

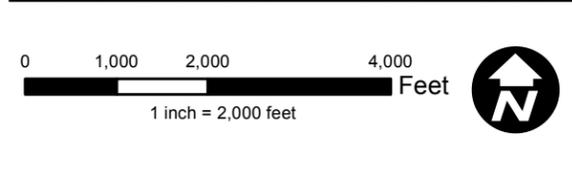
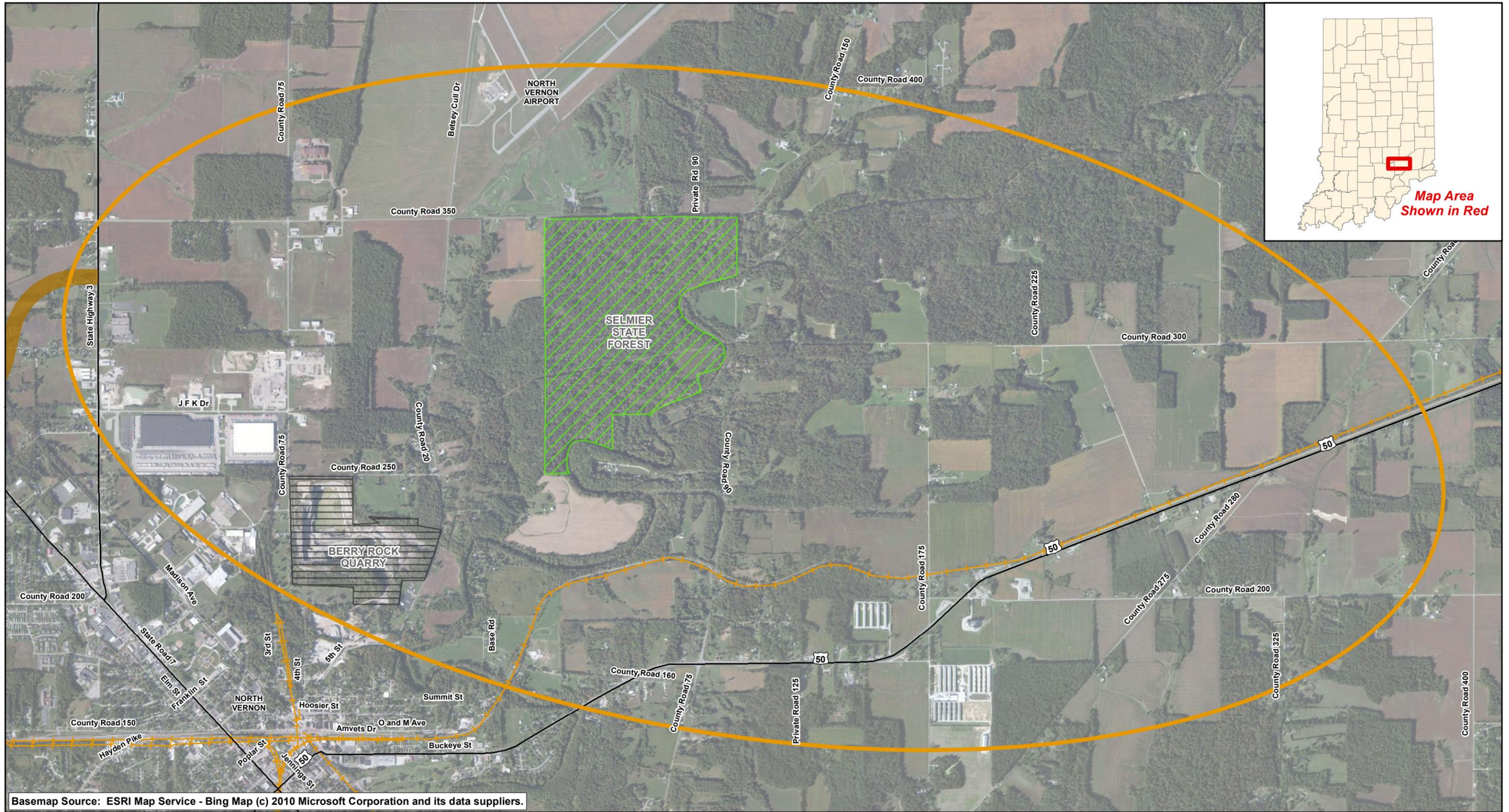
## Appendix A

# MAPS

- Alternative Development Maps 1 – 10
- Environmental Features Map 11
- Elevation Analysis, Cumulative and Indirect Impacts Maps 12 – 16

# *Alternative Development*

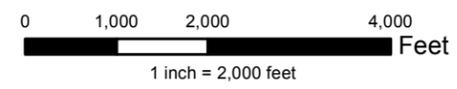
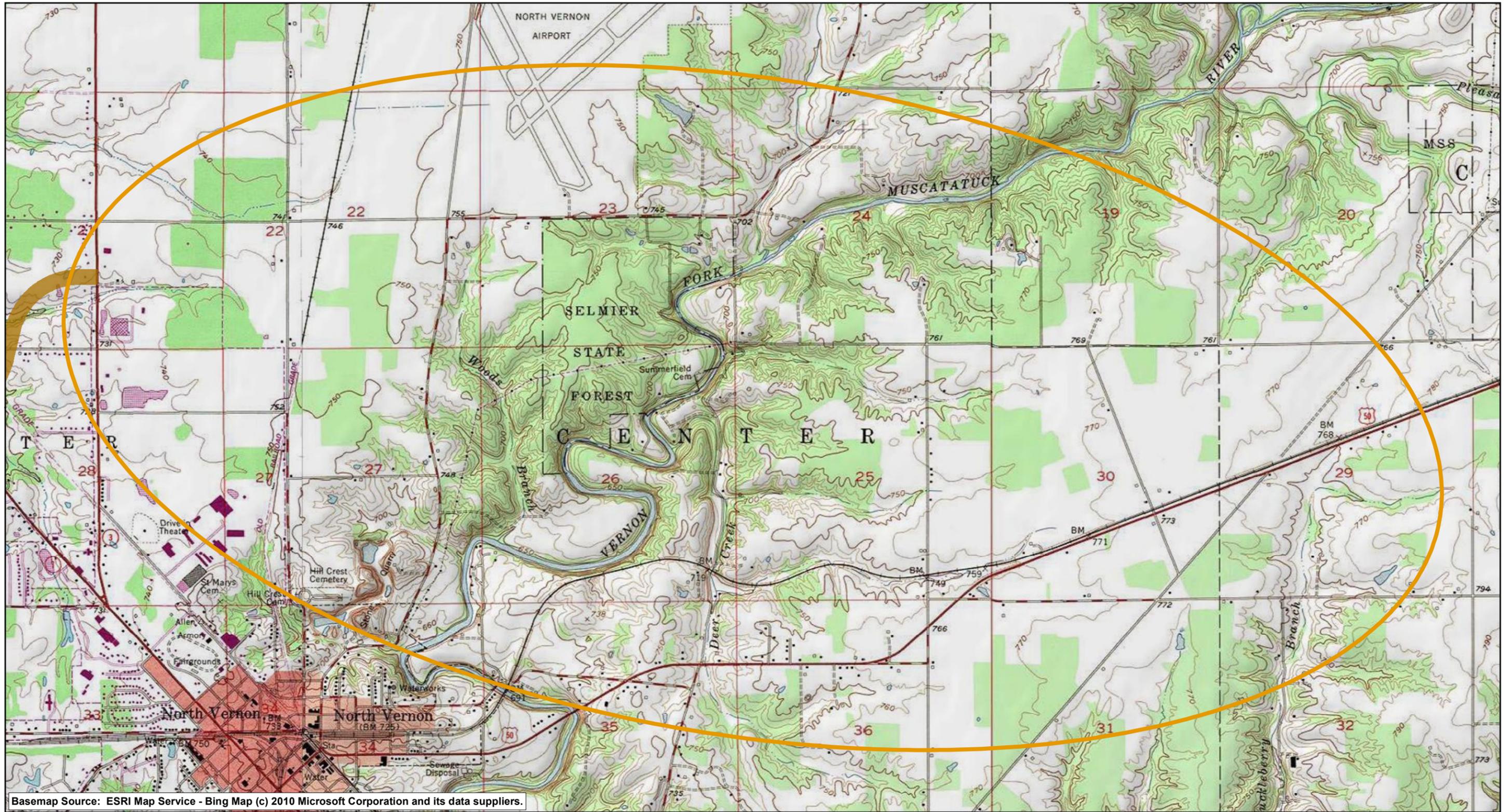
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- Legend**
- Project Study Area
  - US 50 North Vernon Bypass - West (Under Construction)

**MAP 1**  
**Project Study Area Location Map**



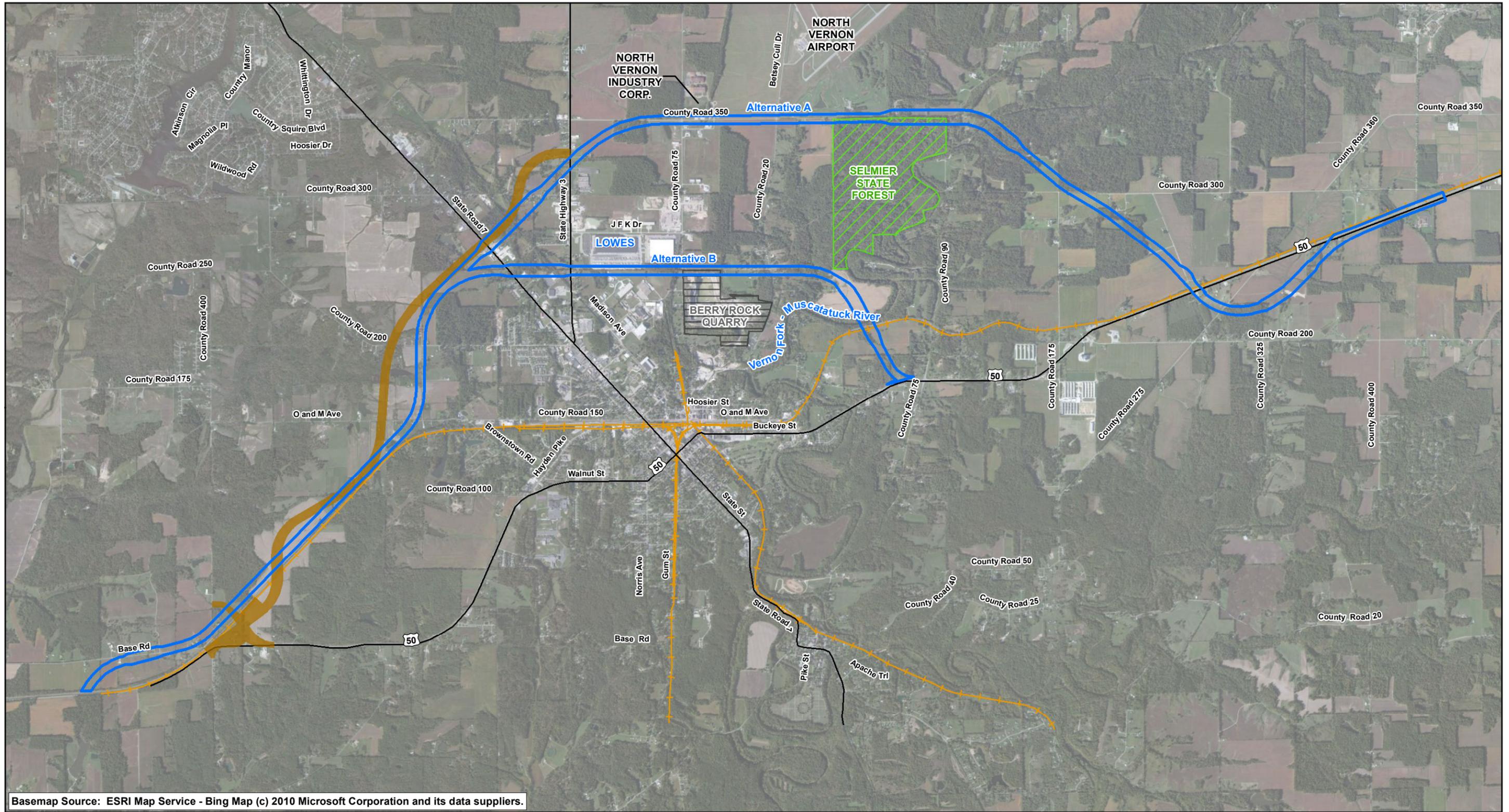


**Legend**

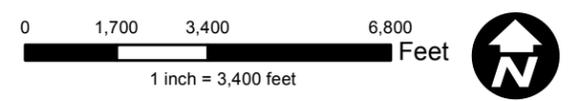
- Project Study Area
- US 50 North Vernon Bypass - West (Under Construction)

**MAP 2**  
**USGS Topographic Map**





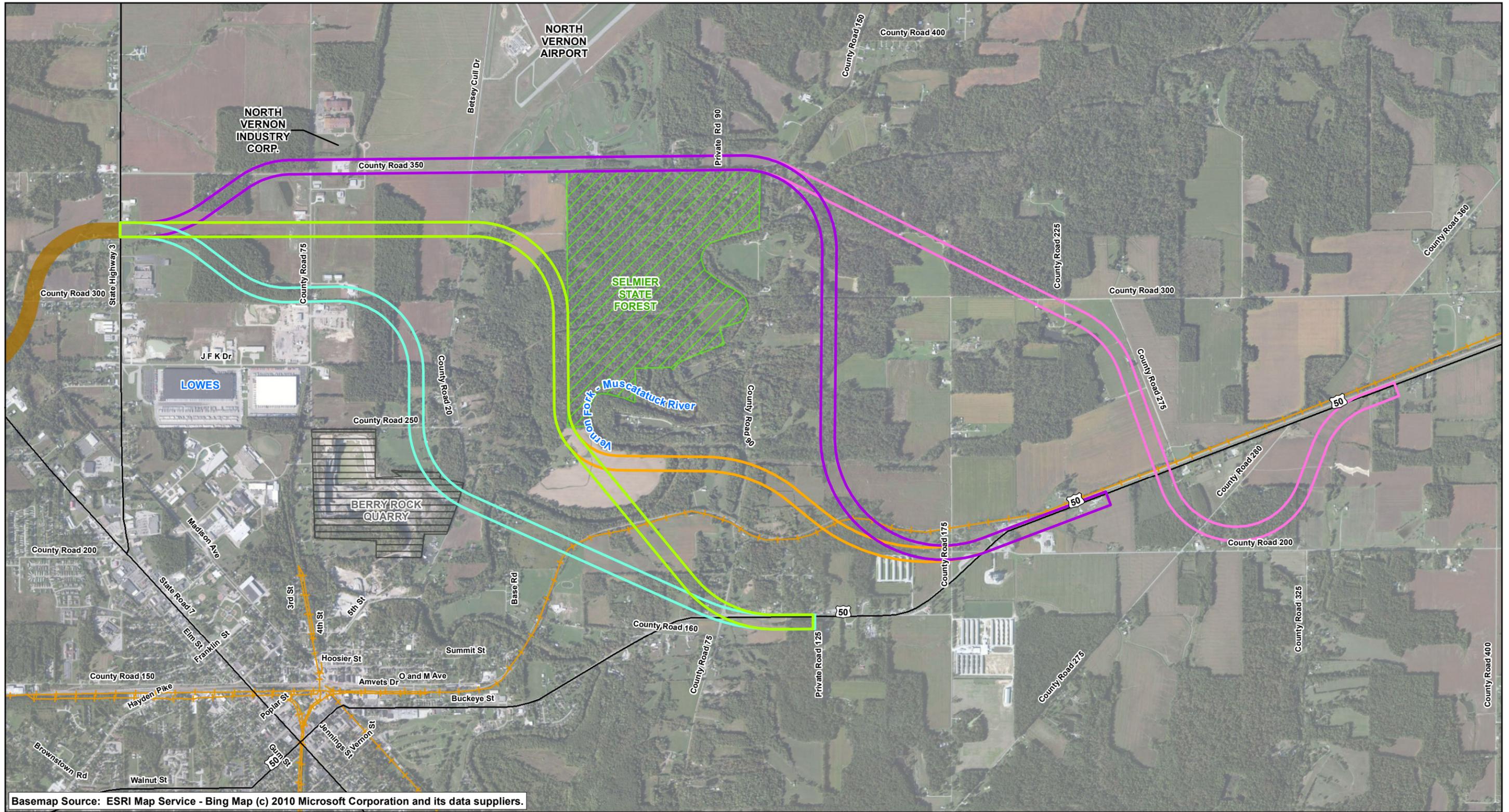
Basemap Source: ESRI Map Service - Bing Map (c) 2010 Microsoft Corporation and its data suppliers.



