



Marshalls Creek: Where Transportation Meets Conservation

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Transportation Engineering and Safety Conference - 2019

 **Dewberry**[®]

RETTEWSM

Agenda

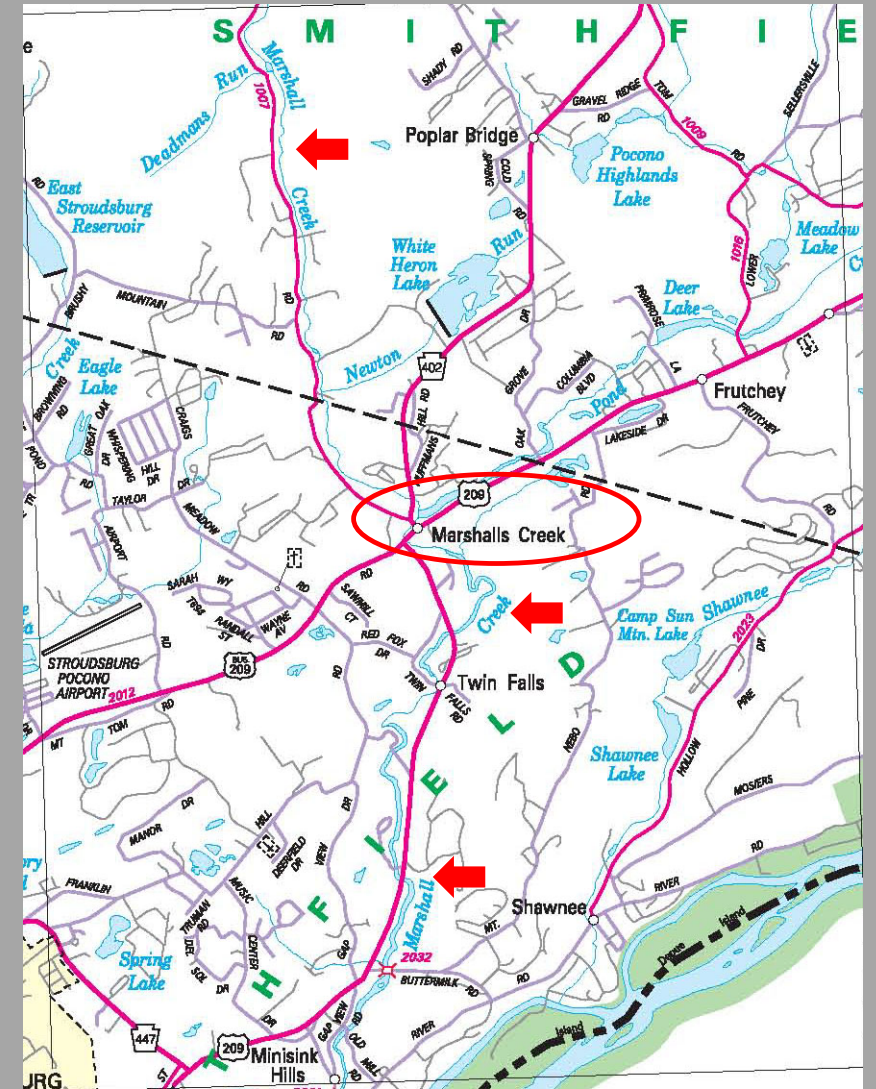
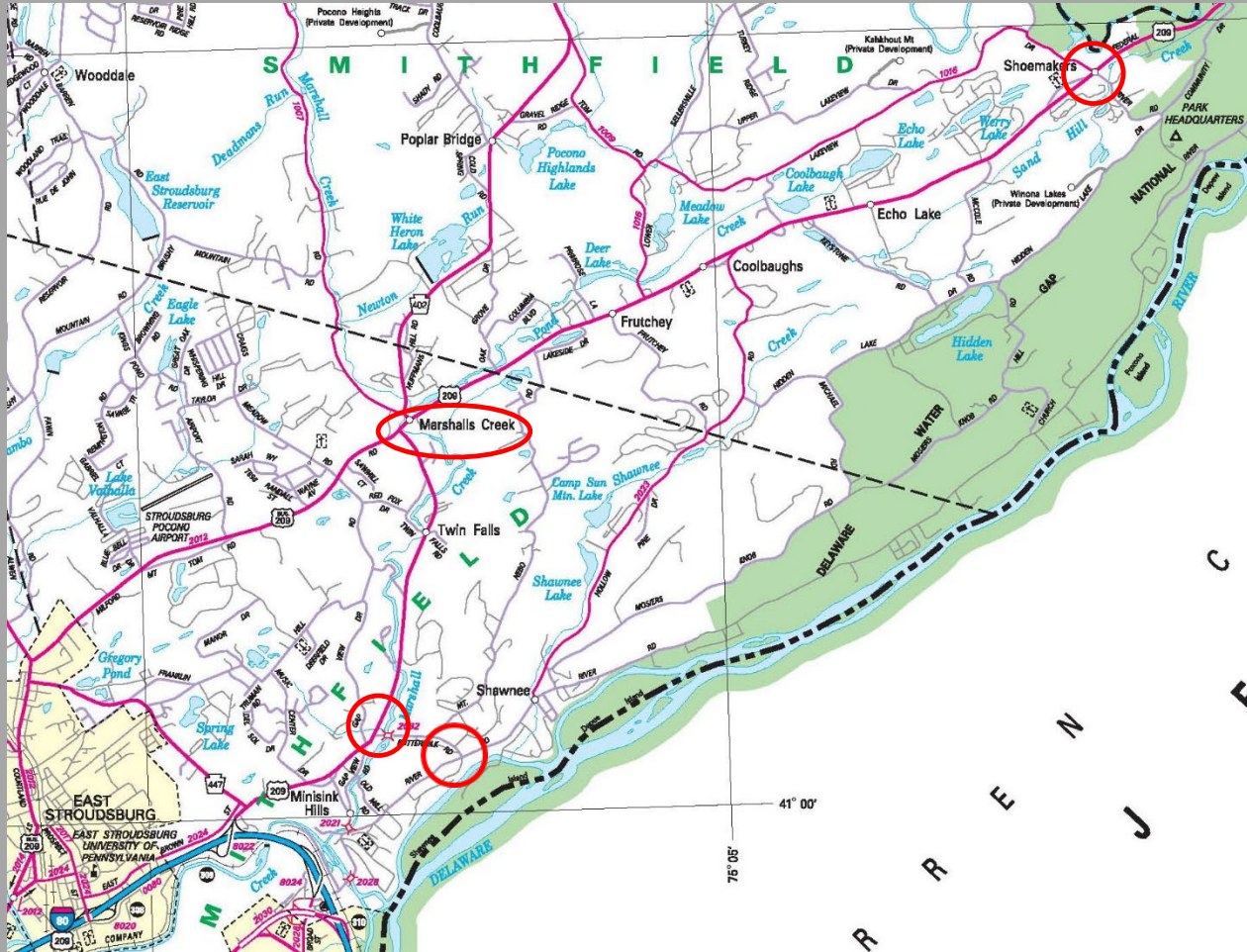
- Project Location and Project Needs
- Traffic Issues, Traffic Mitigation, and the Project Solution
- Project Timeline
- Right-sized Design
- Natural Resources Present
- Project Impacts
- Mitigation – including wetland, stream, and terrestrial
- Questions

