

From: [Stahl, Megan D.](#)
To: [Lennon, Tiernan](#); [Jennifer Stanhope](#); [Brown, Clifford L](#); [Taina Pankiewicz](#)
Subject: RE: MVP Plant AMM and Voluntary Conservation Measures
Date: Wednesday, July 19, 2017 4:56:15 PM
Attachments: [2017_07_20-MVP Voluntary Conservation Measures.pdf](#)
[MVP Plant AMM.docx](#)

Jen, Tiernan and Cliff,

In preparation for tomorrow's meeting I am providing additional information regarding proposed plant avoidance and minimization measures for discussion (attached).

I also attached the slide deck so that Jen can follow along on the phone.

I look forward to the meeting tomorrow.

Megan

-----Original Appointment-----

From: Stahl, Megan D.

Sent: Wednesday, July 05, 2017 3:39 PM

To: Stahl, Megan D.; Lennon, Tiernan; Jennifer Stanhope; Brown, Clifford L; Dawley, Joseph; Taina Pankiewicz

Subject: MVP Plant AMM and Voluntary Conservation Measures

When: Thursday, July 20, 2017 12:30 PM-2:00 PM (UTC-05:00) Eastern Time (US & Canada).

Where: West Virginia Field Office, U.S. Fish and Wildlife Service, 694 Beverly Pike, Elkins, WV 26241

This meeting will be to discuss outstanding plant surveys, avoidance and minimization measures, as well as project voluntary conservation measures.

MVP will come to the Elkins Field office for the meeting, and the number below is being provided for Jen to call in:

Dial: [REDACTED]

Leader: [REDACTED]

Participant: [REDACTED]

Thanks,
Megan



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

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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

