



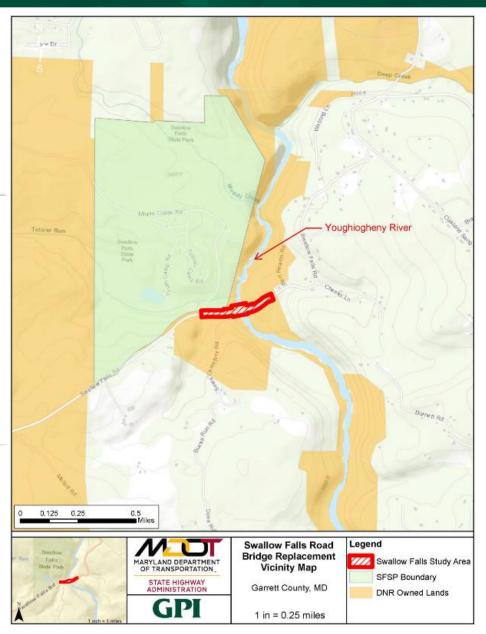
Swallow Falls Road Bridge over Youghiogheny River

Swallow Falls Road Bridge Replacement – Scenic and Wild River Exception Application Public Hearing – July 10, 2023

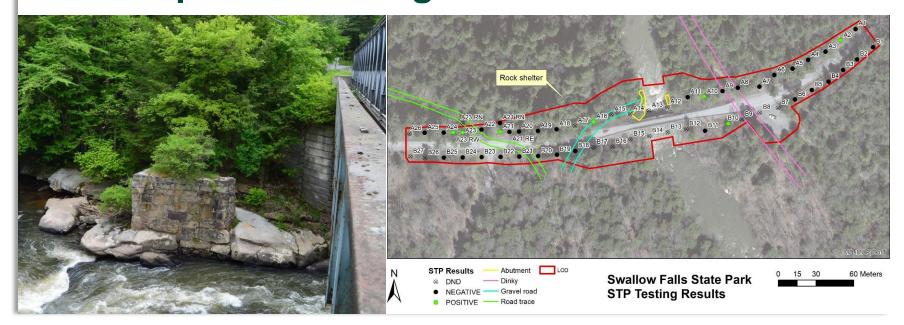


### **Project Location**

 Adjacent property is either DNR Swallow Falls State Park or DNR owned lands.



- Previous bridge was located north of the existing bridge
- Existing bridge was constructed to the south of the previous bridge in 1960



- Existing bridge was closed in 2011 due to severe corrosion
- The current temporary bridge was installed above existing bridge to safely convey traffic



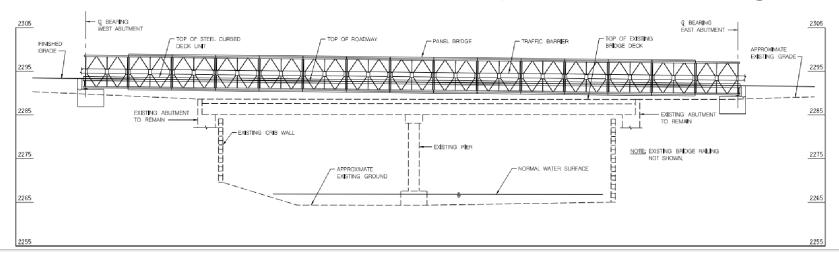
Existing Closed Bridge



 Temporary "Jumper" Bridge (Acrow Panel Truss Structure)



- Temporary Bridge (2011) Stub Abutments
  - On spread footing, so may be dependent upon stability of crib walls
  - Only sized for one-lane bridge width
  - Conclusion: not viable for permanent bridge



### • Existing Bridge (1960) Substructure

- No plans available to determine limits/strength
- Condition rating of 4 (Poor Condition) in 2011
- Conclusion: not viable for permanent bridge





- Funding was appropriated and project to replace the bridge was initiated in 2017
- Project Objectives:
  - Provide a safe, durable, and context sensitive new crossing
  - Minimize disruptions to mobility
  - Avoid and/or minimize impacts to natural resources
  - Provide safe access for pedestrians and cyclists