Project Team

- PennDOT District 5-0
- Dewberry Engineers
- Rettew Associates
- Larson Design Group
- GTS Technologies (now American Engineers Group)
- Cultural Heritage Research Services (CHRS)
- Bergmaier Communications



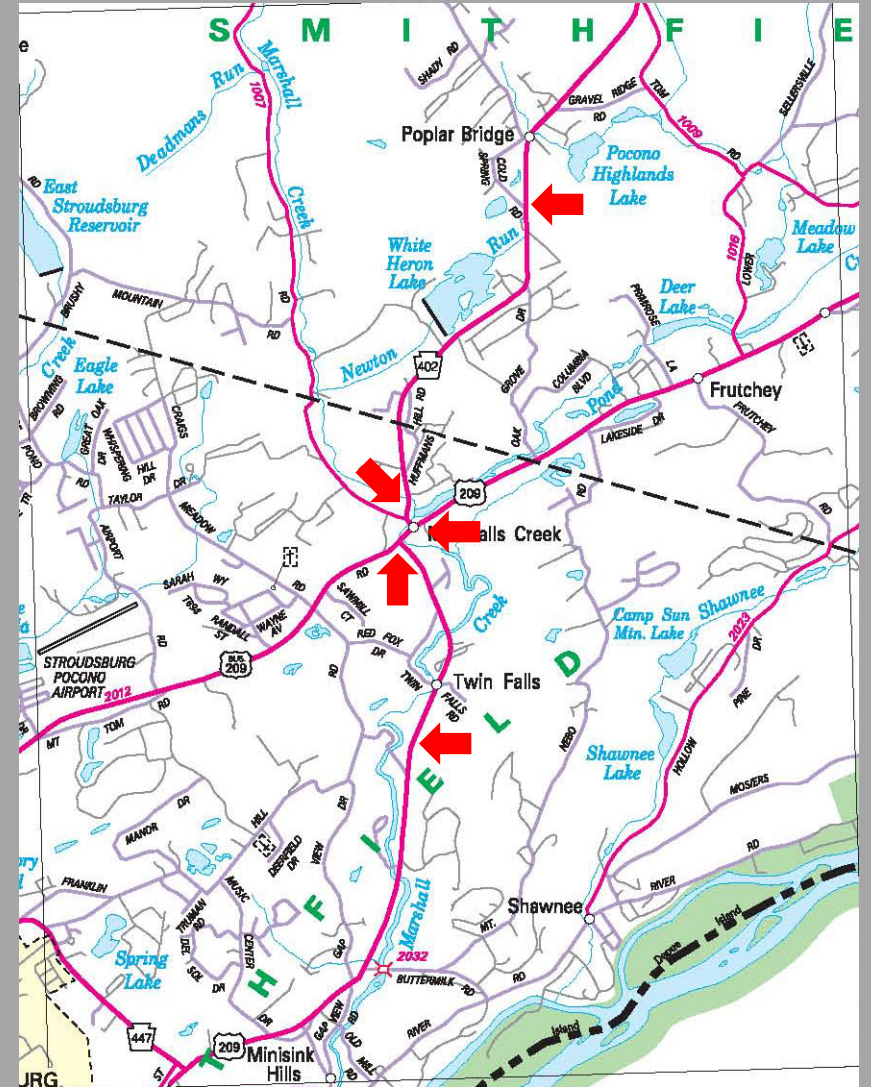
Project Location





Project Needs

- Lack of smooth transition from I-80 to US 209 to SR 402
- Congestion as a result of three intersections converging and having inadequate separation distances between them
- Congestion in Marshalls Creek due to unacceptable levels of service
- Unacceptable emergency response times



Traffic Issues

- Tourist area
- Bedroom community to New York City
- Unchecked land development
- Around 2010, Monroe Co. was one of the fastest growing counties in PA
- Peak traffic times were on the weekend
- ADTs on US 209 near 35,000 in the design year
- Traffic growth rates of 3.5%
- Local population was stranded in their homes
- Poor local roadway network

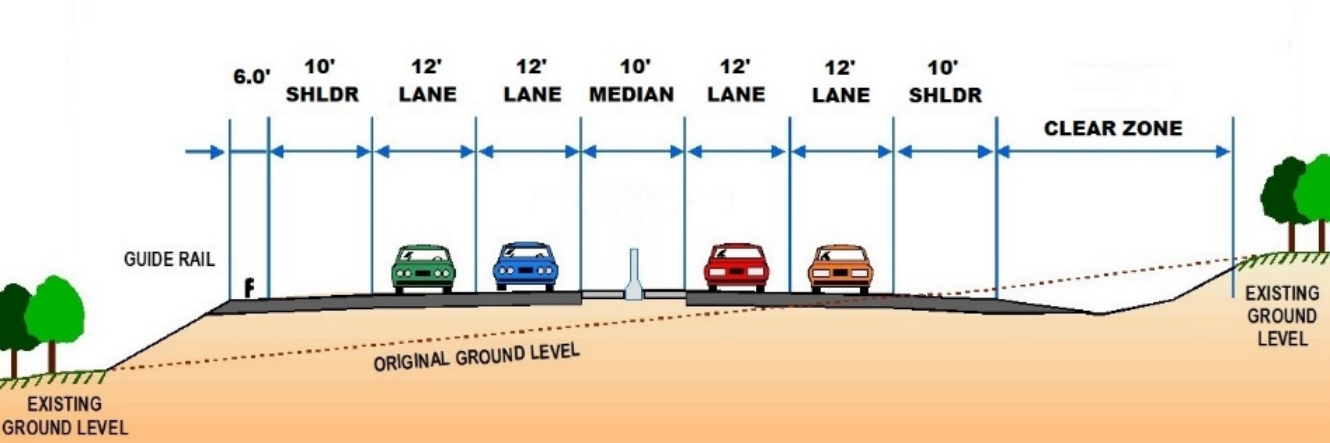


Traffic Mitigation

- CTLUMS - Comprehensive Transportation Land Use Management Strategy
- 400 space Park & Ride lot
- Installation of an emergency traffic signal at the Marshalls Creek Fire Company
- Roadway improvements at 3 outlying intersections