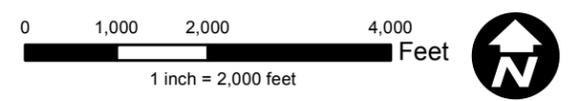
- Legend**
- US 50 North Vernon Bypass - West (Under Construction)
  - 2008 Study Alternatives

**MAP 3**  
**Project Alternatives**  
**Alternative A and B from 2008 Screening Report**





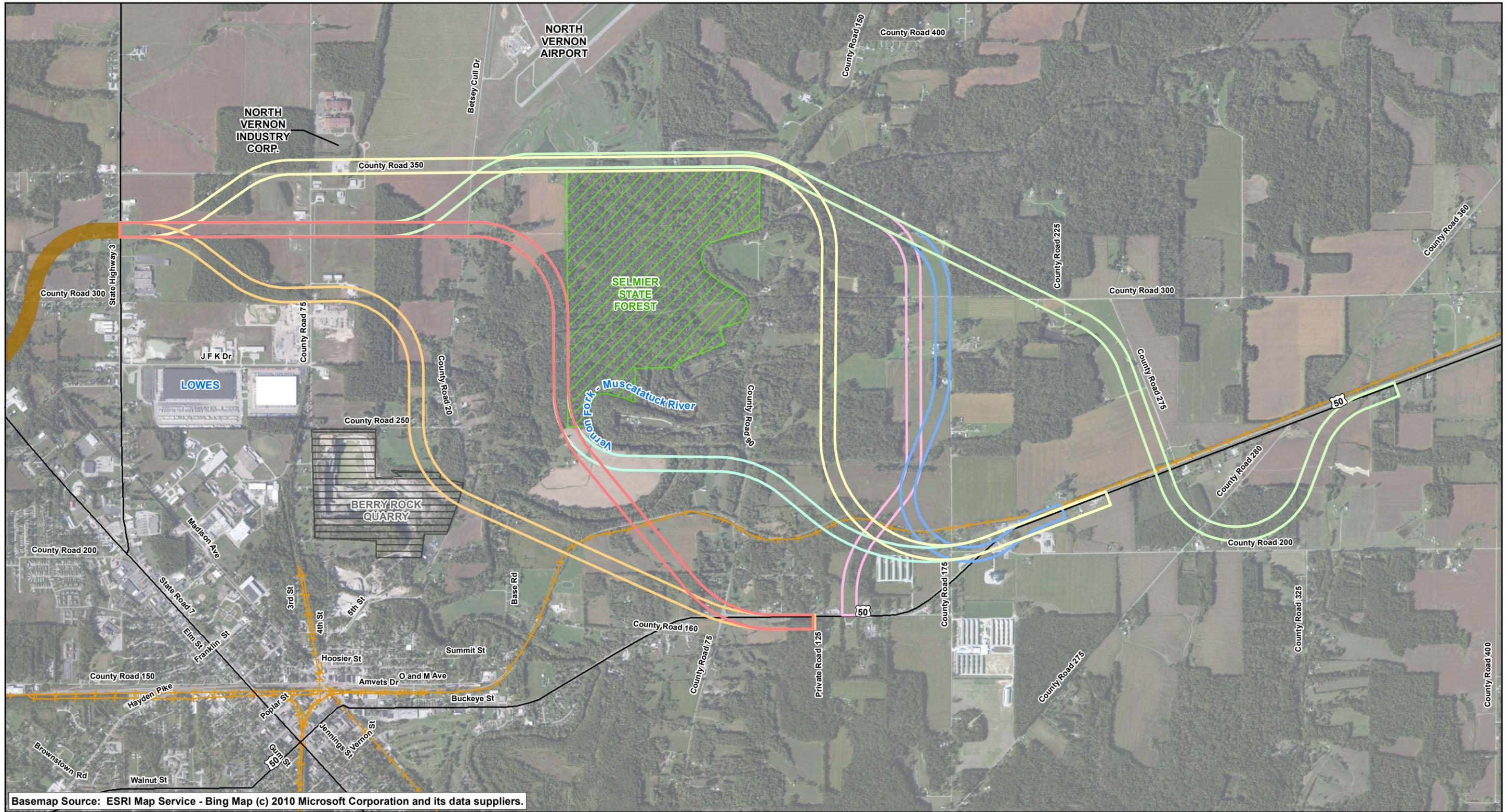
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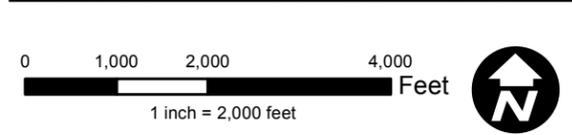
- Legend**
- U.S. 50 North Vernon Bypass - West (Under Construction)
  - Alternative 1
  - Alternative 2
  - Alternative 3
  - Alternative 4
  - Alternative 5

**MAP 4**  
**Project Alternatives**  
**Conceptual Alternatives**





Basemap Source: ESRI Map Service - Bing Map (c) 2010 Microsoft Corporation and its data suppliers.

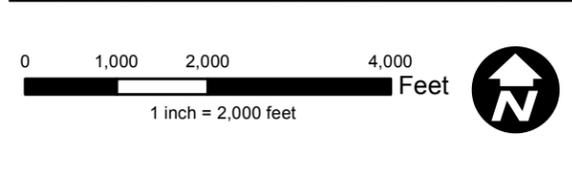
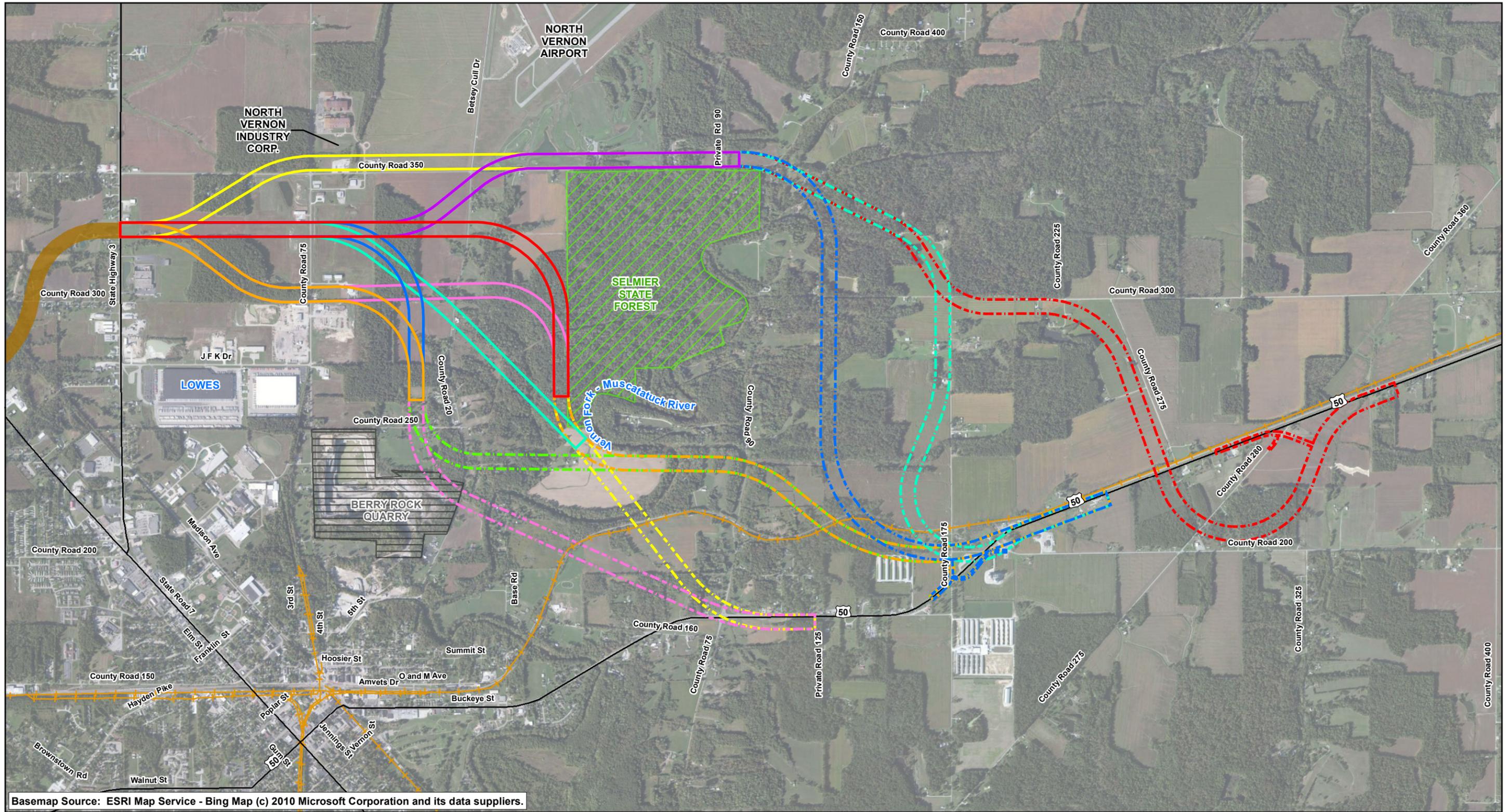


- Legend**
- U.S. 50 North Vernon Bypass - West (Under Construction)
  - U.S. 50 North Vernon Bypass - East
  - Alternative 1
  - Alternative 2
  - Alternative 3
  - Alternative 4
  - Alternative 5
  - Alternative 6
  - Alternative 7

**MAP 5**  
**Project Alternatives**  
**Expanded Conceptual Alternatives**



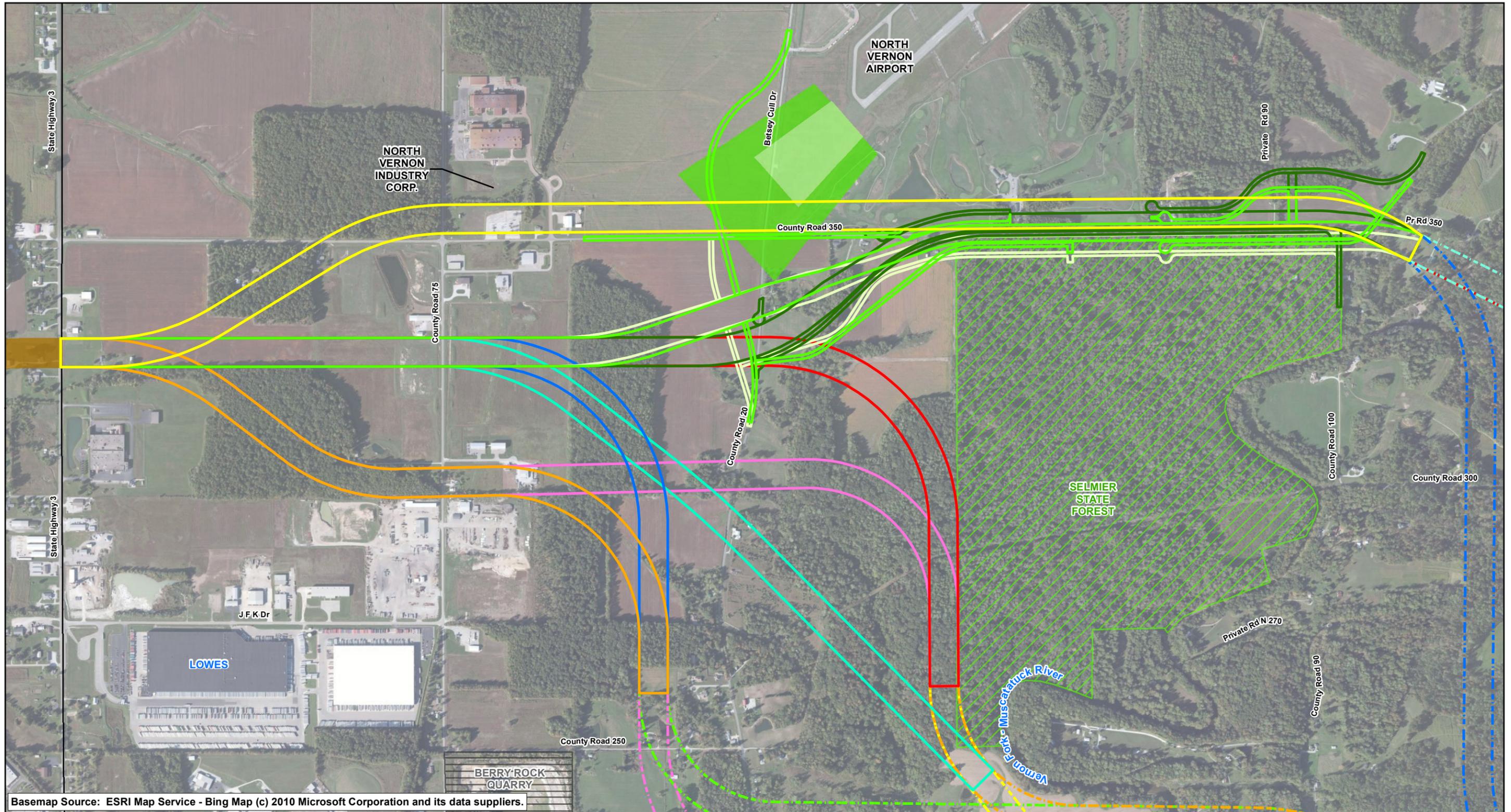
Environmental Assessment  
 U.S. 50 North Vernon Bypass – East  
 Des. No. 1173374



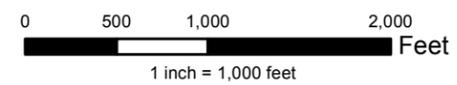
- Legend**
- U.S. 50 North Vernon Bypass - West (Under Construction)
  - Alternative 1
  - Alternative 2
  - Alternative 3
  - Alternative 4
  - Alternative 5
  - Alternative 6
  - Alternative 7
  - Alternative A
  - Alternative B
  - Alternative C
  - Alternative D
  - Alternative E
  - Alternative F
  - Alternative G

**MAP 6**  
**Project Alternatives**  
**Preliminary Alternatives**





Basemap Source: ESRI Map Service - Bing Map (c) 2010 Microsoft Corporation and its data suppliers.



**Legend**

-  U.S. 50 North Vernon Bypass - West (Under Construction)
-  North Vernon Airport RPZ
-  RPZ 1
-  RPZ 2

**US 50 North Vernon Bypass - East**

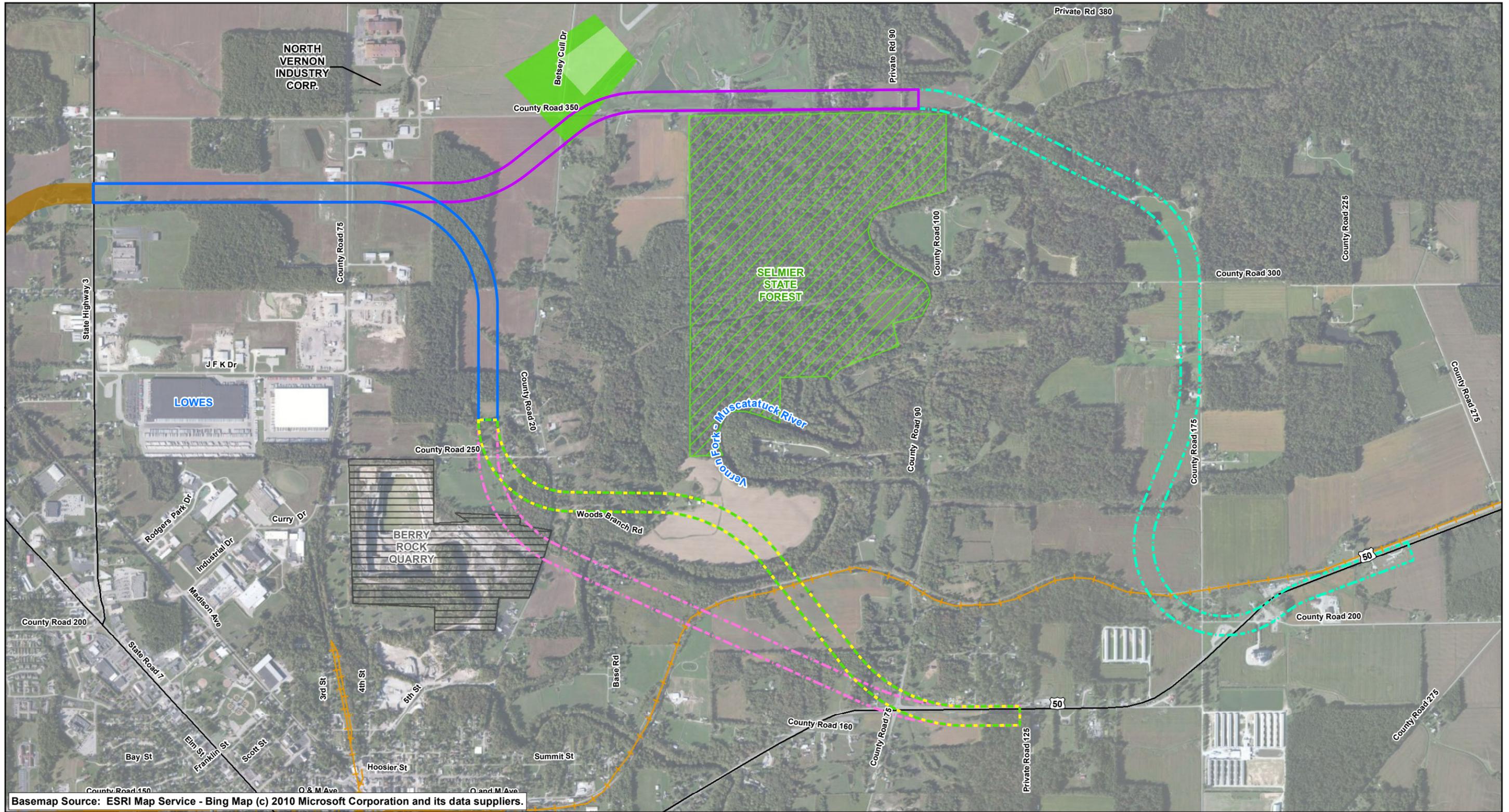
- |   |  |   |   |   |   |
|---|--|---|---|---|---|
|  Alternative 1 |  Alternative 4M |  Alternative 5 |  Alternative A |  Alternative D |  Alternative G |
|  Alternative 2 |  Alternative 4N |  Alternative 6 |  Alternative B |  Alternative E |   |
|  Alternative 3 |  Alternative 4S |  Alternative 7 |  Alternative C |  Alternative F |   |

**MAP 7**

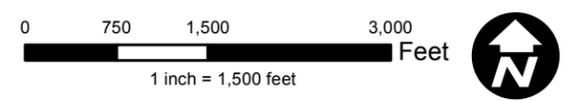
**Project Alternatives  
Development of Alternative 4  
Options: North, Middle and South**