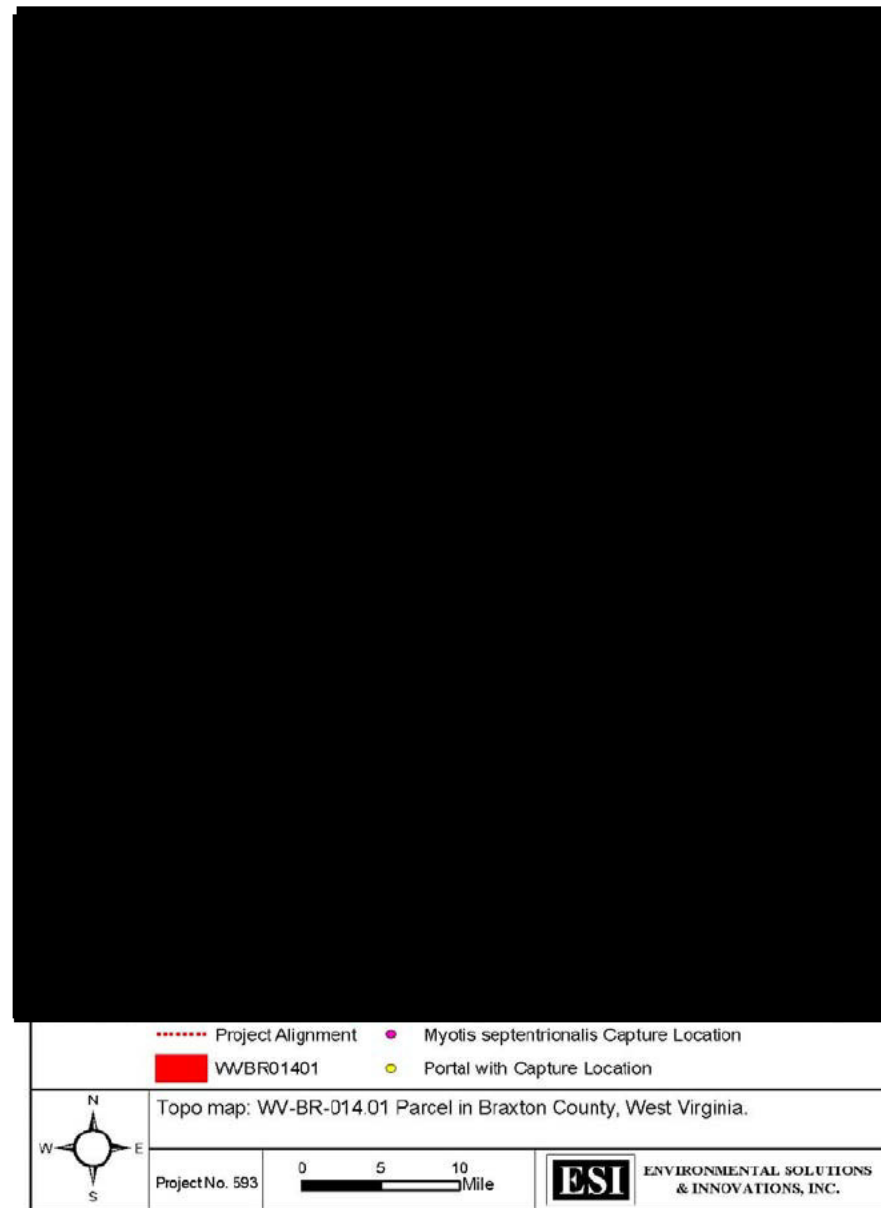
Level of detail needed for BO

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

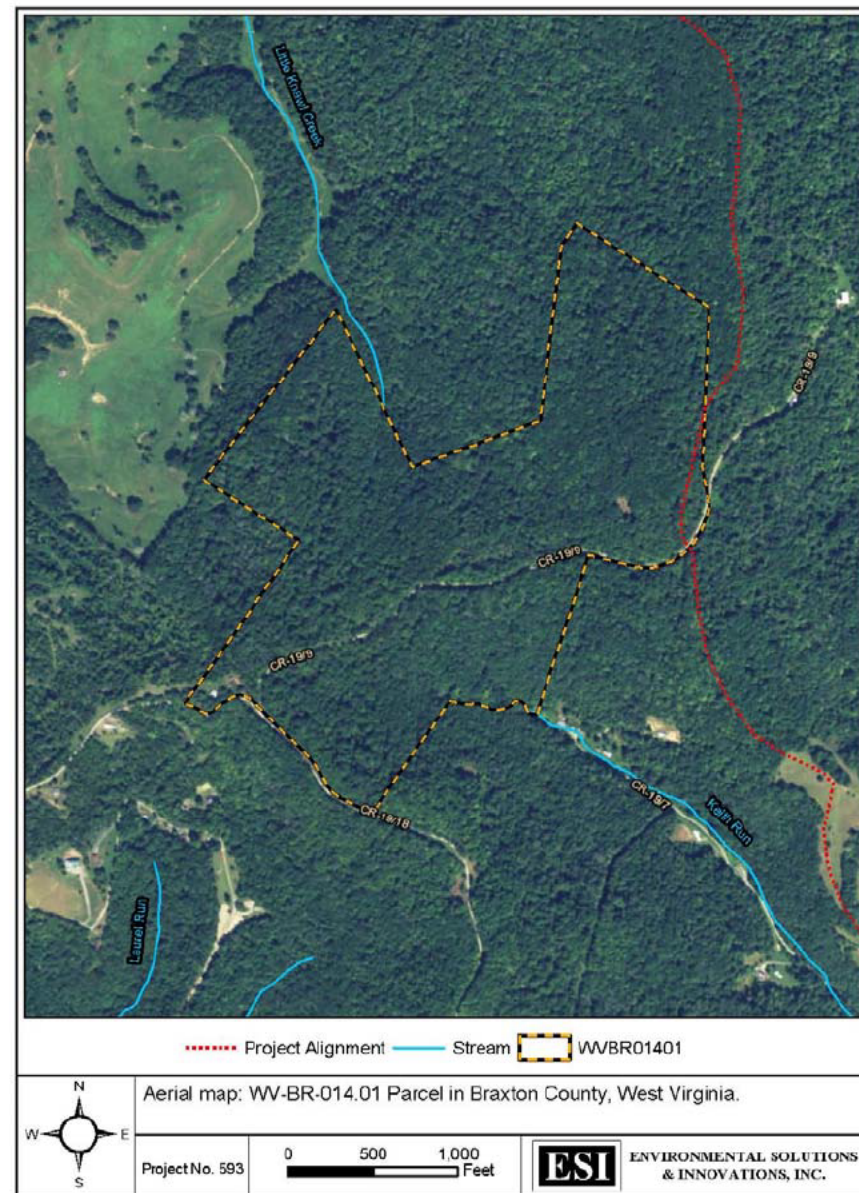
Braxton County Property

- 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

The Project Area is within the distribution range of six federally-listed plant species. These include plants adapted to wetlands and streams (northeastern bulrush and Virginia spiraea), open forests (small whorled pogonia), upland open habitats (running buffalo clover and smooth coneflower), and shale barrens (shale barren rock cress). No critical habitat has been designated for these species. Within the Project Area MVP surveyed 894.16 acres of potential habitat and no individuals of federally endangered or threatened plants were detected during surveys.

The nearest population of smooth coneflower occurs outside the Project Area; therefore the Project Is Not Likely to Adversely Affect smooth coneflower. No potential habitat was found for northeastern bulrush throughout the Project Area; therefore the Project will have No Effect on northeastern bulrush. However, the BA reported small portions of the Project remaining to be surveyed for running buffalo clover, shale barren rock cress, small whorled pogonia and Virginia spiraea due to restricted access. Since MVP submitted the applicant-prepared BA surveys continued where possible and surveys are now completed for running buffalo clover.

A summary of surveys completed and areas remaining to be surveyed is shown below:

Species	Area surveyed (acres)	Area reported in BA remaining to be surveyed (acres)	Current area remaining to be surveyed (acres)
North eastern bulrush	11.27	Surveys completed	Surveys completed
Smooth coneflower	139.17	Surveys completed	Surveys completed
Running buffalo clover	306.77	1.8	Surveys completed
Shale barren rock cress	222.81	29.5	3.51
Small whorled pogonia	207.76	29.5	3.51
Virginia spiraea	6.39	4.28	2.30
TOTAL AREA	894.16		