The Solution



A map of the Marshalls Creek area in Monroe County, Pennsylvania. The map shows the Village of Marshalls Creek, including White Heron Lake, Marshalls Creek, Pond Creek, and Leaps Bog. The map highlights the reconstruction of roads 402 and 209. Road 402 is shown as a red line, and road 209 is shown as a red line. The map also shows existing roads in grey, including Resica Falls Rd, Marshall's Creek Rd, Pocus Bazaar, Lakeside Dr, Frutchet Dr, Middle Smithfield Township, Smithfield Township, and St. Ned Rd. The map includes a north arrow and a legend for 'EXISTING ROAD', 'NEW OR RECONSTRUCTED ROAD', and 'NEW TRAFFIC SIGNAL'. The map also shows the location of the Mountain Manor Inn & Golf Club and the Pocus Bazaar. The map is labeled 'TO RESICA FALLS', 'TO BUSHKILL', and 'TO EAST STROUDSBURG'.

Project Timeline

- Project was conceived in the late 1980's.
- 1991 – Feasibility Study performed.
- 1995 – Draft EIS and public hearing held.
- 1997 – Two rare species of fish (Shiners) discovered in Marshalls Creek. Preliminary Engineering begins.
- 2000 – Design revised to avoid impacts to the fish population. FHWA issues ROD.
- 2002 – Project is split into three phases of construction.

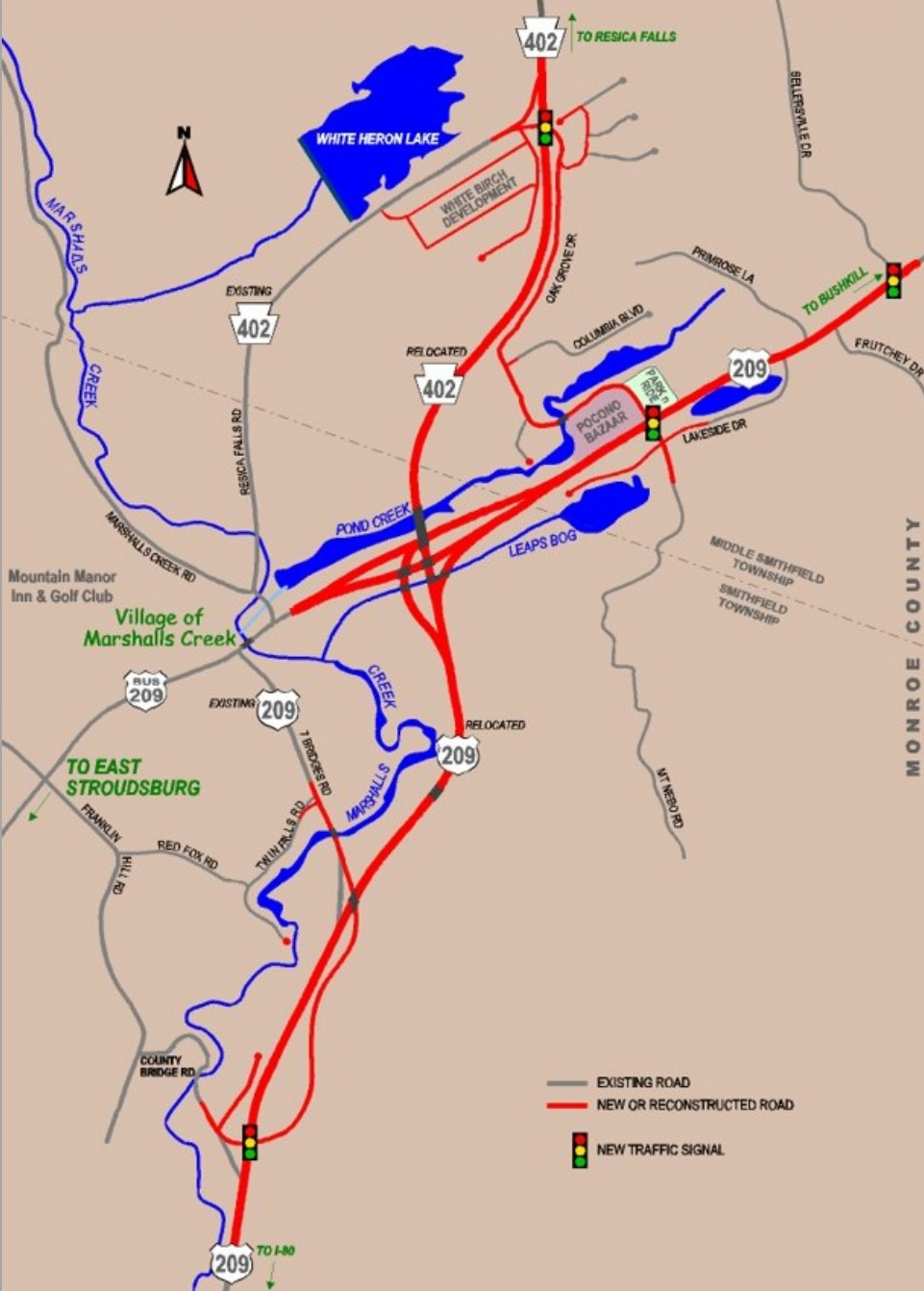
Project Timeline (cont.)

