

West Amwell Citizens Against the Pipeline

August 13, 2016

Honorable Norman Bay, Chair
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426
Re: Docket CP15-558-000 – Proposed PennEast Pipeline Project

Dear Chairman Bay, FERC Commissioners and FERC staff,

We are writing in regards to the Draft Environmental Impact Statement (DEIS) on the matter of the PennEast Pipeline, FERC docket CP15-558-000. West Amwell Citizens Against the Pipeline is an intervenor in this matter, and has its members a number impacted landowners along the proposed PennEast route. We are a citizens group centered in West Amwell, New Jersey that has banded together to voice a number of concerns and issues with the proposed PennEast Pipeline.

The DEIS states in its executive summary that:

“There are no public and/or private water supply wells or springs that would be located within 150 feet of the pipeline construction workspace in Pennsylvania. Two public supply wells were identified within 150 feet of the pipeline construction workspace in Hunterdon County, New Jersey. Because surveys along the Project route are not yet complete, we are recommending that, prior to construction, PennEast provide a revised list of water wells and springs within 150 feet of any construction workspace (500 feet in areas characterized by Karst terrain) based on completed surveys.¹

This statement is misleading and contradictory. On the one hand, FERC and Tetra Tech are clearly stating that “there are no public wells within 150’ of the pipeline construction workspace” in PA, and only 2 in NJ. On the other hand, it notes that surveys along the route are “not yet complete”, and suggests that PennEast provide a “revised list” of water wells and springs at some future undefined date.

Which statement is true? That there are only 2 wells within 150’ of the entire construction impact of the? Or that FERC, Tetra Tech, and PennEast don’t know?

To residents of the area, the answer is quite clear, because we *do* know. Quite simply, there are many wells within the defined zone that PennEast has not identified.

How can this possibly be? PennEast appears to assert that it is a function of failure of public records and lack of survey. In section 4.3.1.5 the DEIS states:

¹ PennEast DEIS Volume 1, Page ES-5

Based on review of the Pennsylvania Department of Conservation and Natural Resources (PADCNR) Pennsylvania Groundwater Information System, no public and/or private water supply wells or springs are located within 150 feet of the pipeline construction workspace in Pennsylvania. PennEast also observed no public or private water supply wells in Pennsylvania during its field investigations completed as of August 20, 2015; however, the route has been modified since these surveys were completed.

PennEast identified two public supply wells near the proposed pipeline in Alexandria Township in Hunterdon County, New Jersey (table 4.3.1-4). These wells are near MP 84.7 and would be within 90 and 149 feet of the proposed workspace. The well within 149 feet of the workspace was identified as having been replaced by the well located within 90 feet of the workspace. PennEast has not determined if the former well was officially abandoned at the time of the PennEast survey. PennEast evaluated a potential route variation to move the pipeline further from these wells but did not adopt the deviation due to additional land disturbance and the location of the well in a paved parking lot (see Route Variation 55 discussed in section 3.3.2). PennEast has not identified private wells in the vicinity of the Project in New Jersey, but would identify private wells along the New Jersey segment of the pipeline using available public records and interviews with existing homeowners.²

This section tells us a few things. First, PennEast has relied mostly on public records to try to find exact well locations, and absent of finding positive results, assumes that no wells are present. A question remains here as to whether or not PennEast has adequately consulted public records. We will show that they have not.

Second, PennEast indicates that avoiding wells is a desirable goal. They state “*PennEast evaluated a potential route variation to move the pipeline further form these wells*” for the two wells they were able to find in NJ. If PennEast takes avoidance of drinking water wells seriously, than we will demonstrate that their chosen route was very poorly chosen, and in fact many wells do stand to be impacted and are within close proximity to proposed construction.

It is generally agreed that impacts to resources such as drinking water wells should be avoided when feasible, and that as such they are important considerations in weighing water impacts within the DEIS. They are part of the weighing that must occur when contrasting the supposed public benefits of the project to its impacts to the human environment.

In simple terms, all else being equal, a route with zero or a small number of impacted wells would be desirable over one that impacted many. In this case, PennEast, Tetra Tech, and FERC appear confident that the impacted number is low. This assumption is incorrect.

² PennEast DEIS Volume 1, page 4-31 (“Water Resources”)

THERE ARE ALMOST NO PUBLIC WATER SUPPLIES IN OUR REGION

We can demonstrate clearly that most of the impacted towns along the proposed PennEast route do not have any public water supplies, and the few towns that do only have limited service for a small number of residents.

For example, it is well documented that the majority of homes in Hunterdon County do not use public water supplies, but instead use private on-site wells. According to the Well and Septic System Care brochure put out by the Hunterdon County government,

*Despite the proximity of the Delaware River, the South Branch of the Raritan River, and New Jersey's two largest reservoirs, Hunterdon residents rely primarily on ground water for household water supplies. More importantly, most residents use private wells as a water source and on-site septic systems for sewage disposal.*³

This story plays out town by town. For example, West Amwell Township had an evaluation performed of the Township's groundwater resources in 2003.⁴ In that evaluation performed by M2 Associates, it states:

*The primary source of drinking water for Township residents is groundwater. Water is supplied to these residents from individual wells completed in fractured bedrock aquifers. The hydrogeologic characteristics of these aquifers are dependent on the type of bedrock and nature of the fractures and other openings. The type of bedrock limits recharge rates, sustained yields, interference effects, groundwater quality, and contaminant removal/dilution rates.*⁵

This is quite clear and unambiguous - groundwater is the primary source of drinking water for West Amwell residents via individual wells.

