




OHIO DEPARTMENT OF TRANSPORTATION INTEROFFICE COMMUNICATION

Office of Environmental Services

DATE: August 6, 2014

TO: Brian Mitch, Division of Engineering, ODNR

FROM: 
Timothy M. Hill, Administrator, Office of Environmental Services

SUBJECT: Relocation Efforts for the State Endangered Southern Monkshood (*Aconitum uncinatum*)
and the State Endangered Primrose-leaved Violet (*Viola primulifolia*)

PROJECT: SCI-823-0.00, Portsmouth Bypass Project (PID 19415)

The Portsmouth Bypass Project (SCI-823-0.00) will be a four-lane, divided, limited access facility connecting US 52 near Wheelersburg to US 23 just north of Lucasville, Ohio (Figures 1 and 2). The new facility will be approximately 16 miles in length, bypassing approximately 26 miles of US 52 and US 23 through Portsmouth, Ohio. The Portsmouth Bypass will provide a missing link in the Appalachian Development Highway System to improve regional mobility and promote economic development in an area with high unemployment and poverty rates. As part of the project, ODOT has planned a number of environmental commitments and conservation measures, including avoidance measures, wetland and stream mitigation, and protection of forested habitats for proposed threatened and endangered species.

Two of the environmental commitments that were established for the project through coordination efforts with ODNR (see the ODNR Comments dated September 21, 2011 and the ODOT response Dated December 5, 2011 in Attachment 2) involved the relocation of the state endangered southern monkshood (*Aconitum uncinatum*), and the state endangered primrose-leaved violet (*Viola primulifolia*) from the construction limits of the project. ODOT committed to attempt to relocate these species provided that suitable relocation sites could be found for the species, and requested that ODNR provide assistance in finding suitable relocation sites. These environmental commitments were also included in the approved reevaluations of the EIS for the project (Phase 1 was approved by FHWA on April 5, 2012, and Phase 2-3 was approved by FHWA on April 16, 2014).

This letter has been prepared to document the relocation and preservation efforts that have occurred for these species, as well as to document the fulfillment of the environmental commitments stated in the reevaluation documents. Additionally, ODOT would like to acknowledge the assistance and cooperation received from Rick Gardner, Chief Botanist in the Division of Natural Areas and Preserves. Mr. Gardner helped ODOT fulfill the environmental commitments regarding the southern monkshood and the primrose-leaved violet by identifying suitable locations on state nature preserve lands to relocate the plants to, and by participating in the relocation efforts. ODOT greatly appreciates Mr. Gardner's efforts and involvement in this aspect of the project.

Southern Monkshood (*Aconitum uncinatum*)

The ODNR Division of Natural Areas and Preserves' species description for the state endangered southern monkshood (Attachment 3) notes that the plant is an herbaceous perennial that grows from a tuberous root and flowers from late August through September. The description notes that the species grows in a "variety of mesic woodland situations."

A population of this species was identified during the ecological survey conducted in 2011 on a narrow floodplain terrace within the proposed right-of-way limits for the Portsmouth Bypass project along the north facing, right descending bank of Long Run. Long Run is a tributary within the Little Scioto River watershed. The species was found in a wooded area growing along with species such as dwarf crested iris (*Iris cristata*) and New York Fern (*Thelypteris noveboracensis*). The area the plant was residing in was dense shade with an open understory. ODOT first reported the presence of this species as being within the Portsmouth Bypass project area on August 11, 2011. On September 21, 2011, ODNR provided ODOT the following comment regarding the species:

The Southern Monkshood is known from four sites in Ohio with few plants at each site. Three of the sites are within the Scioto Brush Creek watershed. The fourth and most recent record was found in 2011 during a survey for this project and is directly within the project path. It is the only population known within the Little Scioto River watershed. The DOW recommends a survey be performed in the project vicinity for additional populations of and suitable habitat for this species. If additional plants are found, we recommend the new population be protected with a conservation easement. We also request the plants within the project path be transplanted to the easement site. Because the survival potential of transplanted Southern Monkshood is not well understood, we recommend the transplanted plants be monitored for a period of three years to determine transplant success rate. It is important that the conservation easement site be in the same watershed as the affected population.

On May 15, 2014 ODOT's Office of Environmental Services (OES) conducted a plant reconnaissance survey at the location that the southern monkshood had been discovered within the project area. The purpose of the reconnaissance survey was to determine the number of southern monkshood plants at the locality, whether the plants are likely to be directly impacted by the project, and whether any other plants were present in areas along Long Run adjacent to the project area but outside of the project limits. The location of the southern monkshood population within the project area is presented on Figure 3.

The survey located approximately 150 stems in an area approximately 1,200 sq. ft. in size along Long Run. The survey confirmed that the population of southern monkshood was positioned directly within the center of the project limits, and that the entirety of the population would be impacted by the project. A search for the species upstream and downstream of the population, both within and outside of the proposed project



Collection of southern monkshood from the Portsmouth Bypass project area on June 27, 2014.

limits, failed to identify any other southern monkshood populations.

On June 19, 2014, six ODOT environmental staff (OES and District 9), with the assistance of Mr. Gardner, collected an estimated 125 stems of southern monkshood from the population within the project area. These plants were transported on the same day to the Scioto Brush Creek State Nature Preserve, which is located in Scioto County approximately 11 miles west of the impact site. All of the remaining southern monkshood plants (approximately 25 stems) were collected from the impact site by two ODOT environmental staff (OES) on June 27, 2014, and also transplanted to the Scioto Brush Creek State Nature Preserve. The Scioto Brush Creek State Nature Preserve has an existing population of this species, so it is believed that the plants should be capable of surviving at the site. An attempt was made to place the plants in areas with similar habitat features as the impact location. The plants were placed along floodplain terraces in areas with relatively open understory. A portion of the plants were placed in locations that were growing similar herbaceous vegetation (such as the dwarf crested iris and New York fern), and some of the plants were placed beneath large American beech (*Fagus grandifolia*) trees (a tree species that which southern monkshood have anecdotally been found growing beneath at other locations within Ohio).



A southern monkshood plant that had been relocated to the Scioto Brush Creek State Nature Preserve. This photo was taken on June 27, 2014, eight days after transplanting. The plant showed no sign of transplant stress when the photo was taken.

A follow up visit to the transplant sites was conducted by Mr. Gardner in early August 2014. During the visit it was estimated that approximately 90% of the southern monkshood plants had survived the relocation efforts. As request in ODNR’s 2011 comments, ODOT will continue to monitor the relocated population of southern monkshood for a period of three years to determine the success of the transplant.

The entirety of the known population of the southern monkshood has been transplanted from the Portsmouth Bypass project limits to the Scioto Brush Creek State nature Preserve. ODOT believes that this relocation effort fulfills the environmental commitment regarding the southern monkshood.

Primrose-leaved Violet (*Viola primulifolia*)

The ODNR Division of Natural Areas and Preserves species description for the state endangered primrose-leaved violet (Attachment 3) notes that the plant is a small, stem-less, perennial herb that flowers from early May to early June and fruits from June to August. The description indicates that the plant is found “in moist, open situations, usually on sandy soil: meadows, edges of ponds, streams, marshes, and swamps.”

Populations of this species were observed within and adjacent to the proposed right-of-way limits for the Portsmouth Bypass project during the ecological surveys conducted in 2011 and 2012. Within the proposed Portsmouth Bypass project area, the species was found growing individually and as

rhizomatous clumps along logging roads in full sun to partial shade, in a variety of soil moisture conditions (both moist areas along erosion gullies, rivulets, and wetlands, as well as somewhat dry ridge tops). ODOT first reported the presence of this species as being within the Portsmouth Bypass project area on August 11, 2011. On September 21, 2011, ODNR provided ODOT the following comment regarding the species:

The Primrose-leaved Violet is known from eight sites in Ohio. However, one site was likely lost to habitat destruction, another site could not be relocated in 2003 due to natural succession, and two other sites have not been relocated since 1980 and 1988. This leaves four recent records, all located in 2011 during a survey for this project and within the project boundaries. The DOW recommends a survey be performed to determine the full extent of the populations of this plant both within the project area and outside the project impact zone. If the number of plants to be impacted represents 50% or more of the total number of plants, we recommend the plants to be impacted be transplanted to adjacent suitable habitat and protected with a conservation easement. If there are plants on the edge of potential impact zones, we request they be clearly marked and avoided during construction.