- 2004 – Project delayed due to special conditions in the 404 Permit.
- 2004 – Marcellus Shale containing pyrite found within the limits of the Phase I work area. Design revised to prevent ARD.
- 2005 – Phase 1 project costing \$16M is let.
- 2007 – Phase 2 project costing \$18M is let. Phase 3 estimated at \$70M. NTP is put on hold while the entire project is re-evaluated.
- 2008 – The Great Recession hits the US. Traffic volumes decrease. New housing stops.

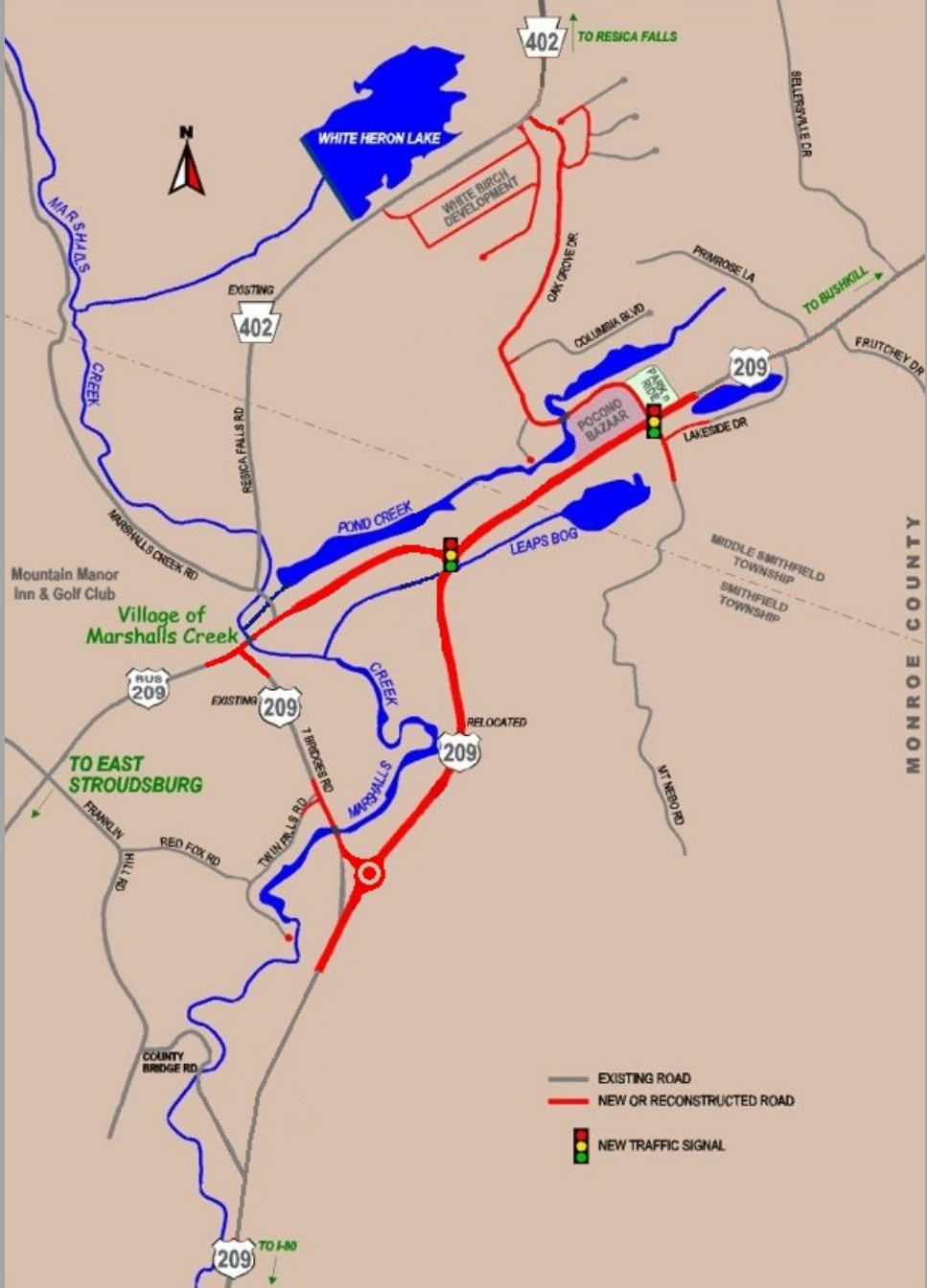
Project Timeline (cont.)

