



United States Department of the Interior

FISH AND WILDLIFE SERVICE



Virginia Field Office
6669 Short Lane
Gloucester, VA 23061

January 23, 2015

Mr. William A. Scarpinato
Dominion Resources Services, Inc.
5000 Dominion Boulevard
Glen Allen, VA 23060

Re: Atlantic Coast Pipeline, Virginia
Segments

Dear Mr. Scarpinato:

The U.S. Fish and Wildlife Service (Service) has reviewed the project package for the referenced project. The following comments are provided under provisions of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884), as amended, and Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c, 54 Stat. 250), as amended.

Our recommendations are based on the route alignment provided on October 28, 2014. Once the action area of the project is finalized, an additional review that includes all attendant facilities, staging areas, etc. will be necessary. Action area refers to all areas directly or indirectly affected by the proposed action and not only the immediate area involved in the action.

To determine if bald eagles (*Haliaeetus leucocephalus*) are within the action area of your proposed project, complete Step 6a of our online project review process (available at: http://www.fws.gov/northeast/virginiafield/endangered/projectreviews_step6a.html). The route alignment intersects several counties where the golden eagle (*Aquila chrysaetos*) has been documented: Augusta, Highland, and Nelson. If you have any questions regarding bald or golden eagles, contact our Regional Bald and Golden Eagle Coordinator, Sarah Nystrom at sarah_nystrom@fws.gov.

We recommend that a detailed habitat assessment be conducted for the federally listed and proposed species below within the specified areas of potential habitat. An approved surveyor can conduct these habitat assessments in the action area to identify suitable habitat and survey for the species if suitable habitat is identified in the action area. Surveys are not needed if the approved surveyor determines that no suitable habitat is present.

A table of optimal survey times for plants can be found on our website at:

http://www.fws.gov/northeast/virginiafield/pdf/endspecies/MISC/20120125_VIRGINIA_survey_time_frame_for_plants.pdf.

A list of qualified surveyors can be found on our website at:

<http://www.fws.gov/northeast/virginiafield/endspecies/surveyors.html>. This list does not include all individuals qualified or authorized to survey for this species. If you select someone not on the pre-approved surveyor list, provide the proposed surveyor's qualifications and proposed survey design to this office for review and approval prior to initiating the survey. Send copies of all habitat assessments and/or survey results to this office.

- Red-cockaded woodpecker (*Picoides borealis*): endangered; Southampton County contains potential habitat.
- Dwarf wedgemussel (*Alasmodonta heterodon*): endangered; potential habitat occurs in perennial streams in the Nottoway watershed in Brunswick, Dinwiddie, and Nottoway Counties. This species occurs in the Nottoway River.
- James spinymussel (*Pleurobema collina*): endangered; potential habitat occurs in perennial streams in the James River watershed in Highland, Nelson, Buckingham, and Cumberland Counties. This species occurs in the Bullpasture River.
- Madison Cave isopod (*Antrolana lira*): threatened; potential habitat occurs in Augusta County between points (-79.183, 38.286) and (-78.951, 38.019).
- Roanoke logperch (*Percina rex*): endangered; potential habitat occurs in perennial streams in the Nottoway watershed in Greenville, Brunswick, Dinwiddie, Nottoway, and Southampton Counties. Butterwood Creek, Great Branch, and Sturgeon Creek are upstream tributaries of known occurrences and may contain suitable habitat. This species occurs in the Nottoway River and Waqua Creek. Surveys are not necessary in streams where the logperch has been previously documented.
- American chaffseed (*Schwalbea americana*): endangered; potential habitat occurs in Greenville County.
- Eastern prairie fringed orchid (*Platanthera leucophaea*): threatened; potential habitat occurs in Augusta County between points (-79.001, 38.036) and (-78.968, 38.027).
- Michaux's sumac (*Rhus michauxii*): endangered; potential habitat occurs between points (-77.850, 37.095) and (-77.822, 37.064) and between points (-77.818, 37.055) and (-77.822, 36.967).
- Northeastern bulrush (*Scirpus ancistrochaetus*): endangered; Highland and Augusta Counties contain potential habitat.