On May 15, 2014 ODOT's Office of Environmental Services (OES) conducted a reconnaissance survey of the locations that the primrose-leaved violet had been discovered within the project area. The purpose of this survey was to determine the number of plants at each area locality, and to determine whether these plants are likely to be directly impacted by the project. The locations visited are presented on Figure 4, and an estimate of the number of plants found at each location is described below;

- Location 1, Shumway Hollow Road site. This site contained the highest number of basal rosettes of primrose-leaved violet. OES estimated that approximately 1,200 rosettes were present within the proposed project limits at this site. Furthermore, approximately 1,000 rosettes were found in an adjacent area acquired by ODOT that lies outside of the project limits (Figure 4).
- Location 2, Blake Hollow Road site. Scattered individual rosettes and clumps of rosettes were found at this site totaling approximately 150 plants in total.
- Location 3, Dan White Hollow site A. The suitable habitat at this location was more shaded than the other areas that the violets were found at. No primrose leaved violets were observed at this site during the reconnaissance survey.
- Location 4, Dan White Hollow site B. Scattered individuals and clumps of rosettes were found at this site totaling approximately 300 plants. All but one rosette of these plants lies outside of the project area.
- Location 5, Dan White Hollow site C. Scattered individuals and clumps, totaling approximately 150 plants, were observed in this area.
- Location 6, Dan White Hollow site D. Approximately 70 plants were observed in this area. All of the plants were located outside of the project area.

Based on the findings of the reconnaissance survey of known localities of primrose-leaved violet near the Portsmouth Bypass project area, approximately 1,500 plants (52% of the known population in this area) were present within the project limits and would be impacted by the project. Of these plants, approximately 80% were located at the proposed interchange at Shumway Hollow Road (Figure 4, site 1). As such, relocation efforts for the species focused on the plants located at the Shumway Hollow Road site.

On May 22, 2014, six ODOT environmental staff (OES and District 9) with the assistance of Mr. Gardner, collected an estimated 700-800 rosettes of the primrose-leaved violet (both individual plants and rhizomatous clumps of 5-15 violets) from the Shumway Hollow Road site. These plants were transported on the same day to the Boch Hollow State Nature Preserve in Hocking County, Ohio. Approximately 2/3 of the plants were transplanted by ODOT and ODNR on May 22 to areas with similar habitat characteristics as the locations they were removed from. The remainder of the plants were transplanted to suitable habitats in the preserve on May 23 by ODNR Division of Natural Areas and Preserves' staff.

A follow up visit to the transplant sites at Boch Hollow State Nature Preserve was conducted by Mr. Gardner in early August 2014. During the visit, it was estimated that nearly all of the primrose-leaved violets have survived the initial relocation effort.

In addition to the plants that were relocated from the project area, ODOT is proposing to preserve the habitat containing approximately 1,000 plants located on a parcel adjacent to the project area at the Shumway Hollow Road (Figures 6 and 7). On May 22, 2014 this area was marked with yellow carsonite posts with signs that indicate that the area is an ODOT Conservation Area that should not be disturbed. If ODNR believes that it is warranted, ODOT would be willing to consider additional habitat enhancements and management in the preserved area to benefit the species. If this desired, ODOT would appreciate ODNR's assistance with the development of a species specific habitat management plan for the area.

While scattered individuals and clumps of the primrose-leaved violet remain within the project area, ODOT (with assistance from ODNR) has relocated approximately 50% of the plants within the project limits. Additionally, at least three areas outside of the project limits containing approximately 47% of the known population within this area (before the relocation) will not be directly impacted by the project. While two of these areas are located on private property, and will therefore not be protected, an area located at Shumway Hollow Road containing approximately 1,000 plants has been marked in the field and will be protected from construction and adverse maintenance activities. ODOT believes that the relocation effort, coupled with the preservation of an existing population of the species, has fulfilled the environmental commitment regarding the primrose-leaved violet.



Primrose-leaved violet observed within the Portsmouth Bypass project area on May 22, 2014.

ODOT believes that we have adequately addressed ODNR's comments (dated September 21, 2011) regarding the southern monkshood and the primrose-leaved violet populations within the Portsmouth Bypass project area. Per ODNR's comment, ODOT will continue to monitor the relocated population of southern monkshood for a period of three years to determine the success of the transplant. ODOT is requesting ODNR's concurrence and/or comments on the relocation efforts for these species.

Thank you for your review and consideration. If you have any questions or concerns contact Matt Raymond, Environmental Specialist, at (614) 466-5129.

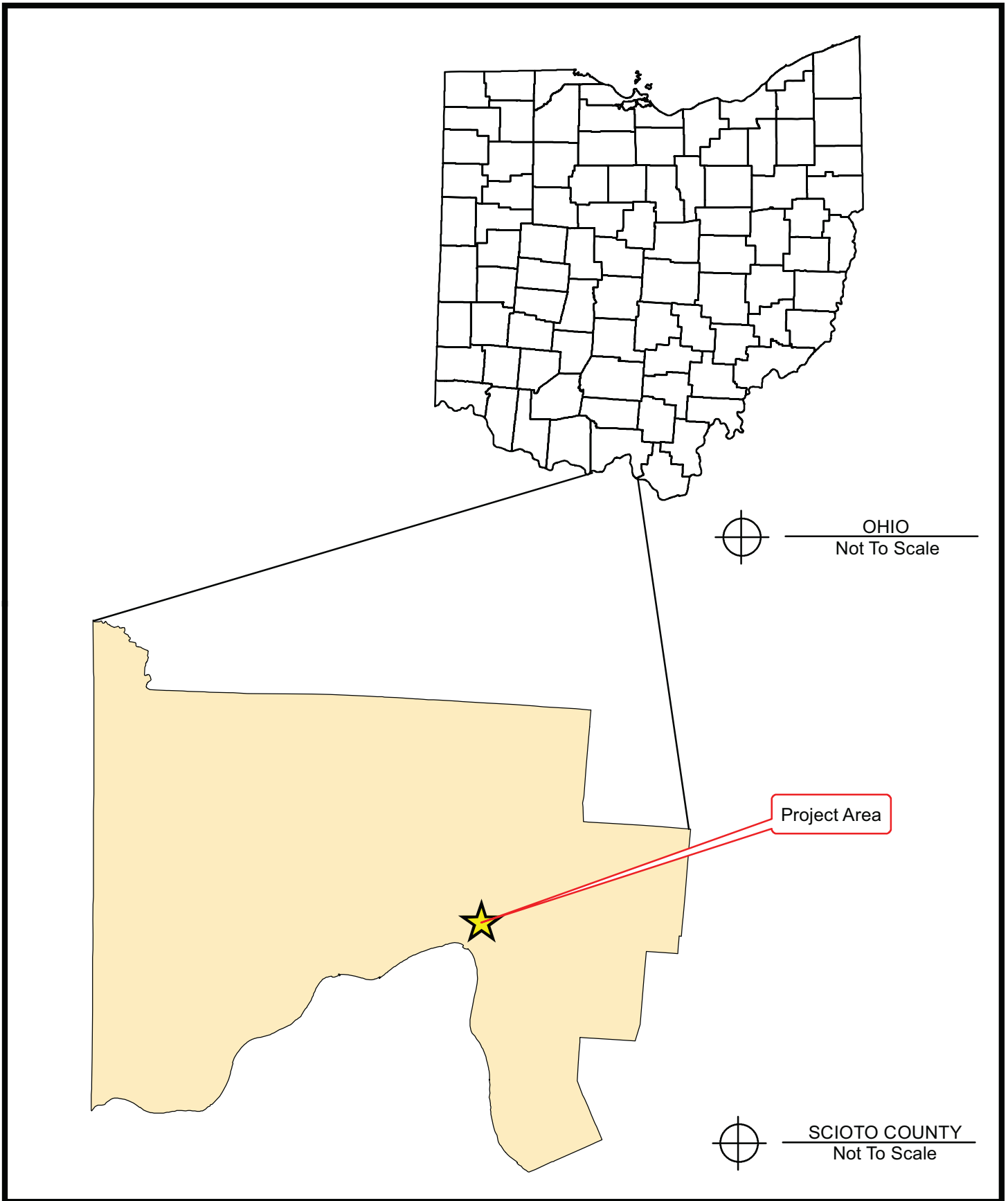
TMH:MAP:mwr
Enclosure

c: Greg Manson, District 9 – Tom Barnitz, District 9 – Heather McColeman, OES – Noel Mehlo, FHWA – File

