



PROJECT TIMELINE



1996 - Project Needs Established



1996 - 1998 - Preliminary Alternative Analysis (12 Alternatives)



1998 - 2001 - Detailed Alternatives Analysis (6 Alternatives)



2001 - Project Placed on Hold



2010 - Project Re-initiated and Presented to Agencies



2011 - 2012 - Field Studies Conducted



2012 - 2013 - Alternatives Analysis



PROJECT NEEDS



Transportation Demand



Existing Geometric Constraints



Accident Rates



Tunnel Conditions



System Linkage and Continuity



ENVIRONMENTAL CONSTRAINTS



PRELIMINARY
OCTOBER 22, 2013

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Pennsylvania Turnpike Commission



- Roads
- Township Line
- Structures
- Legal Right-of-Way
- Pennsylvania Turnpike

- Perennial Streams
- Intermittent Streams
- Ephemeral Streams
- Delineated Wetlands
- Flood Plains

LEGEND

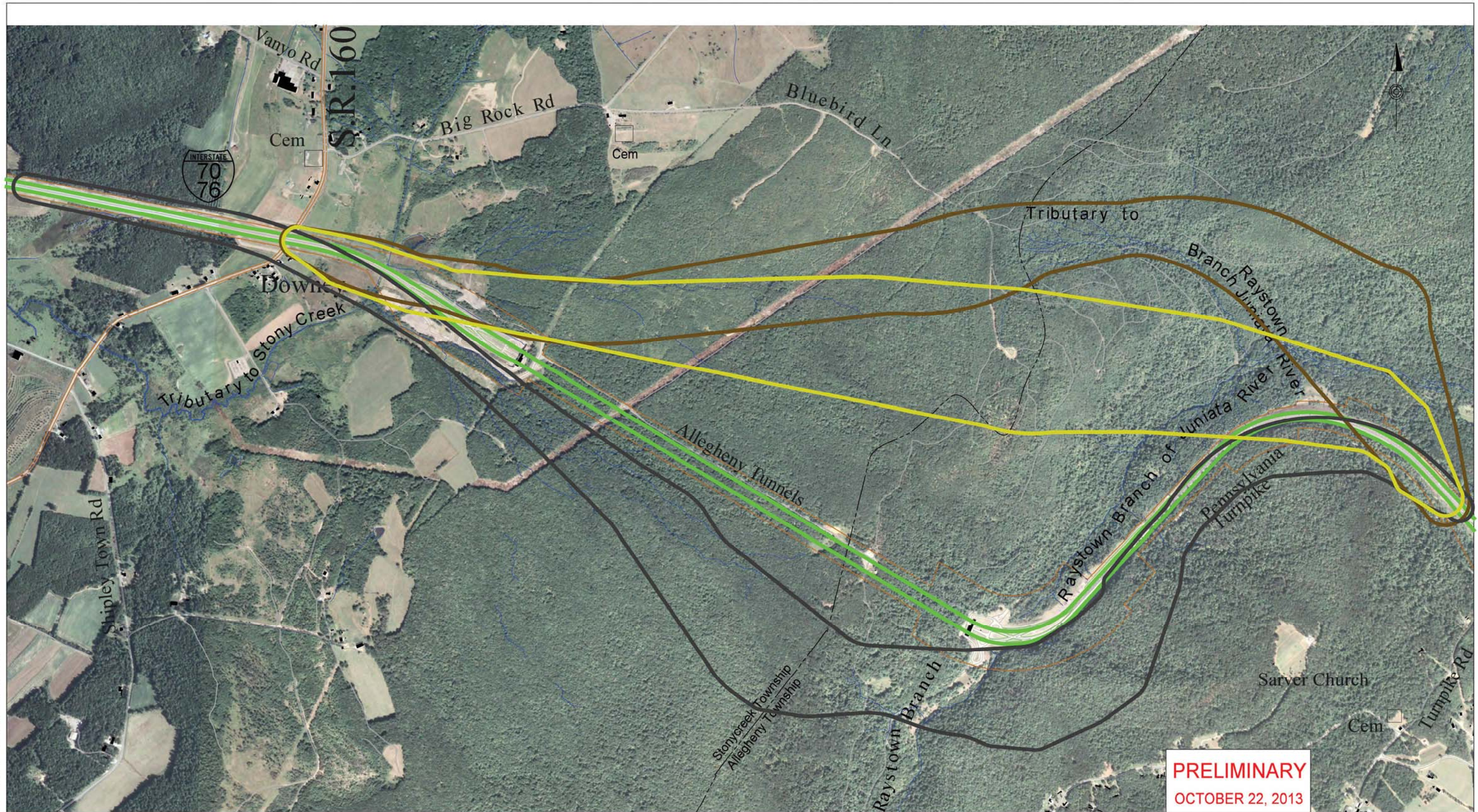
- Threatened or Endangered Species Habitat
- Area of Concern (Hazardous Material)

