Allegheny Tunnel Transportation Improvement Project
Project Needs

- Transportation Demand
- Existing Geometric Constraints
- Accident Rates
- Tunnel Conditions
- System Linkage and Continuity (Diversion of Hazardous Material Haulers)

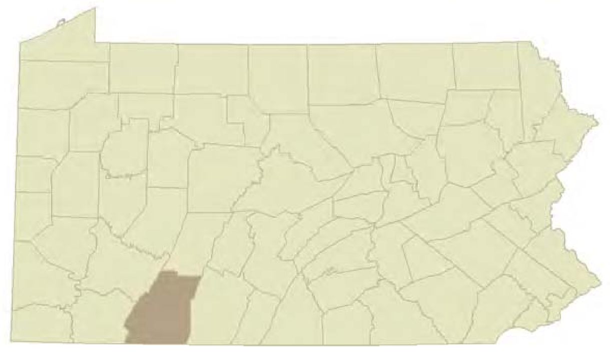
ALLEGHENY tunnel Transportation Improvement Project

L.R. Kimball

Project Timeline

- 1996 – Project Needs Established
- 1996 – 1998 – Preliminary Alternatives (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 – 2014 – Alternative Analysis
- October 2013 – Agency, Public Officials, and Public Meetings
- 2015-2016 – Project Area Expanded and Additional Field Studies
- 2017-2018 – Draft Environmental Document Prepared
- 2019 – Agency Meeting
- 2020 – Public Officials and Public Meetings

Allegheny Tunnel Transportation Improvement Project



ALLEGHENY tuNNel
PENNA TURN PIKE
Transportation Improvement Project

N
0 0.1 0.2 0.3 0.4 0.5 Miles

Potential Archaeology Resource Points
Potential Archaeology Resource Areas

Archaeology Predictive Model

- Low Probability of Prehistoric Archaeology
- Medium Probability of Prehistoric Archaeology
- High Probability of Prehistoric Archaeology

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Source: PASDA, CRGIS, Heberling Associates

September 2019

The Section 106 Process
National Historic Preservation Act of 1966

Initiate Section 106 Process

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

↓

Public Involvement

Identify Historic Properties

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

↓

Public Involvement

Assess Adverse Effects

- Apply criteria of adverse effect

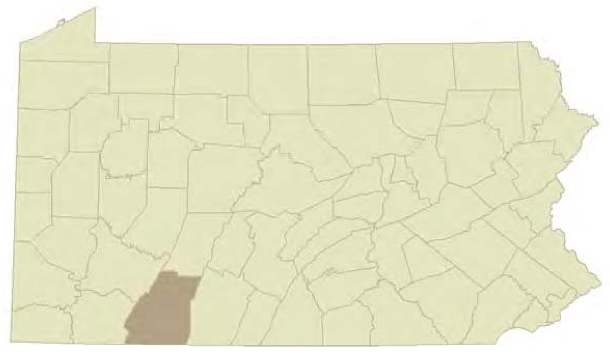
↓

Public Involvement

Resolve Adverse Effects

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

Allegheny Tunnel Transportation Improvement Project
Environmental Resources



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Transportation Improvement Project

N
0 0.1 0.2 0.3 0.4 0.5 Miles

Ephemeral Stream
Intermittent Stream
Perennial Stream

Wetlands
FEMA 100-Year Floodplain

Threatened and Endangered Species
Plant Population/Location
Mammal Habitat
Reptile Habitat

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Source: PASDA

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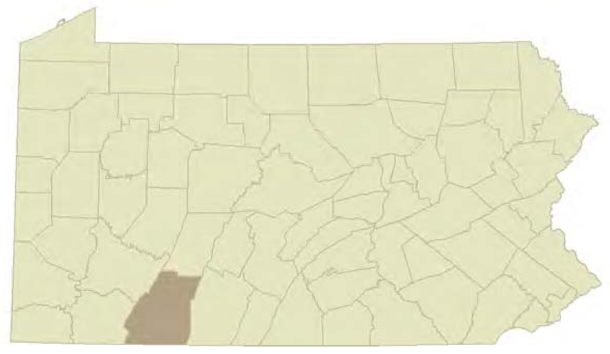
Allegheny Tunnel Transportation Improvement Project



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Transportation Improvement Project

N
0 0.1 0.2 0.3 0.4 0.5 Miles

Yellow Corridor	Ephemeral Stream	Wetlands
Gray Corridor	Intermittent Stream	
Brown Corridor	Perennial Stream	