Attachments

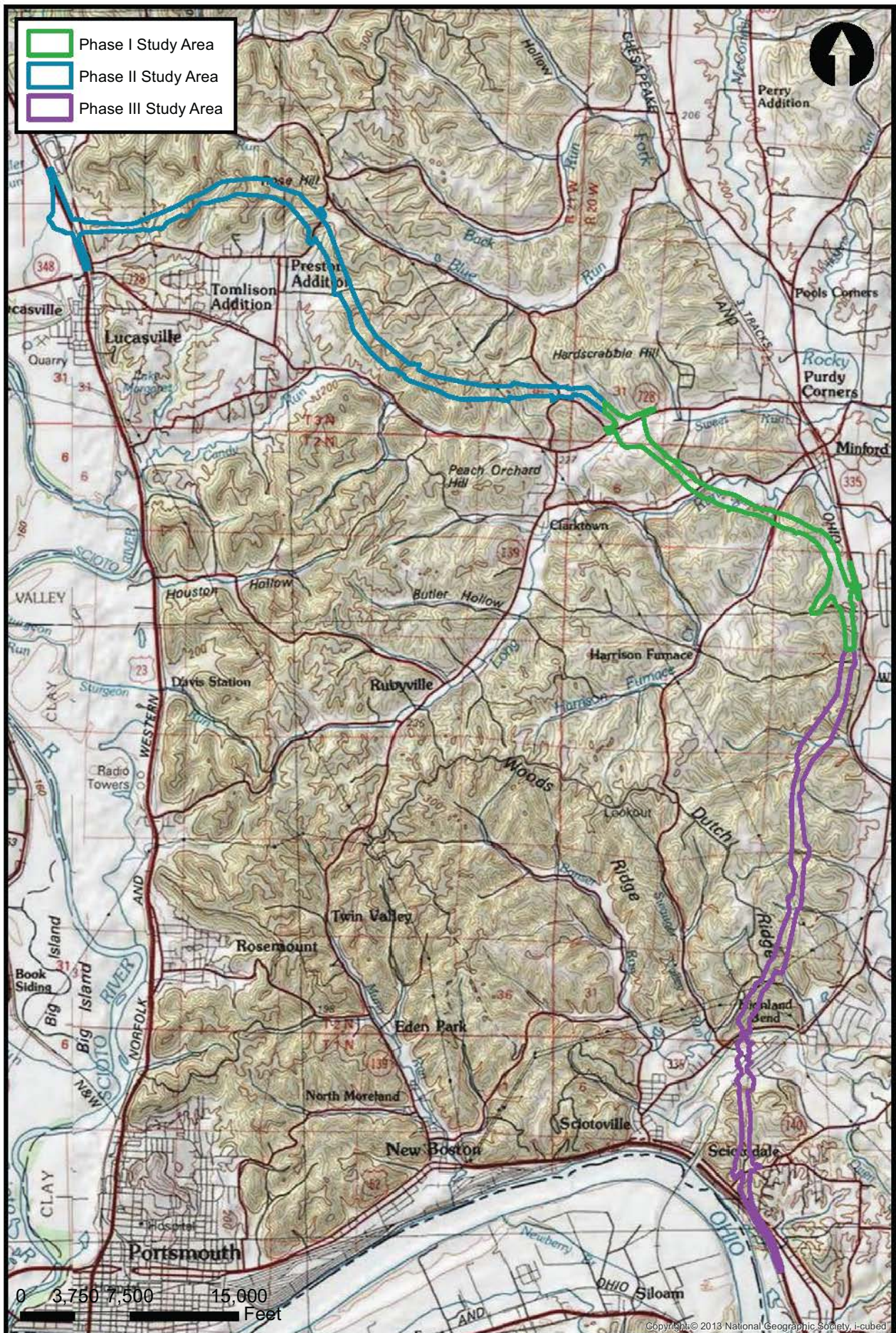
Attachment 1:

Figures



> SCI-823-0.00 - Madison, Porter, Valley, Jefferson & Harrison Twp, Scioto Co., OH
Figure 1. County Location Map - Scioto County





> SCI-823-0.00 - Madison, Porter, Valley, Jefferson & Harrison Twp, Scioto Co., OH
 Figure 2. USGS Topographic Map - New Boston, Minford, Lucasville, & Wheelersburg, OH Quadrangles



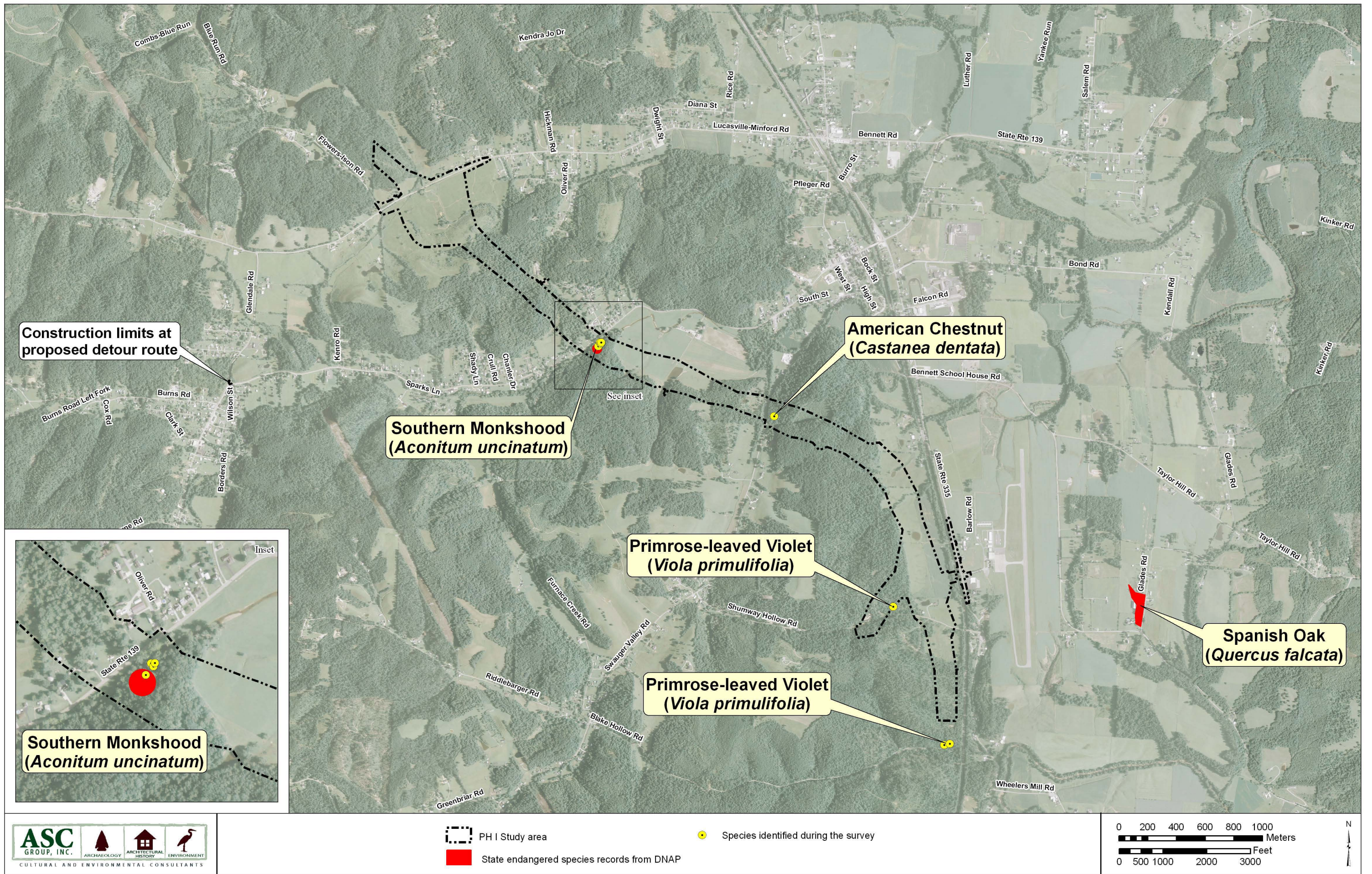


Figure 3. State endangered species map from DNAP GIS shapefiles and ecological survey.