SCALE IN FEET 0 800 1600





PROJECT CORRIDORS



PRELIMINARY
OCTOBER 22, 2013

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Turnpike
Commission



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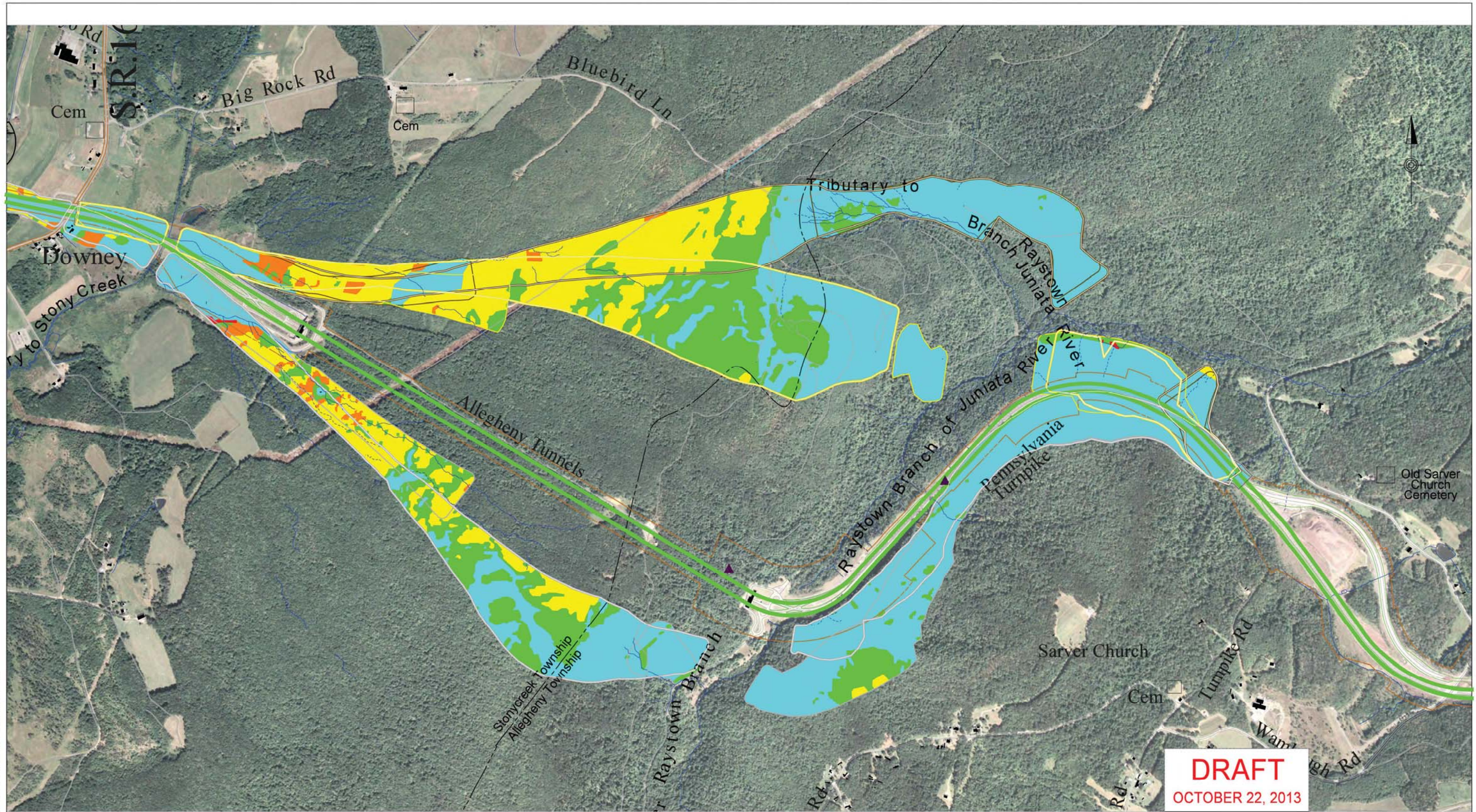
LEGEND

