

Clean Water for NC Comments on 401 Water Quality Certification, Atlantic Coast Pipeline, NC

401 Permitting Section, NC Division of Water Resources

(submitted by email August 19, 2017)

Dear Ms. Burdette,

In addition to signing on the excellent comments of the Southern Environmental Law Center on the 401 Certification Application, which do a superb job of laying out the reasons for NC DWR to deny this certification, and point to extensive reasons of other states for denial of certifications with much more carefully prepared applications, please accept the following supplementary comments on 1) lack of need and public benefit of the ACP, 2) adverse and disproportionate impacts, 3) inadequate protection and monitoring of groundwater impacts of construction and operation of the ACP, 4) failure to identify crossings of designated waters or submit sedimentation and erosion designs for them, and 5) failure to accurately assess or publicly acknowledge significant safety threats to residents and others along the ACP corridor.

Thank you for your careful consideration of our comments below,

Hope Taylor, Executive Director, Clean Water for North Carolina

Lack of Economic or Social Benefit of the Atlantic Coast Pipeline

As the only reasons that an applicant can object to rigorous protections of designated waters imposed by a 401 Water Quality Certification are claims of significant social or economic benefits, it is critical that DWR not be influenced by unfounded claims of economic or social benefit. Our analysis here is to refute some of the claims of such benefits made by Dominion and ACP, LLC in their materials, and included in FERC's Environmental Impact Statements.

Environmental Impact Statements prepared by FERC for the ACP indicate a substantial bias in analysis of "potential" socioeconomic impacts of the ACP by listing most impacts in the direction most favorable for pipeline development. "Increased property tax revenue, increased job opportunities, and increased income associated with local construction employment are potential effects of the projects... increased employment opportunities, increased demand for housing and public services, tourism and transportation impacts, and an increase in government revenue associated with sales and payroll taxes." Only "increased traffic or disruption of normal traffic patterns" are named as potential adverse impacts. By contrast, we note here numerous impacts indicating lack of benefit and adverse impact of the proposed ACP.

Lack of Need and Inadequate Alternatives Analyzed for the Atlantic Coast Pipeline, Lack of Public Involvement

We disagree strongly with statements that public involvement in the period before the DEIS was strong. Both ACP and FERC hearings on this docket were poorly noticed, with some residents actually located in the proposed corridor only having gotten notification the day before. Our informal outreach to over 250 residents in 5 NC counties within ½ mile of the corridor showed that fewer than 30% had awareness of the pipeline at all. The most focused outreach of Dominion was to local public officials well BEFORE there was public awareness of the project, and materials and presentation were heavily weighted toward an unrealistically positive portrayal of economic and environmental impacts, with denial of any reasons for safety concerns.

Several studies issued in the past year have provided substantial evidence that the Atlantic Coast Pipeline is unnecessary for near term and future economic development. In particular, the study linked here <http://ieefa.org/wp-content/uploads/2016/05/Risks-Associated-With-Natural-Gas-Pipeline-Expansion-in-Appalachia-April-2016.2.pdf> points to economic, social, climate and environmental damage that will be driven by the continued overbuilding of gas pipelines in the southeastern region of the US. Further, it documents the expectation that ACP will recover almost all costs plus ROE from ratepayers, who will be paying on the debt for decades to come. Contrary to Dominion's statements that the project will ensure lower cost energy supply, the ACP will necessarily raise utility rates, both to recover costs for building the project from ratepayers, and due the improbability that natural gas will remain a plentiful and low cost fuel for electric generation. In fact, despite optimistic projections, gas industry analysts confirm that gas production has been decreasing and that prices are predicted to rise. The net result is that the public and ratepayers will be trapped in paying off a project that does not serve the public interest and may never have the markets or even the gas supply that Dominion predicts.

FERC has no statutory mandate to only evaluate alternatives that specifically meet the economic investment interests and purposes of the applicant. As noted by former FERC Chairman Norman Bey, the Commission must take a broader look at both the need for a given project, its upstream cumulative impacts and less damaging and costly alternatives that are not designed solely to meet the economic goals of the applicant.

See attached to following email: "Risks Associated with Natural Gas Pipeline Expansion in Appalachia"

Local and Regional Economic Impacts

The DEIS concludes that there is adequate rental housing and public services (hospitals, law enforcement, fire depts. and schools) in NC counties along ACP to handle the influx of temporary workers from outside (about half of the total construction workforce for each spread) from late 2017 to 2019. This analysis assumes that workers from outside the area will

not bring their families, and fails to account for any economic or social disruptions due to the temporary influx, including overbuilding of hotel units or other housing not needed after a few months (Such dislocation has been reported in other areas where oil and gas development increased quickly and crashed. It is unclear if local economies and governments would be fully aware of the very temporary nature of the construction job boom , followed by fewer than 20 jobs in 2 North Carolina counties.) The DEIS states that there will only be a temporary minor increase in hiring to meet needs of rental and retail services.