Environmental Assessment  
U.S. 50 North Vernon Bypass – East  
Des. No. 1173374



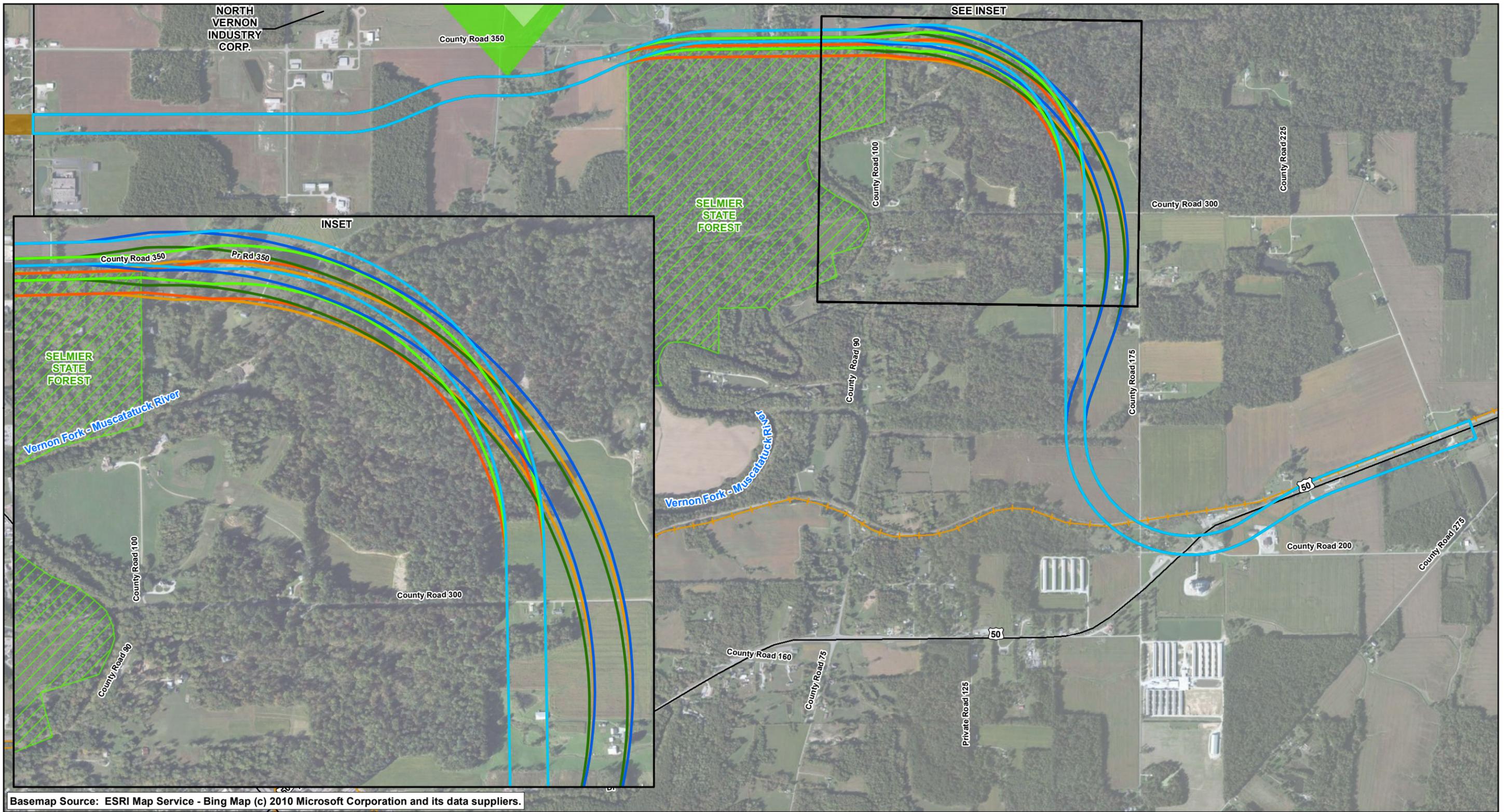
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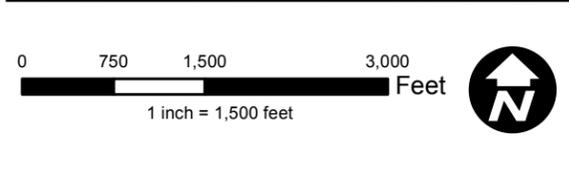
- Legend**
- U.S. 50 North Vernon Bypass - West (Under Construction)
  - Alternative B
  - Alternative D
  - Alternative EF
  - Alternative 4
  - Alternative 6
  - RPZ 1
  - RPZ 2

**MAP 8**  
**Project Alternatives**  
**Alternatives Selected for Detailed Study**





Basemap Source: ESRI Map Service - Bing Map (c) 2010 Microsoft Corporation and its data suppliers.



Legend		US 50 North Vernon Bypass - East	
	U.S. 50 North Vernon Bypass - West (Under Construction)		Alternative 4NB1
	North Vernon Airport RPZ		Alternative 4NB2
	RPZ 1		Alternative 4MB1
	RPZ 2		Alternative 4SB1
			Alternative 4SB2
			Alternative 4MB2

**MAP 9**  
**Project Alternatives**  
**Development of Alternative 4B Options**

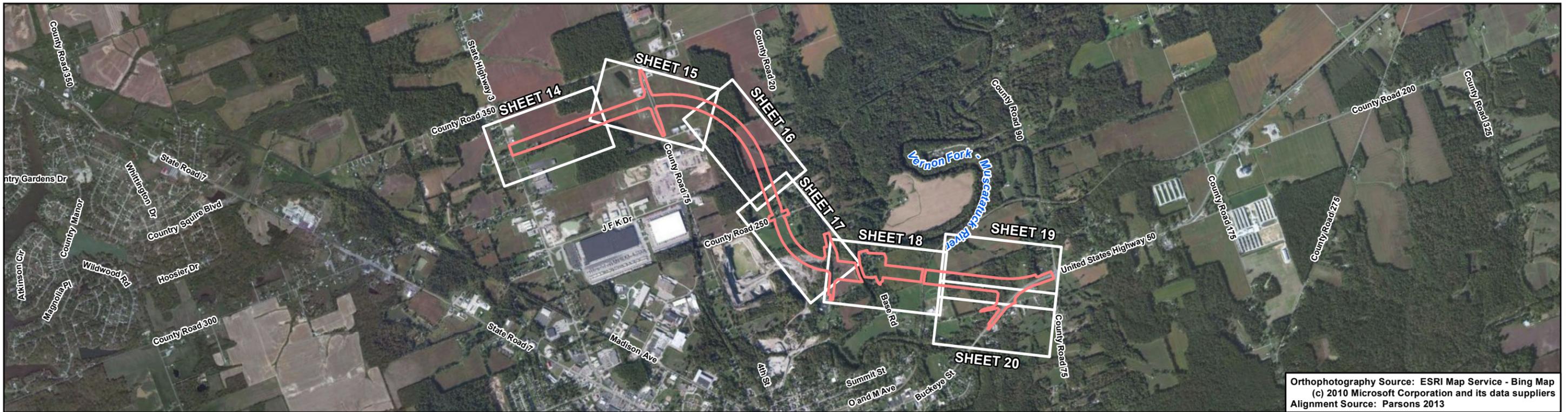


Environmental Assessment  
 U.S. 50 North Vernon Bypass – East  
 Des. No. 1173374

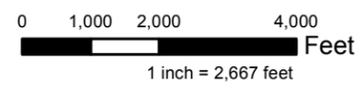


## *Environmental Features*

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Orthophotography Source: ESRI Map Service - Bing Map  
 (c) 2010 Microsoft Corporation and its data suppliers  
 Alignment Source: Parsons 2013



- Legend**
- Alternative 4NB2 - ROW Permanent
  - Alternative 6D - ROW Permanent

**MAP 11: SHEET INDEX**  
**Environmental Features: Alternative 4NB2 & 6D**



# LEGEND

## DESIGN ELEMENTS

	U.S. 50 North Vernon Bypass - West (Under Construction)		Alternative 6D - ROW Permanent
	Alternative 4NB2 - ROW Permanent		Alternative 6D - ROW Temporary
	4NB2 - Uneconomic Remnants		Alternative 6D - Uneconomic Remnants

## FEATURES

	Pipeline		Recreational Facilities
	Railroad		Religious Centers
	Trails		Quarry - Abandoned
	Potentially Historic Property		Quarry - Existing
	Business Relocations		Eastern Hemlock
	Residential Relocations		Karst Areas
	North Vernon Airport Runway Protection Zone (RPZ)		Parcel Boundary
	Open Water	<b>Hazardous Material (HazMat) Sites</b>	
	Noise Receivers		NPDES Pipe Locations
	Airports		Underground Storage Tank (UST)

## STREAMS

	Ephemeral Streams		Intermittent Streams		Perennial Streams
---	-------------------	---	----------------------	---	-------------------

## FEMA

	Floodplain
	Floodway

## WETLANDS

	Palustrine, emergent (PEM)
	Palustrine, forested (PFO)

## LAND USE CODES

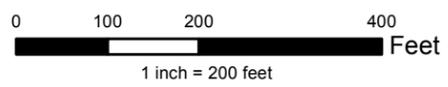
<b>AGR</b>	Agriculture
<b>COM</b>	Commercial Services
<b>CHC</b>	Church
<b>IND</b>	Industrial
<b>RES</b>	Residential
<b>SF</b>	State Forest
<b>UTL</b>	Utilities

## GIS Data Sources

Aerial Photography: INDOT (2005) & ESRI Map Service  
 Bing Map (c) 2010 Microsoft Corporation and its data suppliers  
 Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey  
 Streams: USGS  
 Hazardous Material Sites: IDEM & USEPA  
 Indiana Map: <http://indianamap.org/>

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



**MAP 11: SHEET 1**  
**Environmental Features: Alternative 4NB2**



# LEGEND

## DESIGN ELEMENTS

	U.S. 50 North Vernon Bypass - West (Under Construction)		Alternative 6D - ROW Permanent
	Alternative 4NB2 - ROW Permanent		Alternative 6D - ROW Temporary
	4NB2 - Uneconomic Remnants		Alternative 6D - Uneconomic Remnants

## FEATURES

	Pipeline		Recreational Facilities
	Railroad		Religious Centers
	Trails		Quarry - Abandoned
	Potentially Historic Property		Quarry - Existing
	Business Relocations		Eastern Hemlock
	Residential Relocations		Karst Areas
	North Vernon Airport Runway Protection Zone (RPZ)		Parcel Boundary
	Open Water	<b>Hazardous Material (HazMat) Sites</b>	
	Noise Receivers		NPDES Pipe Locations
	Airports		Underground Storage Tank (UST)

## STREAMS

	Ephemeral Streams		Intermittent Streams		Perennial Streams
---	-------------------	---	----------------------	---	-------------------

## FEMA

	Floodplain
	Floodway

## WETLANDS

	Palustrine, emergent (PEM)
	Palustrine, forested (PFO)

## LAND USE CODES

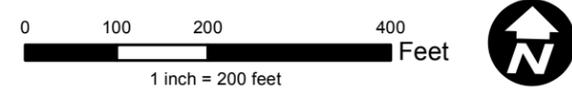
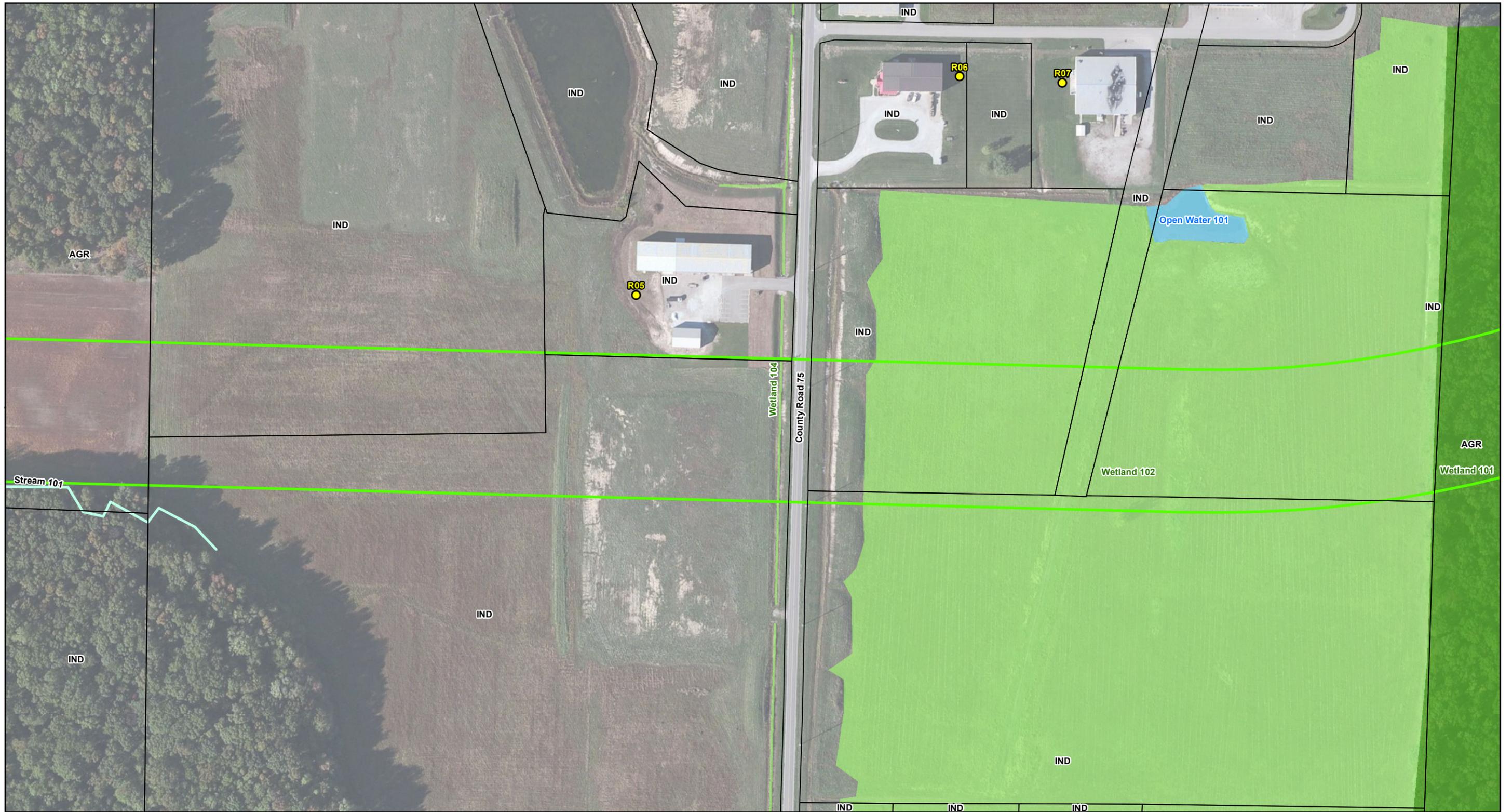
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<b>COM</b>	Commercial Services
<b>CHC</b>	Church
<b>IND</b>	Industrial
<b>RES</b>	Residential
<b>SF</b>	State Forest
<b>UTL</b>	Utilities

## GIS Data Sources

Aerial Photography: INDOT (2005) & ESRI Map Service  
 Bing Map (c) 2010 Microsoft Corporation and its data suppliers  
 Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey  
 Streams: USGS  
 Hazardous Material Sites: IDEM & USEPA  
 Indiana Map: <http://indianamap.org/>

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



**MAP 11: SHEET 2**  
**Environmental Features: Alternative 4NB2**



# LEGEND

## DESIGN ELEMENTS

	U.S. 50 North Vernon Bypass - West (Under Construction)		Alternative 6D - ROW Permanent
	Alternative 4NB2 - ROW Permanent		Alternative 6D - ROW Temporary
	4NB2 - Uneconomic Remnants		Alternative 6D - Uneconomic Remnants

## FEATURES

	Pipeline		Recreational Facilities
	Railroad		Religious Centers
	Trails		Quarry - Abandoned
	Potentially Historic Property		Quarry - Existing
	Business Relocations		Eastern Hemlock
	Residential Relocations		Karst Areas
	North Vernon Airport Runway Protection Zone (RPZ)		Parcel Boundary
	Open Water	<b>Hazardous Material (HazMat) Sites</b>	
	Noise Receivers		NPDES Pipe Locations
	Airports		Underground Storage Tank (UST)

## STREAMS

	Ephemeral Streams		Intermittent Streams		Perennial Streams
---	-------------------	---	----------------------	---	-------------------

## FEMA

	Floodplain
	Floodway

## WETLANDS

	Palustrine, emergent (PEM)
	Palustrine, forested (PFO)