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|--------------------|----------------------|-----------------------------|
| Roads | Perennial Streams | Brown Alternative Corridor |
| Township Line | Intermittent Streams | Yellow Alternative Corridor |
| Structures | Ephemeral Streams | Gray Alternative Corridor |
| Legal Right-of-Way | | Pennsylvania Turnpike |





CULTURAL RESOURCES



DRAFT
OCTOBER 22, 2013

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Commission



SCALE IN FEET
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LEGEND

National Register Eligible Sites:
Pennsylvania Turnpike
South Penn Railroad Tunnel

Proposed Alternatives

- Brown Cut
- Brown Tunnel
- Yellow Cut
- Yellow Tunnel
- Gray Cut
- Gray Tunnel

Prehistoric Archaeological Site Potential

- Very High
- High
- Moderate
- Low
- Very Low

Transportation Improvement Project

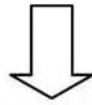


HISTORIC PRESERVATION

The Section 106 Process National Historic Preservation Act of 1966

Initiate Section 106 Process

- Establish undertaking
- Plan to involve the public
- Identify consulting parties

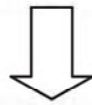


Identify Historic Properties

- Establish Area of Potential Effect (APE)
- Identify historic properties

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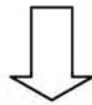
Public Involvement