The DEIS states that Atlantic and DTI would each have a health and safety plan to prevent and minimize accidents; but acknowledges that use of local emergency, fire and health services could occur, but it fails to account for the need for increased capacity and training of local fire and emergency services to deal with any emergencies. DEIS claims that, because Atlantic and DTI would maintain emergency response plans and that concerns about costs and local ability to respond to a catastrophic accident are unfounded, based on statistical data, there will be no significant added expenses for local government services. In fact, local fire and emergency responders are often the first responders to a pipeline explosion or fire, and the number of significant pipeline incidents has been increasing in pipelines built since 2010. Data from the Pipeline and Hazardous Materials Safety Administration show a dramatic increase in pipeline incidents for pipelines built in the past 6 years, even higher than for pipelines built before 1940, which provides a quite rational basis for well-founded public safety concerns.

ACP plans to have three NC construction “spreads” with 885 workers and 85 inspectors in each for a period of months, with about half expected to be workers from outside the region. The only permanent jobs anticipated would be 15 employees at the compressor station and offices in Northampton and 5 in Johnston. No significant positive economic benefit can be assumed, due to the very high cost of any connection for any industrial or business development.

The DEIS authors are dismissive of the Key Log study of economic impacts on property values in VA counties. Instead they site studies commissioned by Dominion and real estate sources, with the claim that they are independent, stating that there’s no impact on value of local properties, except in the first few years after a pipeline accident.

The Key-Log reports demonstrate that the DEIS’s assessment of socioeconomics is flawed, as FERC fails to critically evaluate applicant-provided assessments of potential economic benefit when those assessments use biased research methods, applies the methods inappropriately, and bases estimates on unrealistic assumptions. FERC also fails to critically evaluate flawed research into gas-industry-sponsored and/or promoted research, which concludes that pipelines do not diminish property value. FERC fails to consider external costs due to lost ecosystem service value, methane and other greenhouse gas emissions, and impacts on regional recreation, tourism, and other amenity-dependent economic development. The Key-Log analyses undermine FERC’s conclusion that the proposed projects would not have a significant adverse effect on the socioeconomic conditions of the project area.

There is a pattern of uncritically accepting the claims based on ACP-contracted studies, while dismissing independent studies simply because they have been contracted by environmental or civic organizations opposing pipeline development. The authors of independent studies acknowledge that a variety of factors make such analyses problematic, and that “perceived safety issues” or limitations on land uses with a permanent easement may affect the number of potential buyers and thus the time a property could stay on the market. This is, in fact, one of the key concerns of many rural residents who view their land and its use as a legacy that they had expected to pass to descendants. Most of these studies of buyer perception have been done in higher density areas than the predominantly rural areas in which ACP would be built; impacts on land value and long term use are expected to be more acute in agricultural areas.

Studies cited by the DEIS to indicate reduced energy costs for NC and VA customers are based on erroneous assumptions. “.. The Economic Impacts of the Atlantic Coast Pipeline, conducted by ICF International (ICF, 2015) assessed anticipated effects of ACP on natural gas and electricity prices as well as economic impacts on the project area. The study, which measured the net effect of energy cost savings to homes and businesses due to increased access to natural gas supplies, concluded that from years 2019 to 2038, operation of ACP could result in a net annual average energy cost savings of \$377 million for natural gas and electricity consumers in Virginia and North Carolina. Additionally, the study found that the energy cost savings (due to increased supply of low-cost energy sources) could allow consumers and businesses to spend money in other parts of the economy, leading to the creation of new jobs, labor income, tax revenues, and gross domestic product.”

In order to forecast such an outcome, the study necessarily assumes stable or increasing natural gas production and stable low gas prices. Neither of these can reasonably be assumed: shale gas production has been decreasing in recent years and prices are expected to rise. As a result, the \$5.5 B debt that ratepayers would be forced to pay through increased utility bills is highly unlikely to be compensated for by any “low cost” energy supply. Instead, it is possible that there will be either an inadequate gas supply to fill the overbuilt pipeline system in the VA/NC area, or that rapidly expanding renewable electric supply will continue to drop in price, providing less costly energy supply, leaving the region saddled with unneeded, costly infrastructure, funded by ratepayers, and perpetuating unneeded fossil fuel production and greenhouse gas emissions.