# Swallow Falls Road Bridge Design Development Process (To-Date)

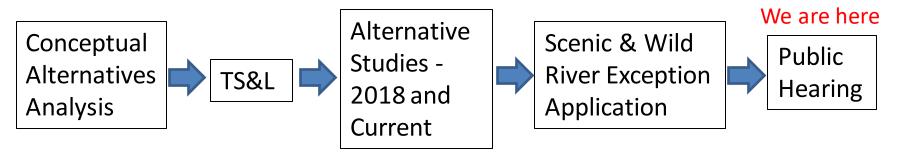
- Conceptual alternatives analysis (2018)
- Bridge Type, Size & Location plans (May 2018)
- Alternative study to provide increased SWM treatment (2021)
- Alternative study to reduce impacts by including retaining walls and revising geometrics (2022)
- Environmental Assessment and Alternatives Analysis for Scenic & Wild River Compliance (2023)
- Public Hearing (Today)

### Swallow Falls Road Bridge Design Development Process (Moving Forward)

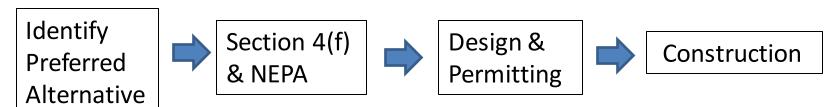
- Identify Preferred Alternative (2023) Resulting from Scenic and Wild River Exception Process
- Develop and Submit for Section 4(f) Approval (Estimated 2023-2024)
- Submit for NEPA Approval (Estimated 2024)
- Develop 90% Plans for Stakeholder Review (Estimated 2025)
- Develop PS&E Plans for Advertisement (Estimated 2025)
- Select Contractor and Construct Bridge (Estimated 2026)

