



MVP Update

July 2017

- Plant avoidance and minimization measures
- Voluntary conservation measures
- FEIS updates/conference BA questions
- Biological Opinion schedule

Surveyed 894 acres of potential habitat and no individuals detected

1. Running Buffalo Clover

- Surveys completed
- No individuals found

2. Shale Barren Rock Cress

- BA reported 29.5 ac unsurveyed
- Assumed presence in BA: May Affect– Likely to Adversely Affect
- 1 red tract (3.51 ac) remaining to be surveyed

3. Small Whorled Pagonia

- BA reported 29.5 ac unsurveyed
- Assumed presence in BA: May Affect– Likely to Adversely Affect
- 1 red tract (3.51 ac) remaining to be surveyed

4. Virginia Spiraea

- BA reported 4.28 acres unsurveyed
- Assumed presence in BA: May Affect– Likely to Adversely Affect
- 1 red tract (2.30 ac) remaining to be surveyed

Remaining Surveys

- Permission to access a total of two parcels has not been granted
- Intent is to complete these surveys as soon as possible
- Pending surveys dependent upon access prior to construction during applicable survey windows, or field habitat assessment

Avoidance and Minimization

- If located will be fenced off and avoided if possible
- If cannot be avoided then will be transplanted
 - Small whorled pagonia cannot be translocated
 - Virginia spiraea will be planted in the same hydrologic basin

Monitoring

- Small whorled pagonia: 5 years (may lie dormant for “up to 4 years”)
- Virginia spiraea and shale barren rock cress: 2 years

No impacts from sedimentation or erosion anticipated

- Followed mitigation hierarchy in route development and finalization
- Onsite avoidance and minimization measures, including restoration efforts: native, woody and pollinator species
- Voluntary conservation measures included in BA for take of Indiana and Northern Long-eared bats and Roanoke logperch
- A complete mitigation proposal will be submitted to USFWS