ACP anticipates paying \$30 million annually to local governments along the 3 states for property taxes. However, it is unclear what the impact would be on property values if the pipeline is underutilized, due to inadequate gas supply or relatively high gas prices. The Key Log report predicts that the tax revenue received by local governments will be significantly outweighed by additional local government costs and lost revenue due to impacts on property markets.

Environmental Justice

The Environmental Justice analysis in the DEIS Starts by assuming the principle policy requirement of the Environmental Justice Executive Order is simply to ensure widespread public participation, and it congratulates the ACP for widespread public notification and participation. FERC lists meetings which were inadequately noticed and total of 330 comments, a tiny fraction of the population that could be impacted in even one of the three states the ACP would traverse.

FERC's study acknowledges that more than half of NC counties are below the median income for NC, and notes that "Twenty-seven of the 42 census tracts in North Carolina within a 1-mile radius of ACP facilities have a higher percentage of persons living below poverty-level when compared to the state." This fact, by itself, indicates that the route chosen creates disproportionate impact of the pipeline on low income residents, and therefore contradicts the DEIS conclusion that "no environmental justice populations are impacted."

The DEIS analysis of minority populations is remarkable in its contorted logic used to minimize the relative impact on people of color. It notes that: "In North Carolina, minorities comprise 30.5 percent of the total population. The percentage of minorities in the North Carolina census tracts within 1 mile of ACP ranges from 12.5 to 95.5 percent. In 13 of the 42 census tracts, the minority population is meaningfully greater than that of the county in which it is located." FERC uses this carefully crafted minimizing analysis to reinforce its conclusion that there are no disproportionate impacts on environmental justice populations.

Remarkably, unlike the comparison to census tracts within one mile of the pipeline corridor for poverty to the state as a whole, FERC's study only compares minority population % in census tract near pipeline with the % minorities **in the county in which this occurs**. As most of the NC counties along the proposed ACP corridor have minority populations significantly above the state average (Northampton County, for instance, is 58% African American, compared to a state average of 22%)...this greatly minimizes the apparent disproportionality in minorities impacted. A comparable analysis to disproportionate impacts on low income residents would use a comparison to state minority populations, and would result in a dramatically altered conclusion of marked disproportionate impacts on populations of color.

In a recent study **County-Level Race & Ethnicity Analysis of NC Segment of the ACP Route**, by researchers at Research Triangle Institute (Allpress, J., Hofmann, J., Wraight, S., Depro, B. (2017). *U.S. Census Socioeconomic Data, Environmental Justice, The Atlantic Coast Pipeline: A Methods Report*. Unpublished manuscript), The study concludes, with high statistical significance, that disproportionate impacts of the ACP would occur to minority populations.

Researchers downloaded county-level 2010 Decennial Census data for the entire state, and determined the number of people in every county who self-identified as white and non-Hispanic. They subtracted that subpopulation from the total population of each county to obtain the number of "minority" residents, and divided the states' counties into two groups, those that were crossed by the proposed pipeline route and those that were not. The

proportional minority population was calculated for each group. Using a two-sample test of proportions, the proportion of minority population of the counties that would be crossed by the proposed pipeline was compared to the proportion of minority population of the other counties in the state. The results are below:

Pipeline route counties' proportion minority population	0.5099
Proportion minority population for rest of the counties in the state	0.3295
P-Value (one-tailed test)	0.0000
Conclusion	The counties crossed by proposed ACP route collectively have a significantly higher percentage minority population than the rest of the counties in the state (at the 99% confidence level).

Finally, in a betrayal of its lack of understanding of the straightforward term “disproportionate,” FERC claims that because impacts may be happening in low population areas, fewer people would be hurt and therefore they can’t see evidence of disproportionate impact: “Because the projects would generally traverse rural areas, the number of persons who would be at risk of injury due to a pipeline failure would be low, and there is no evidence that such risks would be disproportionately borne by any racial, ethnic, or socioeconomic group.” Just because there is a low population concentration doesn’t mean that people of low income or people of color would not be disproportionately impacted. In fact, in comparing the current ACP corridor to earlier proposed ACP routes, it is clear that the pipeline has been deliberately moved to areas of greater poverty and more people of color, with such selective action being the very definition of Environmental Injustice.

Inadequate Monitoring and Protection of Groundwater

We disagree strongly with FERC’s conclusions, based on ACP, LLC statements, that “No long term impacts on groundwater are anticipated from construction or operation of ACP,” and believe that the methods of construction, selection of drinking water wells to test, and minimal monitoring proposed are designed to prevent detection of significant long term impacts.

For most of its length in NC, the ACP would be located above the Northern Coastal Plain Aquifer system, especially vulnerable to contamination, with the uppermost sand aquifers at shallow

depths being particularly vulnerable to contamination or disruption due to human. Given the large number of households in or within ½ mile of the proposed corridor dependent on well water, even with special precautions, construction could adversely impact water supplies.

