

November 8, 2017

Ms. Jennifer Stanhope  
U.S. Fish and Wildlife Service  
Fish and Wildlife Biologist  
Virginia Field Office  
6669 Short Lane  
Gloucester, VA 23061

**Subject: Avoidance and Minimization Measures for Small Whorled Pogonia and Virginia Spiraea on the  
Proposed Mountain Valley Pipeline Project  
FERC Docket No. CP16-10-000**

Dear Ms. Stanhope,

This letter is an addendum to the plant survey reports submitted for the above referenced project. Mountain Valley Pipeline (MVP) proposes the following Avoidance and Minimization Measures for the area within the MVP limits of disturbance (LOD) with the potential for listed plants to occur (Table 1).

Table 1. Un-surveyed parcels on the proposed Mountain Valley Pipeline

Parcel	County	State	LOD (Acre)	Plant Species
WV-GR-065	Greenbrier	WV	3.5	Small whorled pogonia
WV-SU-046	Summers	WV	2.3	Virginia spiraea

**Avoidance and Minimization Measures:**

- If the construction schedule allows, presence/absence surveys will be conducted during the appropriate survey windows prior to construction:
  - Small whorled pogonia: May 1 – September 30
  - Virginia spiraea: July 1 – September 30.
- If listed species are identified, MVP will develop a relocation plan in coordination with U.S. Fish and Wildlife Service Elkins Field Office (USFWS EFO) and West Virginia Department of Natural Resources (WVDNR). The final plan will be submitted to USFWS EFO and WVDNR for review and approval.
- If relocation of listed species is not possible, MVP will develop a management plan in coordination with USFWS EFO and WVDNR. The plan could include:

- Establish as much of a buffer as possible and fence off to avoid. Fencing and buffer would be shown on site-specific Erosion and Sedimentation (E&S) Control Plans.
  - Minimize clearing in the immediate area.
  - Avoid erosion, sedimentation and changes in hydrology by installing additional E&S controls, such as construction of a temporary diversion berm on the working side of the area.
  - Restrict chipped brush from being blown off the right-of-way into surrounding area.
  - Wash equipment to avoid introduction of non-native species.
  - Seed non-permanent areas with woody species as described in MVP's Restoration and Rehabilitation Plan.
  - Comply with MVP's Exotic and Invasive Species Control Plan.
  - Restrict herbicides use within 100-feet of listed plant species.
- If listed species are identified, MVP will develop a monitoring plan in coordination with USFWS EFO and WVDNR. The final plan will be submitted to USFWS EFO and WVDNR for review and approval. The plan would include the following details:
    - Small whorled pagonia: 10-year plan.
    - Virginia spiraea: 2-year plan.
    - Monitoring assessments will be conducted annually for the duration of the plan during optimal survey timeframe to assess colony status and potential threats to continued success.
    - Each monitoring assessment will include documentation of plant height, leaf whorl diameter, flowering, and fruiting.
    - Data collected will be provided annually to USFWS EFO and WVDNR.
    - Baseline assessments will be conducted prior to and during construction.
    - Monitoring assessments pre-construction, during construction and post-construction will include measurements of light levels, soil moisture and temperature.
    - USFWS EFO and WVDNR will approve the surveyor if not on approved surveyor list, including third party academic research organization.

Please contact me if you have questions or would like additional information.

Sincerely,



Megan Stahl  
Permitting Supervisor

cc: James Martin, Federal Energy Regulatory Commission  
Paul Friedman, Federal Energy Regulatory Commission