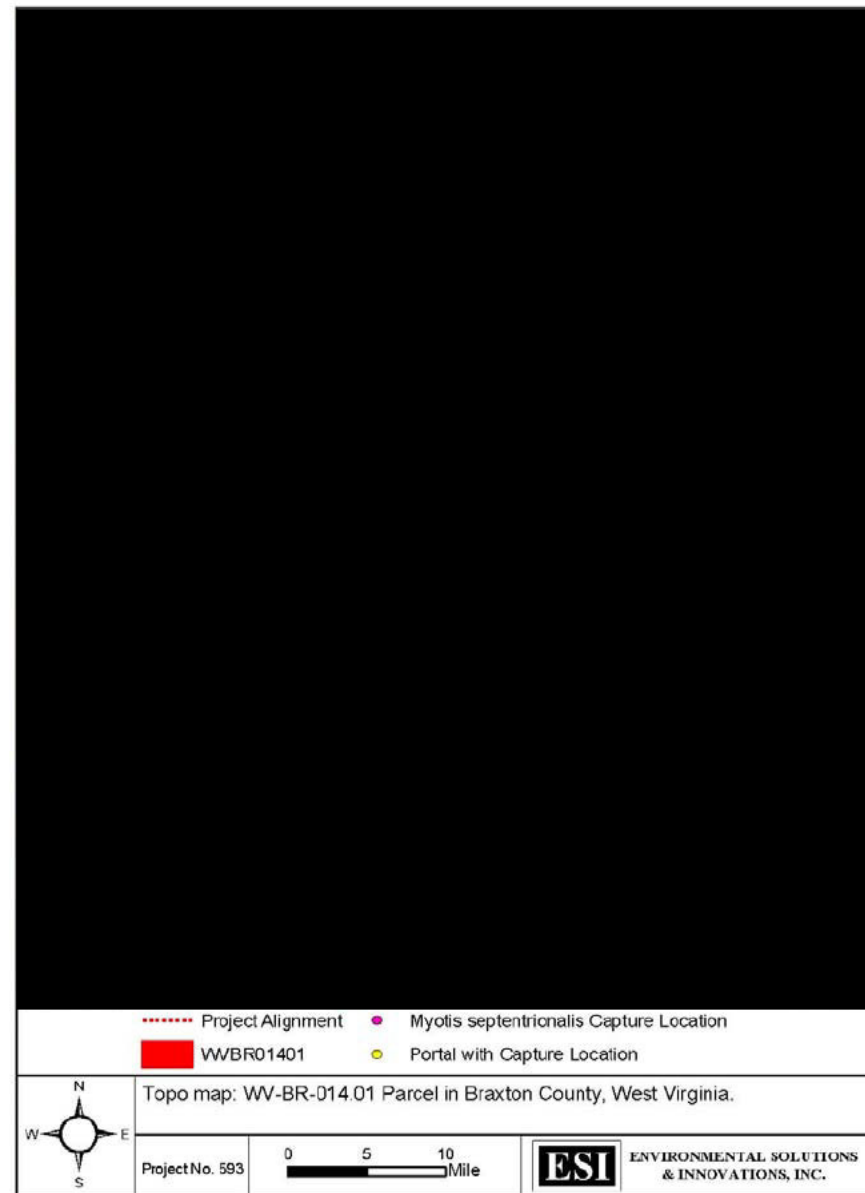
Level of detail needed for BO

- Quantify impacts
- Translate impacts to dollars
- Define terms of transfer of dollars to approved program