# Swallow Falls Road Bridge Replacement Project Development Process

#### What has been done to date

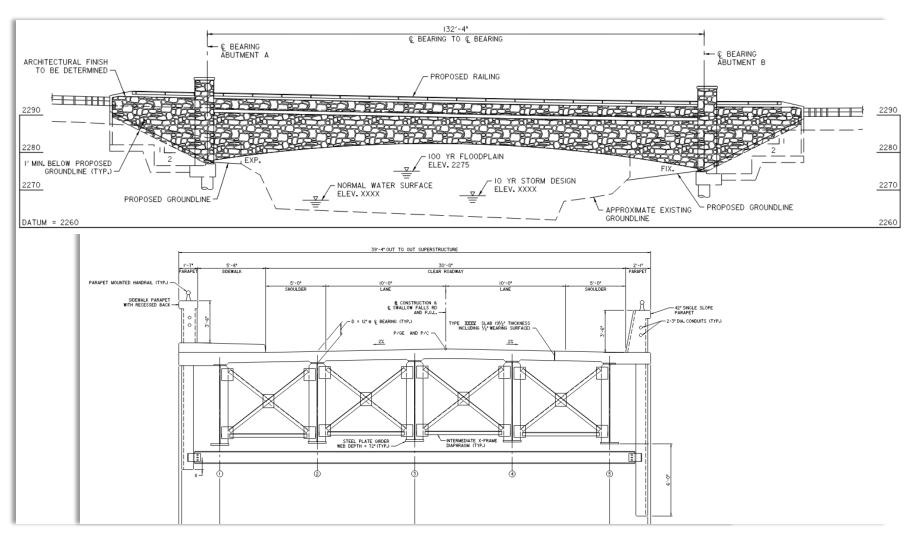


### What must be done moving forward



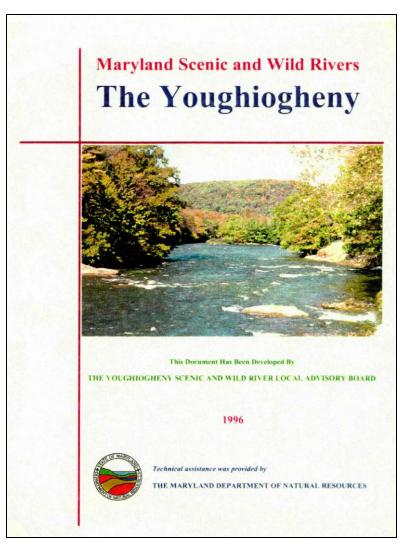
**GPI** 

### Swallow Falls Road Proposed Bridge

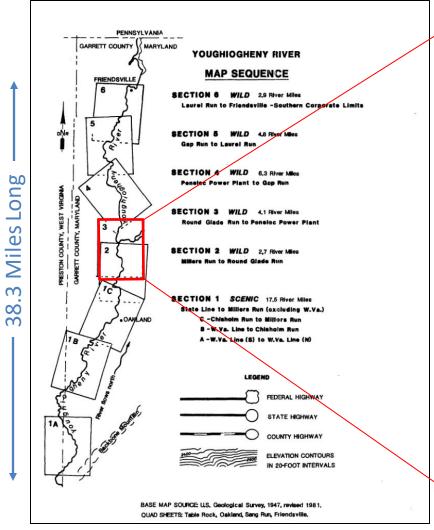


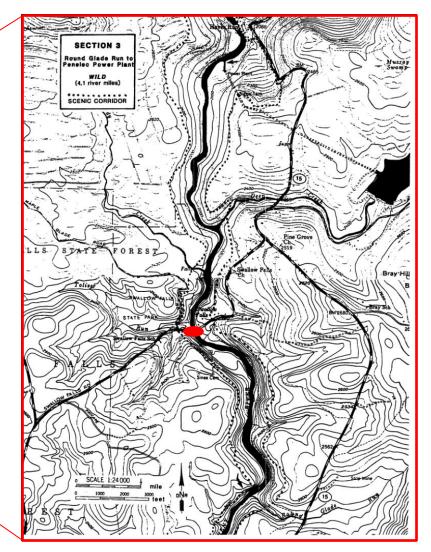
### Youghiogheny Scenic and Wild Rivers

- The Youghiogheny
   Scenic and Wild River
   Study and Management
   Plan
  - Used as guidance and resource document



### Youghiogheny River Scenic & Wild Corridor





### Youghiogheny Scenic and Wild Rivers

- Youghiogheny Scenic and Wild River Application for Use and Development
  - Aquatic resources
  - Riverine resources
  - Ecological systems
  - Fish and wildlife
  - Forest and vegetation
  - Geological features
  - Hydrological features
  - Water quality
  - Land use
  - Historic and cultural resources
  - Private landowner concerns
  - Wild character
  - Scenic and aesthetic character
  - Visitor experience



Larry Hogan, Governor Boyd Rutherford, Lt. Governor Jeannie Haddaway-Riccio, Secretary Allan Fisher, Deputy Secretary

#### YOUGHIOGHENY SCENIC AND WILD RIVER APPLICATION FOR USE AND DEVELOPMENT

The Maryland Department of Natural Resources Youghigheny Scenic and Wild Rivers Program is authorized by §8-401 through §8-411 of Title 8 of the Natural Resources Article of the Annotated Code of Maryland, and is implemented through the regulatory provisions of COMAR 08.15.01 through 08.15.04. The regulations require approval of land use and development activities in, near or affecting rivers that have been designated by the Maryland General Assembly as Seenic and Wild. Information provided on this form will be used in evaluating the request for approval. Information in this application is a matter of public record and will be included in public notice of the proposed activity. If necessary and sufficient information is not provided, the application may not be approved.

#### APPLICANT INFORMATION

| Name of Applicant | Name of Agent    |
|-------------------|------------------|
| Address           | Address          |
| Address           | Address          |
| City, State, Zip  | City, State, Zip |
| Phone             | Phone            |
| Email             | Email            |

#### LOCATION OF PROPOSED DEVELOPMENT

| River Name         |  |
|--------------------|--|
| General Location   |  |
| Latitude/Longitude |  |

#### ADJACENT PROPERTY OWNER INFORMATION

| Name | Address | Phone | Email |
|------|---------|-------|-------|
|      |         |       |       |
|      |         |       |       |
|      |         |       |       |
|      |         |       |       |
|      |         |       |       |

#### ENVIRONMENTAL ASSESSMENT

The Environmental Assessment shall be submitted as a separate document. See the attached description of required information

### Youghiogheny Scenic and Wild Rivers

**Swallow Falls Bridge Replacement** 

Youghiogheny River Scenic and Wild Rivers Application

**Environmental Assessment** 

Swallow Falls Bridge Replacement
Youghiogheny River Scenic and Wild Rivers Application
Environmental Assessment
Garrett County MD