Because MVP cannot complete the remaining surveys at this time, which involve two parcels (one parcel is 3.51 acres and one parcel is 2.30 acres), the species remaining to be surveyed are presumed present; therefore the project May Affect – Is Likely to Adversely Affect these shale barren rock cress, small whorled pogonia and Virginia spiraea.

The intent is to complete these surveys as soon as possible. However, pending surveys are dependent upon access prior to construction during the applicable survey windows. Should an attempt need to be made outside of the approved survey window, a field habitat assessment will be conducted to identify the amount of potentially suitable habitat for these species within the Project limits of disturbance. The applicable survey windows are:

- Small whorled pogonia: May 1 – September 30
- Shale barren rock cress: August – September
- Virginia spiraea: July 1 – September 30

If populations of federally listed plants are located during remaining survey efforts MVP will fence off and avoid the area if possible. If avoidance is not possible then MVP will attempt to translocate the populations if possible.

According to USFWS small whorled pogonia cannot be translocated. The one parcel remaining to be surveyed is currently in a very secluded area so MVP does not anticipate that fencing would attract poachers. If located, MVP proposes to monitor small whorled pogonia for 5 years. USFWS documentation indicates that the species may lie dormant for “up to 4 years” thus 5 years post construction should be sufficient to document whether the species is present.

If located along the periphery of the limits of disturbance during survey efforts MVP will fence off and avoid populations of Virginia spiraea and shale barren rock cress. If populations of these species occur within the limits of disturbance such that they cannot be avoided, they will be relocated to areas with other known populations. Virginia spiraea will be planted in the same hydrologic basin as it occurs since each of the known occurrences within different basins are slightly genetically disparate. If located MVP proposes to monitor Virginia spiraea and shale barren rock cress for 2 years as requested by USFWS.

