



February 27, 2015

Stephen M. Tomasik
DEC - Division of Environmental Permits
625 Broadway, 4th Floor
Albany, NY 12233-1750

RE: Constitution Pipeline

Application ID: 0-9999-00181/00009 - Water Quality Certification

Application ID: 0-9999-00181/00010 - Freshwater Wetlands

Application ID: 0-9999-00181/00011 - Water Withdrawal

Application ID: 0-9999-00181/00012 - Excavation and Fill in Navigable Waters

Application ID: 0-9999-00181/00013 - Stream Disturbance

Dear Mr. Tomasik:

Please accept the following comments from Otsego 2000 regarding the 401 water quality certificate and permits requested by Constitution Pipeline Company, LLC ("CP").

Otsego 2000, located in the village of Cooperstown, New York, is a nonprofit organization formed over thirty years ago to protect and enhance the rural, historic, agricultural, and environmental resources of the region surrounding Otsego Lake, which is also the headwaters of the Susquehanna River. In addition, we are a founding member of Citizens Against Unsafe Drilling, a coalition comprised of more than thirty grassroots organizations throughout Otsego County and the surrounding area. These organizations represent thousands of residents opposed to shale gas extraction and its related infrastructure, including the proposed pipeline projects. Our region is blessed to have retained a scenic rural landscape reflective of its rich agricultural history and culture. Significant private and public investments have contributed to preserving this environment and to building an economy consistent with its historical roots—one that supports agriculture, academic institutions, museums, tourism, and a strong second-home market.

The Upper Susquehanna River Watershed, which the Constitution Pipeline would traverse, covers Otsego County, northern Delaware County and part of Schoharie County, and provides drinking water to more than 600,000 visitors and residents annually. Federally recognized in 1972 as an “American Heritage River,” the Susquehanna River supplies nearly half of the fresh water that flows into Chesapeake Bay and serves millions of consumers along its route. It is noteworthy that in 2011 the national conservation organization, American Rivers, named it “America’s Most Endangered River” due to the threat of shale gas development.

The Upper Susquehanna River Watershed is noted for its landscape of forests, hills, fields, streams, and wetlands, providing critical habitats that sustain a remarkable diversity of flora and fauna, including species designated as endangered, threatened, and of concern. Moreover, the watershed is ecologically connected to the northern Catskill region, collectively forming a contiguous landscape of diverse habitat, which would be divided and substantially harmed by the proposed pipeline project. Protection of the Upper Susquehanna River Watershed and northern Catskill region is crucial to our existing economic base. The economy of this important region is directly connected to its undisturbed lands, clean air and water, agriculture, organic farms, outdoor recreation—including hiking, hunting, and fishing—and a second-home market. The proposed project threatens all of these significant assets.

Although many of the comments herein focus on impacts to water resources, we must emphasize that the New York State Department of Environmental Conservation (“DEC”) is required to review *all* aspects of the Constitution Pipeline project to assure the protection of natural resources and apply the standards set forth in 6 NYCRR § 608.8 to determine whether the project serves the public interest. In making this determination, DEC must consider whether the proposal is reasonable and necessary; whether the proposal will endanger the health, safety or welfare of the people; and whether the proposal will cause unreasonable, uncontrolled or unnecessary damage to the natural resources of the State.¹

This is also necessary to comply with DEC’s mission statement:

To conserve, improve and protect New York's natural resources and environment and to prevent, abate and control water, land and air pollution, in order to enhance the health, safety and welfare of the people of the state and their overall economic and social well-being. (<http://www.dec.ny.gov/24.html>)

On its website, DEC elaborates on its mission stating: "DEC's goal is to achieve this mission through the simultaneous pursuit of environmental quality, public health, economic prosperity and social

¹ 6 N.Y. COMP. CODES R. & REGS. § 608.8.

well-being, including environmental justice and the empowerment of individuals to participate in environmental decisions that affect their lives.”

Clearly to remain true to these words, DEC must give careful consideration to all of the comments it receives from the public. Although cogent objections and concerns of Otsego 2000 and many others have been ignored by FERC, this does not excuse the DEC from performing its own due diligence as required by New York law. With this in mind, we offer the following comments.