Assess Adverse Effects

- Apply criteria of adverse effect

Public Involvement



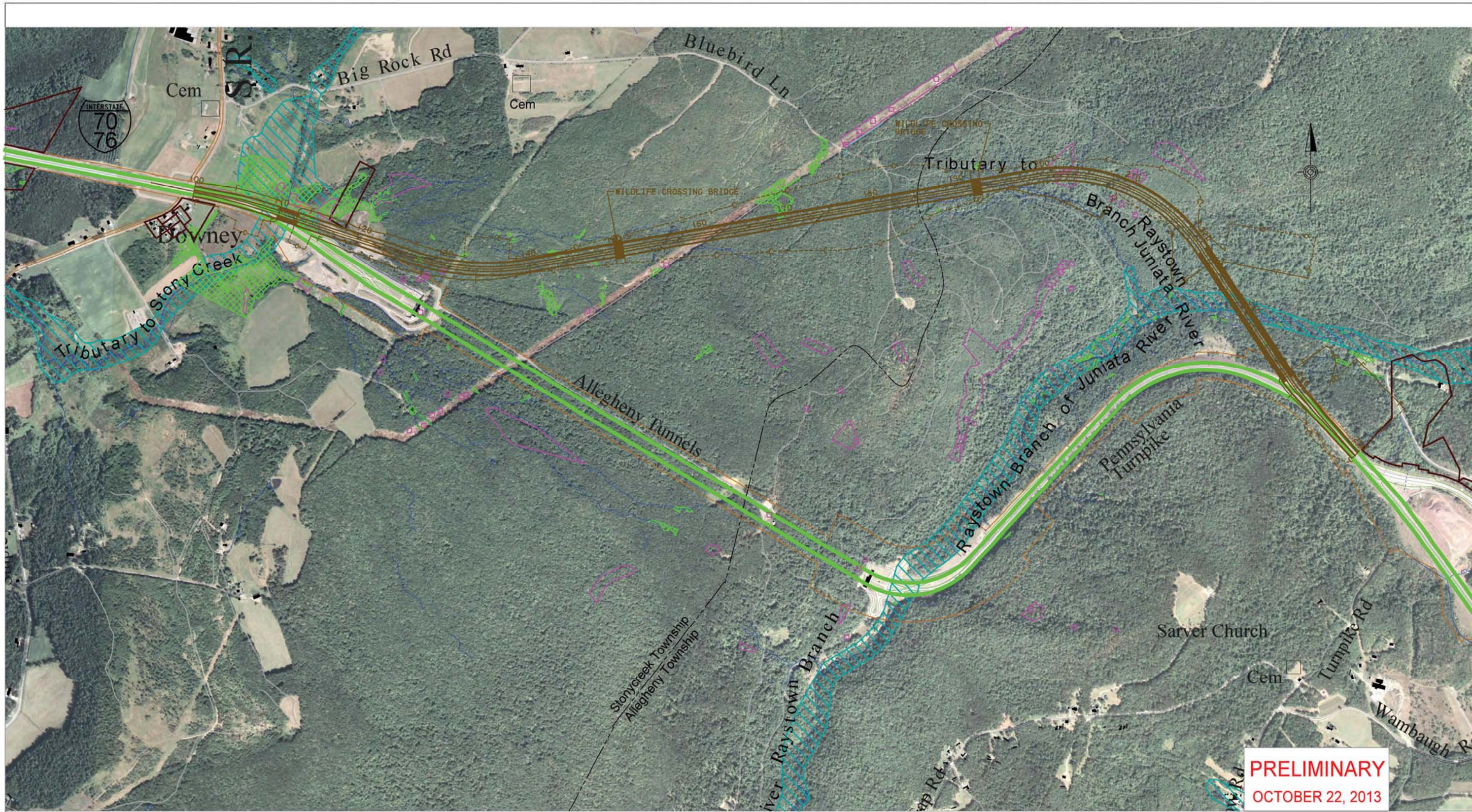
Resolve Adverse Effects

- Memorandum of Agreement (MOA)
- Avoidance
- Minimization
- Mitigation

Public Involvement



BROWN CUT ALTERNATIVE



PRELIMINARY
OCTOBER 22, 2013

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Turnpike
Commission



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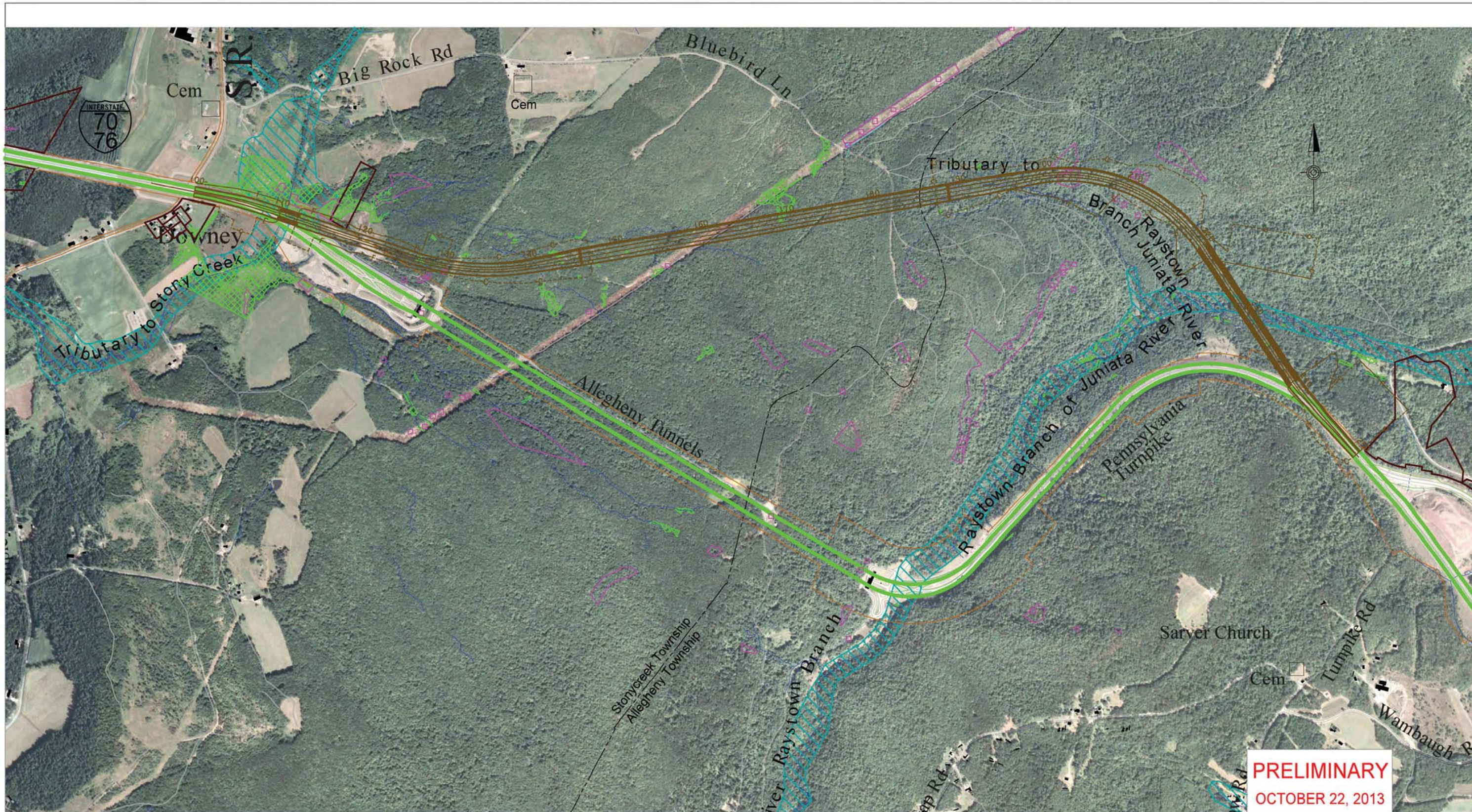
LEGEND