Similar reports are available for townships such as Kingwood Township, which states that "*The township is predominantly a rural municipality, relying almost solely on individual water supply wells and on-site septic systems*"⁶, and a summary of that report which indicates 192 private wells in the township were tested as part of study of drinking water contaminants.⁷

In Delaware Township, the Township government informs residents that "*Only a small percentage of Delaware Township residents have public water which is regularly tested and treated if needed. Most of us drink water from our own private wells drilled into the bedrock aquifer*".⁸

³ "Well and Septic System Care in Hunterdon County", p1 http://www.co.hunterdon.nj.us/pdf/health/Well_and_Septic.pdf

⁴ EVALUATION OF GROUNDWATER RESOURCES OF WEST AMWELL TOWNSHIP, HUNTERDON COUNTY, NEW JERSEY (<http://www.westamwelltpw.org/filestorage/357/372/4-2003groundwaterresourcesreport.pdf>)

⁵ ibid page 1

⁶ Environmental Resource Inventory for Kingwood Township, NJ http://www.kingwoodtownship.com/ktdocuments/ERI_Kingwood_2009_January.pdf p. 3

⁷ "Ground Water in Kingwood Township" http://www.kingwoodtownship.com/KT_Environmental/Hydrogeology_of_Kingwood-04-27-2010_Presentation.pdf

⁸ "News from the Bridge," Vol 18 No. 2 2015, official newsletter of Delaware Township municipal government <http://www.delawaretpnj.org/newsletters/June-2015-Newsletter.pdf>

In Holland Township, a portion of the township is served by three public drinking water wells, but the rest are served by private wells.⁹

⁹ NEW JERSEY HIGHLANDS AND HOLLAND TOWNSHIP INITIAL ASSESSMENT GRANT REPORT, 2009 “There are three public water supply wells in the Riegel Ridge/Spring Mills area – along or near Route 519 – serving portions of Holland Township”.

NJDEP HAS WELL DATA PENNEAST MISSED

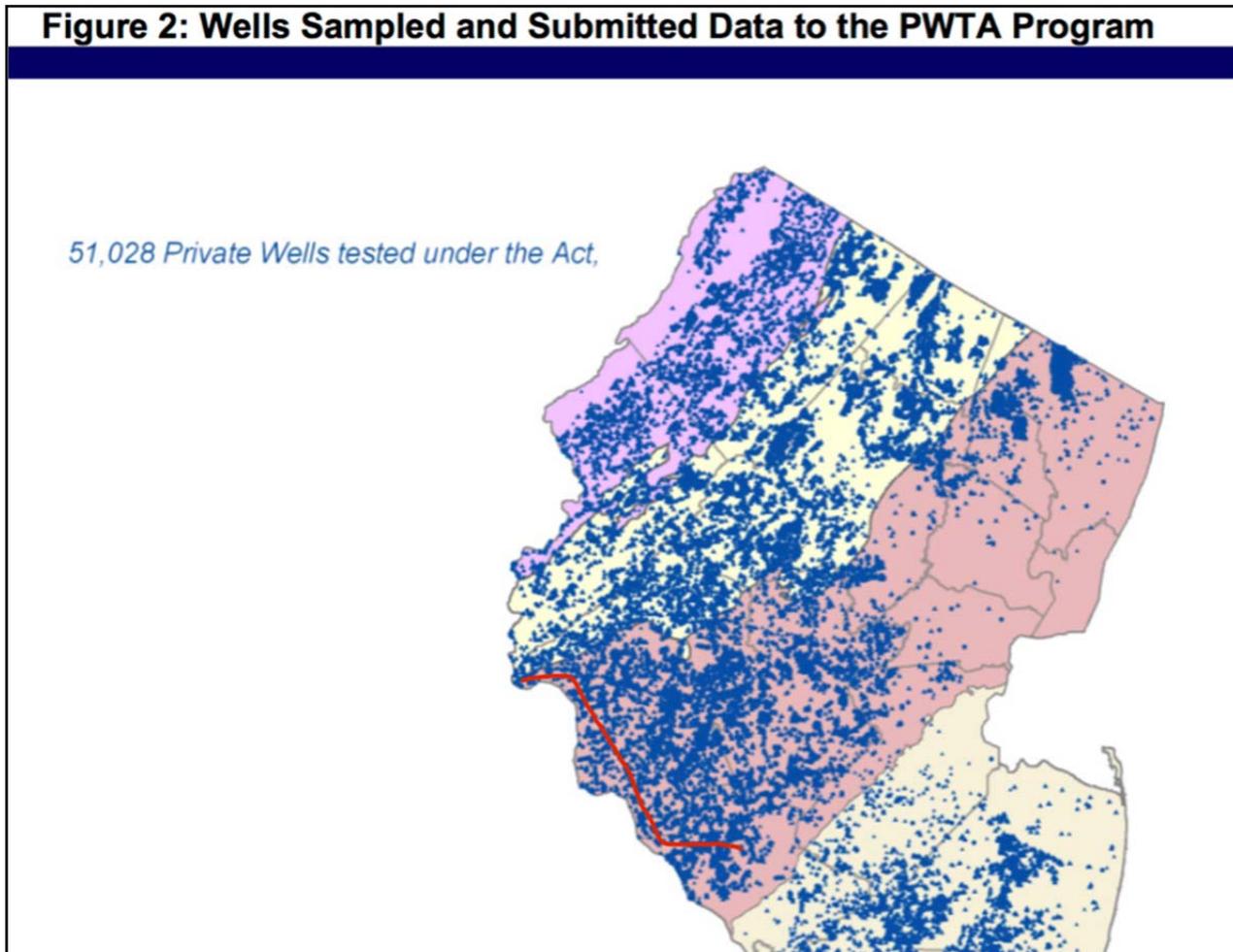
In addition to all of the above, the NJDEP has been tracking private well testing standards for over a decade. The initial well test results for Hunterdon County as part of the initial period of the Private Well Testing Act Program (PWTA) recorded 574 wells were tested as part of the initial testing program - the second highest total in the state.¹⁰ These test results are only mandatory for homes who's ownership is being transferred, so this tracks only homes that have been sold during the program's initial 7 month period.

More tellingly, additional results were recorded from the PWTA program from September 2002 to April 2007.¹¹ During that period 4,858 wells were tested in Hunterdon County, again the second highest in the state. The document includes a map of all tested wells in the program, a portion of which is shown below and is labeled by the NJDEP as "Figure 2: Wells Sampled and Submitted Data to the PWTA Program".

¹⁰ NJDEP Private Well Testing Act Program Initial Well Test Results For September 2002-March 2003 p. 19
http://www.nj.gov/dep/watersupply/pwta/pdf/pwta_report.pdf

¹¹ NJDEP PWTA Well Test Results for September 2002 - April 2007 http://www.nj.gov/dep/watersupply/pwta/pdf/pwta_report_final.pdf

The approximate PennEast route is highlighted on that map in red, showing the route's relation to wells reported to NJDEP within Hunterdon and Mercer Counties. Note that these are not all wells in the area, but those that were tested as part of the PWTA program. The actual totals are presumed to be



significantly higher.

The public record makes it *abundantly* clear that the majority of residents along the route in New Jersey rely on private wells for their drinking water, and the NJDEP PWTA maps clarify this even further by showing that there are dense clusters of tested wells *right along the proposed PennEast route*. Given this fact, PennEast, FERC, and Tetra Tech should presume that all impacted homes along the route rely on well water.