The DEIS acknowledges that there are a large number of private wells within 150 ft. of the pipeline workspace in Nash, Johnston and Cumberland Counties (DEIS pages 4-70-471), and that ACP and its contractors have not completed a survey of wells within 150 ft. due to lack of survey access. We are aware that some landowners object to being surveyed for this project, and we contend that a 150 ft. buffer between water supply wells and the construction workspace is inadequate. Approximate locations for wells within 500 feet of construction workplace could be readily facilitated by GIS location of all residences outside city limits or service areas of public water utilities.

The DEIS sacknowledges that surface disturbances, clearing and trenching can impact both surface water drainage and groundwater recharge patterns, with the most impact to shallow surficial aquifers. The DEIS authors contend that most construction will be 10 feet or less below the surface, and that the surface will be restored to its original contours, but no protocols are in place to prevent impacts including compaction that could affect recharge of shallow aquifers or infiltration of toxic or hazardous materials. The potential for toxic and hazardous materials to be released in and near the construction workspace is acknowledged, including: fuels, oils, lubricants, hydraulic fluids, and explosives for blasting.

Pre- and post-construction well testing must include all water supply wells within 500 feet of the construction workspace and include ALL substances which could impact groundwater, including components of natural gas liquids. Well owners must receive a copy of all testing results, pre- and post-construction, within 30 days of sampling, and the opportunity to do independent testing of split samples by certified laboratories.

Assuring methods protective of well users in or near the workspace cannot be achieved with a mere “recommendation” (DEIS, page 4-74) that AP and its contractors complete a well survey before construction begins. They must prepare a list of all possible wells on land parcels with potentially occupied buildings requiring a water source within 500 feet of the construction workspace, and all construction methods must be assured to protect well water sources for all such occupied locations.

On page 4-82, the DEIS states that “Atlantic and DTI would conduct post-construction water quality tests to ensure water supply wells and springs are not adversely affected by construction activities. If damage claims occur, Atlantic and DTI have committed to providing a temporary potable water source, and/or a new water treatment system or well.” There is no requirement that the well water testing results would be reported to the well owner promptly, or that additional substances possibly present near contaminated sites, used in construction activities, or resulting from acknowledged potential leakage of natural gas liquids would be included among well testing parameters. Possible contaminated sites that could be disturbed

during construction include a Superfund site and 3 brownfield sites located in NC close to the AP-2 section of the pipeline, as well as 9 leaking underground storage tank sites near AP 2.

There is no information for landowners about the protocol to initiate a claim if there is evidence of well water quality or quantity impacts. Moreover, a single post-construction well water test is inadequate to assure that there are no long term impacts of construction or operation. Well testing must include fuels, lubricants, hydraulic fluids and any explosives use, as well as the components of natural gas liquids and well flow rate. The DEIS acknowledges that natural gas liquids represent the greatest ongoing threat to groundwater during ACP operation. Well testing for all of the standard parameters, plus any hazardous or toxic materials used during construction, as well as contaminants in known or detected sites along the construction corridor, and natural gas liquids. Such testing must continue annually throughout the operational life of the pipeline.

All well tests must be performed by labs certified for analysis of all of the specified contaminants and to detection levels below any NC groundwater (2L) or IMAC standards where available. All results must be reported to well owners with a comparison to those standards within 30 days of testing. ACP must state the procedure for a well owner to make a claim of diminished flow rate or contamination their well for drinking water, and act within 15 days of a substantiated claim to provide bottled water and within 60 days to provide a permanent replacement safe water supply.

The SPCC Plan provides explicit guidance on handling hazardous materials during construction. Specifically, it would restrict refueling or other liquid transfer areas within 100 feet of wetlands, waterbodies, and springs, and within 300 feet of karst; prohibit refueling within 200 feet of private water supply wells and within 400 feet of municipal water supply wells; and require additional precautions (e.g., secondary containment) when specified setbacks cannot be maintained.” The above protections are inadequate to assure that water supply wells will be protected, particularly in this region with vulnerable surficial aquifers. All pollution prevention plans prepared by ACP to avoid or minimize impacts during construction and operation must be readily available to the public in plain language. The training of employees, inspectors and enforcement of construction violations at all stages must be transparent. Refueling or other handling of fuels and other toxic or hazardous materials must be prevented within 500 feet of wetlands, private water supplies or municipal water supply wells. Setbacks ranging from 100 to 400 feet provides an inadequate margin of protection.