- 2008 – Phase 2 project is pulled from ECMS. A new Phase 2 contract encompassing work on Oak Grove Drive is let at \$6.3M.
- 2008 – PennDOT right-sizes the remainder of project. They needed a cheaper alternative with less impacts to the environment.
- 2009 – The new design has 2 lanes and incorporates a roundabout.
- 2009 – With about $\frac{3}{4}$ of final design completed, PennDOT decides to advertise Phase 3 as a Design-Build contract.
- 2010 – Phase 3 project costing \$18M is let. Savings of \$52M!
- 2012 – Construction is completed.
- 2013 to 2017 – 5 Year Environmental Monitoring is completed.

The Old Solution



The Right-Sized Solution





Natural Resources

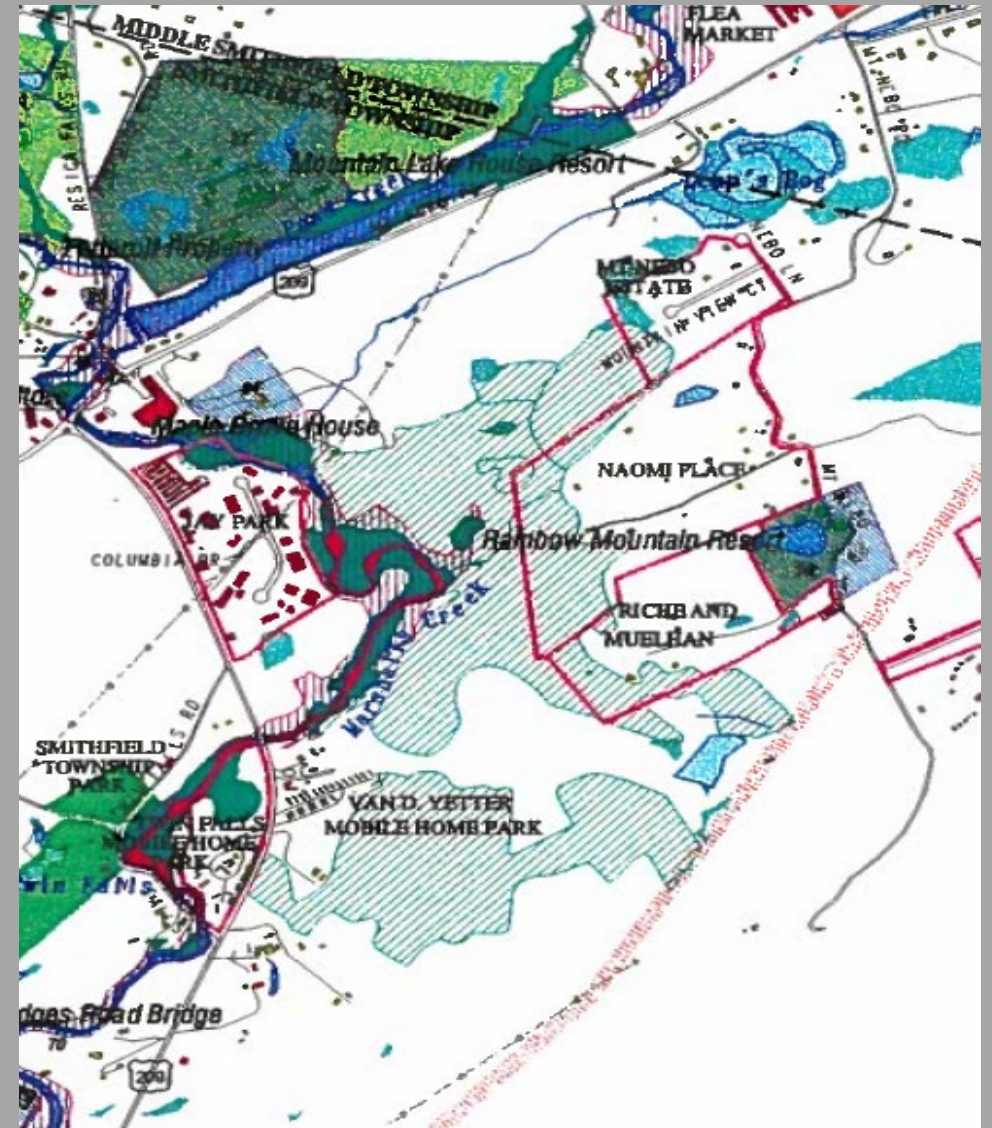


Natural Resources (cont.)