WELLS AND THE DRAFT EIS

Which brings us back to the Draft EIS. The DEIS makes the bold statement that there are only two wells within 150' of construction corridors for the pipeline. And yet the overwhelming majority of impacted properties along the route have been demonstrated to be on well water.

This is a significant issue. The DEIS appears to start with an assumption that there are no wells anywhere near the route, possibly assuming that there are significant public water supplies in the region. But of course there are not. The correct assumption for the DEIS is that *every single property along the route has well water*.

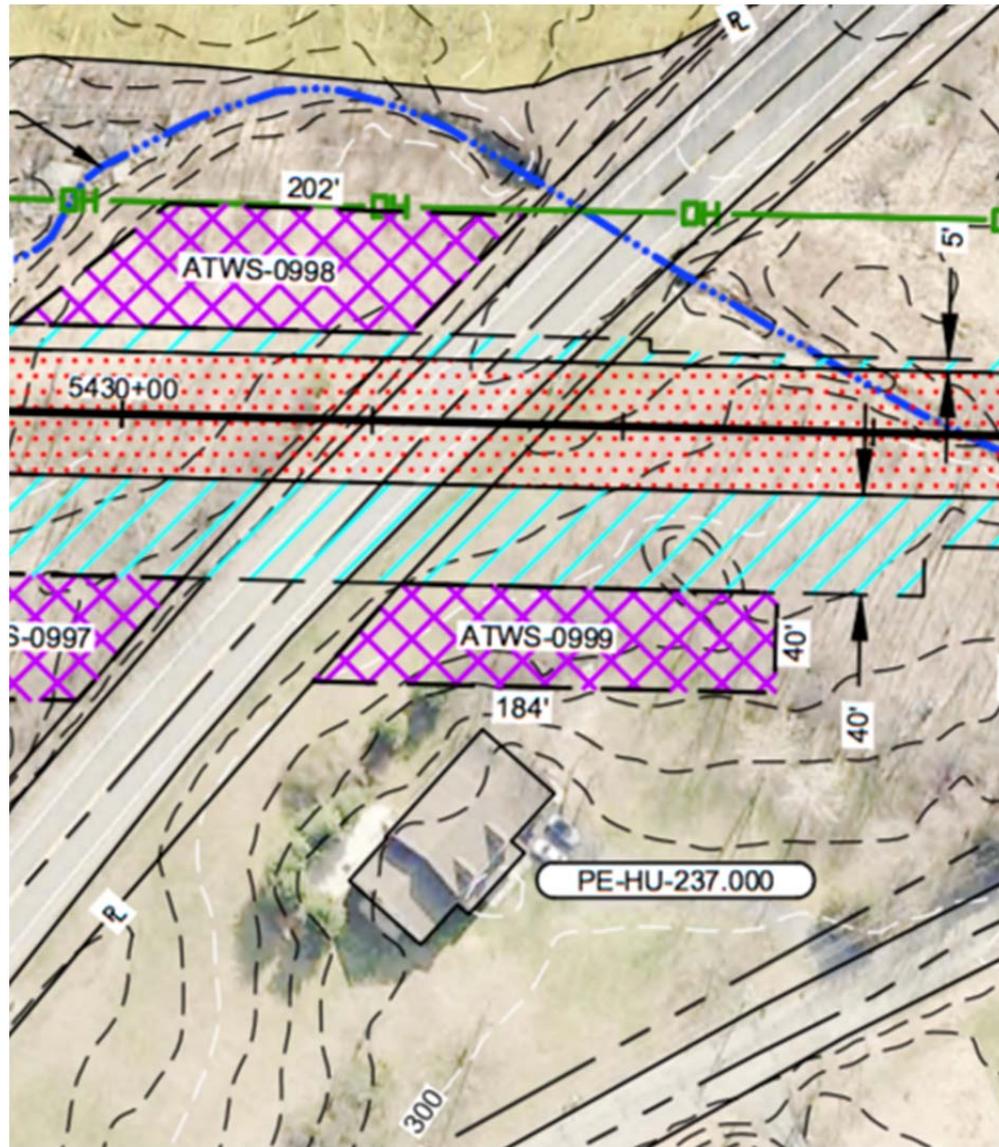
The question then is properly framed as whether those wells are within a certain distance to any construction zone.

A secondary question is what the proper distance for consideration should be. The FERC regulations state that that distance is 150', but we could find no factual basis for this distance. Recent applications from several natural gas pipelines have voluntarily upped this distance to 200' when blasting is being contemplated, and we will address this in our comment below as well.

We can show via maps of the proposed route that a number of drinking water wells are almost certainly within the 150' or 200' zone, and that in some cases that certainty approaches 100%.

LOOKING AT THE ROUTE - OLD ROUTE 518 WEST

A house on Old Route 518 East near this construction is shown below in a PennEast-supplied