The DEIS states in other sections that, in addition to ACP hired Environmental Inspectors, there would be third party inspectors accountable only to FERC to review compliance and prevent accidents or failures. Those independent inspectors must report directly to the agency and inspection results must be available to the public. The EIs, who have the authority to stop work if violations have been detected during inspections, must have specified protections from pressure and adverse consequences from ACP or its construction contractors.

The DEIS says that a variance procedure is in place for requests to allow activities closer than specified setbacks. As is frequently the case, this mechanism can be dangerous and allow for reduced oversight and riskier activities with little documentation or recourse if contamination occurs. No variances must be permitted for reducing setbacks of at least 500 feet from areas where any hazardous or toxic materials will be handled.

“Although the natural gas received by ACP and SHP would be processed to remove natural gas liquids (NGL), small amounts of residual NGLs may still be present in the gas. Standard operating procedures minimize the risk of release of residual NGLs that may accumulate in the pipeline.” Natural gas liquids could be a substantial threat to groundwater quality, as the DEIS notes, and must therefore be included in annual well water testing throughout the operational life of the pipeline.

Again, we strongly disagree with the unproven assumption that no long term impacts to groundwater can be anticipated. The lack of key information for this assessment and failure to include protocols to ensure that no impact will occur or will be quickly detected are failures to meet NEPA requirements.

The failure of ACP, LLC to Identify Designated Waters To Be Crossed by the ACP, and Failure to Provide Required Sedimentation and Erosion Control Designs Complying with 15A NCAC 048.0124

As part of an additional information request made by NC DEQ to ACP, LLC., the Division of Water resource commented as follows:

“Sediment and erosion control designs for project areas within waters or watersheds designated as PNA, SA, WS-I, WS-II, HQR, ORW must comply with the requirements set forth in 15A NCAC 048.0124 – Design Standards in Sensitive Watersheds.”

ACP, LLC replied: “Atlantic did not identify any individual waters or watersheds with the above designations within the limits of disturbance.” Needless to say, the applicant has failed to provide sediment and erosion control designs for such “project areas within waters or watersheds” with those designations, as it essentially claims they do not exist!

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Throughout the construction process, Atlantic and DTI will follow the Procedures to avoid or minimize impacts on water quality. Construction activities will be scheduled so that the trench is not excavated across the waterbody until immediately prior to pipe laying activities. The duration of in-stream construction activities (excluding blasting, if required) will be limited to 24 hours across minor waterbodies (those 10 feet in width or less) and 48 hours across intermediate waterbodies (those between 10 and 100 feet in width).

9. Sediment and erosion control designs for project areas within waters or watersheds designated as PNA, SA, WS-1, WI-II, HQW, ORW must comply with the requirements set forth in 15A NCAC 048 .0124 – *Design Standards in Sensitive Watersheds*.

Response: Atlantic did not identify any individual waters or watersheds with the above designations within the limits of disturbance.

10. Although a discrete channel is not present, add named streams (e.g., Starlins, Mingo, Black River etc.) that occur within wetland complexes to the Waterbody Crossing Table for reference.

Response: Atlantic has revised Appendix C-1 Wetland and Waterbody Crossings for the Atlantic Coast Pipeline within the U.S. Army Corps of Engineers – Wilmington District. Revised cells are shaded gray. The revised table is included in Appendix B.

Although no GIS data was found by our GIS researcher, Oshin Parajape of Duke University, for water bodies designated as “PNA” and “SA”, her mapping of water bodies with the other designations revealed that the planned route of the Atlantic Coast Pipeline would, in fact, cross water bodies categorized as “WS-I” and “WS-II” at multiple locations. Additionally, surface waters categorized as “NSW” or Nutrient Sensitive Waters are also crossed by the pipeline at multiple locations.

Please see relevant GIS figures, showing ACP crossings of WS-I, WS- II and NSW, below the definitions and comment on Antidegradation policy for designated classes of waters.

Notes on water quality classifications:

Water Supply – I (WS-I): Waters protected for all Class C uses plus waters used as sources of water supply for drinking, culinary, or food processing purposes for those users desiring maximum protection for their water supplies. WS-I waters are those within natural and undeveloped watersheds in public ownership. Note: **All WS-I waters are HQW by supplemental classification.**

Water Supply – II (WS-II): Waters used as sources of water supply for drinking, culinary, or food processing purposes where a WS-I classification is not feasible. These waters are also protected for Class C uses. WS-II waters are generally in predominantly undeveloped watersheds. **Note: All WS-II waters are HQW by supplemental classification.**

Nutrient Sensitive Waters (NSW): Supplemental classification intended for waters needing additional nutrient management due to being subject to excessive growth of microscopic or macroscopic vegetation.