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Source: PASDA

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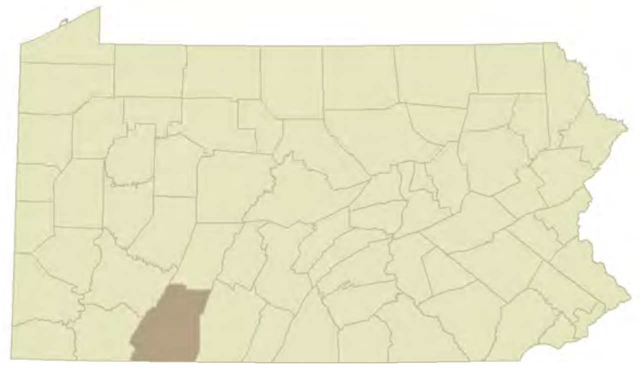
Allegheny Tunnel Transportation Improvement Project
Brown Cut Alternative



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N

0 0.1 0.2 0.3 0.4 0.5 Miles

Brown Cut Alternative
Wildlife Crossing
Bridge Location

Ephemeral Stream
Intermittent Stream
Perennial Stream

Wetlands
FEMA 100-Year Floodplain

Threatened and Endangered Species
Plant Population/Location
Mammal Habitat
Reptile Habitat

Pennsylvania Turnpike Commission

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Source: PASDA

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Allegheny Tunnel Transportation Improvement Project
Brown Tunnel Alternative

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PENNA TURN PIKE
Transportation Improvement Project

N
0 0.1 0.2 0.3 0.4 0.5 Miles

Brown Tunnel Alternative
Tunnel Location
Bridge Location

Ephemeral Stream
Intermittent Stream
Perennial Stream

Wetlands
FEMA 100-Year Floodplain

Threatened and Endangered Species
Plant Population/Location
Mammal Habitat
Reptile Habitat

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Source: PASDA

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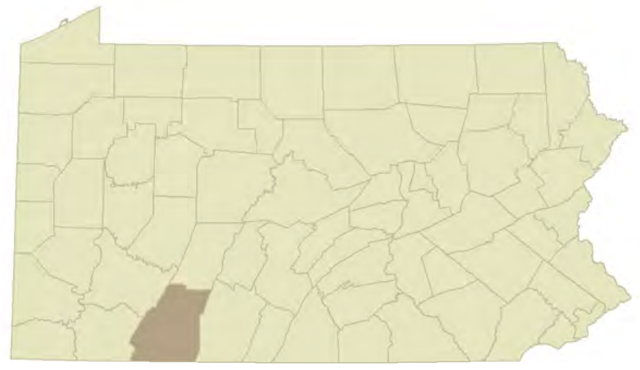
Allegheny Tunnel Transportation Improvement Project
Yellow Cut Alternative



ALLEGHENY TUNNEL
Transportation Improvement Project

N
0 0.1 0.2 0.3 0.4 0.5 Miles

Yellow Cut Alternative
Wildlife Crossing
Bridge Location
Ephemeral Stream
Intermittent Stream
Perennial Stream
Wetlands
FEMA 100-Year Floodplain

Threatened and Endangered Species
Plant Population/Location
Mammal Habitat
Reptile Habitat

Pennsylvania Turnpike Commission

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Source: PASDA

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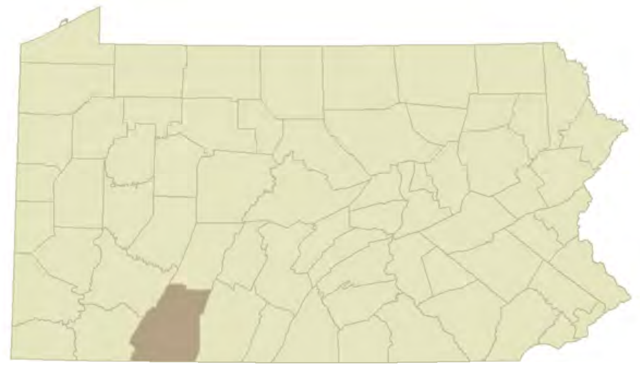
Allegheny Tunnel Transportation Improvement Project
Yellow Tunnel Alternative



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PENNA TURN PIKE
Transportation Improvement Project