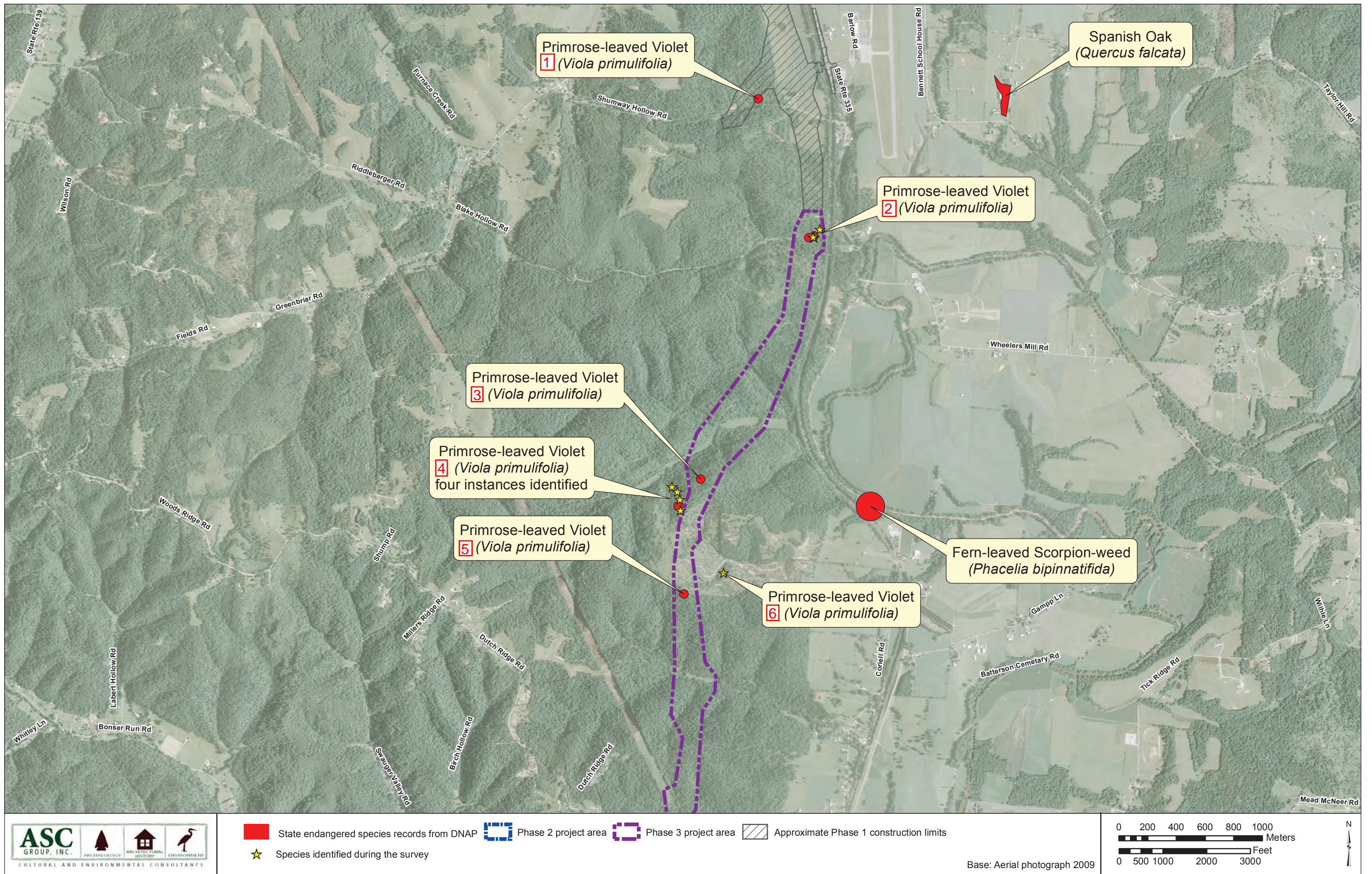


Figure 4. State endangered species map from DNAP GIS shapefiles and ecological survey.

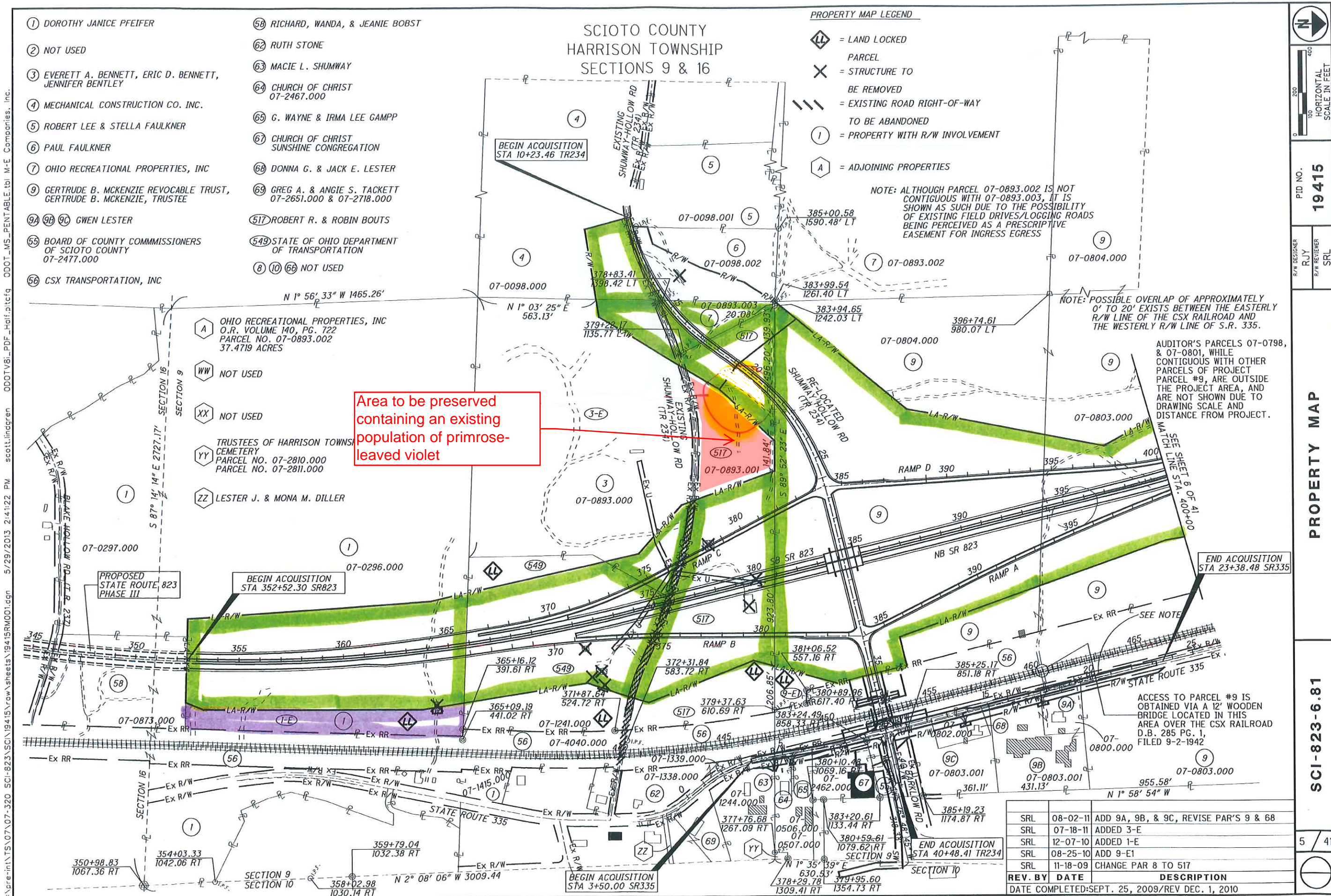
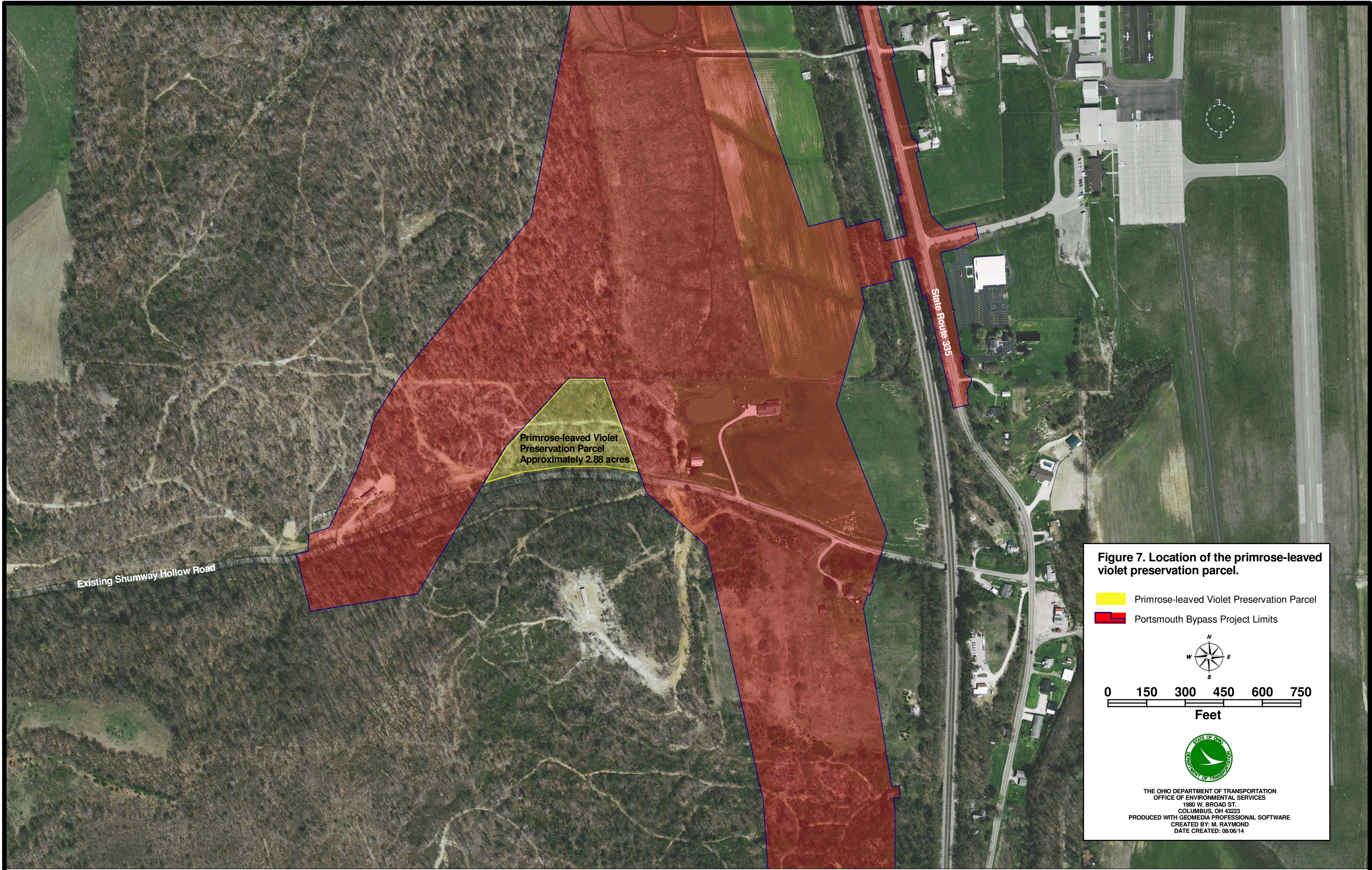