I. Proposed Crossing Methods Fail To Protect Waters And Wetlands Of The State.

CP has failed to demonstrate protection of the many streams, creeks, and wetlands that this pipeline project traverses. As such, the 401 water quality certificate and permits must be denied.

It is commendable that the DEC took a strong stance at the outset of its review with respect to water and wetland crossings. In its letter to FERC dated November 7, 2012 (RE: Case No PF 12-9/NYSDEC *Comments on the Scope of Environmental Impact Statement for the Constitution Pipeline*), the DEC expressly calls for the use of Horizontal Directional Drilling (“HDD”), stating:

For streams and wetlands the preferred method for crossing is Horizontal Directional Drilling (HDD) because it has the advantages of minimizing land disturbance, avoiding the need for dewatering of the stream, leaving the immediate stream bed and banks intact, and reducing erosion, sedimentation and Project-induced watercourse instabilities.

The Constitution Pipeline as proposed entails 277 water crossings. However in no instance has CP heeded the very clear request by DEC, articulated above, to minimize impacts by using HDD. This disregard for waters of the state and the sensitive aquatic and wetland habitats that they support is ample reason to deny the requested 401 water quality certificate and permits.

The advantages of horizontal directional drilling over other methods of water crossing are well established. The proper implementation of HDD provides for complete avoidance of the water channel as well as literal zones, wetlands, and adjacent upland areas. If done correctly, HDD entry and exit locations are far away from the water or wetland area being crossed so that earth and vegetation can remain undisturbed for an extended distance. HDD also allows for deeper installation of the pipeline below stream beds, thereby reducing the risk of washout and pipe exposure.

Instead of using HDD, however, almost all of the water crossings proposed by CP are open trench installations. This is the most intrusive crossing method possible since it involved the clearing of a

corridor and digging of a trench all the way down to the water's edge and through the stream bed. This method damages aquatic habitat, wetlands, and shoreline, and can lead to reduced water quality, erosion, and sedimentation.

Adding to this, some of the crossing plans by CP have become even more destructive since the draft EIS was prepared. CP now intends to use a different method of crossing called "Direct Pipe" in four locations where it had previously proposed HDD. Requiring more surface disturbance, Direct Pipe is a cheaper, inferior drilling technique involving shallow burial over a much shorter distance. The impact of this to wetlands in the proposed corridor is severe. Comparing Table 2.3.2-1 of the final EIS to the draft EIS, the trenchless area of wetland at Bennettville Creek has been reduced from 1600 to 700 feet, the trenchless wetland area at mile 88 has been reduced from almost 3200 to 530 feet, and the trenchless area of a wetland near Middlebrook Creek has been reduced from 2000 to 400 feet. Altogether, this adds up to 5170 feet of additional trenching if Direct Pipe is used. This is also almost a whole mile of additional wetland impacts for which no additional mitigation has been offered. Furthermore, CP now proposes trenching as an "alternative" option if Direct Pipe fails. This means that virtually all of the crossings throughout the entire project will be trench crossings if the project is approved.

A frequent issue to contend with in upstate New York is that the location and shape of waterways change over time. Open trench or Direct Pipe crossings are more shallow than HDD and generally follow the contour of the land existing at the time of construction. Consequently, it is not uncommon for seasonal waters or floods to shift or widen a stream bed, causing adjacent portions of a pipeline which had been landward of the original channel to wash out and become exposed. These dangers have become even more pronounced in recent years since upstate New York is now experiencing "100-year" flood events much more frequently. Significantly, DEC raised a similar concern in its 2012 scoping comments, stating:

NYSDEC has witnessed pipeline installations where pipeline became exposed because stream water flowed behind the installed rip-rap and exposed the shallow section of pipe adjacent to stream. Extending the setback of the deep bury would provide a significant buffer against this scenario. (NYSDEC Scoping Comments, Nov 7, 2012; footnote 3.)

Recognizing this as a serious problem, DEC further wrote "Where the pipeline crosses under a stream, there should be an extended length on each side of the bank where the pipe is buried deeper." CP has made no commitment to do this.

