Environmental Assessment (EA)?

- National Environmental Policy Act (NEPA) document
- Identifies range of alternatives considered and evaluated
- Identifies and evaluates potential environmental impacts such as:
  - Waterways and wetlands
  - Floodplains
  - Trees and vegetation
  - Aquatic and terrestrial wildlife and wildlife habitat
  - Cultural resources
  - Visitor use and experience
- Identifies mitigation to minimize adverse impacts

NEPA and Section 106 Process



Outline of NEPA and Section 106 processes. Retrieved from https://parkplanning.nps.gov/document.cfm?parkID=198&documentID=83443 on June 17, 2019.

Public Review and Comment

- 60-day Public Review from June 4th to August 2nd, 2019

- The public is encouraged to review and comment online via the National Park Service (NPS) Park Planning, Environment & Public Comment (PEPC) website:
  - **https://parkplanning.nps.gov/soapstonesewer**

- Written comments will be taken at tonight's meeting via the provided comment cards or comments may be mailed in, as discussed on the next slide.

Public Review and Comment

- Correspondence by mail must be postmarked by August 2, 2019, and addressed to:

Superintendent, Rock Creek Park
Attention: Soapstone Valley Park Sewer Rehabilitation EA
3545 Williamsburg Lane NW
Washington, DC 20008

- Hard copies of the EA are available here:

University of the District of Columbia (UDC) Library
4200 Connecticut Ave, NW, Washington, DC 20008
Note: Contact UDC Reference Librarian Chris Anglim - (202) 274-5843

Tenley-Friendship Public Library
Second Floor Information Desk
4450 Wisconsin Ave, NW
Washington, DC 20016
(202) 727-1488

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Questions