Figure 6. Location of the primrose-leaved violet preservation area and buffer.





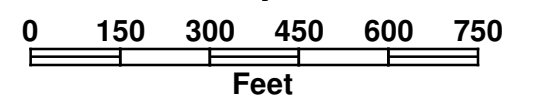
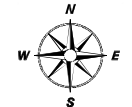
Existing Shumway Hollow Road

Primrose-leaved Violet
Preservation Parcel
Approximately 2.88 acres

State Route 335

Figure 7. Location of the primrose-leaved violet preservation parcel.

-  Primrose-leaved Violet Preservation Parcel
-  Portsmouth Bypass Project Limits



THE OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF ENVIRONMENTAL SERVICES
1980 W. BROAD ST.
COLUMBUS, OH 43223
PRODUCED WITH GEOMEDIA PROFESSIONAL SOFTWARE
CREATED BY: M. RAYMOND
DATE CREATED: 08/06/14

Attachment 2:
Agency Correspondence

Raymond, Matt

From: Mitch, Brian <Brian.Mitch@dnr.state.oh.us>
Sent: Wednesday, September 21, 2011 1:12 PM
To: Hill, Tim
Cc: Pettegrew, Mike; Raymond, Matt
Subject: 11-0369; ODOT Ecological Coordination for SCI-823-0.00, Portsmouth Bypass
Attachments: oledata.mso



ODNR COMMENTS TO Tim Hill, ODOT Office Of Environmental Services, 1980 West Broad Street, Columbus, Ohio 43223

Project: The project involves the construction of a new four-lane limited access highway/bypass of Portsmouth, Ohio. Phase 1 of the project shall be constructed from the TR 234 Interchange near Scioto County Airport to an interchange at CR 28. This phase is 3.32 miles long and contains four bridges and two interchanges.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Fish and Wildlife: The ODNR, Division of Wildlife (DOW) DOW has the following comments.

The Record of Decision for the Portsmouth Bypass, SCI-823-0.00, ODOT Project Identification Number 19415, Scioto County, Ohio (Record of Decision) indicates that to minimize potential impacts on the Indiana bat, potential roost trees will be cleared within the project construction limits and ancillary work areas only after September 15 and before April 15. The DOW recommends the dates be updated to indicate after September 30 and before April 1.

The DOW would like to remind ODOT that we recommend no in-stream work in Class III Primary Headwater Habitat Streams that support fish or mussel communities, or any other stream classified as having an assigned or provisional aquatic life use designation of Warmwater Habitat or better, from April 15 to June 30. This did not appear to be specifically addressed in the updated ES or in the Record of Decision.

The Record of Decision indicates ODOT will plan the project such that no in-stream work in Class III Primary Headwater habitat streams that may support freshwater mussel communities may be conducted between April 15 and June 30 and will be conducted in a way that does not impact freshwater mussels that may be in the area. To reduce impacts to indigenous freshwater mussels, the DOW recommends no in-stream work at any time in any stream that may support freshwater mussel communities.

The project is within the range of the Eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*), a state endangered amphibian currently being evaluated for Federal Candidate status. The ES indicates no streams were identified in the project area large enough to support the Eastern hellbender. The DOW recommends that the proposed project be developed to minimize indirect stream impacts (e.g., preserve wide riparian buffers, maximize erosion control, and maximize permeable surfaces and storm-water retention). In addition, if any in-water work is proposed in the Little Scioto River, we recommend examining the project site and surrounding area for suitable hellbender habitat (multiple large flat rocks generally over 42 inches along the longest axis). If suitable habitat is present, we recommend that a survey for hellbenders be completed by a herpetologist approved by the DOW.

The ODOT indicates that several other federal and state listed species have the potential to be within the project area. These species include the rayed bean mussel, clubshell mussel, Eastern hellbender, and Indiana bat. ODOT indicates that specific surveys for these species have been conducted or are in the process of being conducted for the entire Portsmouth Bypass project area, and any reports detailing the survey results and any potential impact to these species will be coordinated in a future submission. The DOW requests the opportunity to review the survey reports.

The Ohio Biodiversity Database shows the SCI-823-0.00 (PID 19415) Portsmouth Bypass Phase I project area passes through populations of two state endangered plants: Southern Monkshood (*Aconitum uncinatum*) and Primrose-leaved Violet (*Viola primulifolia*).