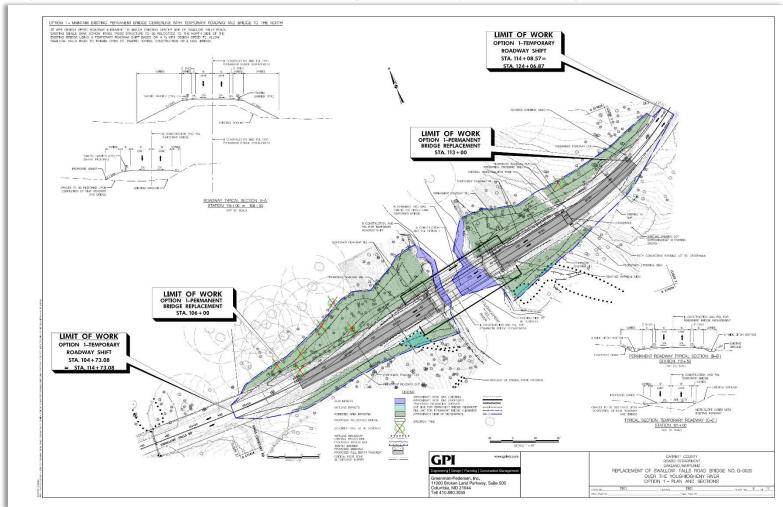
June 2023

### Swallow Falls Road Bridge Alternatives

### Design Alternatives (Refined Since 2018 Study)

- Option 1: Reconstruct Bridge on Existing Alignment with Temporary Bridge to North
- Option 1B: Reconstruct Bridge on Existing Alignment Using Slide-In Bridge Construction
- Option 1C: Reconstruct Bridge on Existing Alignment using Traditional Construction
- Option 2: Construct Bridge on Offset Alignment
- Option 2B: Construct Bridge on Offset Alignment and Provide Increased Stormwater Management Treatment
- Option 2C: Construct Bridge on Offset Alignment using Soldier Pile Retaining Walls
- Option 2D: Construct Bridge on Offset Alignment using Raised Profile

# Option 1: Reconstruct Bridge on Existing Alignment with Temporary Bridge to North



# Option 1B: Reconstruct Bridge on Existing Alignment Using Slide-In Bridge Construction

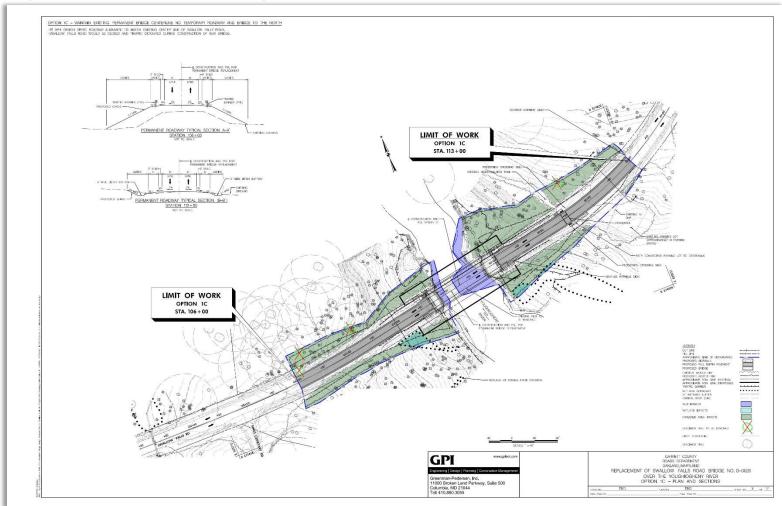
### Analysis:

- Most expensive
- Greatest impacts to natural resources

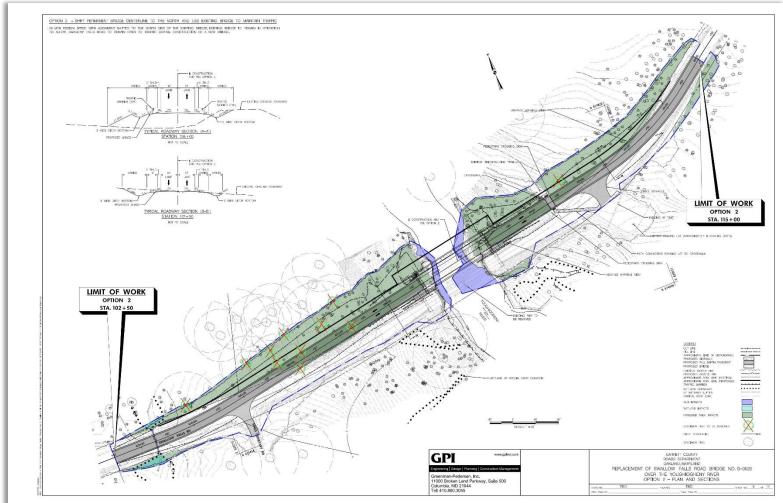
#### Conclusion:

Not studied for further consideration

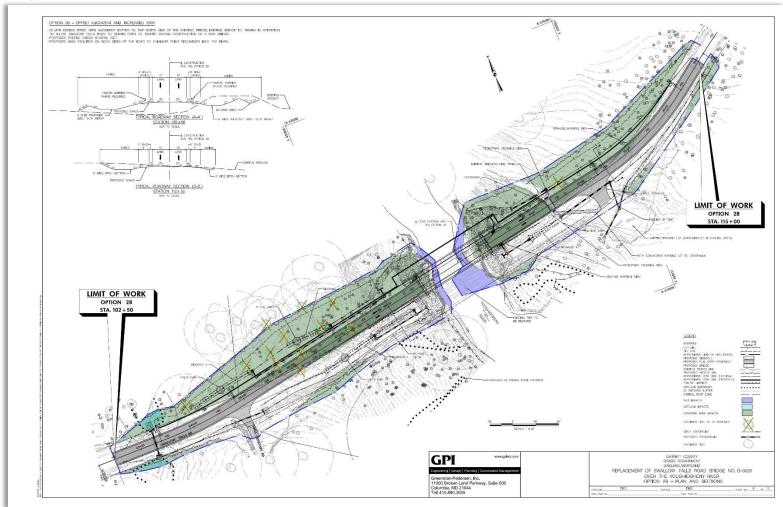
# Option 1C: Reconstruct Bridge on Existing Alignment using Traditional Construction



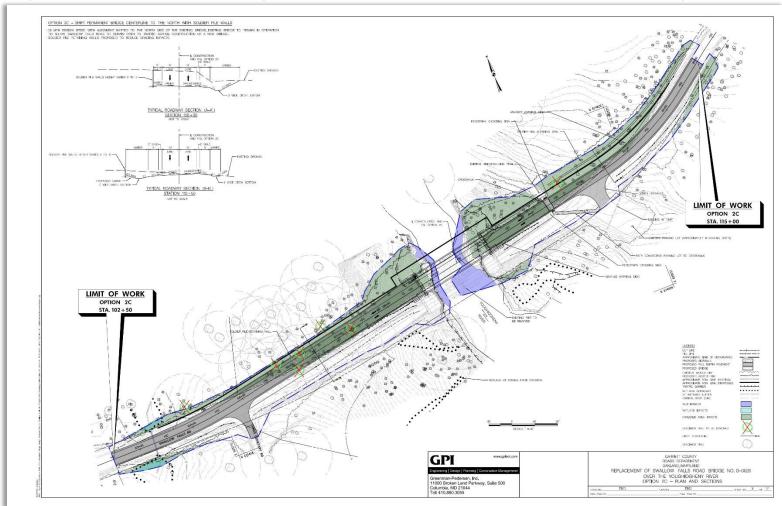
# Option 2: Construct Bridge on Offset Alignment (Using Preliminary Profile)