High Quality Waters (HQW): Supplemental classification intended to protect waters which are rated excellent based on biological and physical/chemical characteristics through Division monitoring or special studies, as well as primary nursery areas designated by the Marine Fisheries Commission, and other functional nursery areas designated by the Marine Fisheries Commission.

Market Shellfishing (SA): Tidal salt waters that are used for [commercial shellfishing](#) or marketing purposes and are also protected for all Class SC and Class SB uses. **Note: SA waters are also HQW by supplemental classification.**

(The GIS data and all above definitions were obtained from the NC DEQ website)

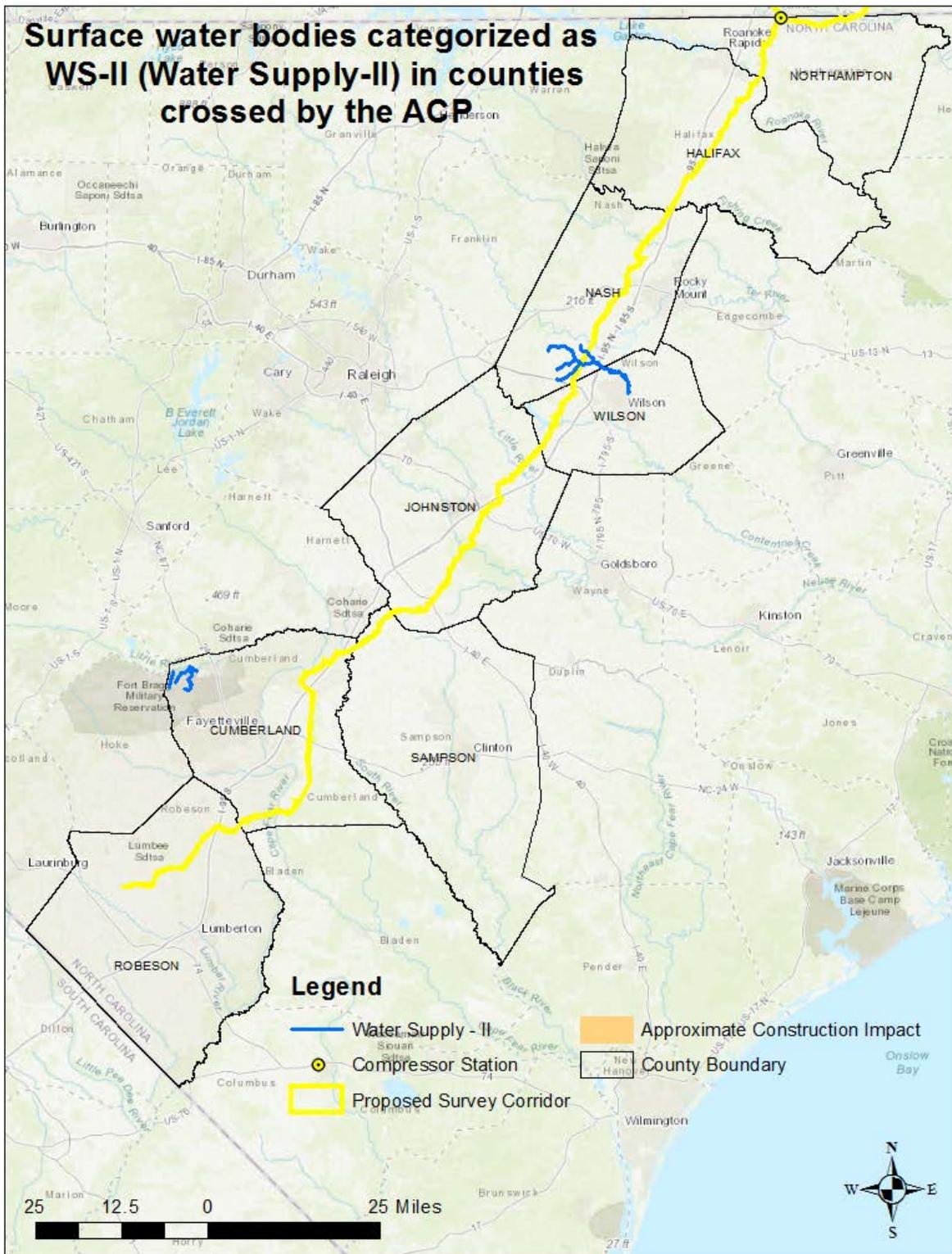
ANTIDEGRADATION POLICY, NCAC 02B .0201 (section c)

