401 Water Quality Certification for the Atlantic Coast Pipeline

Rick Webb, Program Coordinator, Dominion Pipeline Monitoring Coalition (DPMC)

My name is Rick Webb. I recently retired from my position as a Senior Scientist at the University of Virginia, where I spent 30 years studying the biology, hydrology, and geochemistry of high-quality streams in the mountains of Virginia.

I am currently Program Coordinator for the Dominion Pipeline Monitoring Coalition (DPMC).

When I learned about the proposed Atlantic Coast Pipeline I was concerned that pipeline construction on this scale across the steep mountains, high-quality streams, and karst valleys of western Virginia could not be done without severe and unavoidable damage to water resources.

The DPMC was organized to examine proposed construction methods, including erosion and sediment control, stormwater management, and slope stabilization plans, in order to evaluate reliability and effectiveness for prevention of water resource harm.

Thus far, we have not had access to the plan details that would be required for this critical evaluation.

After months of seeking information we learned that the DEQ has unreasonably found it meaningful and appropriate to exclude consideration of stream crossing plans, erosion and sediment control plans, and stormwater management plans from its water quality certification review.

Then, when we obtained access to erosion and sediment control and stormwater management plans, we learned that the plans are rudimentary in the extreme and they do not include complete site-specific details for the most difficult, high-hazard areas of the proposed pipeline route.

The DEQ would have the Water Control Board rely on what Dominion Energy calls its “Best in Class” program, which applies to construction areas with slopes of 30% or more for distances of 100 feet or more. Construction plans for these long, steep-slope areas will be developed later based on a very-generalized menu of technical options to manage pipeline construction at extreme locations.

The first problem with this approach is that no one, not the DPMC, not the public, not the Water Control Board, and not even the DEQ, will get a timely opportunity to see and critique the details. Development and submission of site-specific “Best in Class” plans will be delayed until after project review and approval. The second problem with this deferred approach to environmental review is that it applies to a major part of the pipeline route. At least one-third of both the pipeline corridor and pipeline access roads in Virginia’s mountain counties meet the “Best in Class” criteria. Site-specific details for mitigation plans have not been provided for about 39 miles of pipeline corridor and about 26 miles of access roads in Highland, Bath, Augusta, and Nelson Counties.

The very-limited site-specific “Best in Class” details we do have was obtained not by the DEQ, but by the Forest Service. Although the Forest Service sought to obtain the construction details for multiple high-hazard locations, the details have been provided for only one location in Virginia, a 0.1-mile section of steep narrow ridgeline drained by native brook trout streams in Highland County.

Although we obtained and submitted the “Best in Class” plans for this one location to the DEQ, we have seen no evidence that the DEQ considered this information in developing its recommendations to the Water Control Board.

Dominion’s plans for this one-and-only-example location reveal how it proposes to handle stabilization of one steep slope and construction through one small stream. We don’t have even this very limited
information for other steep slopes and stream crossings, and it should be noted that we have not been able to access any site-specific plans for the extreme excavation (cut and fill) that will be required to create a 150-foot-wide flat construction corridor on the miles of narrow rocky ridges in the pipeline path.

Considering the very-limited “Best-in-Class” example that we do have:

Dominion proposes to hold the steep foot slope above Townsend Draft in place by installing heavy-gauge steel wire mesh fastened to the mountainside with 8 to 15-foot steel nails installed with epoxy in 6-inch diameter holes drilled into bedrock.

Some questions need to be asked:

- In what sense can this be considered restoration to natural conditions?
- Will the steel mesh be corrosion proof? How long will it last?
- Will this approach to slope stabilization maintain preexisting runoff characteristics as required by stormwater regulations?
- How will this installation, immediately adjacent to a stream and a narrow riparian corridor, affect wildlife?
- How many of the many similar steep-slope locations in the pipeline path will be subject to this extreme measure?
- What will be the cumulative effect of multiple such installations in single watersheds?

These are questions that the DEQ has not asked.

Dominion also proposes to use concrete to backfill where the pipeline is buried in a trench across Lick Draft. This too, raises questions:

- How can this be considered restoration to natural conditions?
- Who is responsible for restricting construction during high-flow conditions when concrete pollution, which is toxic to aquatic life, will be impossible to avoid?
- What affect will a permanent concrete barrier across a stream bed have on the morphology and ecological functioning of the stream?
- Who will review the inevitable requests for waivers of time-of-year restrictions for construction activity in native brook trout streams?
- How many of the many mountain streams in the pipeline path will be subject to this extreme measure?
- What will be the cumulative effect of multiple such stream crossings in single watersheds?

These too, are questions that the DEQ has not asked.

The critical issue is this:

For at least a third of both the pipeline route and access road length, for the most problematic and extreme sections of the project, we don’t know exactly what the pipeline developer will do to avoid water resource harm. The public doesn’t know, the DEQ doesn’t know, and surely, the Water Control Board doesn’t know.

The public has a right to know, and it is the Water Control Board’s responsibility to know. It’s the Water Control Board’s responsibility to know before it can make an objective determination that the proposed project will not, with reasonable assurance, harm the water resources of Virginia.

The Board has not been provided the information needed to make such a determination.
Western Highland County: The proposed Atlantic Coast Pipeline will follow the narrow ridge crest in the foreground and cross the steep mountains to the east in the background. The high-quality streams draining these ridges support native brook trout. Hydrologically sensitive karst is present in the valleys.

A 0.1 mile section of the ridge in the foreground is the only area in Virginia for which site-specific details for Dominion’s so-called “Best in Class” program have been provided. Final “Best in Class” details will not be submitted until after construction has begun.

The “Best in Class” program applies to all areas with slopes greater than 30% and lengths of 100-feet or more: at least one-third of the proposed route and access roads in the Virginia mountains.
The Townsend Draft area in Highland County showing the location of the pipeline corridor and access roads. The red areas of the pipeline corridor meet the “Best in Class” criteria for long steep slopes. The red-colored streams are native brook trout streams. The stars indicate locations of proposed in-stream blasting.
Schematic from “Best in Class” plans for the ‘Best in Class” example area on Townsend Draft in western Highland County. Townsend Draft is a native brook trout stream.

Heavy-gauge steel-wire mesh (TECCO) will be used to hold the steep foot slope in place above the stream. Eight to fifteen-foot steel nails fastened with epoxy to the bedrock will be used to hole the mesh in place.

Concrete (SACK-CRETE) will be used to backfill the pipeline trench through the stream bed.
Steel-wire mesh similar to that proposed for use on steep slopes along the Atlantic Coast Pipeline corridor.

Steel “soil nails” (8-15-feet long) installed with epoxy in 6-inch holes drilled into bedrock will hold the steel mesh in place.