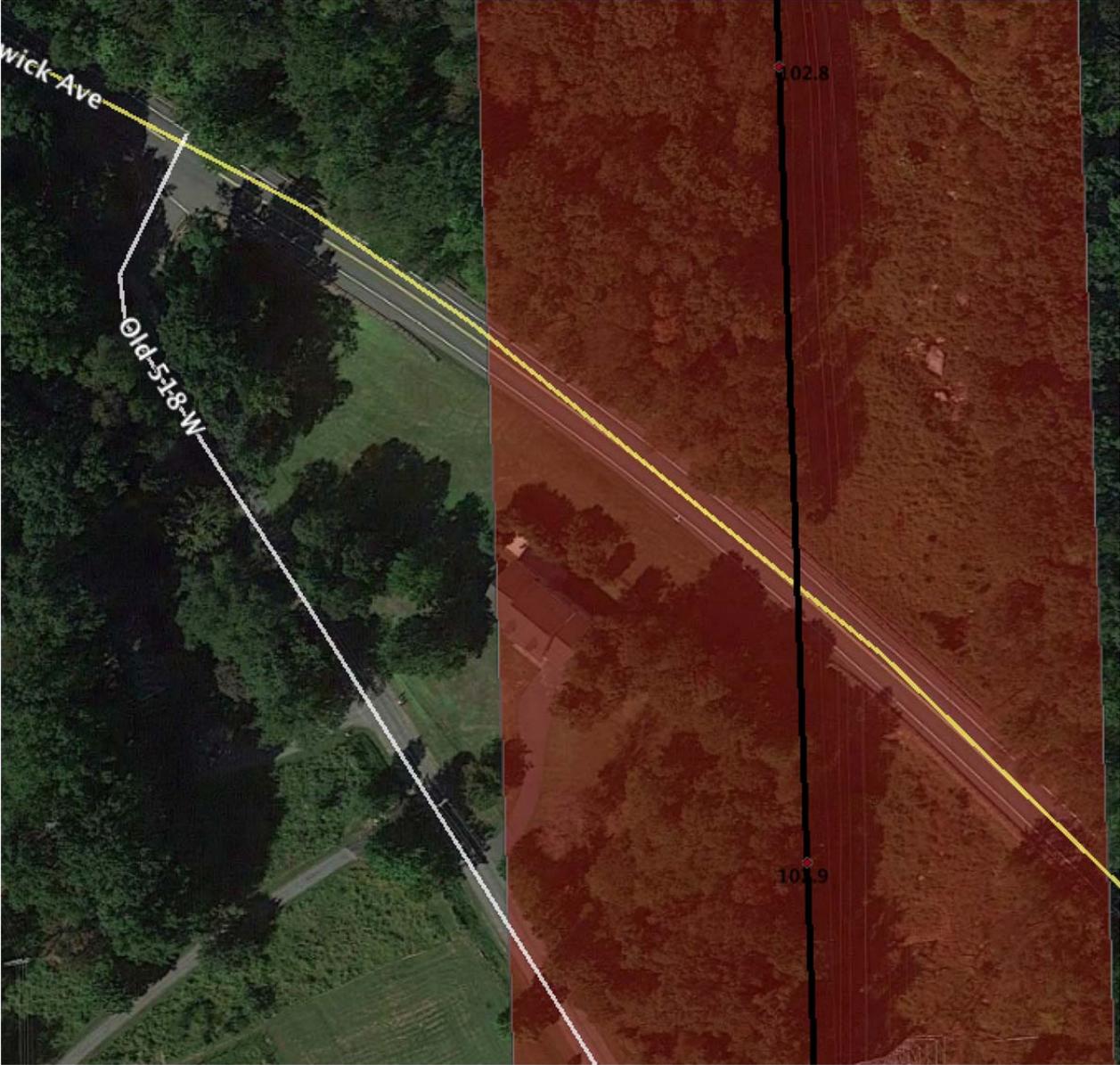


Old Route 518 W House Construction

construction map from the application, highlighted here:

This same property is shown in a Google Earth view below.

It can be seen from the Google Earth view that the majority of this property is within 150' of the construction corridor. There should be a presumption by PennEast and FERC that this property's well is probably within 150' of the construction corridors.



Old Route 518 W House Google Earth

LOOKING AT THE ROUTE - HEWITT ROAD

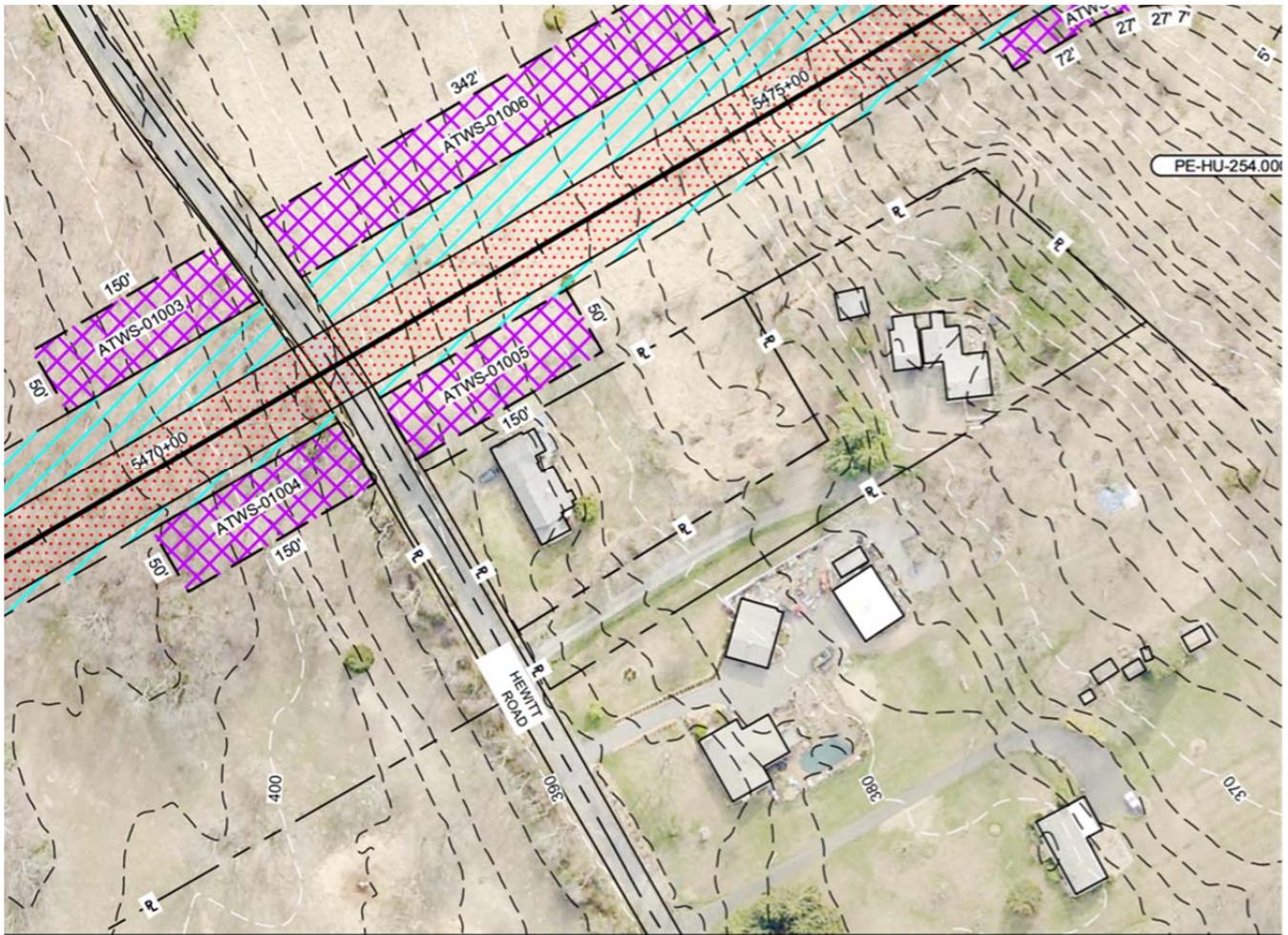
Moving onto Hewitt Road in West Amwell Township, there are two houses within the 200' survey corridor. Both houses are on well water. The house on the top is completely within the 200' survey corridor, and the construction map shows construction will be right up their property line. FERC must realize this entire property is within the defined corridor.