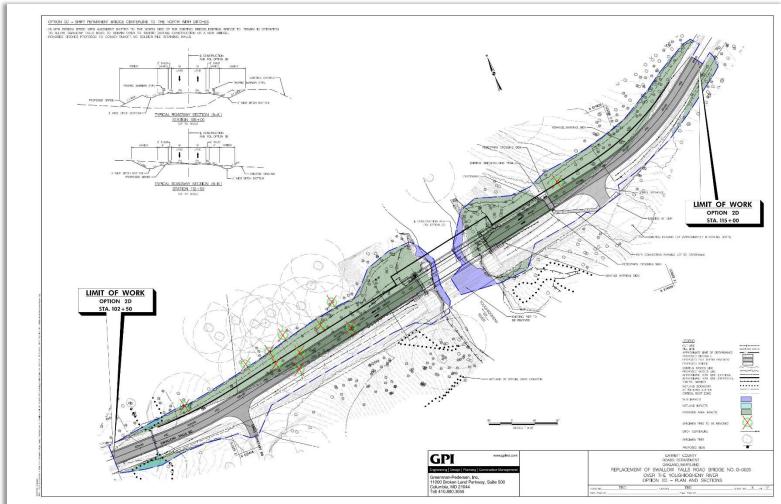
# Option 2B: Construct Bridge on Offset Alignment and Provide SWM Treatment



# Option 2C: Construct Bridge on Offset Alignment using Soldier Pile Retaining Walls



# Option 2D: Construct Bridge on Offset Alignment using Raised Profile



### Alternatives Analysis Impacts

- Option 1: Reconstruct Bridge on Existing Alignment with Temporary Bridge to North
  - High cost
  - Large wetland impacts
  - Negligible forest avoidance (compared to Options 2C and 2D)
  - Removed from consideration
- Option 2: Construct Bridge on Offset Alignment (Using Preliminary Profile)
  - Option 2D is the same concept with fewer natural resource impacts
  - Removed from consideration
- Option 2B: Construct Bridge on Offset Alignment and Provide SWM Treatment
  - Significant impacts to wetlands and forest stands
  - Removed from consideration

|           | Forest Clearing<br>(acres) | Specimen Tree<br>Removal | Specimen Trees with<br>CRZ Impact to be<br>Preserved | Tree Removal<br>12"-29.9" | Wetland<br>Impacts (SF) | Wetland Buffer<br>Impacts (SF) | Temporary WUS<br>Impacts (SF) | Permanent WUS<br>Impacts (SF) |
|-----------|----------------------------|--------------------------|--|---------------------------|-------------------------|--------------------------------|-------------------------------|-------------------------------|
| Option 1  | 0.96                       | 7                        | 7  | 163                       | 1,378                   | 6,588                          | 4,686                         | 58                            |
| Option 1C | 0.68                       | 4                        | 6  | 110                       | 1,373                   | 6,585                          | 4,378                         | 0                             |
| Option 2  | 1.27                       | 11                       | 8  | 227                       | 921                     | 4,069                          | 4,689                         | 58                            |
| Option 2B | 1.70                       | 13                       | 9  | 269                       | 1,675                   | 5,724                          | 4,698                         | 58                            |
| Option 2C | 1.00                       | 7                        | 7  | 183                       | 922                     | 4,052                          | 4,696                         | 58                            |
| Option 2D | 1.21                       | 11                       | 6  | 222                       | 921                     | 4,067                          | 4,689                         | 58                            |



### Alternatives Analysis Impacts

- Option 1C: Reconstruct Bridge on Existing Alignment using Traditional Construction
  - Greater Impacts to Mobility (Detour, Emergency Services)
  - Greater Impacts to Wetlands
  - Lesser Impacts to Forest
- Option 2C: Construct Bridge on Offset Alignment using Soldier Pile Retaining Walls
  - Lesser Impacts to Wetlands
  - Greater Impacts to Forest (Compared to Option 1C)
  - Higher Cost (Compared to Option 2D)
  - Greater Impact to Scenic & Wild Character
- Option 2D: Construct Bridge on Offset Alignment using Raised Profile
  - Lesser Impacts to Wetlands
  - Greater Impacts to Forest (Compared to Option 1C and Option 2C)