- Roads
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BROWN TUNNEL ALTERNATIVE



PRELIMINARY
OCTOBER 22, 2013

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Turnpike
Commission

SCALE IN FEET

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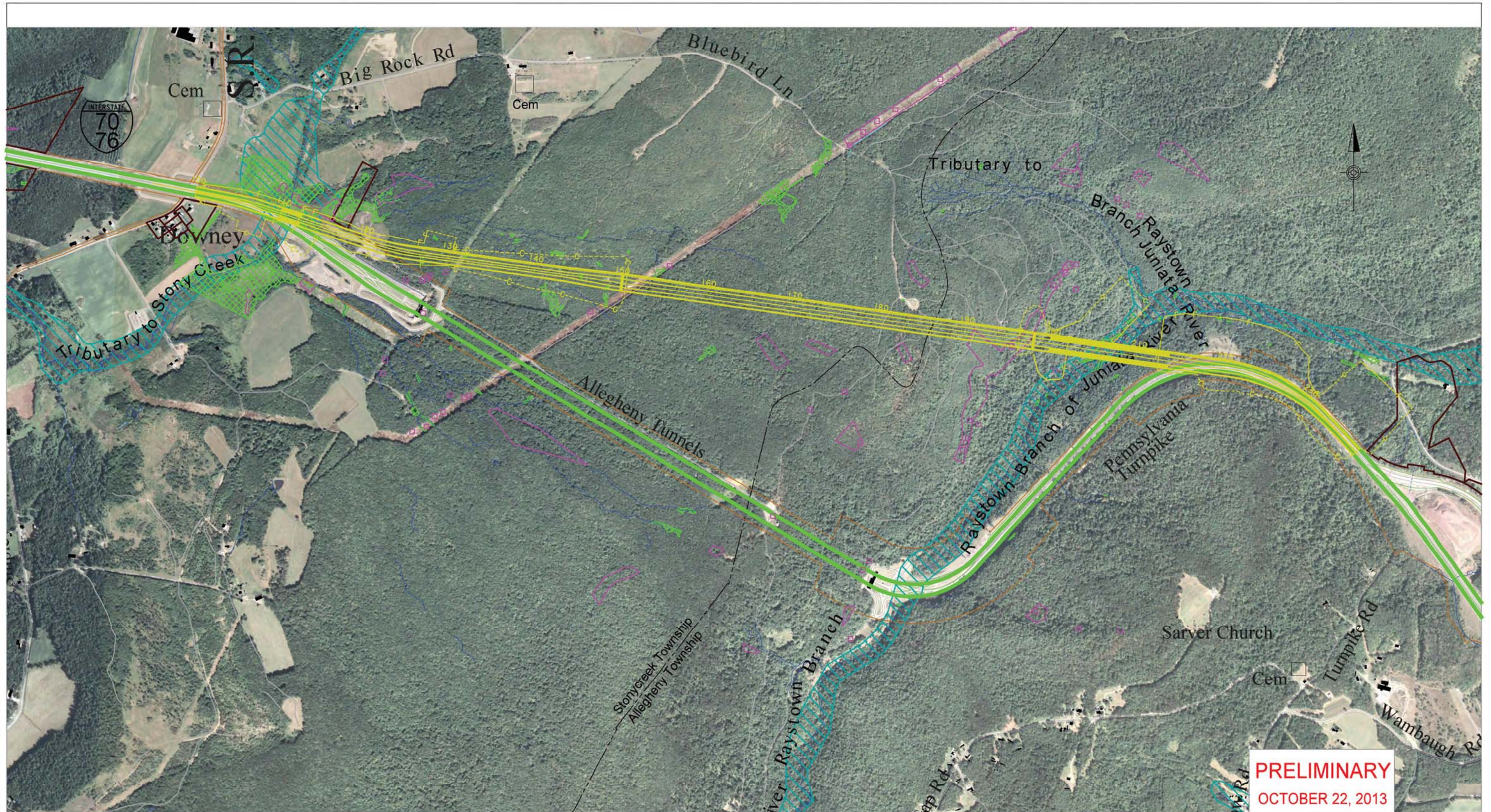
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ALLEGHENY tunnel