In reviewing this matter, we encourage the DEC to consider the report prepared by Hydroquest for Delaware Riverkeeper Network dated June 12, 2012 on the Transco Pipeline. (Accessible at: http://www.delawareriverkeeper.org/resources/Reports/Hydroquest_Brandywine_Pipeline_Letter%2

[06-12-12.pdf](#)) In addition to discussing the advantages of HDD, this report describes the negative impacts of shallow open trench crossings, including examples of scouring, channel bed movement, and costly pipeline failures that have resulted from installation techniques identical to those proposed by CP. (See photos of exposed pipe below.) Raising concerns similar to DEC in its scoping comments, Hydroquest recommended that the depth of pipeline buried below a stream bed be extended laterally to extremities of the 500-year floodplain.



Examples of exposed pipeline (Fogg and Hadley, 2007 from Hydroquest report)

Except for briefly acknowledging that Direct Pipe usually results in shorter and shallower installations than HDD, the final EIS for the Constitution Pipeline fails to discuss these significant issues and offers no assurance that these problems will not occur.

One needs to look no further than the Iroquois Pipeline and the floods of 2013 to find an example of this damage. In June 2013, a tributary of Otsquago Creek in Montgomery County flooded, resulting in exposure and damage to a portion of the Iroquois Pipeline in the town of Minden. As is apparent in the aerial photograph below, repairs were still underway three months later.



Washout of the Iroquois Pipeline (2013)

<http://goo.gl/maps/Silqd>

longitude 42.923228, latitude -74.712431

It is also unacceptable that CP proposes to bury pipe only 60 inches below stream beds that are in soil, and a mere 24 inches (2 feet) where consolidated rock is present. (FEIS Table 2.3.1-1) Much of the proposed Constitution Pipeline corridor is dominated by rocky terrain. This means that the pipeline would be buried only slightly beneath stream beds where moving water could readily wash away loose backfill and cause scouring. Shallow installations are highly unlikely to withstand the passage of time, erosion, and changing weather conditions, resulting in pipe exposure and eventually leakage or rupture. Since natural gas contains not only methane but also hazardous chemicals like benzene, this would threaten water quality, wildlife, and downstream drinking water supplies. It should also be noted that Class 1 regulations require a burial depth of only 48 inches (4 feet) in soil below stream beds (49 CFR 192.327), so it is unclear that CP will comply with the “proposed” depth of 60 inches.

The use of shallow open-trench cutting for nearly all of the water and wetland crossings along the length of this 124-mile proposed project will undoubtedly cause problems in the future, and the very limited use of Direct Pipe at the four locations proposed—if indeed it is used at all—is unlikely to be much better. The dangers of impaired water quality, harm to aquatic and wetland ecosystems, and contamination of water supplies is unacceptable and in clear violation of DEC’s high standards for the protection of these resources, including but not limited to §703.2, §703.3, and §703.5 (DEC Regulations, Chapter X, Divisions of Water, Part 703.)

II. Construction Plans Fail to Protect Trout Streams.

The Constitution Pipeline would degrade the beds and banks of designated high quality streams, trout streams, and protected streams that support a variety of fish and other aquatic species. In particular, the project poses a significant threat to Brook Trout (*Salvelinus fontinalis*), which has been New York’s state fish since 1975. This not only impacts protected species, but also fishing and outdoor recreation, which is a vital contributor to the region’s economy.

All trout, and especially brook trout, require cool water containing an abundance of dissolved oxygen to survive. Removing shoreline trees and other vegetation exposes waters in which trout thrive to more sunlight. This in turn increases water temperatures and lowers the level of dissolved oxygen.² Trout eggs are particularly sensitive to such changes. DEC regulations state: “For trout spawning waters (TS), the DO [dissolved oxygen] concentration shall not be less than 7.0 mg/L from other than natural conditions. For trout waters (T), the minimum daily average shall not be less than 6.0 mg/L, and at no time shall the concentration be less than 5.0 mg/L+” (Chapter X, Divisions of Water, §703.3).