Google Earth, Hewitt Road, West Amwell NJ

The majority of the second property, which is set back from the road, is also within 150' of construction.

The construction maps confirm this very clearly. The house along Hewitt Road clearly has its entire property within the 150'

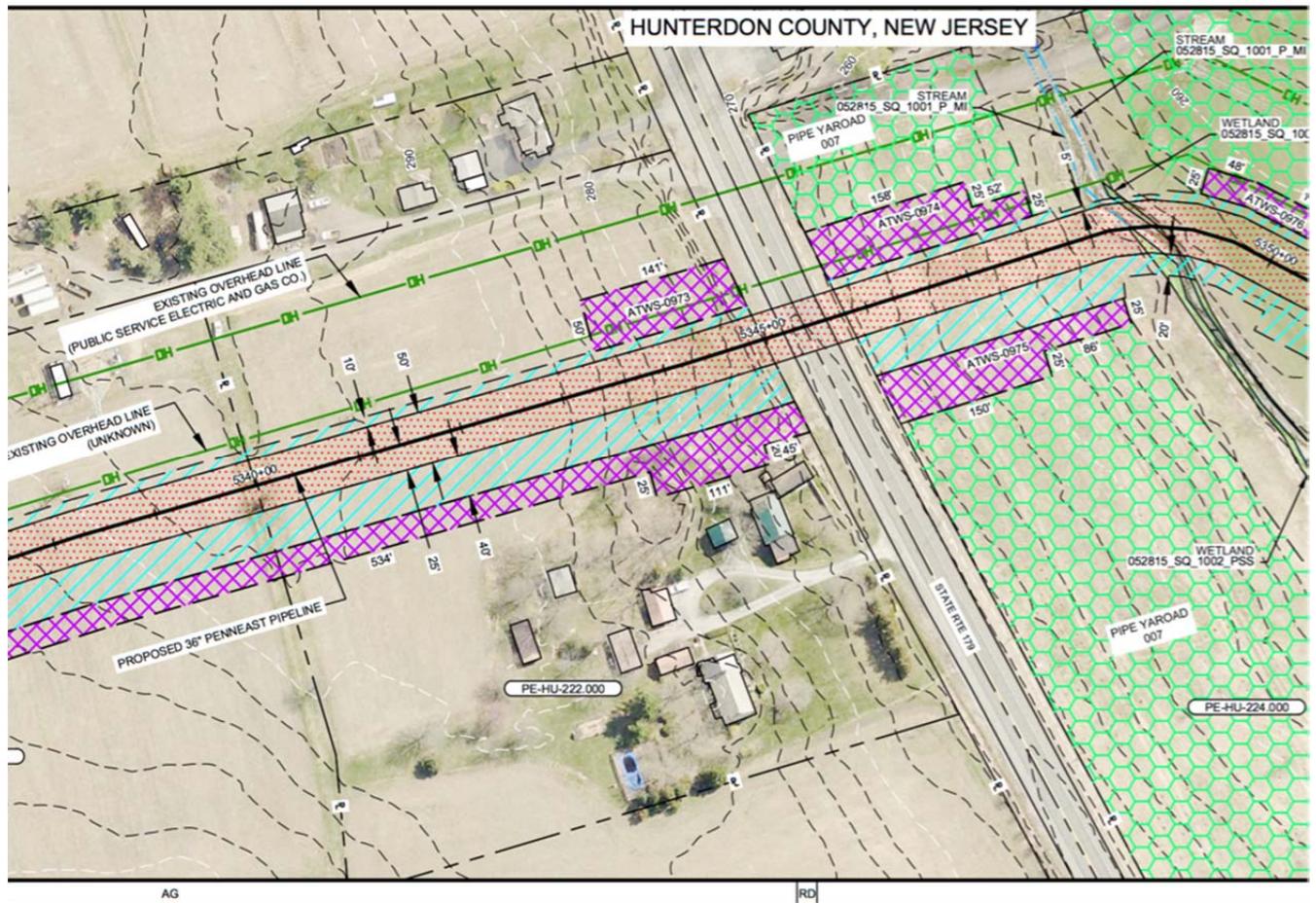


PennEast Application, Hewitt Road, West Amwell NJ

zone. The house behind it has the vast majority of its property within the prescribed distance.

LOOKING AT THE ROUTE - ROUTE 179

Below are the construction maps for Route 179 in West Amwell Township. This shows the construction and temporary work spaces all biased towards the major buildings on a farm. There should be a



PennEast Application, Route 179, West Amwell NJ

presumption that the well(s) for this property are located in the vicinity of the buildings.