- Marshalls Creek – HQ-CWF
- Presence of Two PA Endangered Shiner Species
 - Bridle & Iron Colored



- Large Wetland Complex along Stream - EV
- Vernal Ponds
- Diverse Habitat and Vegetation – High Quality

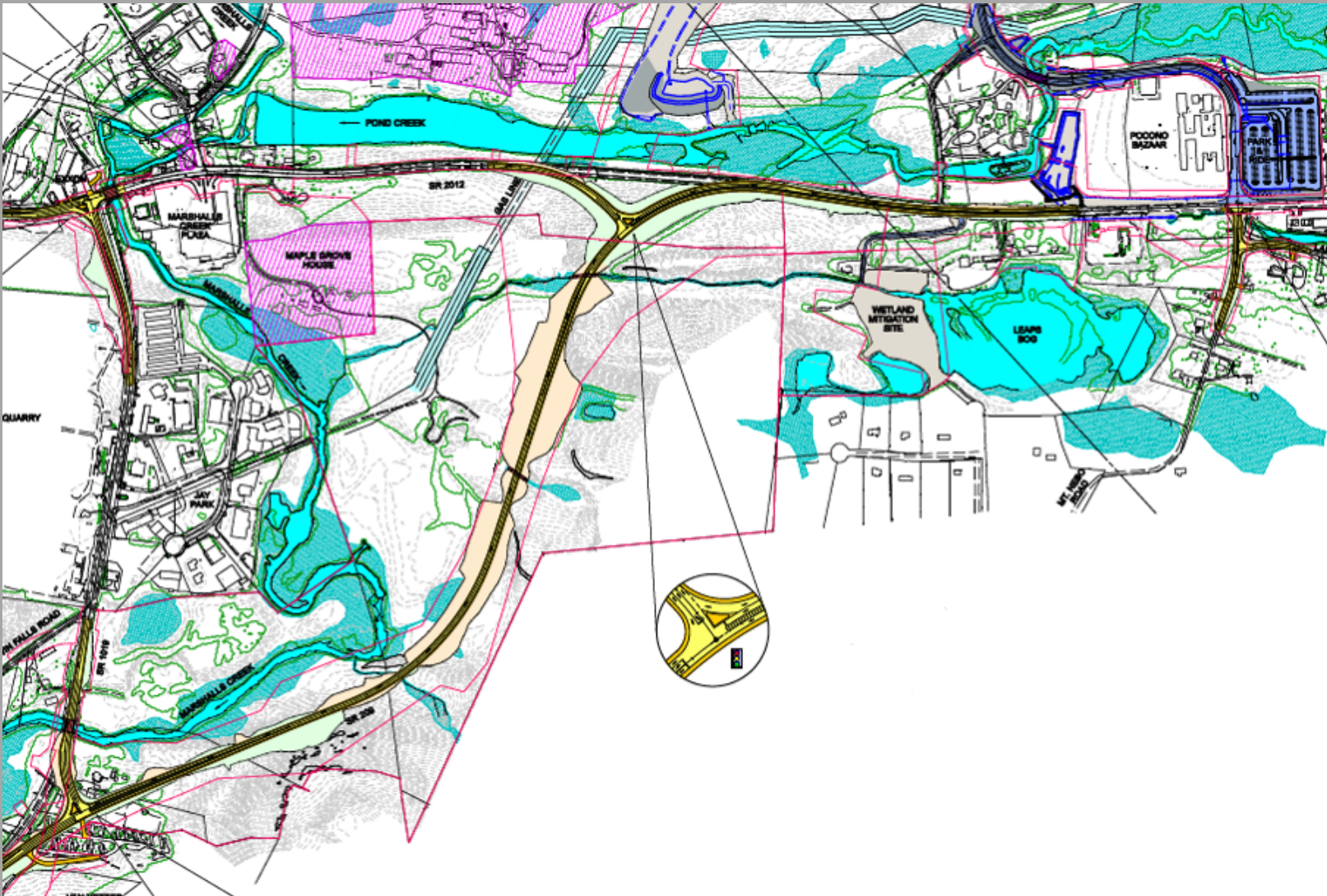


Project Impacts to Natural Resources

- Wetland Impacts – 15 / 2.35 Acres
- Stream – 11 crossings / 1,430 ft.
- Upland – 57.8 Acres
 - 40 Acres of Forest
 - 13.4 Acres of Scrub Shrub
 - 3.9 Acres of Non-Productive Ag
 - 0.5 Acres of Herbaceous



Project Impacts to Natural Resources (cont.)