## LAND USE CODES

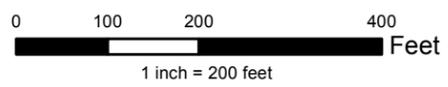
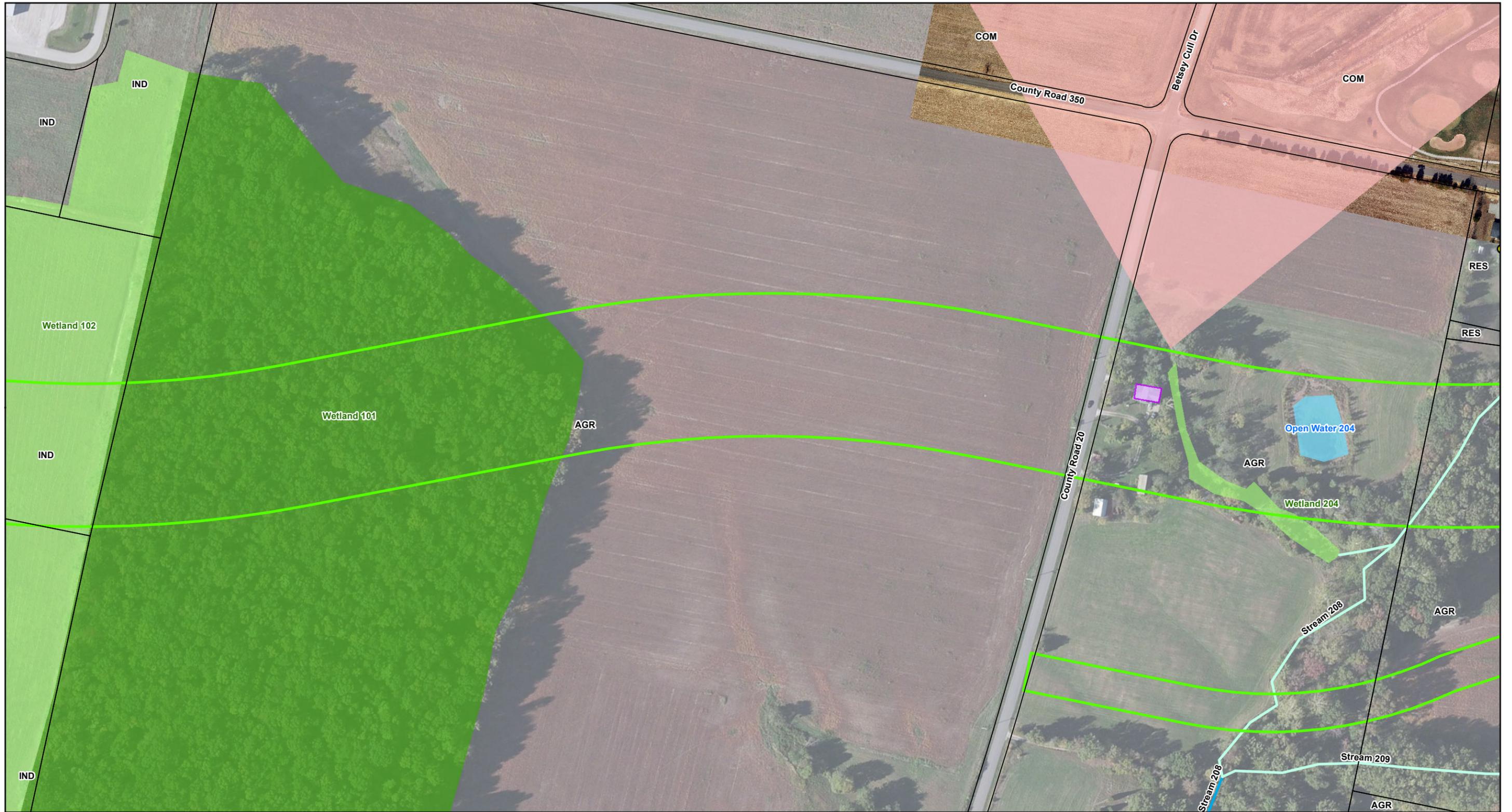
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<b>COM</b>	Commercial Services
<b>CHC</b>	Church
<b>IND</b>	Industrial
<b>RES</b>	Residential
<b>SF</b>	State Forest
<b>UTL</b>	Utilities

## GIS Data Sources

Aerial Photography: INDOT (2005) & ESRI Map Service  
 Bing Map (c) 2010 Microsoft Corporation and its data suppliers  
 Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey  
 Streams: USGS  
 Hazardous Material Sites: IDEM & USEPA  
 Indiana Map: <http://indianamap.org/>

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



**MAP 11: SHEET 3**  
**Environmental Features: Alternative 4NB2**



# LEGEND

## DESIGN ELEMENTS

	U.S. 50 North Vernon Bypass - West (Under Construction)		Alternative 6D - ROW Permanent
	Alternative 4NB2 - ROW Permanent		Alternative 6D - ROW Temporary
	4NB2 - Uneconomic Remnants		Alternative 6D - Uneconomic Remnants

## FEATURES

	Pipeline		Recreational Facilities
	Railroad		Religious Centers
	Trails		Quarry - Abandoned
	Potentially Historic Property		Quarry - Existing
	Business Relocations		Eastern Hemlock
	Residential Relocations		Karst Areas
	North Vernon Airport Runway Protection Zone (RPZ)		Parcel Boundary
	Open Water	<b>Hazardous Material (HazMat) Sites</b>	
	Noise Receivers		NPDES Pipe Locations
	Airports		Underground Storage Tank (UST)

## STREAMS

	Ephemeral Streams		Intermittent Streams		Perennial Streams
---	-------------------	---	----------------------	---	-------------------

## FEMA

	Floodplain
	Floodway

## WETLANDS

	Palustrine, emergent (PEM)
	Palustrine, forested (PFO)

## LAND USE CODES

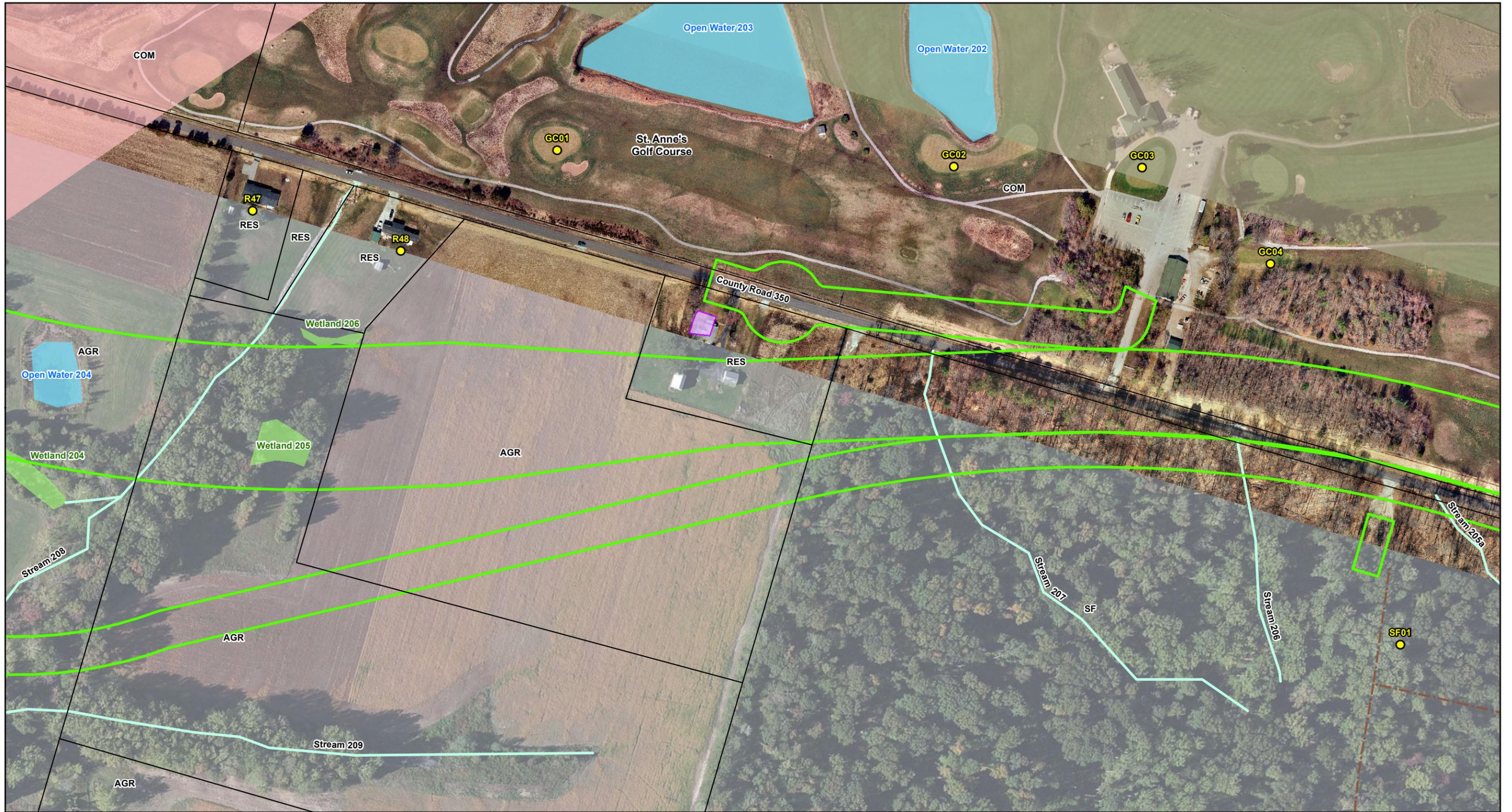
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<b>CHC</b>	Church
<b>IND</b>	Industrial
<b>RES</b>	Residential
<b>SF</b>	State Forest
<b>UTL</b>	Utilities

## GIS Data Sources

Aerial Photography: INDOT (2005) & ESRI Map Service  
 Bing Map (c) 2010 Microsoft Corporation and its data suppliers  
 Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey  
 Streams: USGS  
 Hazardous Material Sites: IDEM & USEPA  
 Indiana Map: <http://indianamap.org/>

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



**MAP 11: SHEET 4**  
**Environmental Features: Alternative 4NB2**



# LEGEND

## DESIGN ELEMENTS

	U.S. 50 North Vernon Bypass - West (Under Construction)		Alternative 6D - ROW Permanent
	Alternative 4NB2 - ROW Permanent		Alternative 6D - ROW Temporary
	4NB2 - Uneconomic Remnants		Alternative 6D - Uneconomic Remnants

## FEATURES

	Pipeline		Recreational Facilities
	Railroad		Religious Centers
	Trails		Quarry - Abandoned
	Potentially Historic Property		Quarry - Existing
	Business Relocations		Eastern Hemlock
	Residential Relocations		Karst Areas
	North Vernon Airport Runway Protection Zone (RPZ)		Parcel Boundary
	Open Water	<b>Hazardous Material (HazMat) Sites</b>	
	Noise Receivers		NPDES Pipe Locations
	Airports		Underground Storage Tank (UST)

## STREAMS

	Ephemeral Streams		Intermittent Streams		Perennial Streams
---	-------------------	---	----------------------	---	-------------------

## FEMA

	Floodplain
	Floodway

## WETLANDS

	Palustrine, emergent (PEM)
	Palustrine, forested (PFO)

## LAND USE CODES

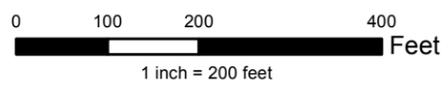
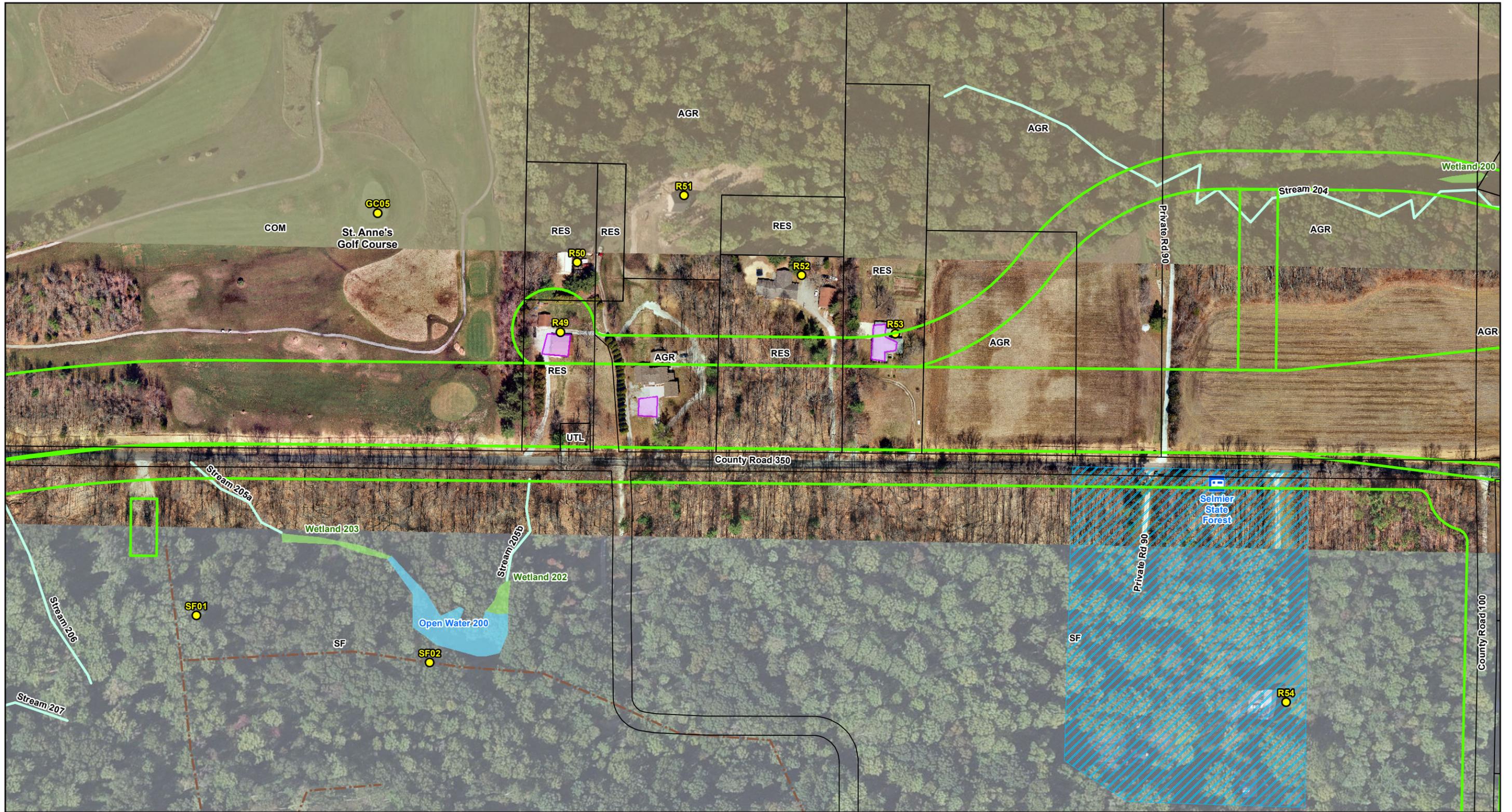
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<b>COM</b>	Commercial Services
<b>CHC</b>	Church
<b>IND</b>	Industrial
<b>RES</b>	Residential
<b>SF</b>	State Forest
<b>UTL</b>	Utilities

## GIS Data Sources

Aerial Photography: INDOT (2005) & ESRI Map Service  
 Bing Map (c) 2010 Microsoft Corporation and its data suppliers  
 Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey  
 Streams: USGS  
 Hazardous Material Sites: IDEM & USEPA  
 Indiana Map: <http://indianamap.org/>

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



**MAP 11: SHEET 5**  
**Environmental Features: Alternative 4NB2**



# LEGEND

## DESIGN ELEMENTS

	U.S. 50 North Vernon Bypass - West (Under Construction)		Alternative 6D - ROW Permanent
	Alternative 4NB2 - ROW Permanent		Alternative 6D - ROW Temporary
	4NB2 - Uneconomic Remnants		Alternative 6D - Uneconomic Remnants

## FEATURES

	Pipeline		Recreational Facilities
	Railroad		Religious Centers
	Trails		Quarry - Abandoned
	Potentially Historic Property		Quarry - Existing
	Business Relocations		Eastern Hemlock
	Residential Relocations		Karst Areas
	North Vernon Airport Runway Protection Zone (RPZ)		Parcel Boundary
	Open Water	<b>Hazardous Material (HazMat) Sites</b>	
	Noise Receivers		NPDES Pipe Locations
	Airports		Underground Storage Tank (UST)

## STREAMS

	Ephemeral Streams		Intermittent Streams		Perennial Streams
---	-------------------	---	----------------------	---	-------------------

## FEMA

	Floodplain
	Floodway

## WETLANDS

	Palustrine, emergent (PEM)
	Palustrine, forested (PFO)