N
0 0.1 0.2 0.3 0.4 0.5 Miles

Yellow Tunnel Alternative
Tunnel Location
Bridge Location

Ephemeral Stream
Intermittent Stream
Perennial Stream

Wetlands
FEMA 100-Year Floodplain

Threatened and Endangered Species

Plant Population/Location
Mammal Habitat
Reptile Habitat

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Source: PASDA

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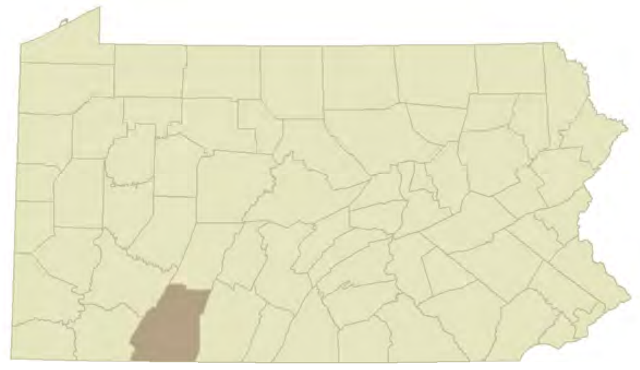
Allegheny Tunnel Transportation Improvement Project
Gray Cut Alternative



ALLEGHENY tuNNel
Transportation Improvement Project

N

0 0.1 0.2 0.3 0.4 0.5 Miles

Gray Cut Alternative	Ephemeral Stream	Wetlands
Wildlife Crossing	Intermittent Stream	FEMA 100-Year Floodplain
Bridge Location	Perennial Stream	

Threatened and Endangered Species

- Plant Population/Location
- Mammal Habitat
- Reptile Habitat

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Allegheny Tunnel Transportation Improvement Project
Gray Tunnel Alternative

ALLEGHENY tunnel
Transportation Improvement Project

N
0 0.1 0.2 0.3 0.4 0.5 Miles

Gray Tunnel Alternative
Tunnel Location
Bridge Location
Ephemeral Stream
Intermittent Stream
Perennial Stream
Wetlands
FEMA 100-Year Floodplain

Threatened and Endangered Species
Plant Population/Location
Mammal Habitat
Reptile Habitat