The Southern Monkshood is known from four sites in Ohio with few plants at each site. Three of the sites are within the Scioto Brush Creek watershed. The fourth and most recent record was found in 2011 during a survey for this project and is directly within the project path. It is the only population known within the Little Scioto River watershed. The DOW recommends a survey be performed in the project vicinity for additional populations of and suitable habitat for this species. If additional plants are found, we recommend the new population be protected with a conservation easement. We also request the plants within the project path be transplanted to the easement site. Because the survival potential of transplanted Southern Monkshood is not well understood, we recommend the transplanted plants be monitored for a period of three years to determine transplant success rate. It is important that the conservation easement site be in the same watershed as the affected population.

The Primrose-leaved Violet is known from eight sites in Ohio. However, one site was likely lost to habitat destruction, another site could not be relocated in 2003 due to natural succession, and two other sites have not been relocated since 1980 and 1988. This leaves four recent records, all located in 2011 during a survey for this project and within the project boundaries. The DOW recommends a survey be performed to determine the full extent of the populations of this plant both within the project area and outside the project impact zone. If the number of plants to be impacted represents 50% or more of the total number of plants, we recommend the plants to be impacted be transplanted to adjacent suitable habitat and protected with a conservation easement. If there are plants on the edge of potential impact zones, we request they be clearly marked and avoided during construction.

Please continue to coordinate this phase of the project with the Ohio Biodiversity Database. We are willing to assist with coordinating volunteers to transplant plants to suitable sites.

Soil and Water Conservation: The ODNR, Division of Soil & Water Resources has the following comments.

According to the HHEI Manual, Figure 15 Flowchart, Stream 22a/b should be considered a Class 3 perennial stream since it has >20% substrates from bedrock, boulders and cobbles, is a flowing stream with greater than 0.1 sq mile watershed and has been identified as recovered/recovering. Also, the location of the sampling site, does not appear representative of the stream's potential. We recommend sampling further upstream in the forested portion of Shumway Hollow. This stream is proposed for the greatest amount of impacts (1,764 ft) and since it is proposed to be relocated and culverted, we recommend mitigation in the amount of 1.68 acres of low wet width be provided to make up for the loss of ecological services provided from Stream 22a/b, and its drainages (Ditch 7 and 8).

Stream 20.1 was assessed upstream of Swauger Rd in what appears to be a human disturbed environment. The pictures of this reach (photos 151 and 152) indicate that this stream may be a class 3 headwater. Was the HHEI done close to a road culvert? The HHEI manual recommends "a multiple number (3-5) of discrete 200 ft stream reach assessments should be conducted along the length of the mainstem PHWH channel. Areas of recent habitat modification should be avoided in these types of PHWH assessments." Since this is a flowing stream with less than a 0.1 square mile drainage it should be evaluated as a rheocrene.

Impacts to Vegetative Communities- 329.10 acres of land are proposed from conversion from crops, open space, pasture/hay, scrub/shrub and forest to Developed Open Space. What mitigation will be provided to ensure that the water quality is not impacted by this development?

The 22.93 acres of Barren Land identified (east of Swauger Rd) on Figure 10 appears to be forested land. Why was this classification given? Was it clear cut recently?

ODNR appreciates the opportunity to provide these comments. Please contact Brian Mitch at (614) 265-6378 if you have questions about these comments or need additional information.

Brian Mitch, Environmental Review Manager
Ohio Department of Natural Resources
Environmental Services Section
2045 Morse Road, Building E-3

Columbus, Ohio 43229-6693
Office: (614) 265-6378
Fax: (614) 262-2197
brian.mitch@dnr.state.oh.us



**OHIO DEPARTMENT OF TRANSPORTATION
INTEROFFICE COMMUNICATION**
Office of Environmental Services

DATE: December 5, 2011

TO: Brian Mitch, Division of Engineering, ODNR

FROM: *Timothy M. Hill* for
Timothy M. Hill, Administrator, Office of Environmental Services

SUBJECT: Listed Species Coordination

PROJECT: SCI-823-0.00, Portsmouth Bypass Project (PID 19415)

On August 16, 2011, ODOT coordinated an ecological survey report for Phase 1 of the Portsmouth Bypass project with ODNR. The ecological survey report and coordination letter updated the inventory of ecological resources within the construction limits of the first phase of the proposed project, and discussed the potential impacts to State listed species. As noted in the coordination letter, the ecological survey of Phase 1 of the project area identified the presence of the state endangered southern monkshood (*Aconitum uncinatum*), the state endangered primrose-leaved violet (*Viola primulifolia*), the state potentially threatened American chestnut (*Castanea dentata*), and the state species of concern eastern box turtle (*Terrapene carolina carolina*). Within the coordination letter, ODOT also acknowledged that the proposed project had the potential to impact several other State and Federally listed species, and that species specific surveys were being conducted to determine the potential presence of these species within the entire Portsmouth Bypass project area (all three phases). These additional species included the rayed bean mussel (*Villosa fabalis*), clubshell mussel (*Pleurobema clava*), small whorled Pogonia (*Isotria medeoloides*), running buffalo clover (*Trifolium stoloniferum*), eastern hellbender (*Cryptobranchus alleghaniensis*), and Indiana bat (*Myotis sodalis*). Additional surveys for two other listed species within the range of the proposed project, the timber rattlesnake (*Crotalus horridus horridus*) and the Virginia spiraea (*Spiraea virginiana*), were not deemed necessary, as the previous surveys conducted in 2003 were considered valid by the USFWS and the approved herpetologist that conducted the timber rattlesnake survey (Doug Wynn). The enclosed reports discuss the potential for aforementioned listed species to be present within the project area.

The attached letter to the USFWS outlines ODOT's determination of effect to these listed species, as well as effect determinations on all other Federally listed species known from Scioto County. These effect determinations were based on the enclosed survey reports and the anticipated impacts resulting from completion of all three phases of the Portsmouth Bypass Project.

While the mussel survey of the Little Scioto River did not find any evidence of federally listed species, the State Threatened black sandshell (*Ligumia recta*) was encountered. The find represents a new species record for the Little Scioto River. This species was encountered downstream of the project's proposed bridge crossing, and outside of proposed construction limits. Only one live mussel and no

mussel beds were encountered within the primary impact area of the proposed bridge. The bridge over the Little Scioto River would be constructed during Phase 3 of the project. As such, the determination of impacts to this species will occur during coordination of Phase 3 of the proposed project.

In addition to transmitting the enclosed species survey reports, ODOT would like to address the comments ODNR provided to ODOT on the proposed project on September 21, 2011.

ODNR Comment: The Record of Decision for the Portsmouth Bypass, SCI-823-0.00, ODOT Project Identification Number 19415, Scioto County, Ohio (Record of Decision) indicates that to minimize potential impacts on the Indiana bat, potential roost trees will be cleared within the project construction limits and ancillary work areas only after September 15 and before April 15. The DOW recommends the dates be updated to indicate after September 30 and before April 1.

ODOT Response: ODOT will follow the revised dates. To avoid direct take of bats, trees will be cleared for the project only between 30 September and 1 April.

ODNR Comment: The DOW would like to remind ODOT that we recommend no in-stream work in Class III Primary Headwater Habitat Streams that support fish or mussel communities, or any other stream classified as having an assigned or provisional aquatic life use designation of Warmwater Habitat or better, from April 15 to June 30. This did not appear to be specifically addressed in the updated ES or in the Record of Decision.

ODOT Response: Environmental commitments are not typically included in the Ecological Survey Report (ESR); rather they are detailed in the NEPA environmental document. In-stream work restrictions will be followed when appropriate in accordance with the timeframes established within the Memorandum of Agreement between ODOT and ODNR, and will be specified in the project contract plans as the special provisions.

ODNR Comment: The Record of Decision indicates ODOT will plan the project such that no in-stream work in Class III Primary Headwater habitat streams that may support freshwater mussel communities may be conducted between April 15 and June 30 and will be conducted in a way that does not impact freshwater mussels that may be in the area. To reduce impacts to indigenous freshwater mussels, the DOW recommends no in-stream work at any time in any stream that may support freshwater mussel communities.

ODOT Response: ODOT understand ODNR's concern, however, ODOT's mission is to construct and maintain Ohio's roadways. A complete ban on in-stream work in streams capable of supporting freshwater mussel communities is simply not feasible for this project, nor typically any other project that involves the construction or replacement of a bridge or large culvert structure. ODOT will commit to reduce the level of impact as much as practicable by conducting a thorough mussel survey to determine presence, and will relocate the mussels located in harms way when necessary.