LOOKING AT THE ROUTE - ALEXAUKEN CREEK ROAD

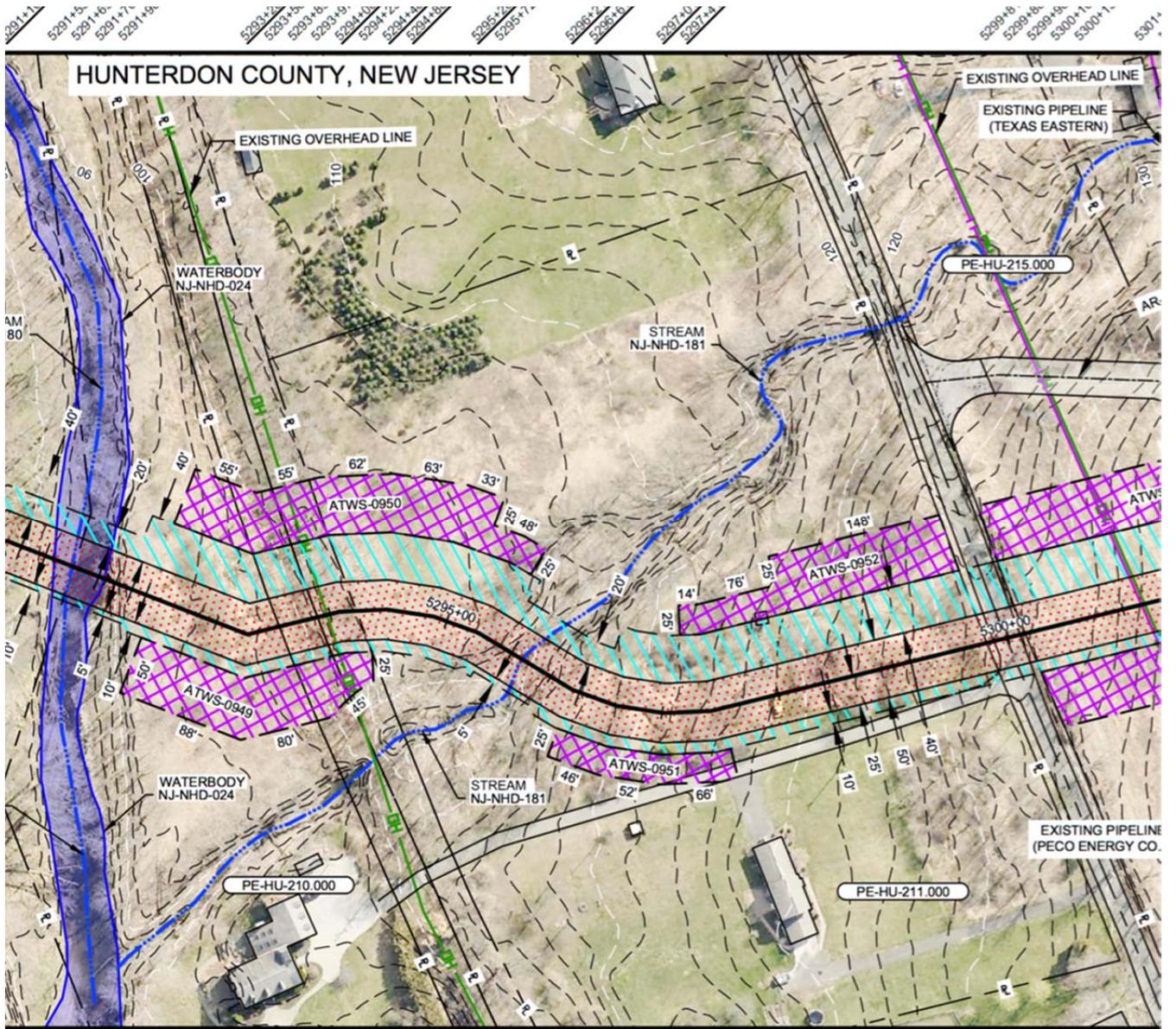
On Alexauken Creek, the house fronting the road has over half of its property within the 200' survey corridor. There is a strong probability that its drinking water well is well within 150' of PennEast



Google Earth, Alexauken Creek Road, West Amwell NJ

construction.

This is clear from the PennEast application construction map as well, which is shown below.

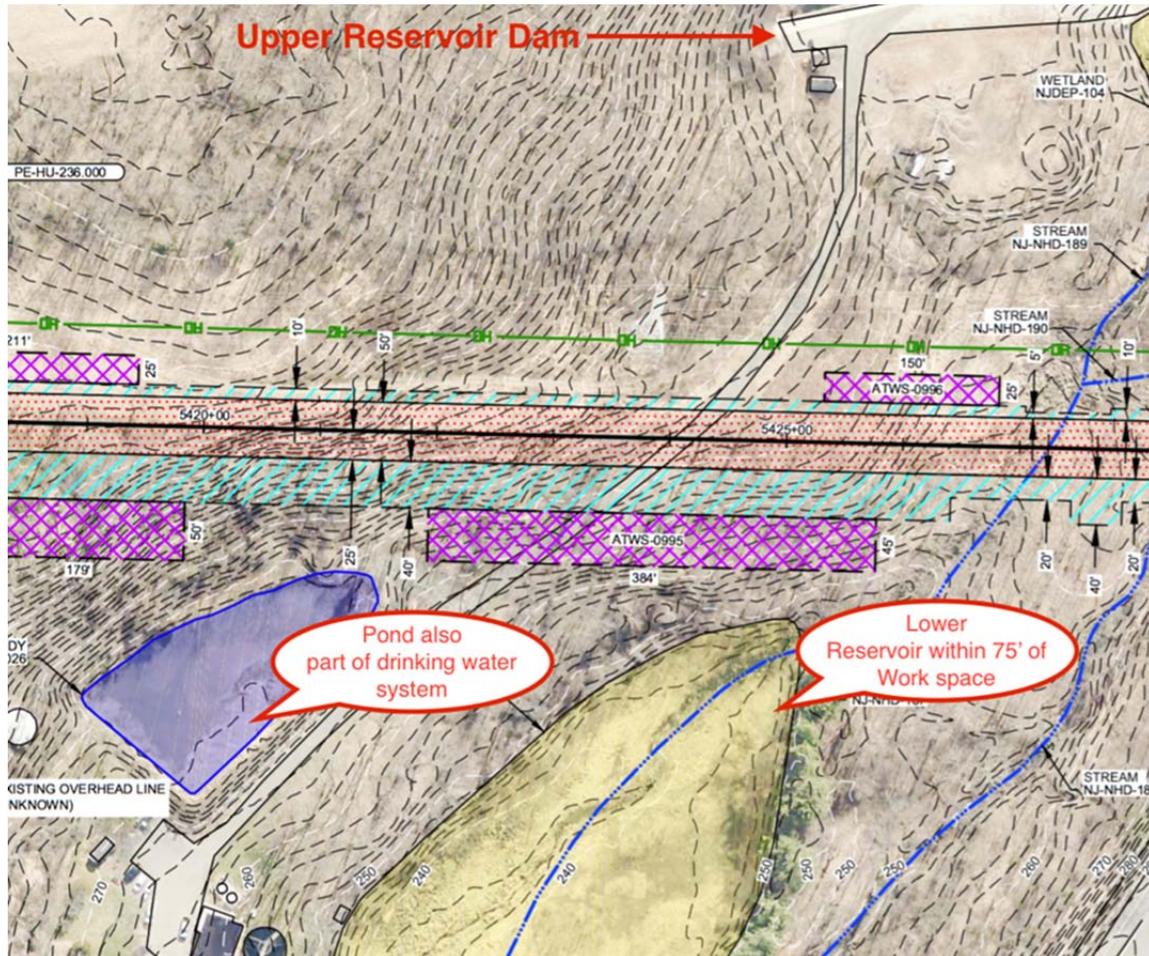


PennEast Application, Alexauken Creek Road, West Amwell NJ

LOOKING AT THE ROUTE - SWAN CREEK RESERVOIR

The figure below shows the lower Swan Creek Reservoir running using PennEast's provided .kmz file, which shows the centerline and the 400' survey corridor (200' on either side).