Transportation Improvement Project



YELLOW TUNNEL ALTERNATIVE



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Turnpike
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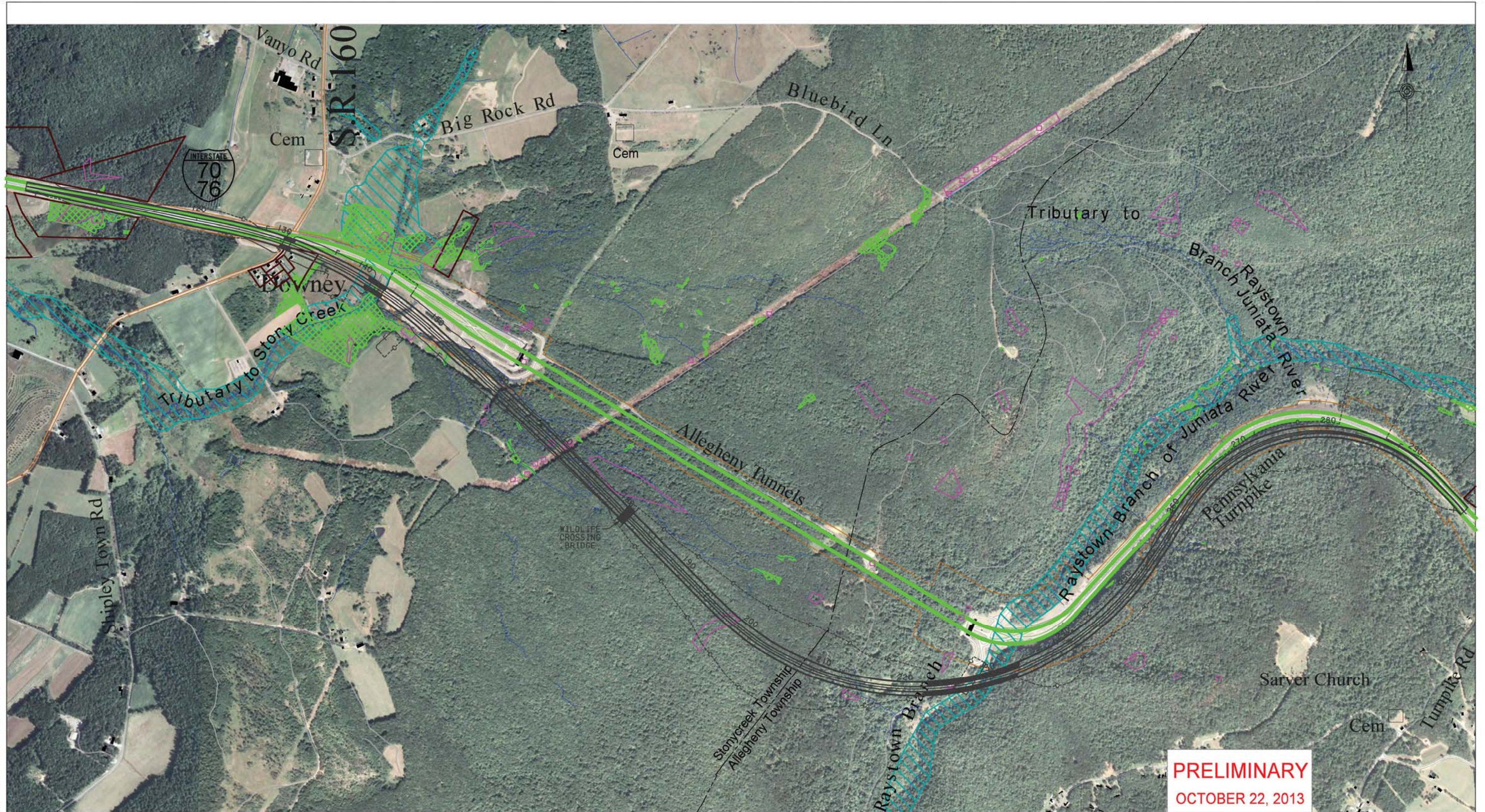
LEGEND

