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Agencies favor pipeline path change

BY JOHN BRUCE • STAFF WRITER

MONTEREY — The agency whose mission is to conserve Virginia’s biodiversity recommends a major rerouting of the proposed Atlantic Coast Pipeline, away from conservation sites.

The Virginia Department of Conservation and Recreation’s Division of Natural Heritage told the Federal Energy Regulatory Commission that two possible routes are preferable to the current path through Bath and Highland counties.

A southernmost route concept would avoid Valley Center, Little Valley, and Burnsville Cove conservation sites entirely. The route would also avoid a DCR-DNH conservation site newly designated on the western slope of Jack Mountain near Little Valley.

A route conceived by DCR-DNH would cross into Virginia about three miles south of the currently proposed crossing, pass Back Creek less than a half mile north of the Bath County Pumped Storage Station, and rejoin the currently proposed route on the eastern slope of Tower Mountain.

In an Aug. 21 letter to FERC, DCR deputy director of operations Thomas Smith said his agency considers the pipeline footprint to include the construction right of way, access roads, and associated infrastructure. The agency’s assessment of “high potential impact” on karst springs contradicts the Virginia Department of Environmental Quality’s position that there is “reasonable assurance” the proposed pipeline would not violate water quality standards.

The DCR designated a conservation site at Duncan Knob to protect the endangered rusty-patched bumblebee from a proposed pipeline access road, and the Little Valley Slope Conservation Site was designated to protect a “significant natural community of central Appalachian Oak-Hickory Forest.” Both sites carry a biodiversity significance ranking of B2, which represents very high significance.

“Conservation sites are tools for representing key areas of the landscape that warrant further review for possible conservation action because of the natural heritage resources and habitat they

support,” DCR explained. “Conservation sites are polygons built around one or more rare plant, animal, or natural community designed to include the element and, where possible, its associated habitat, and buffer or other adjacent land thought necessary for the element’s conservation.”

Karst inventory of Bath County properties on June 7 revealed the presence of numerous small karst features, and bedrock capable of supporting such features, the agency explained. The karst features were small, and did not appear to penetrate to significant depth. Also, no caves are documented in the project vicinity in Little Valley, and the presence of undocumented caves is unlikely based on the geologic structure and bedrock stratigraphy, DCR said.

“The sinkholes observed were broad and in many cases ambiguous in origin with none exposing bedrock,” the agency explained. “Bedrock is exposed intermittently along lateral drainages on the northwest slope of Jack Mountain. The sinking streams observed appear to be associated with either thin limestone layers or coarse colluvial deposits. Location of stream sinks and seasonal springs clearly varies with flow and recent precipitation history, making the system difficult to characterize in detail.”

Building the pipeline, DCR said, has the potential to impact the small karst systems, including numerous springs, many of which are used for agricultural and/or domestic water supply.

DCR recommended protecting the lateral drainages on Jack Mountain to protect the springs, which all discharge into Little Valley Run.

Also, the agency said, contaminants from land disturbance along the pipeline corridor could impact the major springs at Bolar because Little Valley Run likely loses water to major limestone units upon passing contact with shales east and downstream of the pipeline crossing.

“These major limestone units host the aquifer connected to the springs at Bolar. Should the pipeline route through Little Valley be approved, protection of water quality in Little Valley Run should be of primary importance, and the potential connection between Little Valley Run and the springs at Bolar should be tested using dye tracing methods,” DCR said.

DCR also cited the Wilson Mountain North Mountain Conservation Site, which has a highly significant biodiversity ranking.

The concern at this site is the presence of Bentley’s coralroot and yellow nodding ladies tresses. DCR explained, “Bentley’s coralroot is a globally rare orchid, a member of a genus that generally lacks chlorophyll and obtains nutrients by means of a relationship between the rhizome and a fungus.” It was only identified as a new species and described in 1999 after being discovered at a single site in West Virginia in 1996. “Additional occurrences were later found in western Virginia and in other locations in West Virginia. It has often been documented in disturbed roadside or trail sites or at the transition between disturbed and adjacent deciduous forest, and plants have also been found well back under the forest canopy as well,” DCR said.

Surveying for the species is recommended for mid-July to early August when it's in flower. Threats to the species, DCR said, include road grading and maintenance, herbicides, and making recreational trails.

Yellow nodding ladies tresses is a perennial, the agency said. "Its flowers are ivory to creamy or yellowish to greenish white. It blooms from September to October, and is found in open forests, clearings, and meadows, often at higher elevations. As of 2014, five occurrences of this state rare plant were documented by the Virginia Natural Heritage Program — three extant and two historic."

DCR pointed out that two of the three occurrences of Bentley's coralroot, and both occurrences of yellow nodding ladies tresses associated with the conservation site are immediately adjacent to the existing access road.

Of the Valley Center concerns, DCRDNH said both the planned corridor and the Valley Center route variation have high potential to impact karst resources, including significant springs and rare cave fauna associated with subterranean ecosystems.