“...Waters with quality higher than the standards shall be identified by the Division on a case-by-case basis through the NPDES permitting and waste load allocation processes (pursuant to the provisions of 15A NCAC 2H .0100). Dischargers affected by the requirements of Paragraphs (c)(1) through (c)(4) of this Rule and the public at large shall be notified according to the provisions described herein, and all other appropriate provisions pursuant to 15A NCAC 2H .0109. **If an applicant objects to the requirements to protect waters with quality higher than the standards and believes degradation is necessary to accommodate important social and economic development, the applicant may contest these requirements according to the provisions of General Statute 143-215.1(e) and 150B-23.**”

While DWR made a specific comment to the applicant noting the requirement to identify designated waters that would be crossed by the ACP, the applicant completely failed to identify such crossings that would require sediment and erosion control designs with specific regulatory requirements, though such crossings would clearly be made in pipeline construction.(see figures below). Such a gravelly inadequate response demonstrates outright incompetence and indifference to preventing degradation of waters whose quality is specifically protected for designated purposes.

There is no credible demonstration of “important social and economic development” by the applicant. A rigorous analysis, in fact, shows disproportionate impact to residents of color and low wealth, and a lack of distributed economic benefits. A small number of permanent jobs created, unlikely new industrial development, and substantially increased utility rates ASSURE increased costs to ratepayers to build a pipeline that would not serve a needed public need.

Surface water bodies categorized as WS-II (Water Supply-II) in counties crossed by the ACP



Cumulative Impacts and Climate

The 401 application fails to include impacts on “upstream” communities where extraction activities are taking place. My organization visited Doddridge County, WV in 2015 and saw first-hand the damage being done to groundwater, surface water, air quality and community safety during production there. While this was a community accustomed to conventional oil and gas production, the scale and intensity of disturbances and emissions that have occurred as fracking has continued and grown in this region must be considered as part of the cumulative impacts of this project. It is clear that major gas extraction companies like EQT would not have been interested in scaling up their production so massively if there wasn't a plan route to export gas to areas of higher prices. In other words, the very proposal of the ACP has already caused substantial cumulative impacts, which will only become worse if pipeline operation begins. Additional water impacts due to already planned connections with the ACP have not been assessed, and the applicant claims it is only responsible for activities happening concurrently with the main ACP project construction.

Finally, it's understood that about 80% of the gas transmitted along the ACP will be used to supply gas fired plants operated by Duke Energy and Dominion. In addition to the methane emissions from pipeline pigging and other operations, from compressor station blowdowns and from leaks during transmission, a just-published Purdue Univ. study points to likely methane emissions from various equipment at gas fired power plants up to 120 times greater than previously reported. In other words, the pipeline will not only contribute to significant increases in climate changing emissions, it will primarily serve to supply a very large additional source of methane emissions. If built, this pipeline will be viewed by future generations as a monument to environmental injustice, violating landowner rights and perpetrating avoidable climate crime—all to serve the economic interests of the ACP partner corporations' shareholders.

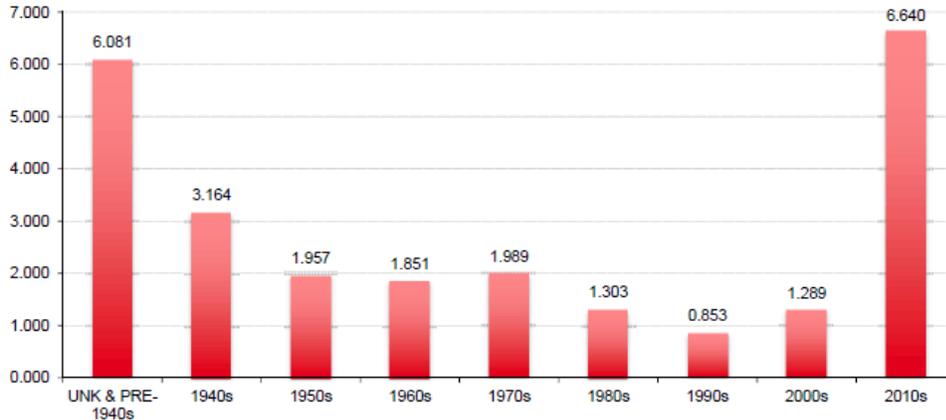
High Consequence Areas and Blast Zones Impact Residents over the entire length of the ACP

In response to a number of safety concerns expressed by public commenters during the “scoping” period, FERC simply responded that “ACP and SHP (Supply Header Project) aboveground facilities would be designed, constructed, operated, and maintained in accordance with DOT Minimum Federal Safety Standards in 49 CFR 192.”