|           | Forest Clearing<br>(acres) | Specimen Tree<br>Removal | Specimen Trees with<br>CRZ Impact to be<br>Preserved | Tree Removal<br>12"-29.9" | Wetland<br>Impacts (SF) | Wetland Buffer<br>Impacts (SF) | Temporary WUS<br>Impacts (SF) | Permanent WUS<br>Impacts (SF) |
|-----------|----------------------------|--------------------------|--|---------------------------|-------------------------|--------------------------------|-------------------------------|-------------------------------|
| Option 1  | 0.96                       | 7                        | 7  | 163                       | 1,378                   | 6,588                          | 4,686                         | 58                            |
| Option 1C | 0.68                       | 4                        | 6  | 110                       | 1,373                   | 6,585                          | 4,378                         | 0                             |
| Option 2  | 1.27                       | 11                       | 8  | 227                       | 921                     | 4,069                          | 4,689                         | 58                            |
| Option 2B | 1.70                       | 13                       | 9  | 269                       | 1,675                   | 5,724                          | 4,698                         | 58                            |
| Option 2C | 1.00                       | 7                        | 7  | 183                       | 922                     | 4,052                          | 4,696                         | 58                            |
| Option 2D | 1.21                       | 11                       | 6  | 222                       | 921                     | 4,067                          | 4,689                         | 58                            |

### Alternatives Analysis Impacts

- Option 1C: Reconstruct Bridge on Existing Alignment using Traditional Construction
  - Not recommended due to road closure/detour and wetland impacts
- Option 2C: Construct Bridge on Offset Alignment using Soldier Pile Retaining Walls
  - Not preferred
  - Possible alternate to Option 2D to minimize forest impacts with retaining walls
- Option 2D: Construct Bridge on Offset Alignment using Raised Profile
  - Preferred option with no road closure/detour and no retaining walls

|           | Forest Clearing<br>(acres) | Specimen Tree<br>Removal | Specimen Trees with<br>CRZ Impact to be<br>Preserved | Tree Removal<br>12"-29.9" | Wetland<br>Impacts (SF) | Wetland Buffer<br>Impacts (SF) | Temporary WUS<br>Impacts (SF) | Permanent WUS<br>Impacts (SF) |
|-----------|----------------------------|--------------------------|--|---------------------------|-------------------------|--------------------------------|-------------------------------|-------------------------------|
| Option 1  | 0.96                       | 7                        | 7  | 163                       | 1,378                   | 6,588                          | 4,686                         | 58                            |
| Option 1C | 0.68                       | 4                        | 6  | 110                       | 1,373                   | 6,585                          | 4,378                         | 0                             |
| Option 2  | 1.27                       | 11                       | 8  | 227                       | 921                     | 4,069                          | 4,689                         | 58                            |
| Option 2B | 1.70                       | 13                       | 9  | 269                       | 1,675                   | 5,724                          | 4,698                         | 58                            |
| Option 2C | 1.00                       | 7                        | 7  | 183                       | 922                     | 4,052                          | 4,696                         | 58                            |
| Option 2D | 1.21                       | 11                       | 6  | 222                       | 921                     | 4,067                          | 4,689                         | 58                            |

## Option 2C: Looking Westward



## Option 2D: Looking Westward



## Option 2C: East Approach



## Option 2D: East Approach



## Option 2C: West Approach



## Option 2D: West Approach



### Next Steps



- Obtain Public Input
- DNR Review and Approval
- Engineering Design Development Proceeds

### **Contact Information**

### Maryland Department of Natural Resources

- Mary Owens: <a href="mary.owens@maryland.gov">mary.owens@maryland.gov</a>
- Director of Planning and Conservation Programs (Maryland Park Service)

#### GPI

- Wendy Wolcott, PLS: <u>wwolcott@gpinet.com</u>
- Director of Maryland Operations
- Garrett County Government
  - Jay Moyer: <u>imoyer@garrettcounty.org</u>
  - Director of Public Works

### **Project Information and Comments**

#### SWALLOW FALLS ROAD BRIDGE REPLACEMENT

# AT SWALLOW FALLS STATE PARK AND YOUGHIOGHENY WILD RIVER NATURAL ENVIRONMENT AREA

Additional information about the project can be found at: <a href="https://dnr.maryland.gov/publiclands/pages/western/swallowfalls.aspx">https://dnr.maryland.gov/publiclands/pages/western/swallowfalls.aspx</a>

Comments can be sent via email to <a href="mailto:SwallowFallsBridge.dnr@maryland.gov">SwallowFallsBridge.dnr@maryland.gov</a> or U.S. Mail at

MD Park Service - Planning, 580 Taylor Avenue, E-3, Annapolis, MD 21401