"While the Valley Center route variation may not offer much improvement over the proposed corridor, it should be emphasized that either route chosen is likely to have significant karst associated issues, including subsidence in the pipeline trench and contamination of nearby springs," the agency said. "DCR-DNH recommends avoidance of the Valley Center karst. If the pipeline route is not moved away from the Valley Center karst area, extreme vigilance during and post-construction and strict adherence to the provisions of the Karst Mitigation Plan and other pollution control measures (are) essential to the minimization of risk during construction and operation of the pipeline in this area."

The agency also requested an updated Karst Survey Report on the ACP, including the areas that have not been surveyed within the pipeline footprint. "Because this area is relatively poorly documented in terms of cave biota, this karst area was not designated as a conservation site by DCRDNH prior to the routing of the proposed Atlantic Coast Pipeline," it said.

"However, both the proposed route and the Valley Center route variation pass in close proximity to numerous karst features, including caves of potentially high significance and sinkholes that drain directly to large karst springs on the valley floor and on to Back Creek," DCR said.

DCR recommended the DEQ work with Dominion Energy on changing the route to avoid that sensitive karst area. "In the event that such a reroute is not possible, strict adherence to karst specific protective measures would reduce, but not eliminate, the possibility of impacts to these resources," the agency said.

DCR-DNH also expressed concerns about the Burnsville Cove Cave conservation site. The final Environmental Impact Statement issued by FERC said Dominion should consult with DCR about the impacts to Burnsville Cove, and submit the results.

DCR identified two routes that would avoid Valley Center, Burnsville, and Little Valley.

“DCR continues to recommend avoidance of sensitive karst areas as the primary strategy for karst protection relative to the Atlantic Coast Pipeline project,” the agency said.

The current, preferred route, DCR said, “places significant risks to the karst of the Hightown Valley area. If FERC certifies the pipeline route as currently proposed, DCRDNH strongly recommends strict adherence to karst mitigation procedures.”

FERC had recommended karst mitigation by directing Dominion to file the results of fracture trace analysis using aerial photography and LiDAR, along with the results of existing dye trace studies. Dominion is to analyze where there is the potential for intersecting karst between the pipeline and nearby water wells, springs, caves and waters receiving discharge.

DCR responded that bedrock fracture lineaments are not equivalent to dye tracing studies for most of the karst in the study area.

“While fracture trace lineaments are useful in predicting preferential flow paths in fractured rock, and reflect underlying karst conduits, they are no substitute for other hydrological studies, including dye tracing,” the agency said.

DCR-DNH recommended areas with insufficient karst data along the alignment be dye traced. “Dominion ACP and its contractor Geoconcepts Engineering, are working to comply with this recommendation at the request of Virginia DEQ.”

The Environmental Protection Agency weighed in on the ACP this week, declaring the project as proposed would have significant environmental impacts and urging continued route changes to reduce impacts.

Jefferey Lapp, associate director of the office of energy programs, encouraged FERC to continue public participation and ensuring public access to survey findings.

Operation of the pipeline and Supply Header Project would have “long-term to permanent” effects on 3,456 acres of vegetation, 2,744 acres of upland forests, and direct and indirect impacts to 4,892 acres of interior forest, he said, and they would be significant.

“Therefore, it cannot be concluded that the ACP ... would not have significant adverse impacts on vegetation, wildlife, and aquatic life in forested areas,” Lapp said. “For the reasons documented in the final EIS, including cumulative impacts, we continue to recommend that efforts be made to avoid and minimize impacts to large forest tracts and limit fragmentation. We suggest reducing the permanently maintained right of way to the smallest width possible through forested systems, along with reforestation measures commensurate with the volume and type of affected vegetation to try to offset these impacts. We encourage measures be done to determine the amount of compensatory mitigation or restoration that would be needed to provide services equivalent to resources lost and development of approaches to address these losses to the greatest extent possible.”

Monday, in a letter to DEQ director David Paylor from David Sligh, Dominion Pipeline Monitoring Coalition senior regulatory systems investigator, Sligh said, “The high potential of impacts to springs and cave fauna from pipeline activities that DCR personnel described in the Aug. 21 letter amplifies comments made in a report submitted to DEQ in the public comment period on behalf of DPMC and other parties.”

An analysis of scientific evidence released Aug. 22 concludes, “DEQ has not required necessary information from the applicant and has not performed reviews to support the draft finding that compliance with Virginia Water Quality Standards can be assured. Rather, the evidence in the record indicates that serious impairments of both surface and ground water will occur unless additional conditions are imposed. Further, it is unlikely that construction and pollution control measures can be devised to fully protect the integrity of water bodies in some areas that would be affected.”

The report’s authors included Dr. Paul Angermeier, Ralph Bolgiano, Malcolm Cameron, David Collins, P.E., Ari Daniels, Dr. Pam Dodds, P.G., Dr. David Harbor, Robert Johnson, Rick Lambert, William Limpert, Dr. Brian Murphy, Sligh, and Rick Webb.