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GRAY CUT ALTERNATIVE



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Pennsylvania
Turnpike
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SCALE IN FEET 0 800 1600

- Roads
- Township Line
- Structures
- Limits of Construction
- Legal Right-of-Way

LEGEND

- Threatened or Endangered Species Habitat
- Area of Concern (Hazardous Material)
- Pennsylvania Turnpike

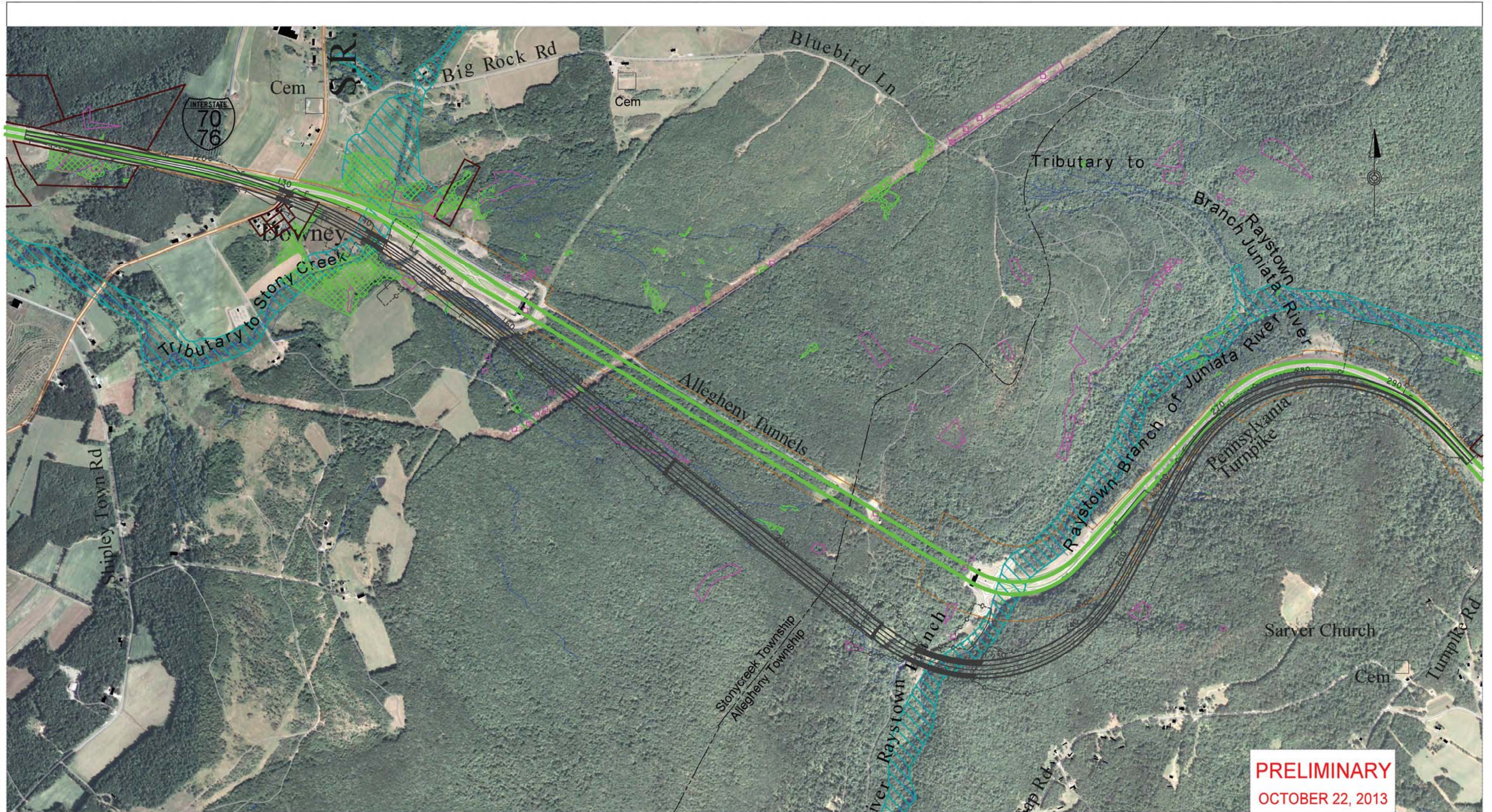
- Perennial Streams
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- Delineated Wetlands
- Flood Plains