This shows both the Lower Reservoir, and the pond, both of which historically have been part of the Suez water supply system for Lambertville, NJ.

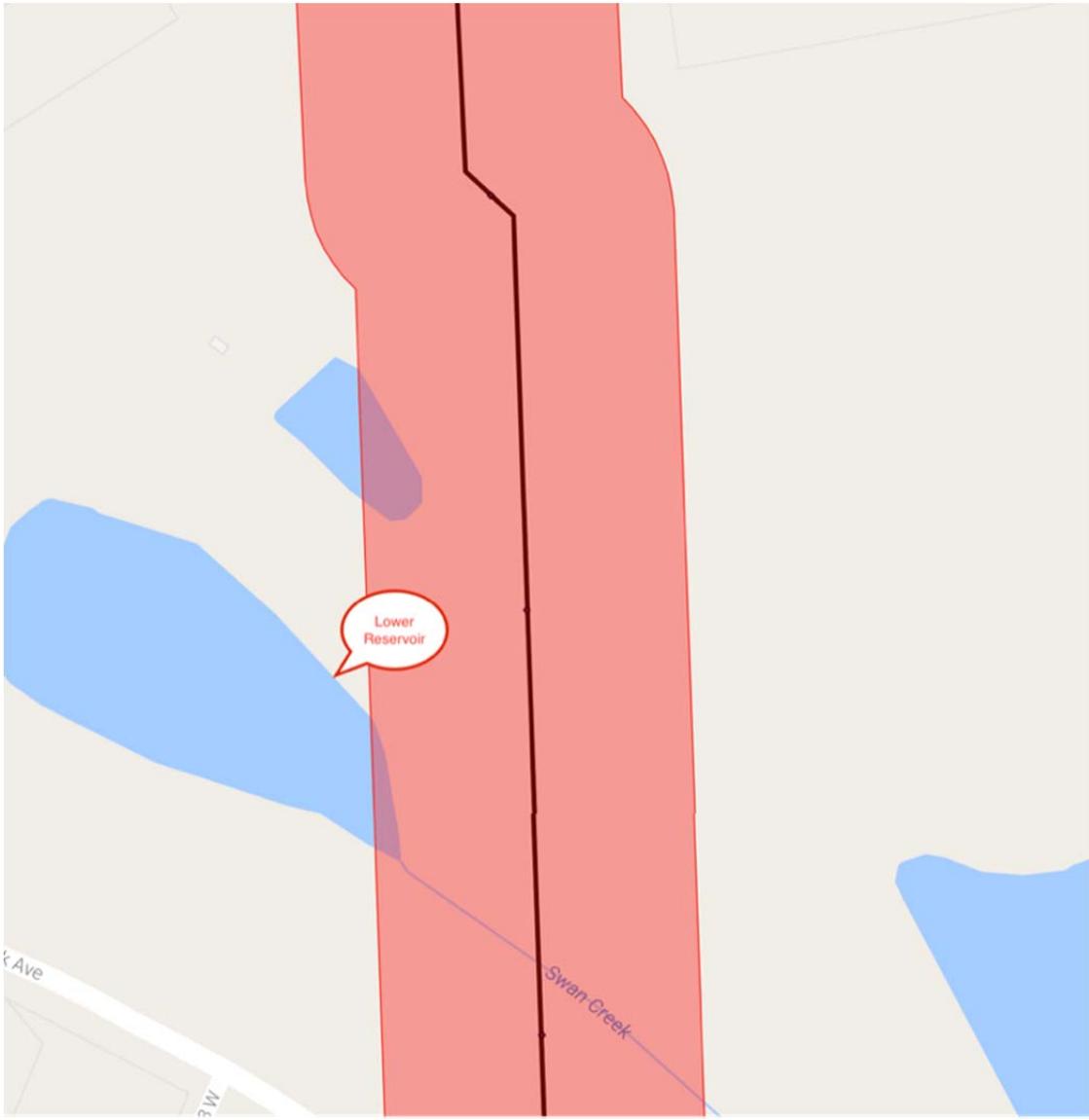


Swan Creek Lower Reservoir Construction Map

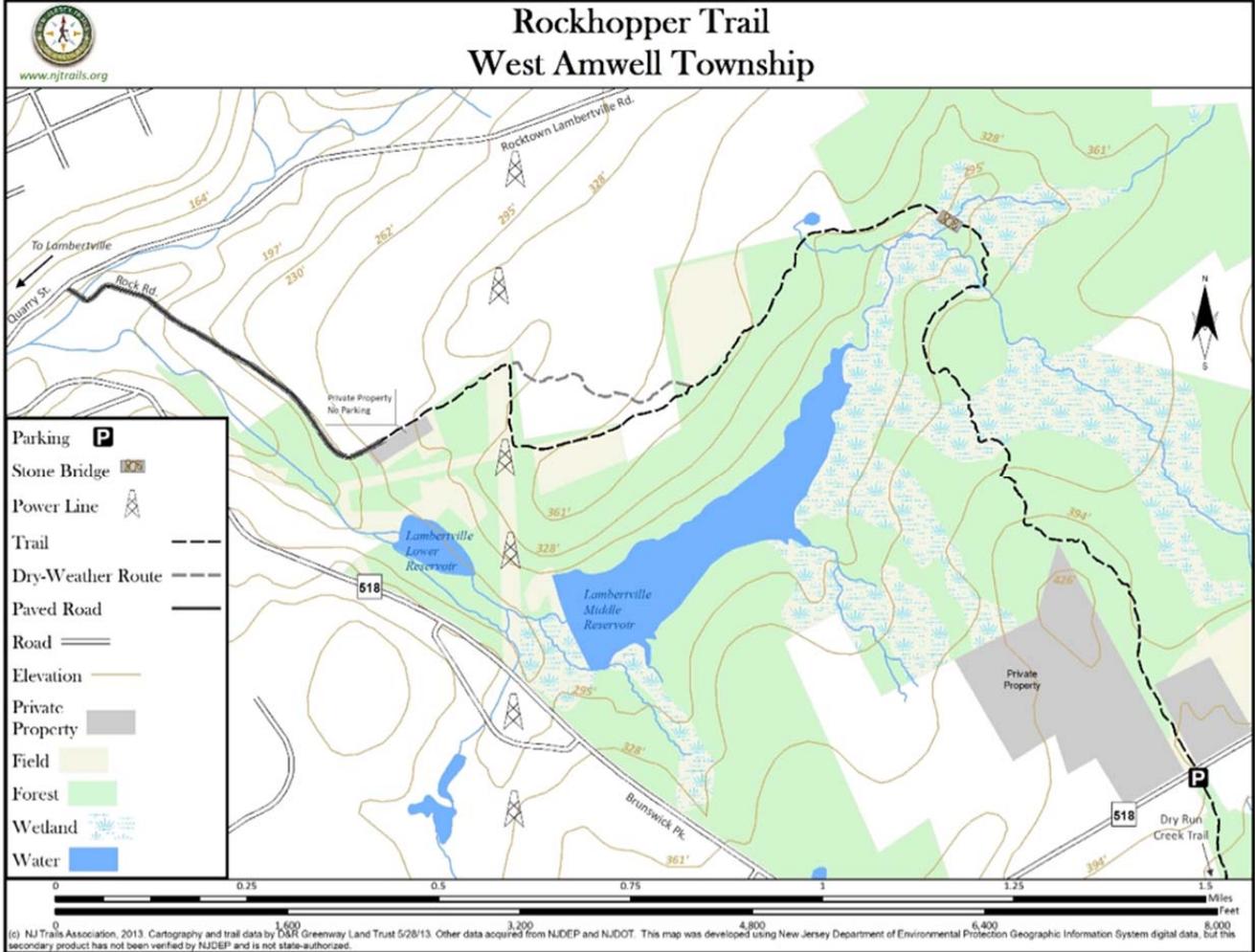
The construction maps from PennEast confirm this information, showing the construction and Alternate Temporary Workspaces will be coming within mere feet of the lower reservoir and pond.

