

Procedures for Conducting Surveys for Federally Threatened or Endangered Plants in West Virginia

To assist in the review process for proposed actions that may affect federally listed threatened and endangered plants, the U.S. Fish and Wildlife Service (Service), West Virginia Field Office (WVFO) and the West Virginia Division of Natural Resources (WVDNR) have developed the following recommendations for conducting surveys for federally listed threatened and endangered plants, and for reporting of results.

Field botanists or biologists experienced in conducting surveys for rare or federally listed plant species, and who have had training or experience in locating and identifying the specific federally listed species that may be present within a project area, should conduct surveys. A qualified surveyor should be present in the field at all times during the investigation. The WVFO and WVDNR maintain a list of qualified surveyors. Surveyors not on this list may be qualified, but should provide a resume and supporting information sufficient to document their qualifications to the WVFO and WVDNR prior to conducting the survey. The required documentation and process for this is described in [How to Apply to Be Added to the List of Qualified Surveyors of Federally Listed Threatened and Endangered Plant Species in West Virginia](#).

The qualified surveyor should coordinate with the WVDNR and WVFO to discuss survey plans prior to conducting the survey. Surveys should cover the entire area affected by the proposed project including areas outside the immediate area of direct impact that may be affected by project activities (changes in water levels, shading, or moisture; increased erosion or sedimentation, etc.).

Survey Periods

The acceptable survey periods for identifying threatened and endangered plants that occur in West Virginia are listed below. Surveys conducted during these periods by qualified surveyors should produce reliable results acceptable for environmental review. Surveys conducted outside of these periods are not sufficient to confirm that these species are absent within suitable habitat.

Negative surveys will be considered valid for two full survey periods from the year of the survey. For example, a survey conducted on July 31, 2012, would be valid through September 30, 2014. If work was to be conducted in a surveyed area after that date, additional surveys may be required.

Scientific Name	Common Name	Status	Survey Period
<i>Arabis serotina</i>	Shale barren rock cress	Endangered	August 1 – September 30
<i>Isotria medeoloides</i>	Small whorled pogonia	Threatened	May 1 – September 30
<i>Ptilimnium nodosum</i>	Harperella	Endangered	July 1 – September 30*
<i>Scirpus ancistrocheatus</i>	Northeastern bulrush	Endangered	August 1 – September 30
<i>Spiraea virginiana</i>	Virginia spiraea	Threatened	June 1 – September 30
<i>Trifolium stoloniferum</i>	Running buffalo clover	Endangered	May 1 – September 30

* Surveys should be conducted during periods of low water.

Procedures for Reporting Results and Potential Detections of Federally Listed Species

If a threatened and endangered plant is found during a survey, the surveyor should do the following:

1. Demarcate and delineate each location with GPS coordinates. This means to 1) mark the population centroid with a point, and 2) to delineate the boundaries of each sub-population with a polygon.
2. Photo-document the species. This should include pictures sufficient to confirm the identification, and give context of habitat. The photo-documentation needed will vary from species to species, so surveyors should refer to keys in standard floristic manuals (such as *Flora of West Virginia* by P. D. Strausbaugh and Earl L. Core, *Flora of the Southern and Mid-Atlantic States* by Alan S. Weakley <http://www.herbarium.unc.edu/flora.htm>, and *The Flora of Virginia* <https://floraofvirginia.org/>).
3. Describe habitat conditions in writing. A standard simple form for gathering rare plant element field data can be found at the West Virginia Division of Natural Resources website at <http://www.wvdnr.gov/Wildlife/RepRareSpec.shtm>
4. Describe the size of each population (i.e., number of rooted crowns, and aerial extent).
5. Contact the representatives from the WVDNR and WVFO listed below within 48 hours.
6. Coordinate with the project proponent, and State and Federal Wildlife agencies to determine if additional areas need surveyed and to address alternatives and avoidance measures.
7. Submit written reports of results, providing a description of the proposed project, GIS shape files, and printed maps of populations. Reports should also include the date that surveys were conducted, who conducted the surveys, and information regarding items 1-4 above.

Even if no listed species are found, still send a report of negative results to the biologists from the WVDNR and USFWS that are coordinating the environmental review of the project.

1. The report of negative results should include the name of the surveyor who conducted the work, a description of the proposed project, plus the dates the work was conducted. It should also include the methods used to conduct the survey, a delineation and map of the areas covered with GIS shape files, a description of the habitats present on the site, and the species encountered during the survey.
2. Provide photo documentation of each habitat-type within the survey area, and photo documentation of any species in the same genus as the target listed species that were encountered during the survey.

Digital and written reports should be sent to the contacts at WVDNR and WVFO below, **as well as any biologists from those agencies coordinating the specific project.**

Please contact:

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