- Shale barren rock cress (*Arabis serotina*): endangered; potential habitat occurs in Highland and Augusta Counties between points (-79.468, 38.291) and (-79.183, 38.286).
- Swamp pink (*Helonias bullata*); threatened; potential habitat occurs in Augusta and Nelson Counties between points (-78.951, 38.019) and (-78.891, 37.993).
- Virginia sneezeweed (*Helenium virginicum*): threatened; potential habitat occurs in Augusta County between points (-78.972, 38.028) and (-78.939, 38.011). Known occurrences are within 1,000 feet of the corridor; several as close as 300 feet. We recommend that you contact Rene Hypes (804-371-2708) at the Virginia Department of Conservation and Recreation, Division of Natural Heritage for information on these element occurrences.
- Bats
 - Surveys for potential hibernacula including cave openings and cave-like structures (e.g., abandoned or active mines, railroad tunnels) should be conducted following the guidance on page B3 of the Northern Long-Eared Bat Interim Conference and Planning Guidance within the action area of the proposed pipeline route. This guidance is available at:
<http://www.fws.gov/Midwest/endangered/mammals/nlba/pdf/NLEBinterimGuidance6Jan2014.pdf>.
 - In areas where tree removal will occur, surveys should be conducted by an approved surveyor following the most recent version of the Range-wide Indiana Bat Summer Survey Guidelines (available at:
<http://www.fws.gov/northeast/virginiafield/endangered/about.html>) for the following species in the areas specified below within suitable habitat.
 - Indiana bat (*Myotis sodalis*): endangered; potential habitat occurs in Highland and Augusta Counties.
 - Virginia big-eared bat (*Corynorhinus townsendii virginianus*): endangered; potential habitat occurs in Highland County.
 - Northern long-eared bat (*Myotis septentrionalis*): proposed endangered; potential habitat occurs in Highland, Augusta, Buckingham, Nottoway, Suffolk, and Chesapeake Counties.

To assist us in analyzing effects to federally listed and proposed species from the proposed action, provide the following information to this office:

- For proposed stream crossings where federally listed species are present and boring beneath the streambed is proposed, provide us with an analysis that outlines all alternatives considered for that crossing, how the determination was made that the

selected alternative was the least environmentally damaging, a best professional opinion on the likelihood that drilling fluids will escape through the bedrock to the river, an analysis of effects to the river anticipated due to the pipeline approaches to each side of the river, and the proposed schedule/timing of the crossing.

- Within the action area in Augusta County, survey for and identify karst features and provide us with the survey results.

To avoid and minimize impacts to federally listed and proposed species, incorporate the following conservation measures into the proposed project:

Madison Cave isopod general avoidance and minimization measures:

- Protect recharge areas of cave streams and other karst features that are hydrologically connected to known or presumed occupied habitat.
- Avoid all construction activities, including excavating, filling, or altering the hydrology of any existing sinkholes, fissures, or cave entrances.
- If new sinkholes form, contact the Service for clearance before continuing work. It may be possible to use an inverted filter to bridge the karst feature above the water table rather than filling it below, causing direct impacts to Madison Cave isopod.
- Sediment and erosion control measures will include silt fence and straw bales or other control measures that will provide equivalent level of protection, or better, around all karst features. Monitor and maintain all sediment and erosion control measures periodically and after precipitation events, as identified in an approved erosion and sedimentation control plan. Clean, repair, and replace structures as necessary.
- Maintain a 100-foot buffer around all surface karst features when blasting, drilling, digging, or trenching. If a subsurface karst feature is located and cannot be avoided, contact the Service for specific guidance or alternative mechanisms that may be available.
- Blasting, drilling, digging, or trenching within 0.5 mile of known or presumed occupied Madison Cave isopod habitat will be conducted in a manner that will not compromise the structural integrity of the substrate or alter the karst hydrology adjacent to the proposed route. If an opening, karst feature, or the water table is intersected or uncovered, while blasting or drilling, contact the Service for appropriate measures to minimize impacts and to allow sampling for Madison Cave isopod to be arranged. Minimize the use and size of charges for blasting and, where practicable, substitute rock drilling in place of blasting.

To address impacts to summer bat habitat (see Appendix D of the Northern Long-Eared Bat Interim Conference and Planning Guidance): leave dead or dying trees standing (if not a safety

hazard), maintain or improve forest patches and forested connections (e.g., hedgerows, riparian corridors) between patches, clearly demarcate trees to be protected vs. cut to help ensure contractors do not accidentally remove more trees than anticipated, avoid/minimize tree clearing that fragments large forested areas or tree lined corridors (e.g., route linear features along the edge of a woodlot instead of through the middle).

We recommend that you contact Liz Stout (West Virginia Field Office) at 304-636-6586 or elizabeth_stout@fws.gov and John Ellis (Raleigh Field Office) at 919-856-4520 or john_ellis@fws.gov to coordinate the portions of the project that are in West Virginia and North Carolina.

Once the action area of the project is finalized, an additional review that includes all attendant facilities, staging areas, etc. will be necessary. If habitat assessments and/or surveys determine that suitable habitat or listed or proposed species are present, this office will work with you to ensure that the project avoids or minimizes adverse impact to listed species and their habitats.

If you have any questions, please contact Kim Smith at (804) 824-2410 or via email at kimberly_smith@fws.gov.

Sincerely,

Cindy Schulz
Field Supervisor
Virginia Ecological Services

cc: Service, Elkins, WV (Attn: Liz Stout)
Service, Hadley, MA (Attn: Sarah Nystrom)
Service, Raleigh, NC (Attn: John Ellis)
VDCR-DNH, Richmond, VA (Attn: Rene Hypes)
VDGIF, Richmond, VA (Attn: Amy Ewing)