PRELIMINARY
OCTOBER 22, 2013





GRAY TUNNEL ALTERNATIVE



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Pennsylvania
Turnpike
Commission



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LEGEND

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|------------------------|--|----------------------|
| Roads | Threatened or Endangered Species Habitat | Perennial Streams |
| Township Line | Area of Concern (Hazardous Material) | Intermittent Streams |
| Structures | Delineated Wetlands | Ephemeral Streams |
| Limits of Construction | Pennsylvania Turnpike | Flood Plains |
| Legal Right-of-Way | | |



ALTERNATIVES MATRIX

DESCRIPTION	BROWN CUT	BROWN TUNNEL	YELLOW CUT	YELLOW TUNNEL	GRAY CUT	GRAY TUNNEL
WETLAND IMPACTS: (ACRES)	4.32	3.38	3.47	3.48	0.74	0.83
TOTAL STREAM IMPACTS: (LINEAR FEET)	10,311	9,953	5,775	4,817	7,662	10,411
100 YEAR FLOOD PLAIN: (ACRES)	2.350	2.749	2.374	3.061	1.450	1.512
CULTURAL RESOURCES:						
NATIONAL REGISTER ELIGIBLE SITES:	1	1	1	1	1	1
PREHISTORIC ARCHAEOLOGICAL SITE POTENTIAL: (ACRES)						
VERY LOW:	72.92	69.96	88.08	62.28	112.7	101.82
LOW:	13.75	4.15	45.57	4.09	27.77	18.67
MODERATE:	45.62	9.63	34.17	16.48	20.46	16.08
HIGH:	3.89	2.88	3.85	3.16	3.68	4.35
VERY HIGH:	0.01	0.024	1.12	0.16	0.31	0.21
DISPLACEMENTS:						
RESIDENTIAL: (NUMBER)	0	0	0	0	2	1
THREATENED OR ENDANGERED SPECIES HABITAT:						
ACRES	2.35	2.33	3.36	2.02	2.03	5.85
IMPACT TO INDIANA BAT TRAVEL CORRIDOR (PROBABILITY)	HIGH	HIGH	HIGH	HIGH	LOW	LOW
AREAS OF CONCERN (HAZARDOUS MATERIALS)	3	3	3	3	5	5
OVERALL ALIGNMENT LENGTH: (LINEAR FEET)	15,057	15,057	13,865	13,837	19,870	20,205
BRIDGES: (LINEAR FEET)	2014	2126	2196	1625	1470	1270
MAXIMUM DEPTH OF CUT (FEET)	212	109	400	123	251	207
ESTIMATED COSTS:						
ESTIMATED TOTAL PROJECT COST	\$242,300,000	\$673,300,000	\$345,800,000	\$694,200,000	\$244,100,000	\$537,100,000
ESTIMATED OPERATION & MAINTENANCE COSTS / YEAR	\$700,000	\$3,300,000	\$600,000	\$3,600,000	\$900,000	\$3,000,000