ODNR Comment: The project is within the range of the Eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*), a state endangered amphibian currently being evaluated for Federal Candidate status. The ES indicates no streams were identified in the project area large enough to support the Eastern hellbender. The DOW recommends that the proposed project be developed to minimize indirect stream impacts (e.g., preserve wide riparian buffers, maximize erosion control, and maximize permeable surfaces and storm-water retention). In addition, if any in-water work is proposed in the Little Scioto River, we recommend examining the project site and surrounding area for suitable

hellbender habitat (multiple large flat rocks generally over 42 inches along the longest axis). If suitable habitat is present, we recommend that a survey for hellbenders be completed by a herpetologist approved by the DOW.

ODOT Response: ODOT will only impact the land area that is necessary to construct the project. No suitable habitat for the eastern hellbender was identified in the small streams located in Phase 1 of the proposed project, and the Little Scioto River (located in Phase 3 of the project) is the only stream large enough within the project area to have potential habitat for the hellbender. This stream was surveyed by herpetologist Gregg Lipps on August 16, 2011. Mr. Lipps indicated that the Little Scioto River does not contain suitable habitat for the species within this reach, and that the construction of the proposed bridge at this site is expected to have no direct impact on the species (see enclosed report).

ODNR Comment: The ODOT indicates that several other federal and state listed species have the potential to be within the project area. These species include the rayed bean mussel, clubshell mussel, Eastern hellbender, and Indiana bat. ODOT indicates that specific surveys for these species have been conducted or are in the process of being conducted for the entire Portsmouth Bypass project area, and any reports detailing the survey results and any potential impact to these species will be coordinated in a future submission. The DOW requests the opportunity to review the survey reports.

ODOT Response: The reports have been enclosed for ODNR's review and comment.

ODNR Comment: The Ohio Biodiversity Database shows the SCI-823-0.00 (PID 19415) Portsmouth Bypass Phase I project area passes through populations of two state endangered plants: Southern Monkshood (*Aconitum uncinatum*) and Primrose-leaved Violet (*Viola primulifolia*). The Southern Monkshood is known from four sites in Ohio with few plants at each site. Three of the sites are within the Scioto Brush Creek watershed. The fourth and most recent record was found in 2011 during a survey for this project and is directly within the project path. It is the only population known within the Little Scioto River watershed. The DOW recommends a survey be performed in the project vicinity for additional populations of and suitable habitat for this species. If additional plants are found, we recommend the new population be protected with a conservation easement. We also request the plants within the project path be transplanted to the easement site. Because the survival potential of transplanted Southern Monkshood is not well understood, we recommend the transplanted plants be monitored for a period of three years to determine transplant success rate. It is important that the conservation easement site be in the same watershed as the affected population.

ODOT Response: On October 24, 2011, the project consultant (ASC) revisited the population of southern monkshood located within the project area to look for additional individuals in the project vicinity. The team botanist (Len Mikles) searched approximately 450 ft. upstream and 300 ft. downstream of the project area along Long Run. Since the ecological survey, there has been significant disturbance in the project area where ASC had previously identified many southern monkshood plants. The area where the plants were located has been cleared, and a logging road has been constructed (by the current property owner). Pictures of the disturbance are provided in the attached photo log. During ASC's search, they did identify a small patch of monkshood in an area, approximately 5 ft. by 12 ft., that had not been graded. ASC estimated that there are approximately 20 to 30 stems that are still located in the project area. The population is centered at Latitude 38.8536 and Longitude 82.8818 (NAD 1927). The population is indicated with a red star on the attached photo log. ASC's search efforts up and downstream did not reveal any new individuals. The area downstream of the project area does not provide suitable habitat for the monkshood. The area downstream consists of a heavily grazed pasture. Upstream of the project area, along the southern stream bank, steep, vertical embankments with

sandstone rock outcropping are present. The upper slope areas have been logged. The northern bank of Long Run is covered with a shrubby thicket of vegetation. No new individuals were identified in these habitats during the upstream investigation. ODOT is willing to work with ODNR to relocate the remaining southern monkshood plants from the project area prior to construction, and will attempt to find a suitable location to move the plants to. However, we are currently unaware of any suitable sites for the transplant. There will not likely be any suitable locations within the proposed construction limits of the project, and ODOT does not have the authority to relocate the plants to suitable habitat that is not owned by ODOT without property owner permissions. It is possible that the plants will need to be relocated outside of the watershed on other State owned property. ODOT is requesting that ODNR assist in finding a suitable location for the plants.

ODNR Comment: The Primrose-leaved Violet is known from eight sites in Ohio. However, one site was likely lost to habitat destruction, another site could not be relocated in 2003 due to natural succession, and two other sites have not been relocated since 1980 and 1988. This leaves four recent records, all located in 2011 during a survey for this project and within the project boundaries. The DOW recommends a survey be performed to determine the full extent of the populations of this plant both within the project area and outside the project impact zone. If the number of plants to be impacted represents 50% or more of the total number of plants, we recommend the plants to be impacted be transplanted to adjacent suitable habitat and protected with a conservation easement. If there are plants on the edge of potential impact zones, we request they be clearly marked and avoided during construction. Please continue to coordinate this phase of the project with the Ohio Biodiversity Database. We are willing to assist with coordinating volunteers to transplant plants to suitable sites.

ODOT Response: Due to the timing of the receipt of ODNR's comments, it was too late in the 2011 growing season to conduct additional surveys for the primrose-leaved violet. As such, it is unknown whether the plants found within construction limits represent 50% or more of the total number of plants in the population. If necessary, ODOT is willing to work with ODNR to relocate the primrose-leaved violet plants from the project area prior to construction, and will attempt to find a suitable location to move the plants to. However, we are currently unaware of any suitable sites for the transplant. There will not likely be any suitable locations within the proposed construction limits of the project, and ODOT does not have the authority to relocate the plants to suitable habitat that is not owned by ODOT without property owner permissions. It is possible that the plants will need to be relocated outside of the watershed on other State owned property. ODOT is requesting that ODNR assist in finding a suitable location for the plants.

ODNR Comment: According to the HHEI Manual, Figure 15 Flowchart, Stream 22a/b should be considered a Class 3 perennial stream since it has >20% substrates from bedrock, boulders and cobbles, is a flowing stream with greater than 0.1 sq mile watershed and has been identified as recovered/recovering.

ODOT Response: Stream 22 a/b is a recovering channel. It is a captured stream that has not recovered any channel sinuosity or riparian vegetation characteristics typical of a natural channel (please refer to Table 3 of the PHWH Manual, v 2.3). As such, it was evaluated answering "NO" for the "Natural Channel" question on the HHEI classification flow chart (Figure 15). As the stream has an HHEI score > or = 30, but < or = 70, it was appropriately assigned a designation of Modified Class II PHWH within the project area. For assessing a modified channel, "Substrate Types" (>= 10% bedrock, boulder, bolder/slab, and coble) does not apply.

ODNR Comment: Also, the location of the sampling site, does not appear representative of the stream's potential. We recommend sampling further upstream in the forested portion of Shumway Hollow. This stream is proposed for the greatest amount of impacts (1,764 ft) and since it is proposed to be relocated and culverted,

ODOT Response: ODOT does not determine the impacts to a stream based on its "potential" outside of a proposed project area. Impacts are assessed based on a stream's actual functions and values within the proposed construction limits for a project. When applicable, compensatory mitigation for stream impacts will be based on the actual aquatic life use designation for a stream within the impacted reach. Compensatory mitigation for stream impacts will be done in accordance with existing 404/401 guidelines.

ODNR Comment: we recommend mitigation in the amount of 1.68 acres of low wet width be provided to make up for the loss of ecological services provided from Stream 22a/b, and its drainages (Ditch 7 and 8).

ODOT Response: Mitigation will be done in accordance with existing Clean Water Act 404/401 guidelines and will be subject to approval by the Ohio EPA and the USACE (the agencies in Ohio with regulatory authority over such matters). This will not likely include acreage of low wet width. No mitigation will be provided for non-jurisdictional drainages (Ditches 7 and 8).