## LAND USE CODES

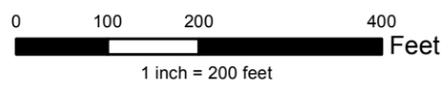
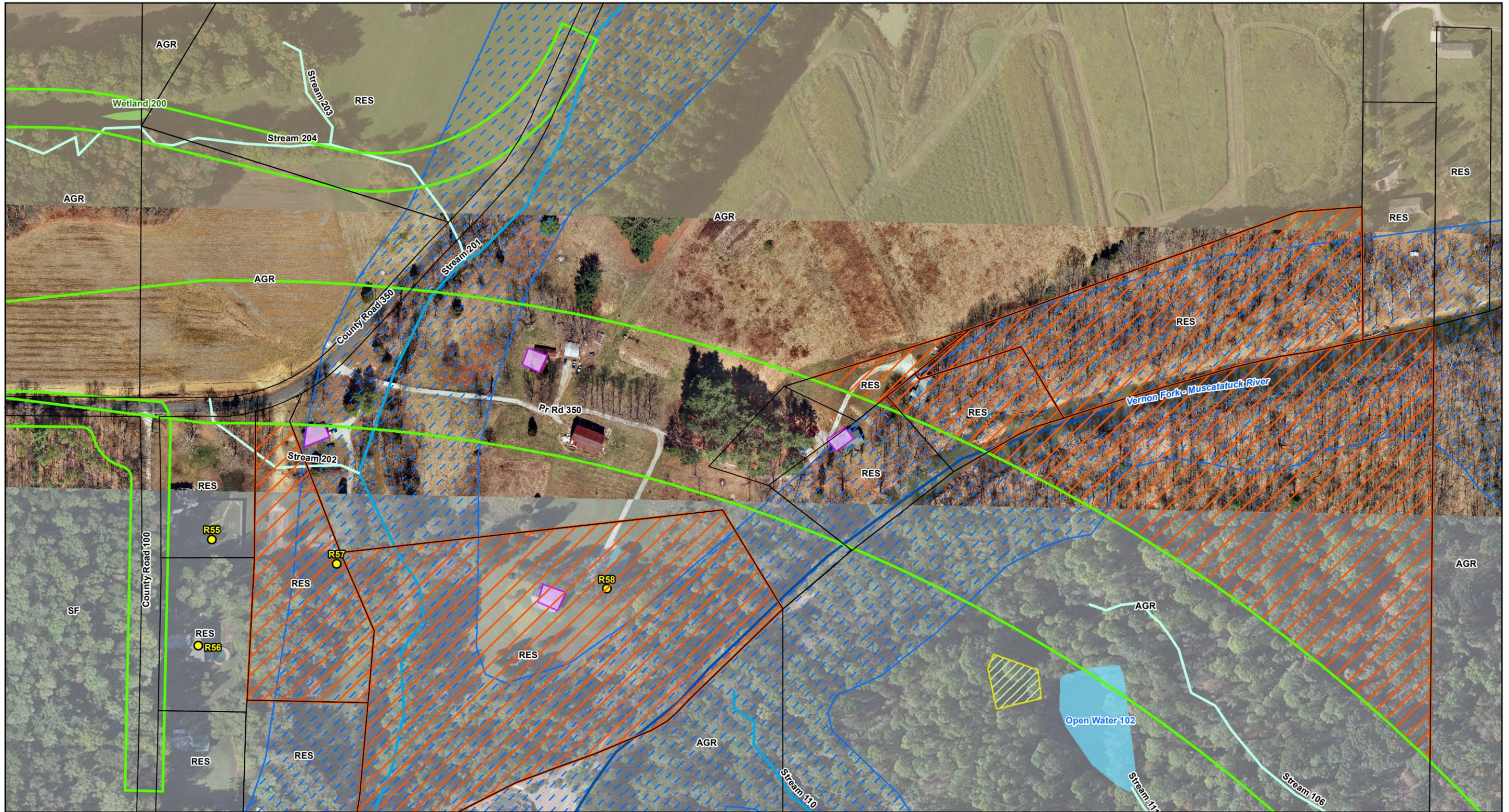
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<b>COM</b>	Commercial Services
<b>CHC</b>	Church
<b>IND</b>	Industrial
<b>RES</b>	Residential
<b>SF</b>	State Forest
<b>UTL</b>	Utilities

## GIS Data Sources

Aerial Photography: INDOT (2005) & ESRI Map Service  
 Bing Map (c) 2010 Microsoft Corporation and its data suppliers  
 Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey  
 Streams: USGS  
 Hazardous Material Sites: IDEM & USEPA  
 Indiana Map: <http://indianamap.org/>

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



**MAP 11: SHEET 6**  
**Environmental Features: Alternative 4NB2**



# LEGEND

## DESIGN ELEMENTS

	U.S. 50 North Vernon Bypass - West (Under Construction)		Alternative 6D - ROW Permanent
	Alternative 4NB2 - ROW Permanent		Alternative 6D - ROW Temporary
	4NB2 - Uneconomic Remnants		Alternative 6D - Uneconomic Remnants

## FEATURES

	Pipeline		Recreational Facilities
	Railroad		Religious Centers
	Trails		Quarry - Abandoned
	Potentially Historic Property		Quarry - Existing
	Business Relocations		Eastern Hemlock
	Residential Relocations		Karst Areas
	North Vernon Airport Runway Protection Zone (RPZ)		Parcel Boundary
	Open Water	<b>Hazardous Material (HazMat) Sites</b>	
	Noise Receivers		NPDES Pipe Locations
	Airports		Underground Storage Tank (UST)

## STREAMS

	Ephemeral Streams		Intermittent Streams		Perennial Streams
---	-------------------	---	----------------------	---	-------------------

## FEMA

	Floodplain
	Floodway

## WETLANDS

	Palustrine, emergent (PEM)
	Palustrine, forested (PFO)

## LAND USE CODES

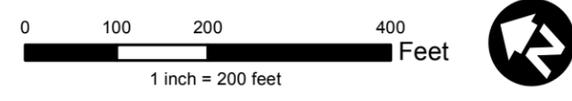
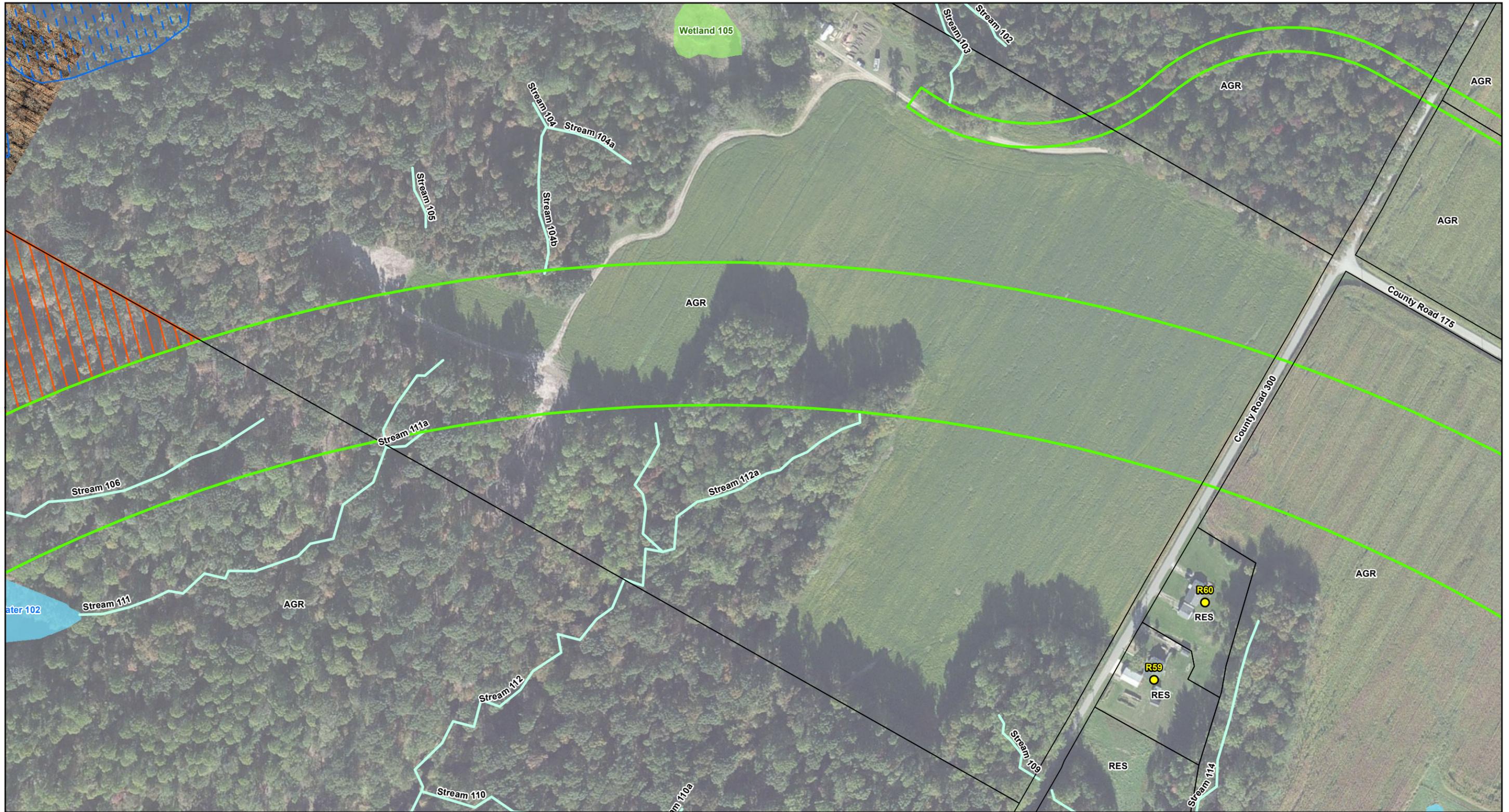
<b>AGR</b>	Agriculture
<b>COM</b>	Commercial Services
<b>CHC</b>	Church
<b>IND</b>	Industrial
<b>RES</b>	Residential
<b>SF</b>	State Forest
<b>UTL</b>	Utilities

## GIS Data Sources

Aerial Photography: INDOT (2005) & ESRI Map Service  
 Bing Map (c) 2010 Microsoft Corporation and its data suppliers  
 Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey  
 Streams: USGS  
 Hazardous Material Sites: IDEM & USEPA  
 Indiana Map: <http://indianamap.org/>

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



**MAP 11: SHEET 7**  
**Environmental Features: Alternative 4NB2**



# LEGEND

## DESIGN ELEMENTS

	U.S. 50 North Vernon Bypass - West (Under Construction)		Alternative 6D - ROW Permanent
	Alternative 4NB2 - ROW Permanent		Alternative 6D - ROW Temporary
	4NB2 - Uneconomic Remnants		Alternative 6D - Uneconomic Remnants

## FEATURES

	Pipeline		Recreational Facilities
	Railroad		Religious Centers
	Trails		Quarry - Abandoned
	Potentially Historic Property		Quarry - Existing
	Business Relocations		Eastern Hemlock
	Residential Relocations		Karst Areas
	North Vernon Airport Runway Protection Zone (RPZ)		Parcel Boundary
	Open Water	<b>Hazardous Material (HazMat) Sites</b>	
	Noise Receivers		NPDES Pipe Locations
	Airports		Underground Storage Tank (UST)

## STREAMS

	Ephemeral Streams		Intermittent Streams		Perennial Streams
---	-------------------	---	----------------------	---	-------------------

## FEMA

	Floodplain
	Floodway

## WETLANDS

	Palustrine, emergent (PEM)
	Palustrine, forested (PFO)

## LAND USE CODES

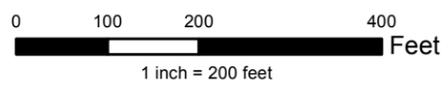
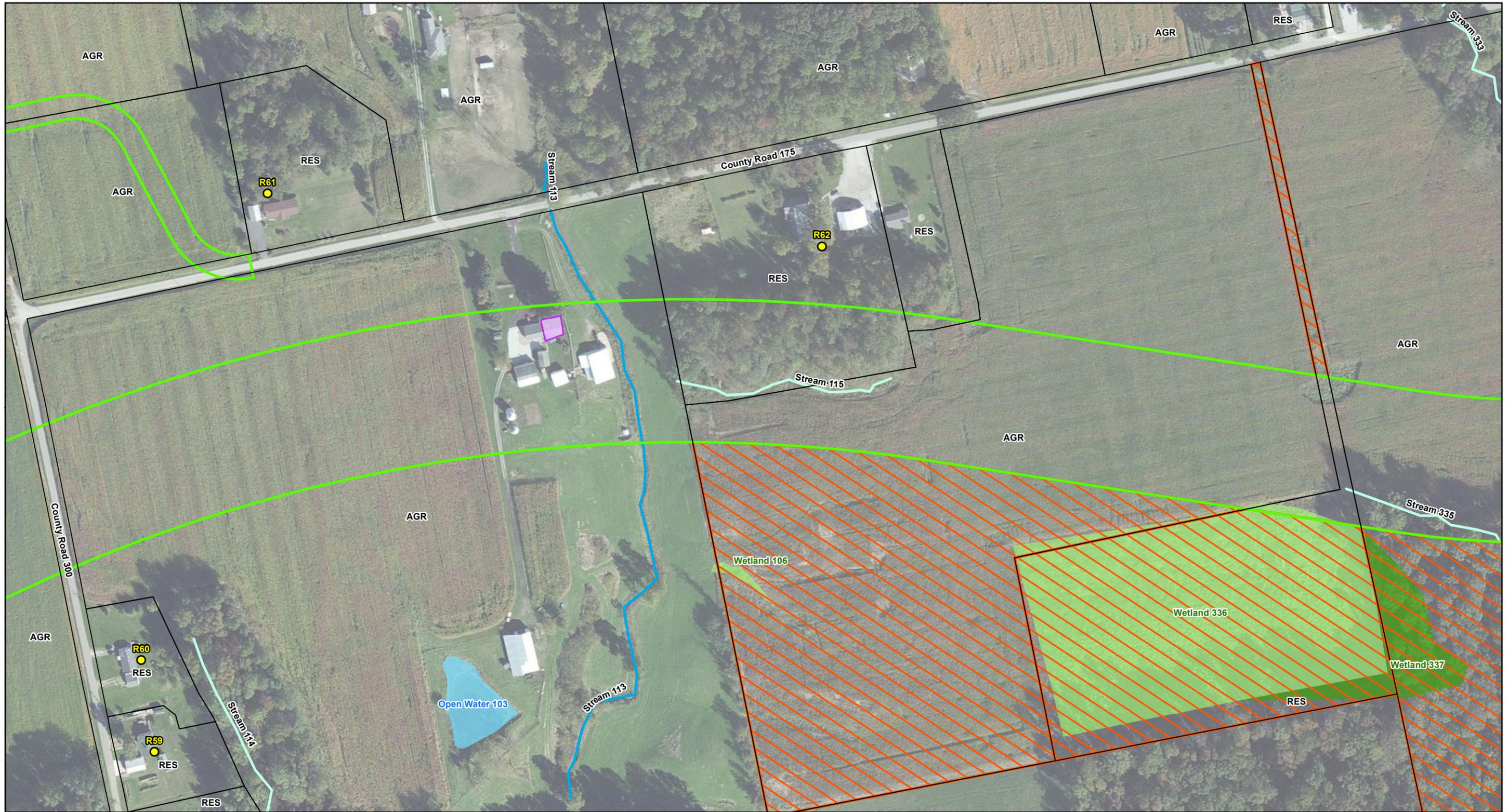
<b>AGR</b>	Agriculture
<b>COM</b>	Commercial Services
<b>CHC</b>	Church
<b>IND</b>	Industrial
<b>RES</b>	Residential
<b>SF</b>	State Forest
<b>UTL</b>	Utilities

## GIS Data Sources

Aerial Photography: INDOT (2005) & ESRI Map Service  
 Bing Map (c) 2010 Microsoft Corporation and its data suppliers  
 Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey  
 Streams: USGS  
 Hazardous Material Sites: IDEM & USEPA  
 Indiana Map: <http://indianamap.org/>

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



**MAP 11: SHEET 8**  
**Environmental Features: Alternative 4NB2**



# LEGEND

## DESIGN ELEMENTS

	U.S. 50 North Vernon Bypass - West (Under Construction)		Alternative 6D - ROW Permanent
	Alternative 4NB2 - ROW Permanent		Alternative 6D - ROW Temporary
	4NB2 - Uneconomic Remnants		Alternative 6D - Uneconomic Remnants

## FEATURES

	Pipeline		Recreational Facilities
	Railroad		Religious Centers
	Trails		Quarry - Abandoned
	Potentially Historic Property		Quarry - Existing
	Business Relocations		Eastern Hemlock
	Residential Relocations		Karst Areas
	North Vernon Airport Runway Protection Zone (RPZ)		Parcel Boundary
	Open Water	<b>Hazardous Material (HazMat) Sites</b>	
	Noise Receivers		NPDES Pipe Locations
	Airports		Underground Storage Tank (UST)

## STREAMS

	Ephemeral Streams		Intermittent Streams		Perennial Streams
---	-------------------	---	----------------------	---	-------------------

## FEMA

	Floodplain
	Floodway

## WETLANDS

	Palustrine, emergent (PEM)
	Palustrine, forested (PFO)

## LAND USE CODES

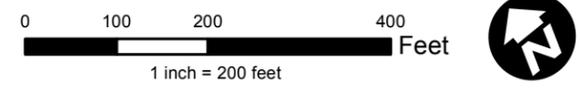
<b>AGR</b>	Agriculture
<b>COM</b>	Commercial Services
<b>CHC</b>	Church
<b>IND</b>	Industrial
<b>RES</b>	Residential
<b>SF</b>	State Forest
<b>UTL</b>	Utilities

## GIS Data Sources

Aerial Photography: INDOT (2005) & ESRI Map Service  
 Bing Map (c) 2010 Microsoft Corporation and its data suppliers  
 Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey  
 Streams: USGS  
 Hazardous Material Sites: IDEM & USEPA  
 Indiana Map: <http://indianamap.org/>

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



**MAP 11: SHEET 9**  
**Environmental Features: Alternative 4NB2**



# LEGEND

## DESIGN ELEMENTS

	U.S. 50 North Vernon Bypass - West (Under Construction)		Alternative 6D - ROW Permanent
	Alternative 4NB2 - ROW Permanent		Alternative 6D - ROW Temporary
	4NB2 - Uneconomic Remnants		Alternative 6D - Uneconomic Remnants

## FEATURES

	Pipeline		Recreational Facilities
	Railroad		Religious Centers
	Trails		Quarry - Abandoned
	Potentially Historic Property		Quarry - Existing
	Business Relocations		Eastern Hemlock
	Residential Relocations		Karst Areas
	North Vernon Airport Runway Protection Zone (RPZ)		Parcel Boundary
	Open Water	<b>Hazardous Material (HazMat) Sites</b>	
	Noise Receivers		NPDES Pipe Locations
	Airports		Underground Storage Tank (UST)

## STREAMS

	Ephemeral Streams		Intermittent Streams		Perennial Streams
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## FEMA

	Floodplain
	Floodway

## WETLANDS

	Palustrine, emergent (PEM)
	Palustrine, forested (PFO)