Since 2010, there has been, as documented by the Pipeline and Hazardous Materials Safety Administration (PHMSA) data, a five-fold increase in the number of significant pipeline incidents

per 10,000 miles of gas transmission pipeline (see figure below). If compliance with those DOT safety standards were adequate, we would not have seen such a dramatic rise in pipeline incidents, during a period in which a record number of pipelines have been approved and constructed. Such a rise is evidence that the DOT Minimum Federal Safety Standards themselves are inadequate to prevent pipeline incidents, or that the inspection and enforcement of those standards is failing, likely due to rushed pace of construction, or both.

Average number of annual incidents over 2005-2013 per 10,000 miles of onshore gas transmission pipe by decade of pipe installation



As of March 2015.
Sources: U.S. Pipeline and Hazardous Materials Safety Administration, Pipeline Safety Trust

Section 157.14(a)(9)(vi) of FERC’s regulations requires “ that an applicant certify that it would design, install, inspect, test, construct, operate, replace, and maintain the facility for which a Certificate is requested in accordance with federal safety standards and plans for maintenance and inspection, or certify that it has been granted a waiver of the requirements of the *Reliability and Safety 4-472* safety standards by the DOT in accordance with section 3(e) of the Natural Gas Pipeline Safety Act.” The PHMSA data above necessarily raise the question as to whether the required certification by an applicant is adequate to assure compliance in a time when the motivation to construct pipelines as quickly as possible under conditions allowing up to a 14+% Return on Investment.

High Consequence Areas (HCA’s) were identified: 1 each in Northampton, Halifax and Wilson Counties, and multiple HCA’s in Nash, Johnston, Cumberland and Robeson Counties, indicating areas of higher occupied building density or where the impact circle is greater than 660 feet and intercepts 20 or more buildings for human occupancy or an identified site, with anticipated occupancy more than 50 days per year or with disabled persons difficult to evacuate. A basic right should be for any person who will stay for extended periods or resident in a building close to a major gas pipeline to be aware of its presence and to be trained to recognize and respond to (report and evacuate) any evidence of a pipeline leak or disturbance. This is particularly critical for residents in an HCA.

However, when staff of Clean Water for North Carolina met with residents door to door in an identified HCA (though it had not been formally identified at the time of our visits) in Garysburg, NC (Northampton County) or at several HCA locations in Robeson County, there was almost no awareness of plans to construct the ACP, the size of the pipeline, and certainly not that their residence was in or near a High Consequence Area. This deprives residents of the right to informed participation in public scoping meetings, FERC comment sessions (which fell far short of any reasonable definition of public “hearings”) or the ability to give informed comment as well as take any actions that would protect their lives and property from the higher risks associated.

For FERC to callously compare the risks of a pipeline incident to a resident in constant higher risk due to being at a pre-existing location, to those of extreme natural events or chosen activities such as driving, is entirely inappropriate and deeply disrespectful of the rights of impacted residents who are disproportionately low income and people of color (see socioeconomic comments).

The DEIS describes Atlantic consulting with Local Emergency Planning Committees and Fire and Emergency officials. From experience and a study by Clean Water for North Carolina of NC LEPCs, we know that many of them are not functioning at all or are only meeting annually, and are seldom discussing urgent public safety matters. While Fire and Emergency Services personnel may be more prepared for such a consultation, attendees at LEPC meetings report that Atlantic staff downplayed potential safety hazards and the risks associated with any emergency response. There is no assurance that equipment, training or personnel available to them will be adequate to deal with a major incident. Further, in a 2016 Clean Water for NC phone survey of Emergency Directors and County Managers in the 8 relevant NC counties, several were completely unaware the pipeline would be traversing their county or had no understanding of the planned timing. One Emergency Management Director said he thought the pipeline would be constructed starting in 2025.

Even where adequate training programs are established for such personnel, the turnover of staff will necessarily require refresher training in person with updates on at least an annual basis, and additional equipment and supplies. Such training must also include familiarity with all remote monitoring systems used by Atlantic and the ability to check and report on any monitoring failures.

As the largest categories of pipeline incidents for recently built pipelines are associated with equipment failure and excavation, additional redundancy and increased frequency of on-site testing must be required for all systems associated with pipeline safety, and more visible and frequent pipeline signage must be required on all pipelines.

In August of 2017, Clean Water for North Carolina prepared a report summarizing safety considerations for residents near the Atlantic Coast Pipeline, showed the basis for calculating blast zones of 943 feet or greater along the pipeline, and providing images of GIS

graphics of the blast or incineration zones overlaid on Google Earth images of all 24 High Consequence areas in North Carolina.

See Attached to following email: CWFNC Study "High Consequence Areas, Blast Zones and Public Safety Along the Atlantic Coast Pipeline in NC"

Thank you again for your careful consideration of these comments.

Yours sincerely,

Hope C. Taylor

Executive Director

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