ODNR Comment: Stream 20.1 was assessed upstream of Swauger Rd in what appears to be a human disturbed environment. The pictures of this reach (photos 151 and 152) indicate that this stream may be a class 3 headwater. Was the HHEI done close to a road culvert? The HHEI manual recommends "a multiple number (3-5) of discrete 200 ft stream reach assessments should be conducted along the length of the mainstem PHWH channel. Areas of recent habitat modification should be avoided in these types of PHWH assessments." Since this is a flowing stream with less than a 0.1 square mile drainage it should be evaluated as a rheocrene.

ODOT Response: Stream 20-1 is an ephemeral stream channel. This flow regime was confirmed by the USACE during a jurisdictional determination field review. Additionally, both Photos 151 and 152 show stream 20-1 without water, and in an area that appears to have minimal human disturbance. As noted in the PHWH Manual v 2.3 (October 2009), a stream channel must be a perennial water to be Class III PHWH. The HHEI score calculated during the ecological survey characterized the stream as a Class II PHWH. This designation is likely overestimating the stream's actual aquatic life use designation. Due to the lack of hydrology, Stream 20-1 would have been more appropriately classified as a Class I PHWH stream (a stream must be perennial or intermittent to be Class II).

ODNR Comment: Impacts to Vegetative Communities- 329.10 acres of land are proposed from conversion from crops, open space, pasture/hay, scrub/shrub and forest to Developed Open Space. What mitigation will be provided to ensure that the water quality is not impacted by this development?

ODOT Response: No mitigation will be provided for impacts to upland vegetative communities. The project will incorporate both construction and post-construction storm water BMPs to reduce the impacts of storm water runoff to adjacent waterways.

ODNR Comment: The 22.93 acres of Barren Land identified (east of Swauger Rd) on Figure 10 appears to be forested land. Why was this classification given? Was it clear cut recently?

ODOT Response: ODNR's assumption is correct. Since the first ecological survey work had been completed in 2004 several areas have been clear cut by private property owners. Since much of the

timber harvest has been recent, many of these areas appear to be forested on the available aerial photography. The vegetative communities indicated on Figure 10 of the ESR depict the vegetative communities that were present within the construction limits at the time of the survey (June/July 2011).

Thank you for ODNR's comments and interest on this project. Should the project change in such a way that anticipated impacts to State listed species differs substantially from what was presented in the August 16, 2011 Ecological Survey Report (for Phase 1) or this letter, ODOT will submit additional information regarding the changes in impacts. Furthermore, ODOT will continue to coordinate future phases of the Portsmouth Bypass project as additional plans and surveys are completed.

If you have any questions or concerns contact Matt Raymond, Environmental Specialist, at (614) 466-5129.

TMH:MAP:mwr

Enclosure

c: Greg Manson, District 9 – Tom Barnitz, District 9 – Carmen Stemen, OES – Ron Garczewski, FHWA
- File

Attachment 3:

ONDR Division of Natural Areas and Preserves Species Descriptions

ACONITUM UNCINATUM L.
Southern Monkshood

FAMILY: Ranunculaceae

HABIT: Herbaceous perennial from a tuberous-thickened root, 0.2-1 m.; flowering late August-September.

SIMILAR SPECIES: Very similar to *A. noveboracense*. The rachis of the inflorescence in *A. uncinatum* is glabrous to sparsely pilose, while that of *A. noveboracense* is hirsute. *A. uncinatum* also blooms slightly later than *A. noveboracense*.

TOTAL RANGE: Sw. PA to s. IN, s. to n. GA, w. SC, c. TN, and n. AL.

STATE RANGE (as of 2006): Post-1980 records from Scioto County.

HABITAT: In deep shade of a cool, moist sandstone rock shelter. In other parts of its range, it grows in a variety of mesic woodland situations.

HAZARDS: Drying of habitat by removal of forest canopy; soil compaction.

RECOVERY POTENTIAL: Probably very poor; seed and transplant experiments with the related *A. noveboracense* have not produced positive results.

INVENTORY GUIDELINES: Note presence of tubers and root connectives; avoid over-collecting.

COMMENTS: When not in bloom, this species may be easily overlooked. However, it seems to be extremely rare in Ohio owing to the limited availability of the habitat. It should be sought in suitable habitats throughout unglaciated Ohio.

Hardin (1964) splits *A. uncinatum* into two subspecies. If this concept is accepted, the Ohio material conforms to the typical subspecies.

SELECTED REFERENCES:

Brink, D.E. 1982. Tuberous *Aconitum* (Ranunculaceae) of the continental United States: morphological variation, taxonomy, and disjunction. Bull. Torr. Bot. Club 109: 12-23.

Cole, C.T. and M.A. Kuchenreuther. 2001 Molecular markers reveal little genetic differentiation among *Aconitum Noveboracense* and *A. Columbianum* (Ranunculaceae) populations. American Journal of Botany 88(2): 337-347.

Cusick, A.W. 1983. *Aconitum uncinatum* L. (Ranunculaceae) discovered in Ohio. Castanea 48: 209-211.

Jensen, H.W. 1950. Meiosis in an unusual form of *Aconitum uncinatum* L. Am. Midl. Nat. 84: 17-22.

Hardin, J.W. 1964. Variation in *Aconitum* of eastern United States. *Brittonia* 16: 80-94.

Keener, C.S. 1976. Studies in the Ranunculaceae of the southeastern United States. IV. Genera with zygomorphic flowers. *Castanea* 41: 12-20.

Longacre, D.J. 1942. Somatic chromosomes of *Aconitum noveboracense* and *A. uncinatum*. *Bull. Torr. Bot. Club* 69: 235-239.



Division of Natural Areas and Preserves
Ohio Department of Natural Resources

Created: 11/1983 Allison W. Cusick

VIOLA PRIMULIFOLIA L.
Primrose-leaved Violet

FAMILY: Violaceae

HABIT: Stemless perennial herb to 1.7 dm.; flowering early May-early June; fruiting June-August.

SIMILAR SPECIES: *Viola primulifolia* is very similar and closely related to *V. lanceolata*. *V. primulifolia* can generally be distinguished by its usually ovate leaf blades. The leaf blades of *V. lanceolata* are lanceolate to linear. However, leaf shape in *V. primulifolia* exhibits considerable variation, and thus technical characters are used to distinguish these species. Fernald (1949) states that after the spring flowering season, *V. primulifolia* is easily distinguished by its habit of sending out prostrate stolons that are essentially leafless and sterile. The prostrate stolons of *V. lanceolata* have well-developed leaves and bear many cleistogamous flowers.

TOTAL RANGE: FL to e. TX, n. to ME, PA, OH, MI, IN, and OK.

STATE RANGE: There are post-1980 records from Ashtabula, Jackson and Portage counties. There is a pre-1980 record from Scioto County.

HABITAT: In moist, open situations, usually on sandy soil: meadows, edges of ponds, streams, marshes, and swamps.

HAZARDS: Overshading by woody species as a result of succession; overdrying of the habitat.

RECOVERY POTENTIAL: Unknown, but possibly good due to its variety of habitat.

INVENTORY GUIDELINES: Mature flowering or fruiting material is needed for positive identification.

COMMENTS: *V. primulifolia* may be more frequent in Ohio than current records indicate. It could easily be overlooked due to its small size and similarity to *V. lanceolata*. It should be sought in suitable habitats throughout the state.

SELECTED REFERENCES:

Cooperrider, T.S. 1995. The Dicotyledoneae of Ohio. Part 2. Linaceae through Campanulaceae. Ohio State Univ. Press, Columbus, OH. 656 pp.

Fernald, M.L. 1949. Rhizome characters in and minor forms of *Viola*. *Rhodora* 51: 51-57.

Miller, L.D. 1976. The Violaceae of Ohio. Unpublished M.S. thesis. Kent State University, Kent, OH. 203 p.

Russell, N.H. 1965. Violets (*Viola*) of central and eastern United States: An introductory survey. Sida 2: 1-113

Soper, J.H. and M.L. Heimberger. 1982. Shrubs of Ontario. Royal Ontario Museum, Toronto, Canada. 495 p.

Terri, J.A. 1968. Developmental variability of *Cornus canadensis* in northern New England. Rhodora 70: 161-175.

Wagner, W.H., Jr. 1975. A bunchberry, "Last Rose of Summer." Mich. Bot. 14: 201-202.



Ohio Department of Natural Resources
Division of Natural Areas and Preserves

Created: 11/1983 Barbara K. Andreas