## LAND USE CODES

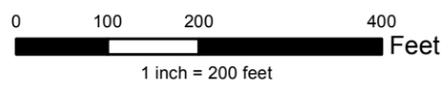
<b>AGR</b>	Agriculture
<b>COM</b>	Commercial Services
<b>CHC</b>	Church
<b>IND</b>	Industrial
<b>RES</b>	Residential
<b>SF</b>	State Forest
<b>UTL</b>	Utilities

## GIS Data Sources

Aerial Photography: INDOT (2005) & ESRI Map Service  
 Bing Map (c) 2010 Microsoft Corporation and its data suppliers  
 Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey  
 Streams: USGS  
 Hazardous Material Sites: IDEM & USEPA  
 Indiana Map: <http://indianamap.org/>

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



**MAP 11: SHEET 10**  
**Environmental Features: Alternative 4NB2**



# LEGEND

## DESIGN ELEMENTS

	U.S. 50 North Vernon Bypass - West (Under Construction)		Alternative 6D - ROW Permanent
	Alternative 4NB2 - ROW Permanent		Alternative 6D - ROW Temporary
	4NB2 - Uneconomic Remnants		Alternative 6D - Uneconomic Remnants

## FEATURES

	Pipeline		Recreational Facilities
	Railroad		Religious Centers
	Trails		Quarry - Abandoned
	Potentially Historic Property		Quarry - Existing
	Business Relocations		Eastern Hemlock
	Residential Relocations		Karst Areas
	North Vernon Airport Runway Protection Zone (RPZ)		Parcel Boundary
	Open Water	<b>Hazardous Material (HazMat) Sites</b>	
	Noise Receivers		NPDES Pipe Locations
	Airports		Underground Storage Tank (UST)

## STREAMS

	Ephemeral Streams		Intermittent Streams		Perennial Streams
---	-------------------	---	----------------------	---	-------------------

## FEMA

	Floodplain
	Floodway

## WETLANDS

	Palustrine, emergent (PEM)
	Palustrine, forested (PFO)

## LAND USE CODES

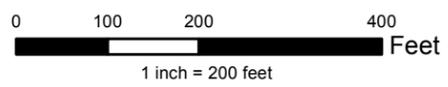
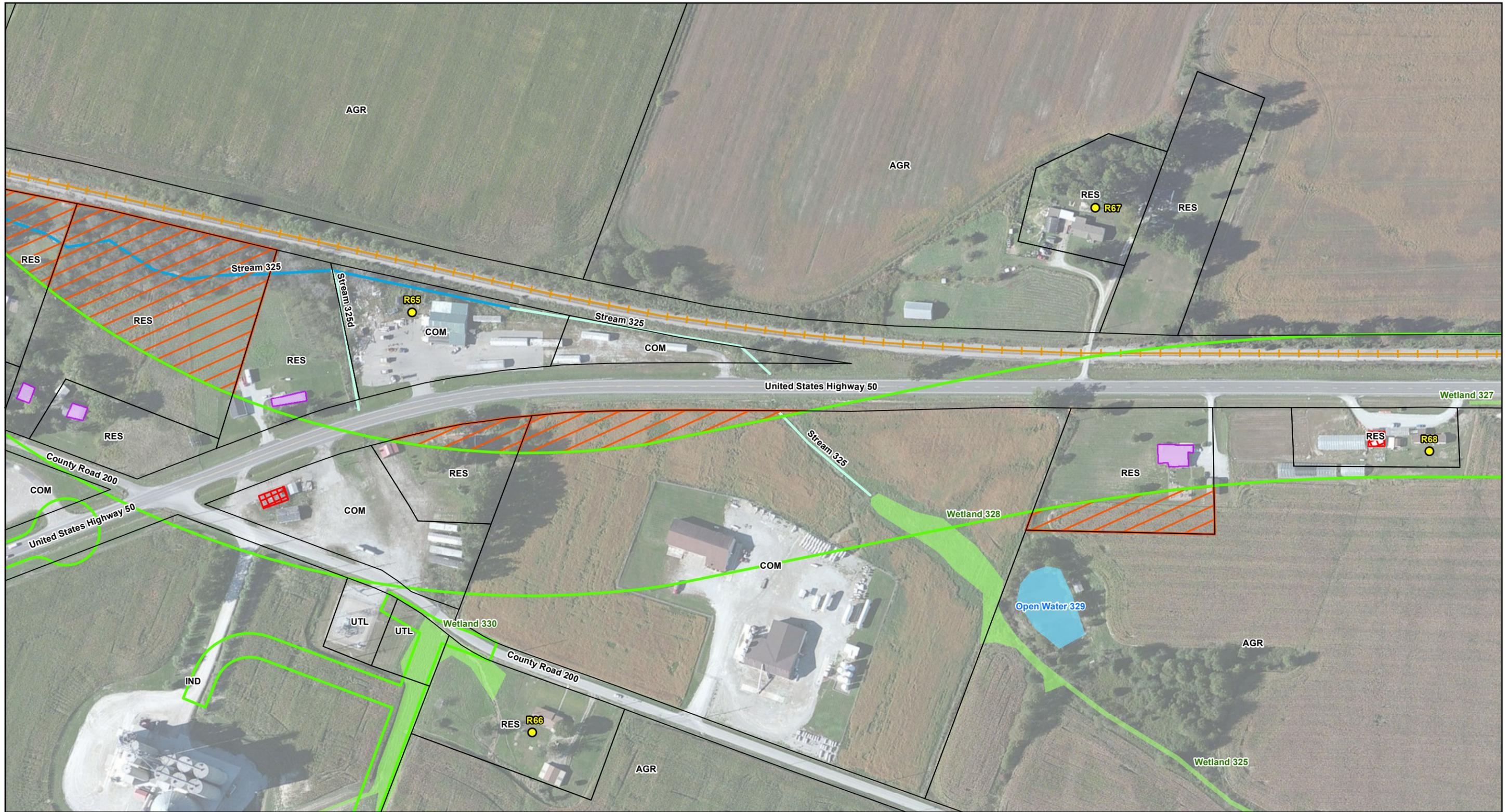
<b>AGR</b>	Agriculture
<b>COM</b>	Commercial Services
<b>CHC</b>	Church
<b>IND</b>	Industrial
<b>RES</b>	Residential
<b>SF</b>	State Forest
<b>UTL</b>	Utilities

## GIS Data Sources

Aerial Photography: INDOT (2005) & ESRI Map Service  
 Bing Map (c) 2010 Microsoft Corporation and its data suppliers  
 Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey  
 Streams: USGS  
 Hazardous Material Sites: IDEM & USEPA  
 Indiana Map: <http://indianamap.org/>

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



**MAP 11: SHEET 11**  
**Environmental Features: Alternative 4NB2**



# LEGEND

## DESIGN ELEMENTS

	U.S. 50 North Vernon Bypass - West (Under Construction)		Alternative 6D - ROW Permanent
	Alternative 4NB2 - ROW Permanent		Alternative 6D - ROW Temporary
	4NB2 - Uneconomic Remnants		Alternative 6D - Uneconomic Remnants

## FEATURES

	Pipeline		Recreational Facilities
	Railroad		Religious Centers
	Trails		Quarry - Abandoned
	Potentially Historic Property		Quarry - Existing
	Business Relocations		Eastern Hemlock
	Residential Relocations		Karst Areas
	North Vernon Airport Runway Protection Zone (RPZ)		Parcel Boundary
	Open Water	<b>Hazardous Material (HazMat) Sites</b>	
	Noise Receivers		NPDES Pipe Locations
	Airports		Underground Storage Tank (UST)

## STREAMS

	Ephemeral Streams		Intermittent Streams		Perennial Streams
---	-------------------	---	----------------------	---	-------------------

## FEMA

	Floodplain
	Floodway

## WETLANDS

	Palustrine, emergent (PEM)
	Palustrine, forested (PFO)

## LAND USE CODES

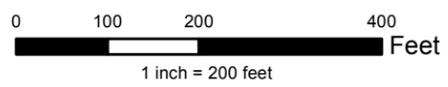
<b>AGR</b>	Agriculture
<b>COM</b>	Commercial Services
<b>CHC</b>	Church
<b>IND</b>	Industrial
<b>RES</b>	Residential
<b>SF</b>	State Forest
<b>UTL</b>	Utilities

## GIS Data Sources

Aerial Photography: INDOT (2005) & ESRI Map Service  
 Bing Map (c) 2010 Microsoft Corporation and its data suppliers  
 Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey  
 Streams: USGS  
 Hazardous Material Sites: IDEM & USEPA  
 Indiana Map: <http://indianamap.org/>

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



**MAP 11: SHEET 12**  
**Environmental Features: Alternative 4NB2**



# LEGEND

## DESIGN ELEMENTS

- |   |   |   |                                      |
|---|---|---|--------------------------------------|
|  | U.S. 50 North Vernon Bypass - West (Under Construction) |  | Alternative 6D - ROW Permanent       |
|  | Alternative 4NB2 - ROW Permanent                        |  | Alternative 6D - ROW Temporary       |
|  | 4NB2 - Uneconomic Remnants                              |  | Alternative 6D - Uneconomic Remnants |

## FEATURES

- |   |   |  |                                |
|---|---|--|--------------------------------|
|  | Pipeline  |   | Recreational Facilities        |
|  | Railroad  |   | Religious Centers              |
|  | Trails  |   | Quarry - Abandoned             |
|  | Potentially Historic Property                     |   | Quarry - Existing              |
|  | Business Relocations                              |   | Eastern Hemlock                |
|  | Residential Relocations                           |   | Karst Areas                    |
|  | North Vernon Airport Runway Protection Zone (RPZ) |   | Parcel Boundary                |
|  | Open Water  | <b>Hazardous Material (HazMat) Sites</b>   |                                |
|  | Noise Receivers                                   |   | NPDES Pipe Locations           |
|  | Airports  |  | Underground Storage Tank (UST) |

## STREAMS

- |   |                   |   |                      |   |                   |
|---|-------------------|---|----------------------|---|-------------------|
|  | Ephemeral Streams |  | Intermittent Streams |  | Perennial Streams |
|---|-------------------|---|----------------------|---|-------------------|

## FEMA

- |   |            |
|---|------------|
|  | Floodplain |
|  | Floodway   |

## WETLANDS

- |   |                            |
|---|----------------------------|
|  | Palustrine, emergent (PEM) |
|  | Palustrine, forested (PFO) |

## LAND USE CODES

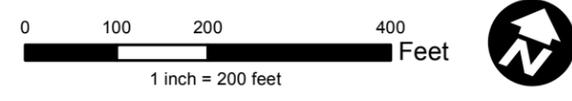
- |            |                     |
|------------|---------------------|
| <b>AGR</b> | Agriculture         |
| <b>COM</b> | Commercial Services |
| <b>CHC</b> | Church              |
| <b>IND</b> | Industrial          |
| <b>RES</b> | Residential         |
| <b>SF</b>  | State Forest        |
| <b>UTL</b> | Utilities           |

## GIS Data Sources

Aerial Photography: INDOT (2005) & ESRI Map Service  
 Bing Map (c) 2010 Microsoft Corporation and its data suppliers  
 Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey  
 Streams: USGS  
 Hazardous Material Sites: IDEM & USEPA  
 Indiana Map: <http://indianamap.org/>

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



**MAP 11: SHEET 13**  
**Environmental Features: Alternative 4NB2**



# LEGEND

## DESIGN ELEMENTS

	U.S. 50 North Vernon Bypass - West (Under Construction)		Alternative 6D - ROW Permanent
	Alternative 4NB2 - ROW Permanent		Alternative 6D - ROW Temporary
	4NB2 - Uneconomic Remnants		Alternative 6D - Uneconomic Remnants

## FEATURES

	Pipeline		Recreational Facilities
	Railroad		Religious Centers
	Trails		Quarry - Abandoned
	Potentially Historic Property		Quarry - Existing
	Business Relocations		Eastern Hemlock
	Residential Relocations		Karst Areas
	North Vernon Airport Runway Protection Zone (RPZ)		Parcel Boundary
	Open Water	<b>Hazardous Material (HazMat) Sites</b>	
	Noise Receivers		NPDES Pipe Locations
	Airports		Underground Storage Tank (UST)

## STREAMS

	Ephemeral Streams		Intermittent Streams		Perennial Streams
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## FEMA

	Floodplain
	Floodway

## WETLANDS

	Palustrine, emergent (PEM)
	Palustrine, forested (PFO)

## LAND USE CODES

<b>AGR</b>	Agriculture
<b>COM</b>	Commercial Services
<b>CHC</b>	Church
<b>IND</b>	Industrial
<b>RES</b>	Residential
<b>SF</b>	State Forest
<b>UTL</b>	Utilities

## GIS Data Sources

Aerial Photography: INDOT (2005) & ESRI Map Service  
 Bing Map (c) 2010 Microsoft Corporation and its data suppliers  
 Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey  
 Streams: USGS  
 Hazardous Material Sites: IDEM & USEPA  
 Indiana Map: <http://indianamap.org/>

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



**MAP 11: SHEET 14**  
**Environmental Features: Alternative 6D**



# LEGEND

## DESIGN ELEMENTS

	U.S. 50 North Vernon Bypass - West (Under Construction)		Alternative 6D - ROW Permanent
	Alternative 4NB2 - ROW Permanent		Alternative 6D - ROW Temporary
	4NB2 - Uneconomic Remnants		Alternative 6D - Uneconomic Remnants

## FEATURES

	Pipeline		Recreational Facilities
	Railroad		Religious Centers
	Trails		Quarry - Abandoned
	Potentially Historic Property		Quarry - Existing
	Business Relocations		Eastern Hemlock
	Residential Relocations		Karst Areas
	North Vernon Airport Runway Protection Zone (RPZ)		Parcel Boundary
	Open Water	<b>Hazardous Material (HazMat) Sites</b>	
	Noise Receivers		NPDES Pipe Locations
	Airports		Underground Storage Tank (UST)

## STREAMS

	Ephemeral Streams		Intermittent Streams		Perennial Streams
---	-------------------	---	----------------------	---	-------------------

## FEMA

	Floodplain
	Floodway

## WETLANDS

	Palustrine, emergent (PEM)
	Palustrine, forested (PFO)

## LAND USE CODES

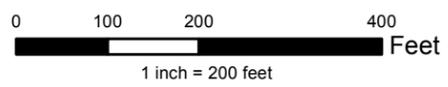
<b>AGR</b>	Agriculture
<b>COM</b>	Commercial Services
<b>CHC</b>	Church
<b>IND</b>	Industrial
<b>RES</b>	Residential
<b>SF</b>	State Forest
<b>UTL</b>	Utilities

## GIS Data Sources

Aerial Photography: INDOT (2005) & ESRI Map Service  
 Bing Map (c) 2010 Microsoft Corporation and its data suppliers  
 Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey  
 Streams: USGS  
 Hazardous Material Sites: IDEM & USEPA  
 Indiana Map: <http://indianamap.org/>

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



**MAP 11: SHEET 15**  
**Environmental Features: Alternative 6D**



# LEGEND

## DESIGN ELEMENTS

	U.S. 50 North Vernon Bypass - West (Under Construction)		Alternative 6D - ROW Permanent
	Alternative 4NB2 - ROW Permanent		Alternative 6D - ROW Temporary
	4NB2 - Uneconomic Remnants		Alternative 6D - Uneconomic Remnants

## FEATURES

	Pipeline		Recreational Facilities
	Railroad		Religious Centers
	Trails		Quarry - Abandoned
	Potentially Historic Property		Quarry - Existing
	Business Relocations		Eastern Hemlock
	Residential Relocations		Karst Areas
	North Vernon Airport Runway Protection Zone (RPZ)		Parcel Boundary
	Open Water	<b>Hazardous Material (HazMat) Sites</b>	
	Noise Receivers		NPDES Pipe Locations
	Airports		Underground Storage Tank (UST)

## STREAMS

	Ephemeral Streams		Intermittent Streams		Perennial Streams
---	-------------------	---	----------------------	---	-------------------

## FEMA

	Floodplain
	Floodway

## WETLANDS

	Palustrine, emergent (PEM)
	Palustrine, forested (PFO)