The Rockhopper Trail map (below) helps illustrate these details as well. They clearly point out the upper and lower reservoirs.

PennEast must provide detailed documentation on why it is choosing construction so close to a water system that makes up the majority of drinking water for Lambertville, NJ, and FERC must explain why this site is not specially identified in the DEIS as an area for special concern.



Swan Creek Lower Reservoir



Rockhopper Trail Map of Reservoir System

VALIDITY OF 150' DISTANCE IN FERC REGULATIONS

It is unclear why FERC has chosen 150' as the distance as the benchmark for the DEIS. FERC should clarify to impacted landowners what the importance of the 150' distance is.

West Amwell residents have special concerns in regards to drinking water wells due to the unique geology of the region, the nature of our aquifers and water sources, and the existence of bedrock at or near the surface of our land for most of the route in the township. It is well documented that wells in West Amwell have poor recharge characteristics, and rely on fractures in the bedrock to aggregate water for drinking water supplies. And PennEast has indicated that they will likely be blasting throughout much of the route. West Amwell residents have a valid concern that blasting in the vicinity of wells may impact them - and that such impacts can radiate out well beyond the FERC-indicated 150' corridor.

In the case of pipeline looping proposal from Tennessee Gas Pipeline company for a looping project, FERC allowed Tennessee Gas to document wells out to 150' due to blasting concerns.¹²

In the case of the NorthEast Direct (NED) project, Kinder Morgan also pledged to document wells within 200' of construction as well¹³

We ask FERC to consider all wells within at least 200' of any construction, and that FERC acknowledge that it is plain that many wells are certainly or likely within that corridor in West Amwell Township based on data already available to PennEast.

¹² FERC Certificate Order CP14-529-000, March 11, 2016 <http://www.ferc.gov/CalendarFiles/20160311153905-CP14-529-000.pdf>

¹³ Public FERC correspondence & comments received re Docket FS14-22 (Kinder-Morgan / Tennessee Gas Pipeline proposed Northeast Energy Direct (NED) pipeline) "Doug told me that KM tests wells pre- and post-blasting for quality and quantity, and set seismic sensors up to 200 feet from the site." http://www.mason-nh.org/FERC_COMMENTS_vol_2.pdf

WILLFUL BLINDNESS BY PENNEAST AND FERC

NEPA makes it clear that agencies engaged in the process must gather as much information as they can on impacts to the human environment by the project. If the information is obtainable and relevant to the project, the agency must wait and obtain the information. (40 C.F.R. 1502.22). Without having all of the available information the DEIS is incomplete and invalid.¹⁴

In addition to this, we argue that in the case of West Amwell, NJ, there is clear evidence that there are many wells in close proximity to pipeline construction that are not documented within the DEIS. We have documented here their clear existence on impacted properties, and show that statistically speaking many of these wells are almost certainly within close proximity to pipeline construction. In one case this certainty approaches 100% as the entire property is within 150' of construction.

The lack of information provided by PennEast cannot be written off as incompetence or lack of knowledge. A simple phone call to municipal clerks along the route would confirm the nearly total lack of public water sources for most townships. Further more, simple desktop surveys as we have shown here make it obvious where well impacts almost certainly exist.

This appears to be a case of PennEast engaging in willful blindness on the existence of wells. They are being extraordinarily reckless with our lives and our property in making no serious attempt to ascertain well impacts by their proposed route.

Mitigation and well-monitoring programs here are not enough. A company such as PennEast should not be allowed to create a route utterly blindfolded (and seemingly happy to be so!), and blithely jeopardize our drinking water supplies with vague assurances that they will fix things if construction negatively impacts our wells.

By the same criteria, FERC and their contractor Tetra Tech is also clearly being willfully blind in this matter. There is NO WAY, given publicly available knowledge, that they could believe a 118 mile route through predominantly rural country would find only 2 wells within proximity of construction.

Lack of surveys are also no excuse here. As we have demonstrated, it is quite a simple matter to determine that there are a large number of properties that are statistically likely to have well impacts along this route. In the very small township of West Amwell we have demonstrated a number of properties with almost certain well impacts. The numbers in other towns here in NJ and in PA are likely higher.

Private drinking wells have also been mentioned on the FERC docket - over 900 times on the pre-filing docket, and 148 times on the application docket.

There are simply no excuses here. To ignore this possibility is the very definition of willful blindness, and shows a reckless disregard by FERC for people's health, livelihoods, and ability to enjoy their properties and their lives in peace.

This DEIS should be withdrawn by FERC, and only resubmitted when it has truly accurate data.

¹⁴ Public Employees for Environmental Responsibility v. Hopper, USCA CASE #14-5301 (D.C. Circuit 2016).