WEST VIRGINIA RIVERS

May 30, 2025

Sarah L. Runyon, P.E.
Deputy Chief Engineer – Development
1900 Kanawha Blvd., East Building 5, Room 820
Charleston WV 25305

Dear Ms. Runyon,

On behalf of WV Rivers Coalition members, we appreciate the opportunity to comment on the Supplemental Environmental Assessment (SEA) for the section of Corridor H proposed from Wardensville to the Virginia state line (project X316-H-125.16). We highlight several issues of concern focusing on the potential impacts to water resources and water security for the Wardensville community and surrounding region.

It is well known that highway construction and operation can degrade water resources[1], and the SEA acknowledges risks associated with blasting, erosion, and contamination. Indeed, the SEA includes several substantive changes from the 2003 Record of Decision that may affect water resources. For instance, the SEA proposes an elevated road alignment that may reduce impacts to surface water and groundwater resources. The project also includes the development of a new production well to serve as Wardensville's drinking water source. Given that the current production well is strongly influenced by surface water (i.e., groundwater under direct influence of surface water, GWUDI) and contamination risks increase under such conditions[2], a deeper well may improve water security for Wardensville.

However, the test well (TW-3) has not yet been converted to a production well due to technical difficulties associated with the initial drilling effort. Therefore, the **SEA lacks sufficient data demonstrating that the new well will be an improvement from the former.** Geological data from the wellbore drilling encountered multiple water-bearing strata, including the Marcellus shale layer above the targeted Oriskany sandstone, and the SEA assumes that these surficial layers will protect the deeper sandstone from degradation, but this assumption has not been fully tested. Moreover, the SEA acknowledges that "there could be unknown issues that will only be revealed after TW-3 has been put into production." **We therefore recommend that the production well(s) be completed and evaluated before the SEA is approved.**

[1] USEPA. 1995. Erosion, sediment and runoff control for roads and highways. USEPA Office of Water. EPA-841-F-95-008d. Washington DC.
[2] https://oehs.wvdhhr.org/eed/source-water-assessment-wellhead-protection/groundwater-under-direct-influence-of-surface-water-gwudi

The SEA indicates that bridges will be longer than in the original plan in an effort to reduce direct impacts to surface waters, yet the SEA also asserts that the expected impacts to streams and wetlands will increase. This discrepancy should be evaluated as part of the necessary updates to the Section 404 permit with the U.S. Corp of Engineers (i.e., "dredge and fill" Clean Water Act permit). However, that process has not been initiated, and therefore the public cannot fully evaluate the issues. **We recommend that the Section 404 permit process be completed with public involvement prior to the approval of the SEA.**

Best management practices (BMPs) are referenced throughout the SEA, and these practices can be meaningful when implemented. However, we have little confidence in their application given that other sections of Corridor H have suffered in this regard. In our letter to Travis Long dated December 12, 2022, **WV Rivers documented 52 violations to the water pollution control permit for the Kerens to Parsons section of Corridor H** (General permit WV0115924; Registration number WVR108594) including:

- failure to implement, operate, and maintain erosion control devices
- failure to prevent sediment-laden water from leaving the site
- failure to yield to compliance orders
- failure to modify the Stormwater Pollution Prevention Plan under new circumstances
- failure to protect fill slopes and sediment basins
- failure to dispose of solid waste in accordance with WV State Code
- failure to protect groundwater resources in accordance with WV State Code
- failure to submit Discharge Monitoring Reports in a timely manner

These issues should be addressed in the SEA as well as the 404 permit to prevent such problems moving forward.

Regarding potential impacts to private water systems (domestic wells), the SEA asserts that "the water supply will be replaced" if construction should "result in the contamination or loss of a water supply". We commend the Department of Highways (DOH) for this provision, but significant questions remain: on what basis will this be determined, and by whom? Will the water supply be replaced through connection to a municipal line, or new well on-site? We understand that the Hardy County Public Service District is proposing new municipal water lines for portions of Trout Run[3], but this change is not considered in the SEA. We also note that the SEA assumes an impact area of 600' from the proposed road centerline, but this appears to be an arbitrary distance. **Instead, we recommend including all residents in the Wardensville area under well water protections.**

[3] http://hardycountypsd.com/files/documents/7e19292a-c08f-49bb-8586-c831dbfba85b.pdf

The effects of blasting for road construction is a major concern. The SEA provides an analysis of ground vibration impacts and peak particle velocity based on models originally developed by Harry Nicholls and co-authors with the U.S. Bureau of Mines in 1971[4]. The SEA applies a 2.0 inches/second standard citing the Nicholls study. The SEA develops simulations based on multiple scenarios of explosive charge (pounds) and distance from target structures to demonstrate that all "worst case" impacts do not exceed the 2.0 inches/second standard. However, the models apply quarry production scenarios that may not be applicable in the project area. Also, we note that site-specific geological data are available from the wellbore records, and these could help improve confidence in model results. We also note that conservation measures developed in conjunction with the US Fish and Wildlife Service WV Field Office (USFWS File # 2022-0034127) state that "no blast will exceed 0.2 inches per second", but perhaps that is a typographical error.

Thank you for considering our comments. Please feel free to contact me for additional information.

Sincerely,

Jennie Smith
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WV Rivers Coalition

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[4] Nicholls, H.R., C.F. Johnson, and W.I. Duvall. 1971. Blasting vibrations and their effects on structures. Bulletin 656, U.S. Department of the Interior, Bureau of Mines. Pittsburgh, PA.