## LAND USE CODES

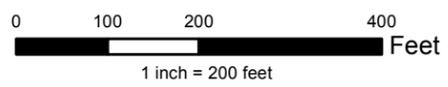
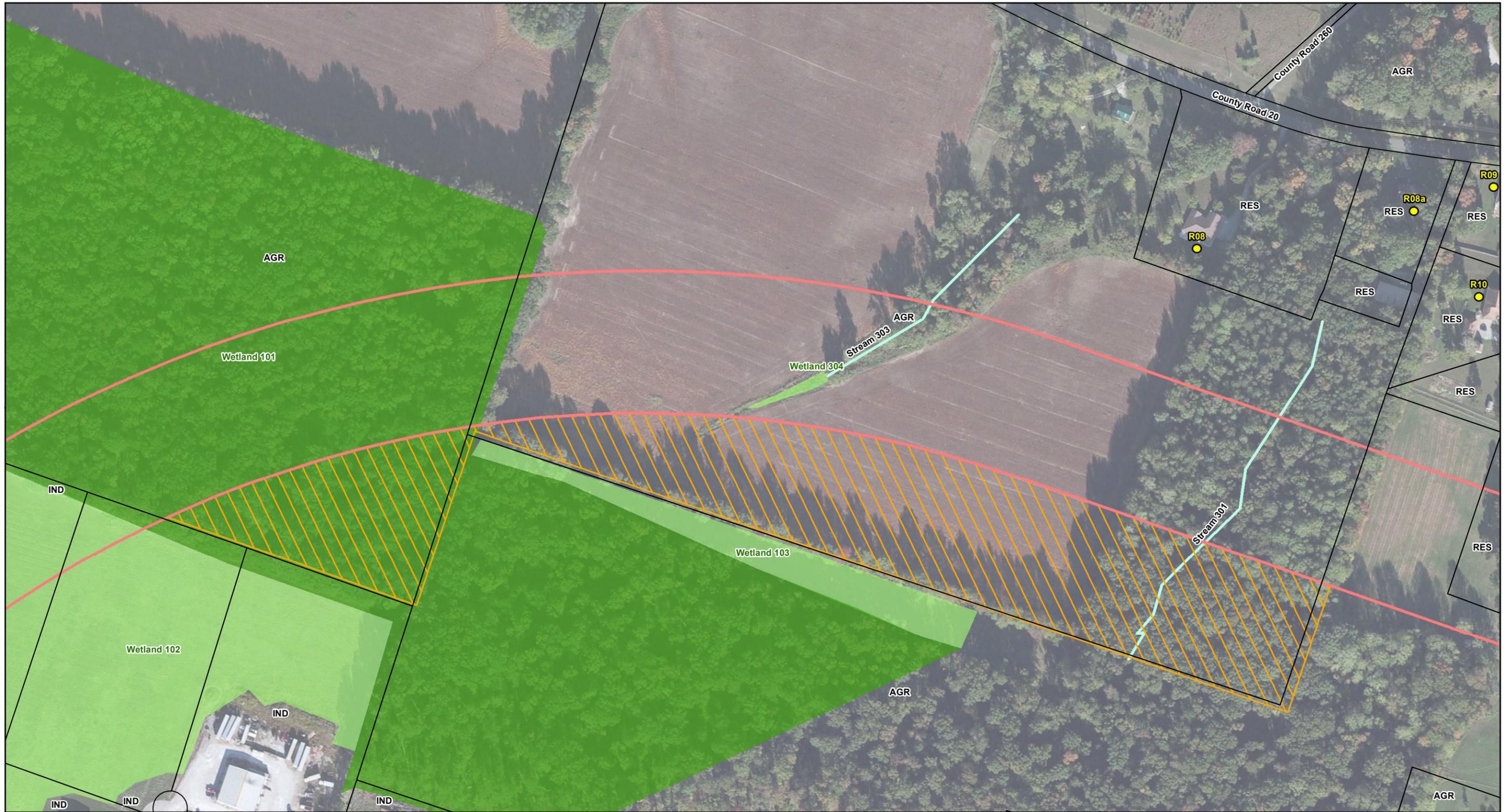
<b>AGR</b>	Agriculture
<b>COM</b>	Commercial Services
<b>CHC</b>	Church
<b>IND</b>	Industrial
<b>RES</b>	Residential
<b>SF</b>	State Forest
<b>UTL</b>	Utilities

## GIS Data Sources

Aerial Photography: INDOT (2005) & ESRI Map Service  
 Bing Map (c) 2010 Microsoft Corporation and its data suppliers  
 Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey  
 Streams: USGS  
 Hazardous Material Sites: IDEM & USEPA  
 Indiana Map: <http://indianamap.org/>

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



**MAP 11: SHEET 16**  
**Environmental Features: Alternative 6D**



# LEGEND

## DESIGN ELEMENTS

	U.S. 50 North Vernon Bypass - West (Under Construction)		Alternative 6D - ROW Permanent
	Alternative 4NB2 - ROW Permanent		Alternative 6D - ROW Temporary
	4NB2 - Uneconomic Remnants		Alternative 6D - Uneconomic Remnants

## FEATURES

	Pipeline		Recreational Facilities
	Railroad		Religious Centers
	Trails		Quarry - Abandoned
	Potentially Historic Property		Quarry - Existing
	Business Relocations		Eastern Hemlock
	Residential Relocations		Karst Areas
	North Vernon Airport Runway Protection Zone (RPZ)		Parcel Boundary
	Open Water	<b>Hazardous Material (HazMat) Sites</b>	
	Noise Receivers		NPDES Pipe Locations
	Airports		Underground Storage Tank (UST)

## STREAMS

	Ephemeral Streams		Intermittent Streams		Perennial Streams
---	-------------------	---	----------------------	---	-------------------

## FEMA

	Floodplain
	Floodway

## WETLANDS

	Palustrine, emergent (PEM)
	Palustrine, forested (PFO)

## LAND USE CODES

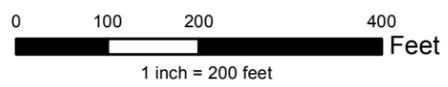
<b>AGR</b>	Agriculture
<b>COM</b>	Commercial Services
<b>CHC</b>	Church
<b>IND</b>	Industrial
<b>RES</b>	Residential
<b>SF</b>	State Forest
<b>UTL</b>	Utilities

## GIS Data Sources

Aerial Photography: INDOT (2005) & ESRI Map Service  
 Bing Map (c) 2010 Microsoft Corporation and its data suppliers  
 Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey  
 Streams: USGS  
 Hazardous Material Sites: IDEM & USEPA  
 Indiana Map: <http://indianamap.org/>

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



**MAP 11: SHEET 17**  
**Environmental Features: Alternative 6D**



# LEGEND

## DESIGN ELEMENTS

- |  |   |  |                                      |
|--|---|--|--------------------------------------|
|  | U.S. 50 North Vernon Bypass - West (Under Construction) |  | Alternative 6D - ROW Permanent       |
|  | Alternative 4NB2 - ROW Permanent                        |  | Alternative 6D - ROW Temporary       |
|  | 4NB2 - Uneconomic Remnants                              |  | Alternative 6D - Uneconomic Remnants |

## FEATURES

- |  |   |  |                                |
|--|---|--|--------------------------------|
|  | Pipeline  |  | Recreational Facilities        |
|  | Railroad  |  | Religious Centers              |
|  | Trails  |  | Quarry - Abandoned             |
|  | Potentially Historic Property                     |  | Quarry - Existing              |
|  | Business Relocations                              |  | Eastern Hemlock                |
|  | Residential Relocations                           |  | Karst Areas                    |
|  | North Vernon Airport Runway Protection Zone (RPZ) |  | Parcel Boundary                |
|  | Open Water  | <b>Hazardous Material (HazMat) Sites</b> |                                |
|  | Noise Receivers                                   |  | NPDES Pipe Locations           |
|  | Airports  |  | Underground Storage Tank (UST) |

## STREAMS

- |  |                   |  |                      |  |                   |
|--|-------------------|--|----------------------|--|-------------------|
|  | Ephemeral Streams |  | Intermittent Streams |  | Perennial Streams |
|--|-------------------|--|----------------------|--|-------------------|

## FEMA

- |  |            |
|--|------------|
|  | Floodplain |
|  | Floodway   |

## WETLANDS

- |  |                            |
|--|----------------------------|
|  | Palustrine, emergent (PEM) |
|  | Palustrine, forested (PFO) |

## LAND USE CODES

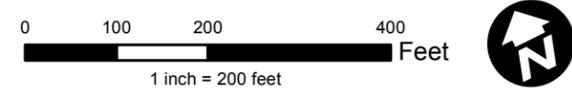
- |            |                     |
|------------|---------------------|
| <b>AGR</b> | Agriculture         |
| <b>COM</b> | Commercial Services |
| <b>CHC</b> | Church              |
| <b>IND</b> | Industrial          |
| <b>RES</b> | Residential         |
| <b>SF</b>  | State Forest        |
| <b>UTL</b> | Utilities           |

## GIS Data Sources

Aerial Photography: INDOT (2005) & ESRI Map Service  
 Bing Map (c) 2010 Microsoft Corporation and its data suppliers  
 Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey  
 Streams: USGS  
 Hazardous Material Sites: IDEM & USEPA  
 Indiana Map: <http://indianamap.org/>

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



**MAP 11: SHEET 18**  
**Environmental Features: Alternative 6D**

# LEGEND

## DESIGN ELEMENTS

	U.S. 50 North Vernon Bypass - West (Under Construction)		Alternative 6D - ROW Permanent
	Alternative 4NB2 - ROW Permanent		Alternative 6D - ROW Temporary
	4NB2 - Uneconomic Remnants		Alternative 6D - Uneconomic Remnants

## FEATURES

	Pipeline		Recreational Facilities
	Railroad		Religious Centers
	Trails		Quarry - Abandoned
	Potentially Historic Property		Quarry - Existing
	Business Relocations		Eastern Hemlock
	Residential Relocations		Karst Areas
	North Vernon Airport Runway Protection Zone (RPZ)		Parcel Boundary
	Open Water	<b>Hazardous Material (HazMat) Sites</b>	
	Noise Receivers		NPDES Pipe Locations
	Airports		Underground Storage Tank (UST)

## STREAMS

	Ephemeral Streams		Intermittent Streams		Perennial Streams
---	-------------------	---	----------------------	---	-------------------

## FEMA

	Floodplain
	Floodway

## WETLANDS

	Palustrine, emergent (PEM)
	Palustrine, forested (PFO)

## LAND USE CODES

<b>AGR</b>	Agriculture
<b>COM</b>	Commercial Services
<b>CHC</b>	Church
<b>IND</b>	Industrial
<b>RES</b>	Residential
<b>SF</b>	State Forest
<b>UTL</b>	Utilities

## GIS Data Sources

Aerial Photography: INDOT (2005) & ESRI Map Service  
 Bing Map (c) 2010 Microsoft Corporation and its data suppliers  
 Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey  
 Streams: USGS  
 Hazardous Material Sites: IDEM & USEPA  
 Indiana Map: <http://indianamap.org/>

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



**MAP 11: SHEET 19**  
**Environmental Features: Alternative 6D**

# LEGEND

## DESIGN ELEMENTS

- |  |   |  |                                      |
|--|---|--|--------------------------------------|
|  | U.S. 50 North Vernon Bypass - West (Under Construction) |  | Alternative 6D - ROW Permanent       |
|  | Alternative 4NB2 - ROW Permanent                        |  | Alternative 6D - ROW Temporary       |
|  | 4NB2 - Uneconomic Remnants                              |  | Alternative 6D - Uneconomic Remnants |

## FEATURES

- |  |   |  |                                |
|--|---|--|--------------------------------|
|  | Pipeline  |  | Recreational Facilities        |
|  | Railroad  |  | Religious Centers              |
|  | Trails  |  | Quarry - Abandoned             |
|  | Potentially Historic Property                     |  | Quarry - Existing              |
|  | Business Relocations                              |  | Eastern Hemlock                |
|  | Residential Relocations                           |  | Karst Areas                    |
|  | North Vernon Airport Runway Protection Zone (RPZ) |  | Parcel Boundary                |
|  | Open Water  | <b>Hazardous Material (HazMat) Sites</b> |                                |
|  | Noise Receivers                                   |  | NPDES Pipe Locations           |
|  | Airports  |  | Underground Storage Tank (UST) |

## STREAMS

- |  |                   |  |                      |  |                   |
|--|-------------------|--|----------------------|--|-------------------|
|  | Ephemeral Streams |  | Intermittent Streams |  | Perennial Streams |
|--|-------------------|--|----------------------|--|-------------------|

## FEMA

- |  |            |
|--|------------|
|  | Floodplain |
|  | Floodway   |

## WETLANDS

- |  |                            |
|--|----------------------------|
|  | Palustrine, emergent (PEM) |
|  | Palustrine, forested (PFO) |

## LAND USE CODES

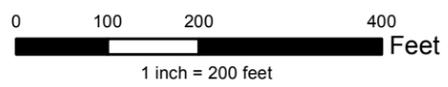
- |            |                     |
|------------|---------------------|
| <b>AGR</b> | Agriculture         |
| <b>COM</b> | Commercial Services |
| <b>CHC</b> | Church              |
| <b>IND</b> | Industrial          |
| <b>RES</b> | Residential         |
| <b>SF</b>  | State Forest        |
| <b>UTL</b> | Utilities           |

## GIS Data Sources

Aerial Photography: INDOT (2005) & ESRI Map Service  
 Bing Map (c) 2010 Microsoft Corporation and its data suppliers  
 Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey  
 Streams: USGS  
 Hazardous Material Sites: IDEM & USEPA  
 Indiana Map: <http://indianamap.org/>

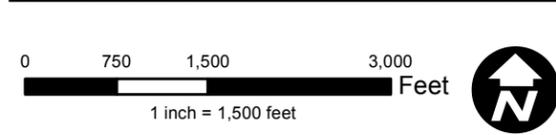
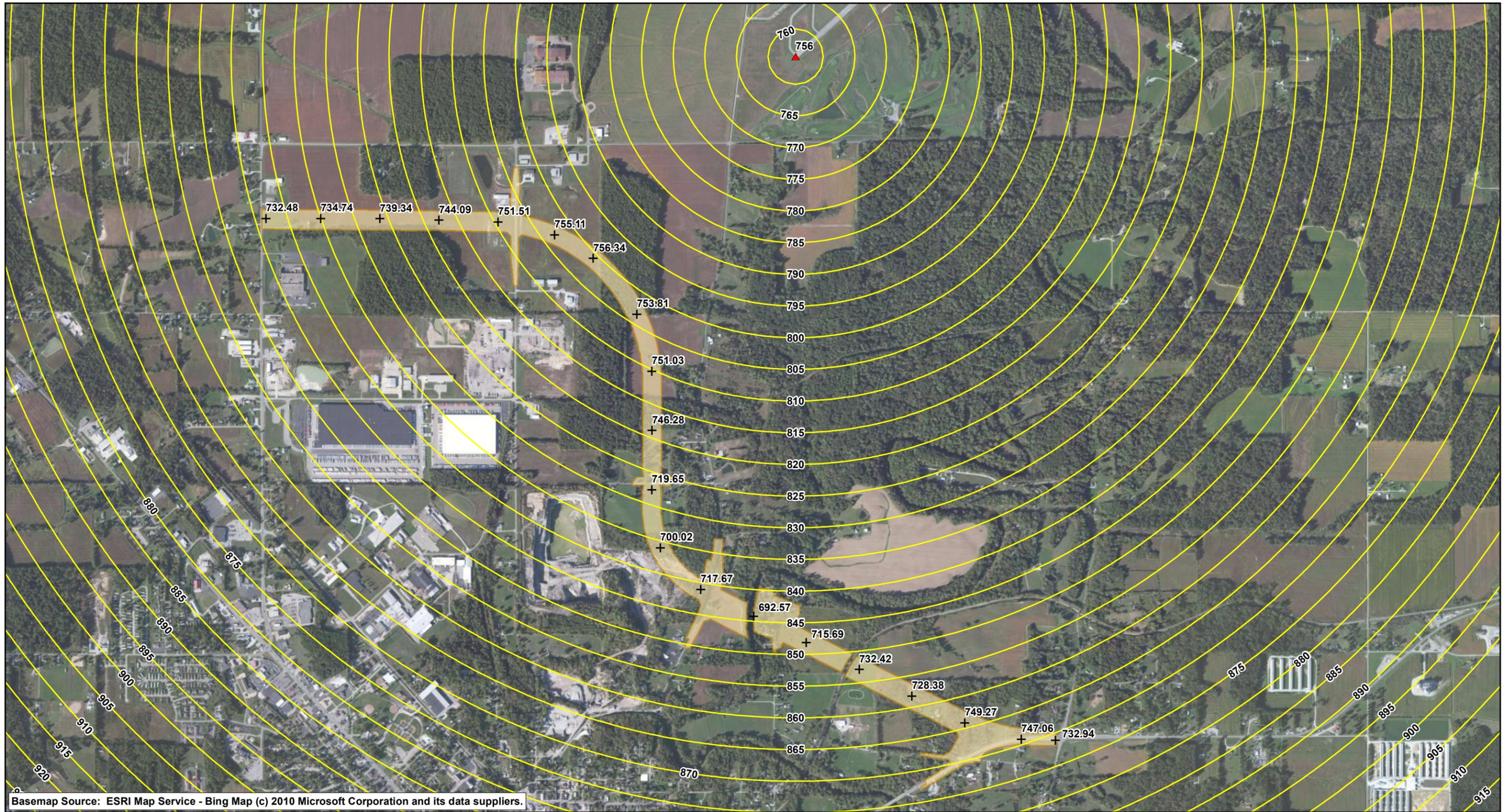
Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