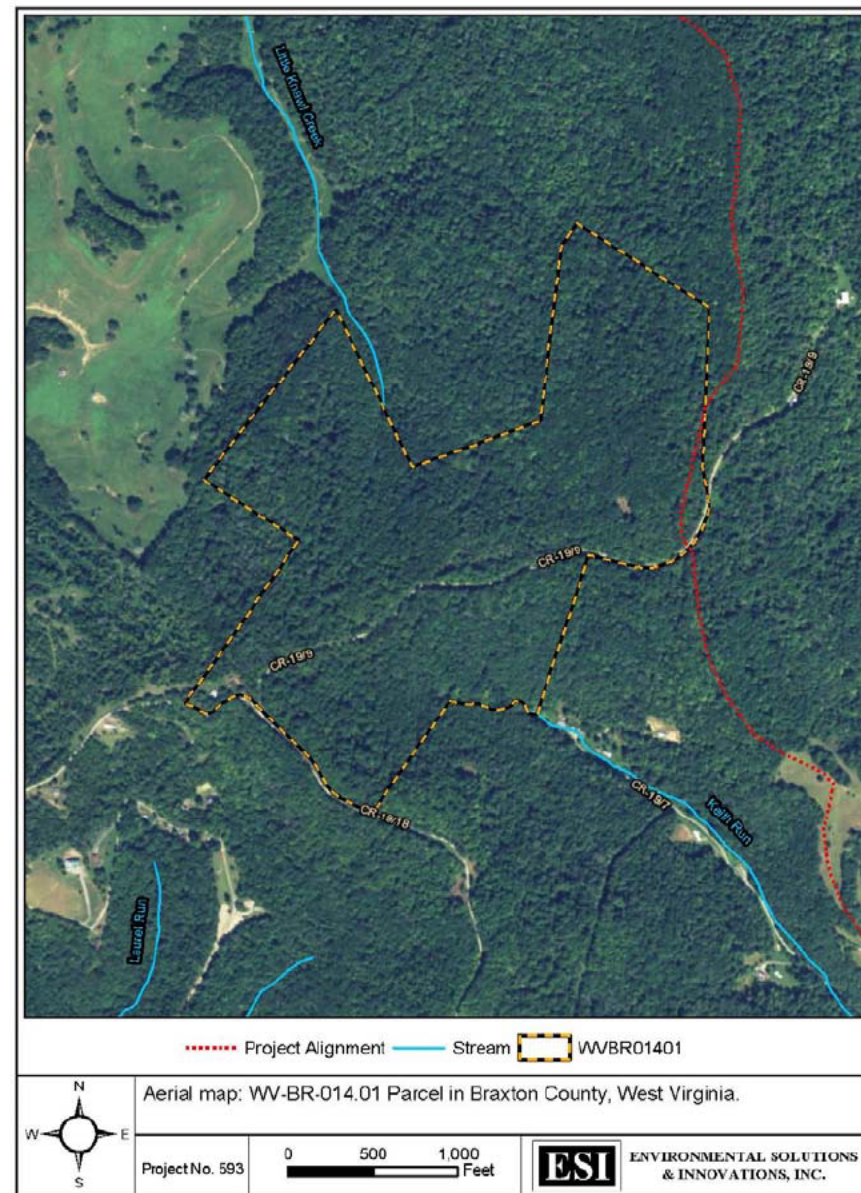
Braxton County Property

- 121-acre property crossed by the project, post-construction approximately 106 acres will remain as interior forest as classified by the state of WV
- Within 15-mile radius of Burnsville Lake Wildlife Management Area, Elk River Wildlife Management Area, Cedar Creek State Park, and Holly River State Park
- Nearby bat captures:
 - 5 NLEB captures roughly 4 miles north
 - 1 NLEB capture 3 miles south
 - within 3 miles of a portal (PS-WV3-Y-P1): NLEB capture during harp trap sampling
- Small stream on the southern end
- Close proximity to perennial water sources Falls Mill, Millstone Run, Barbecue Run and McChord Run
- 1.75 miles east of Burnsville Lake
- Mature, upland deciduous forest – average DBH of canopy trees is 18 inches, but a few dominant trees reach nearly 40 inches
- Numerous ATV/hunting trails providing travel/foraging corridors
- Ample roosting options (existing snags, exfoliating bark, cracks, crevices)
- Variety of options for habitat enhancement: artificial roost structures, establishment of permanent water source

Voluntary Conservation Measures - Bats



Voluntary Conservation Measures - Bats



Braxton County Property

- Approval for use of the site as a mitigation site
- Possible habitat enhancements
- Long-term steward, protect the site in perpetuity

Voluntary Conservation Measures - Bats

Enhancement to public lands based on discussions with WVDNR and VDCR

Contribution to an established mitigation program

Conservation easement programs

	Impact (acres)	Replacement Habitat with no recovery (acres)	Replacement Habitat with Recovery (acres)
Virginia	4,111	4,629	1,086
West Virginia	13,136	12,159	4,999
JNF	606	340	186
TOTAL	17,853	17,128	6,271

Public-private partnership for restoration along North Fork Roanoke River

- Previous restoration efforts by the partnership have taken place up and downstream of the Project's crossing of the river
- Activities include:
 - constructing instream features
 - planting riparian buffers with native vegetation
 - excluding cattle access to streams
 - grading streambanks
 - reestablishing channel morphology
- Provide funds to continue and expand these restoration activities in the watershed
- Funding amount derived from linear stream feet of Roanoke logperch habitat and other sensitive riparian area impacts, as identified within the BA = 4,210 ft

Targeted Stream Restoration Activities

- Within the distributional range of Roanoke logperch and other sensitive riparian areas within the project corridor
- Benefits include:
 - improved water quality
 - augmentation of habitat diversity
 - reestablish critical watershed functions,
 - increases property and aesthetic values
 - reduction of flood damages and riparian property loss
- 55 locations along the ROW and access roads

Voluntary Conservation Measures – Roanoke Logperch



Voluntary Conservation Measures – Roanoke Logperch



- **Variation 250**
- **Conference BA for Yellow lance FERC concluded:**
 - MVP would not be likely to jeopardize the continued existence
 - Conference with the FWS would not be necessary
- **Incorporating Candy darter avoidance and minimization measures**

Formal consultation

Finalize Biological Opinion