

SOUND RIVERS

PROTECTING THE NEUSE & TAR-PAMLICO

No Moriah Energy Center Water-Quality Talking Points

These talking points are for community members and activists working to oppose Dominion's proposed Moriah LNG Facility by offering public comment to decision-makers. These topics are focused on water-quality issues, including groundwater concerns, surface water concerns and impacts to aquatic endangered species.

Surface Water & Endangered Species Concerns

485.7 acres is a large footprint, in a sensitive part of the watershed. This footprint contains several headwater creeks that pour into Deep Creek and the Flat River. The Flat River is the most significant source of water for Lake Michie, which is the primary drinking water supply for the City of Durham. The Flat River Aquatic Habitat Natural Area is just over five miles downstream of the Moriah LNG project area. This is a significant natural area and rated as R1 (exceptional habitat) for the presence of rare and sensitive species in Deep Creek and its confluence with the Flat River. The area is home to several different endangered and threatened species, including some with relatively recent observation dates.

- The federally threatened Atlantic Pigtoe freshwater mussel was recorded in Deep Creek as recently as 2019, and only survives in the states of North Carolina and Virginia today.
- The Neuse River waterdog is a federally threatened aquatic salamander that only exists in the Neuse and Tar Pamlico watersheds, and was last observed in 2020 in the Flat River Aquatic Habitat Natural Area.
- The Green floater is a freshwater mussel currently proposed to be listed as threatened under the federal Endangered Species Act, most recently observed in the area in 2012.
- According to the IPaC system, U.S. Fish and Wildlife Service, the federally endangered Carolina madtom—a freshwater catfish only found in the Neuse and Tar Rivers can also be found in this area.
- Other endangered, threatened and rare species who call this area home are: Roanoke Bass — a significantly rare fish, last documented in 2021; Carolina Ladle Crayfish — a significantly rare crustacean, last documented in 2000; Yellow lampmussel — a state-endangered freshwater mussel, last documented in 2020.
- All of these endangered, threatened and rare species are important indicators of water quality, and play critical roles in the health of aquatic ecosystems. For example, the Neuse River waterdog is one of the region's largest aquatic predators, and helps to keep the ecosystem in balance by consuming its prey. Meanwhile, freshwater mussels clean our surface water by filtering out harmful bacteria, algae and sediment particles. Each of these unique species play a critical role in our aquatic ecosystems!

****A leading cause of population decline for all of these threatened species is sediment pollution. In recent years, the madtom and waterdog have both experienced steep population declines and the loss of entire populations across their ranges due to a slew of threats, including sedimentation from urban and industrial development.***

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Groundwater Concerns

Dominion will need hundreds of millions of gallons of groundwater for the construction process and the long term operation of the facility. This would put a significant strain on groundwater resources and potentially lead to the depletion of underground aquifers. Groundwater depletion is primarily caused by sustained groundwater pumping.

Some of the negative effects of groundwater depletion:

- Lowering of the water table: Excessive pumping can lower the groundwater table, and cause wells to no longer be able to reach groundwater. Over-burdening underground aquifers in the Piedmont can lead to domino effects for neighboring and nearby wells.
- Increased costs: As the water table lowers, the water must be pumped farther to reach the surface, using more energy. In extreme cases, using such a well can be cost prohibitive.
- Reduced surface water supplies: Groundwater and surface water are connected. When groundwater is overused, the lakes, streams, and rivers connected to groundwater can also have their supply diminished.
- Land subsidence: Land subsidence occurs when there is a loss of support below ground. This is most often caused by human activities, mainly from the overuse of groundwater, when the soil collapses, compacts, and drops – this could damage buildings, roads and other structures and permanently reduce aquifer recharge capacity.

**Dominion should conduct a substantial groundwater analysis to understand potential impacts!*

The Person County Planning Commission FAILED To Ask Dominion To:

- Maintain some rural conservation buffers in separate zoning, rather than converting all 485 acres to industrial – which opens it up to all being developed in the future.
- Require a robust construction plan that includes strong conditions that go above the baseline for Sediment and Erosion Control and Stormwater Control measures to do everything possible to mitigate downstream sediment and stormwater volume impacts.
- Require Dominion to work with the Fish and Wildlife Service to sponsor surveys for each of the endangered species who could inhabit the project site, including the federally threatened Atlantic Pigtoe mussel, who may inhabit the small headwater streams on site.
- Require Dominion to complete a Habitat Conservation Plan that includes an account of downstream impacts to ESA listed species in Deep Creek and the Flat River, and a plan for mitigation of species “take.”
- Require Dominion to conduct an environmental-impact statement and feasibility study regarding groundwater impacts.
- Require Dominion to conduct pre-construction inspections and provide assurances to cover the cost of any damage to landowner wells, as a condition for this rezoning approval.