**MAP 11: SHEET 20**  
**Environmental Features: Alternative 6D**

*Elevation Analysis, Cumulative and  
Indirect Impacts*

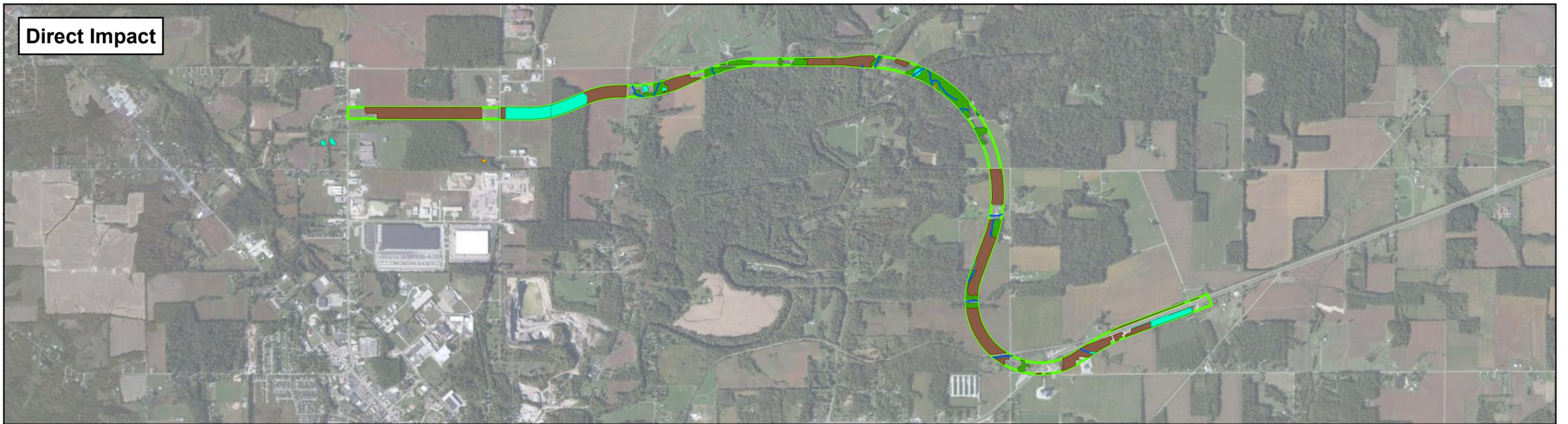
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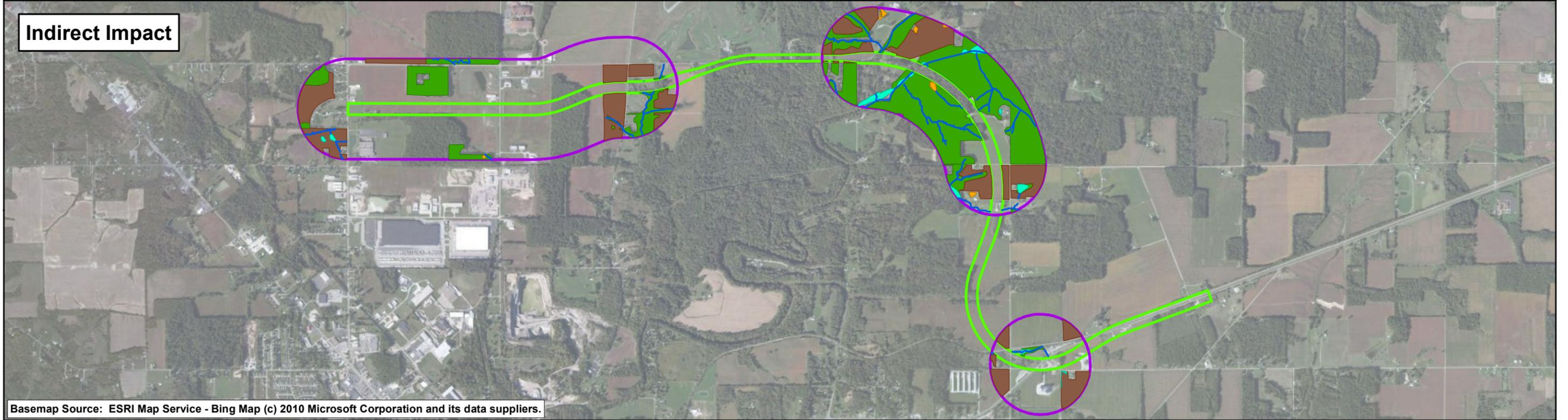
- Legend**
- ▲ Max Elevation Point at end of Runway
  - + Spot Elevations along Alignment 6D
  - Maximum Elevation Allowed From End of Runway
  - Alternative 6D ROW

**MAP 12**  
**Runway Elevation Analysis**



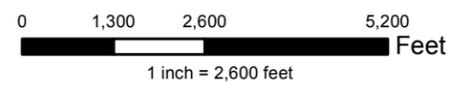


**Direct Impact**



**Indirect Impact**

Basemap Source: ESRI Map Service - Bing Map (c) 2010 Microsoft Corporation and its data suppliers.

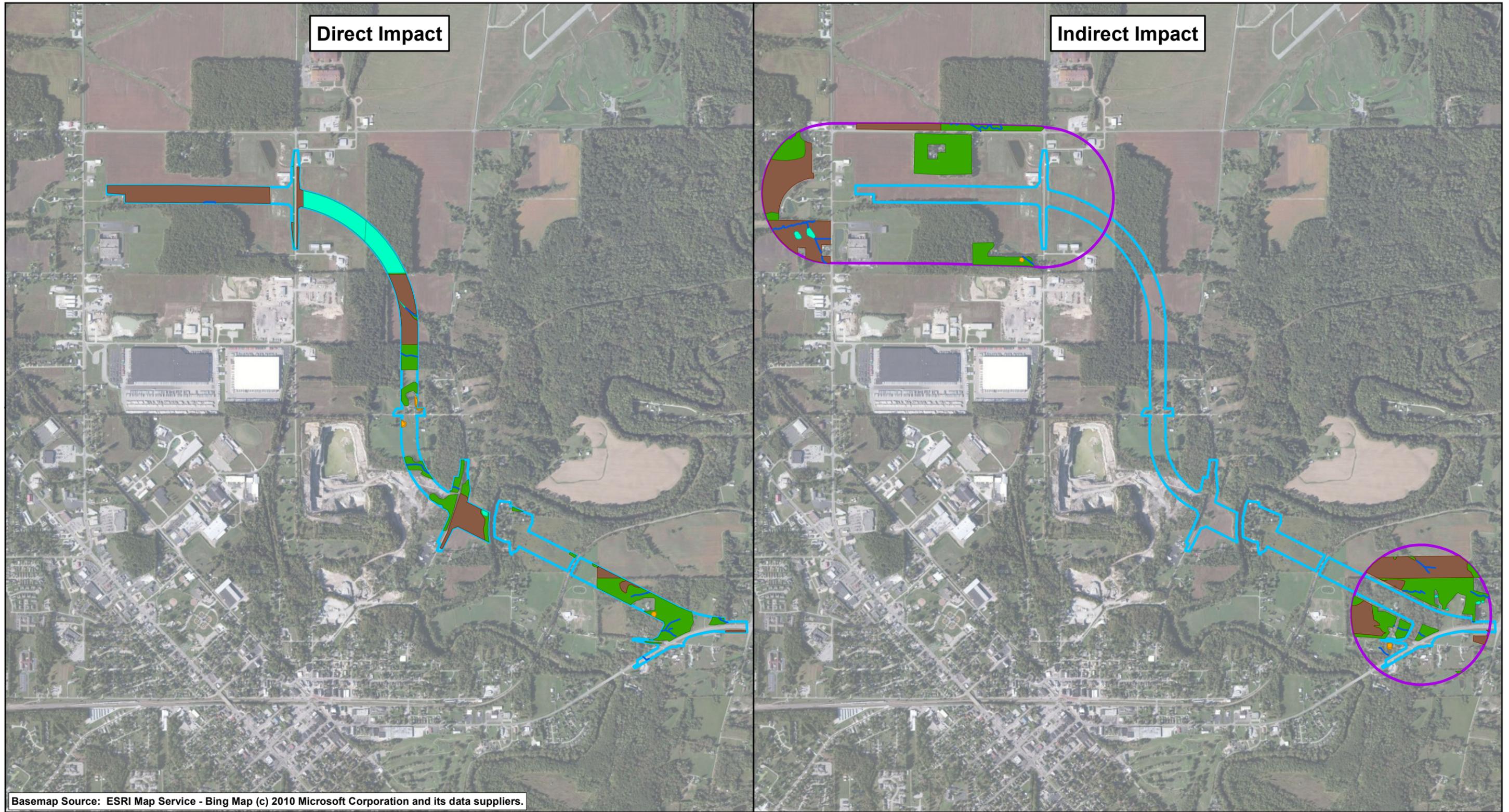


Legend					
<span style="border: 2px solid red; padding: 2px;"> </span>	ROW/Direct Impact Area - 4NB2	<span style="color: blue;">—</span>	Streams	<span style="background-color: brown; border: 1px solid black; padding: 2px;"> </span>	Farmland
<span style="border: 2px solid purple; padding: 2px;"> </span>	Indirect Impact Area - 4NB2	<span style="background-color: orange; border: 1px solid black; padding: 2px;"> </span>	Open Water	<span style="background-color: green; border: 1px solid black; padding: 2px;"> </span>	Forest
		<span style="background-color: cyan; border: 1px solid black; padding: 2px;"> </span>	Wetlands		

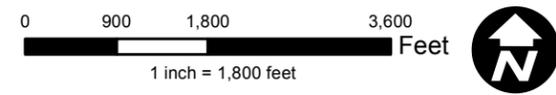
**MAP 13**  
**Direct & Indirect Impact Analysis: Alternative 4NB2**



Environmental Assessment  
U.S. 50 North Vernon Bypass – East  
Des. No. 1173374



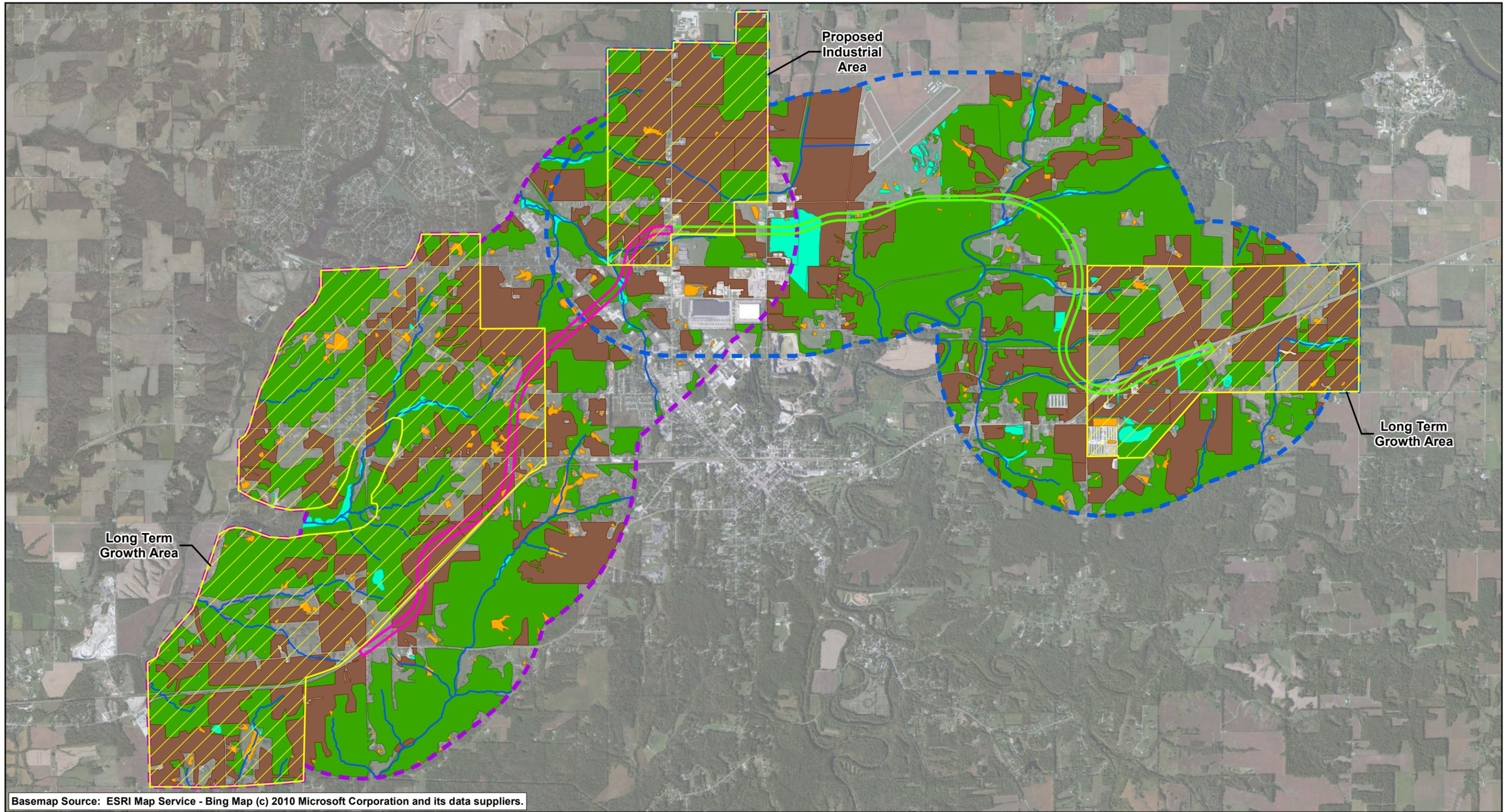
Basemap Source: ESRI Map Service - Bing Map (c) 2010 Microsoft Corporation and its data suppliers.



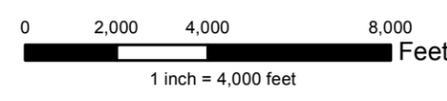
- Legend**
- ROW/Direct Impact Area - 6D
  - Streams
  - Farmland
  - Indirect Impact Area - 6D
  - Open Water
  - Forest
  - Wetlands

**MAP 14**  
**Direct & Indirect Impact Analysis: Alternative 6D**





Basemap Source: ESRI Map Service - Bing Map (c) 2010 Microsoft Corporation and its data suppliers.

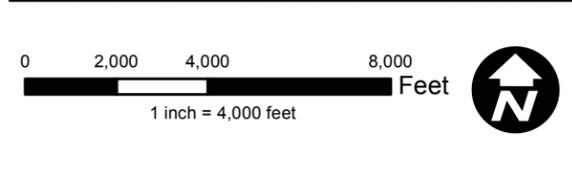
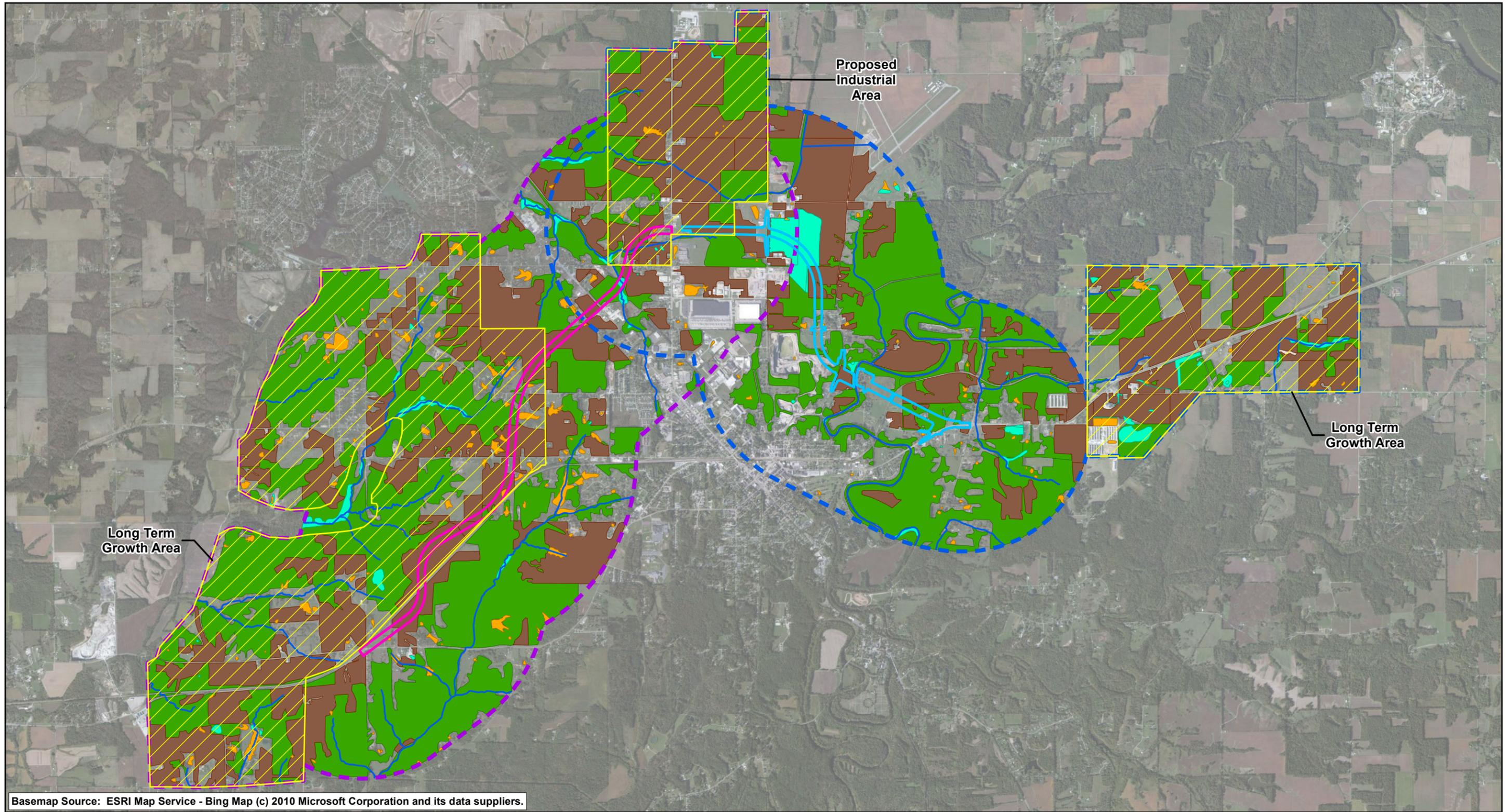


**Legend**

- |                      |   |            |
|----------------------|---|------------|
| ROW - 4NB2           | Growth Areas                            | Open Water |
| ROW - Western Bypass | Cumulative Impact Area - 4NB2           | Wetlands   |
|                      | Cumulative Impact Area - Western Bypass | Farmland   |
|                      | Streams                                 | Forest     |

**MAP 15**  
**Cumulative Impact Analysis: Alternative 4NB2 and Western Bypass**





Legend	
	ROW - 6D
	ROW - Western Bypass
	Growth Areas
	Cumulative Impact Area - 6D
	Cumulative Impact Area - Western Bypass
	Streams
	Open Water
	Wetlands
	Farmland
	Forest

**MAP 16**  
**Cumulative Impact Analysis: Alternative 6D and Western Bypass**