Within the remaining survey areas MVP does not anticipate impacts from sedimentation or erosion. The remaining parcels are associated with, and centered along, the proposed centerline construction right-of-way. Of the remaining surveys for shale barren rock cress and small whorled pogonia (red tract WV-GR-065) the Project crosses the tract at the highest elevation. Of the remaining surveys for Virginia spiraea (red tract WV-SU-046) the Project crosses the tract at a fairly level elevation. Permanent waterbars will keep the overland flow in the same watershed and the same drainage patterns would be present post-construction. Post-construction hydrology would not be directed away from the parcel. Runoff and sedimentation would be controlled by the waterbars and permanent vegetation, and once the permanent stabilization is achieved, impacts from sedimentation or erosion are not anticipated.



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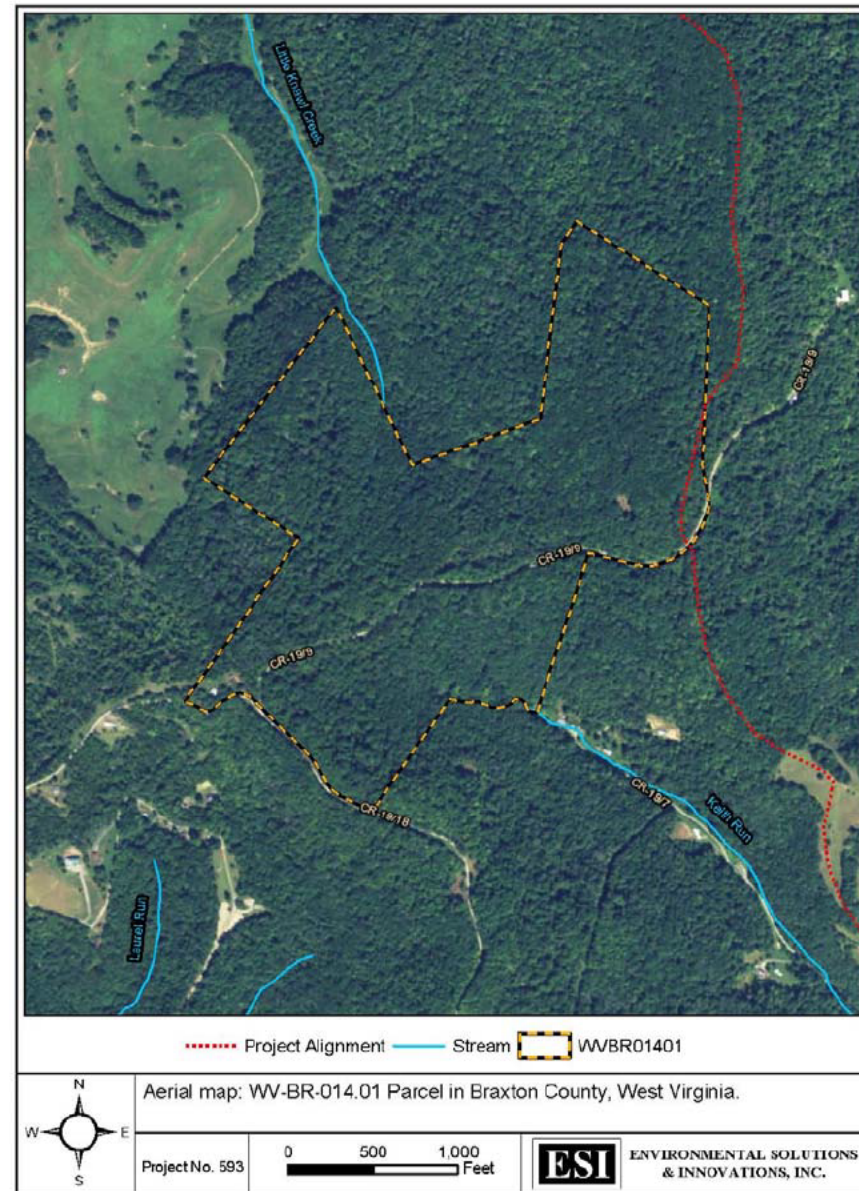
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