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Source: PASDA

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Alternatives Matrix

DESCRIPTION	NO BUILD	BROWN CUT	BROWN TUNNEL	YELLOW CUT	YELLOW TUNNEL	GRAY CUT	GRAY TUNNEL
WETLAND IMPACTS TOTAL (DIRECT + INDIRECT) – AC.	0.00	3.84	0.97	1.89	2.04	0.70	0.85
STREAM IMPACTS TO BE PERMITTED (RELOCATION, CULVERT AND LOSS): TOTAL – FT.	0.00	2,704	1,937	5,704	5,058	8,483	11,025
FOREST (DECIDUOUS/EVERGREEN/MIXED) – AC.	0.00	136.88	102.33	154.56	88.76	211.81	178.07
CULTURAL RESOURCES:	--	--	--	--	--	--	--
NATIONAL REGISTER ELIGIBLE/LISTED PROPERTIES PRESENT: #	2	2	2	2	2	2	2
EFFECTS DETERMINATION FOR NR ELIGIBLE/LISTED PROPERTIES	2 NO EFFECT	1 NO EFFECT 1 ADVERSE EFFECT	1 NO EFFECT 1 ADVERSE EFFECT	1 NO EFFECT 1 ADVERSE EFFECT	1 NO EFFECT 1 ADVERSE EFFECT	1 NO EFFECT 1 ADVERSE EFFECT	1 NO EFFECT 1 ADVERSE EFFECT
POTENTIAL ARCHEOLOGICAL IMPACTS: AC. OF HIGH POTENTIAL AREAS	--	--	--	--	--	--	--
HIGH – AC.	0.00	14.95	15.68	18.98	13.31	25.99	24.27
DISPLACEMENTS: #	--	--	--	--	--	--	--
RESIDENTIAL: #	0	0	0	0	0	0	1
THREATENED OR ENDANGERED PLANT SPECIES IMPACTS:	--	--	--	--	--	--	--
APPALACHIAN BLUE VIOLET (*VIOLA APPALACHIENSIS*) – AC. # OF ADDITIONAL POPULATIONS (AREAS TOO SMALL TO BE DETERMINED BY ACREAGE)	0.00 0	0.01 0	0.00 0	0.00 0	0.00 0	0.23 1	4.95 1
BOG GOLDENROD (*SOLIDAGO ULIGINOSA*) – AC.	0.00	0.00	0.00	0.04	0.03	0.00	0.00
BOG GOLDENROD/STIFF COWBANE (*SOLIDAGO ULIGINOSA/OXYPOLIS RIGIDIOR*) – AC.	0.00	0.15	0.17	0.00	0.00	0.18	0.20
THICK-LEAVED MEADOW-RUE (*THALICTRUM CORIACEUM*) – AC.	0.00	0.62	0.54	1.61	0.86	0.00	0.00
MOUNTAIN BELLWORT (*UVULARIA PUDICA*) – AC.	0.00	5.91	1.88	1.07	0.00	1.21	0.96
GINSENG (PANAX QUINQUEFOLIUS) – AC. # OF ADDITIONAL POPULATIONS (AREAS TOO SMALL TO BE DETERMINED BY ACREAGE)	0.00 0	0.00 1	0.00 1	0.00 0	0.00 0	0.00 0	0.01 0
TIMBER RATTLESNAKE (*CROTALUS HORRIDUS*) HABITAT IMPACT – AC.	0.00	2.35	0.46	0.00	0.00	0.00	0.00
ALLEGHENY WOODRAT (*NEOTOMA MAGISTER*) HABITAT IMPACT – AC.	0.00	1.04	0.66	<0.01	0.95	1.61	1.02
SMALL-FOOTED MYOTIS (*MYOTIS LEIBII*) BAT ROCKY HABITAT IMPACT – # OF HIGH QUALITY AND HIBERNACULA SITES	--	--	--	--	--	--	--
HIGH - #	N/A	2	0	0	0	1	1
POTENTIAL HIBERNACULA - #	0	0	0	0	0	2	2
INDIANA BAT (*MYOTIS SODALIS*) TRAVEL CORRIDOR IMPACT – HIGH POTENTIAL OR LOW POTENTIAL	N/A	HIGH	HIGH	HIGH	HIGH	LOW	LOW
PARCELS CONTAINING AREAS OF POTENTIAL HAZARDOUS MATERIALS CONCERN - #	0	5	5	4	4	7	7
OVEREXCAVATION – C.Y.	N/A	N/A	N/A	N/A	N/A	6,163,075	7,050,974
EXCESS EXCAVATION – C.Y.	N/A	9,767,392	3,786,127	25,399,084	969,547	12,286,557	9,043,958
MAXIMUM DEPTH OF CUT – FT.	N/A	199	148	400	196	249	207
ESTIMATED COSTS:	--	--	--	--	--	--	--
ESTIMATED TOTAL PROJECT COST	N/A	$384,900,000	$761,100,000	$378,000,000	$702,100,000	$332,400,000	$627,900,000
ESTIMATED OPERATION & MAINTENANCE COSTS / YEAR	N/A	$1,000,000	$3,700,000	$800,000	$3,900,000	$1,100,000	$3,300,000

Allegheny Tunnel Transportation Improvement Project

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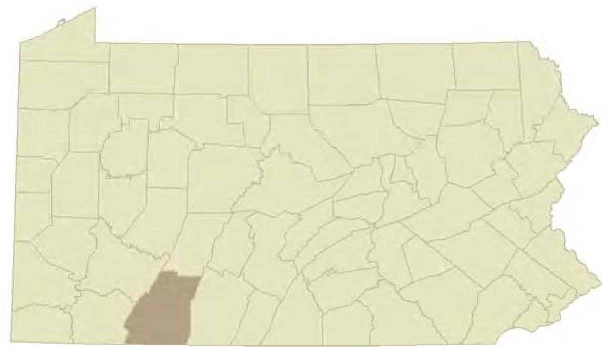
Avoidance and Minimization of Gray Cut Alternative

- Alignment that is constructable and close to the existing tunnels
- Higher profile over the ridge to minimize stream impacts
- Structure included to avoid large wetland system west of the tunnel
- Bat flight corridor avoided to the north
- Alignment shifts and slope steepening to avoid environmental resources
- Wildlife crossings incorporated

Allegheny Tunnel Transportation Improvement Project
Gray Cut Alternative



ALLEGHENY tuNNel
Transportation Improvement Project

N
0 0.1 0.2 0.3 0.4 0.5 Miles

Gray Cut Alternative
Wildlife Crossing
Bridge Location
Ephemeral Stream
Intermittent Stream
Perennial Stream
Wetlands
FEMA 100-Year Floodplain

Threatened and Endangered Species
Plant Population/Location
Mammal Habitat
Reptile Habitat

Pennsylvania Turnpike Commission

L.R. Kimball

Source: PASDA

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