Mitigation

- Goals
 - Create Adjacent to Area of Impact
 - Maintain/Enhance Biodiversity
 - Create/Enhance Wildlife Habitat
 - Protect Shiner Habitat
 - Create Terrestrial Mitigation Adjacent to Wetland Replacement Site
 - Remove Exotic Species

Mitigation (cont.)

- Wetland

- Creation of 3.19 Acres of Wetlands
- Preservation of 18.5 Acres of Wetlands

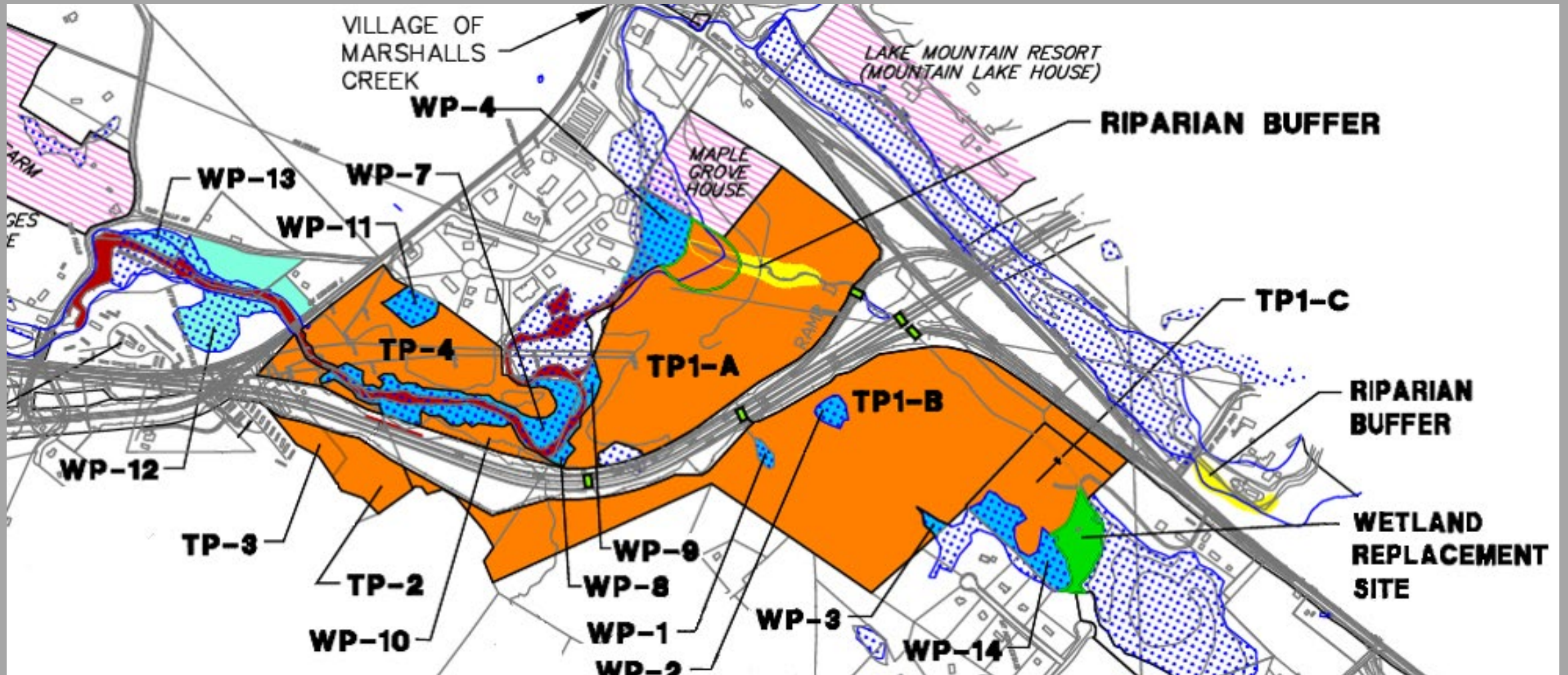
- Stream

- 2 Riparian Buffer Planting Areas
- 1 Bridge Removal
- 2 Culvert Removals along Leap's Bog Drainage
- Stream Preservation

- Terrestrial

- Preservation, Enhancement, and Restoration of 122.85 Acres of Forested and Herbaceous Habitat.

Mitigation (cont.)



Mitigation (cont.)



Mitigation (cont.)





QUESTIONS?