As proposed, CP intends to permanently remove vegetation and trees along 45 trout streams that would be crossed 84 times. (FEIS, Appendix N; Volume 2) These include trout streams (T) and spawning sites (TS) along Charlotte Creek and elsewhere along much of the corridor. Each crossing would involve clearing 100-feet of shoreline on both sides of the waterway, adding up to 16,800 feet of permanent shoreline deforestation and impacting trout throughout the project. In addition to warming of stream beds by the lack of shade, the absence of trees and shoreline vegetation can cause increased runoff and erosion, which in turn increases turbidity and sedimentation. Many of these impacts could be avoided by using HDD techniques that would allow shoreline vegetation to be retained, however CP has refused to do this. This places CP’s plans in violation of DEC water quality standards §703.2, §703.3, and §703.5 pertaining to turbidity, pH, dissolved oxygen, and suspended or floating materials (DEC Regulations, Chapter X, Divisions of Water, Part 703.)

² <http://www.nys-soilandwater.org/crep/forms/FactSheet5.pdf>

Because CP proposes to use dry-trenching for almost every water crossing, stream beds which provide critical habitat and spawning areas for trout and other species will also be directly impacted by construction. As discussed in Section I, above, the proposed shallow burial of pipe would be extremely prone to washout, scouring, and pipeline exposure in the water channel or above the surface. This shallow burial and exposure may also cause adverse thermal impacts due to heat within the pipeline, which could reduce dissolved oxygen, harm trout, and lead to algae growth. It is ironic that in its assessment, FERC relies on heating to justify shallow burial of pipeline above the frost line, yet completely ignores the potential negative impacts of heating in stream beds.

It is important to recognize that Trout Unlimited, which comprises 36 chapters and over 7,600 members across New York State, has expressed serious concerns about these impacts, particularly in regard to the trenching techniques proposed by CP. Because DEC water quality standards would be violated and for all of the other reasons described above, the 401 water quality certificate and permits for this project should be denied.

III. The Ecological Value Of Established Wetlands In Pristine, Undisturbed Landscapes Must Not Be Ignored.

Wetlands provide critical habitat for fish and wildlife and serve as natural filters essential to maintaining water quality. Along rivers and streams they also store excess water, which limits the destructive power of floods and storm events, while helping to maintain flow during dry periods. Additionally, wetlands provide important opportunities for outdoor recreation such as fishing, hunting, photography, and wildlife observation. These are all values that would be severely damaged by the Constitution Pipeline.

According to CP, this project would directly impact over 95 acres of regulated wetlands, including forested, herbaceous, and shrub-scrub wetlands. However, because the proposed project is located in a largely pristine area of the northern Catskill region, cumulative impacts associated with the loss of these wetlands would be far greater.

Significantly, CP and FERC have failed to acknowledge the critical difference between wetland features that are part of an undisturbed landscape and those in developed areas. For example, in comparing the proposed route to alternatives, FERC concludes that wetland impacts would be greater along the I-88 corridor, without giving any consideration to the fact that wetlands and aquatic habitat in an undisturbed location in context with surrounding habitat have much greater environmental value than impacted wetlands adjacent to a major road. Likewise, the amount of proposed mitigation does not reflect the fact that wetlands permanently impacted by the project have much greater ecological value because of their quality and relationship to surrounding natural areas. Although it is

impossible to compensate for all impacts of a “greenfield” corridor, under such circumstances it should be expected that mitigation in the form of restored and permanently protected wetlands would be proposed at ratios upwards of ten to one (10:1) or greater. This has not occurred.

A prime example of CP’s flawed analysis is apparent in the treatment of the Henry S. Kernan Land Trust property, a 930-acre parcel located in Otsego and Delaware counties that has been protected and ecologically managed since 1946 and remains in trust to ensure its continued conservation. The subject of several articles appearing in the NYSDEC’s *Conservationist* magazine, the property has been identified by the NYS Natural Heritage Program as one of New York’s largest ecologically pristine sphagnum bogs outside of the Adirondacks. The Kernan Land Trust property is a premier example of unspoiled biodiversity, free of invasive plants, supporting an amazing collection of unique species including carnivorous plants, several native orchids, dwarf mistletoe, and bog rosemary. Yet despite its outstanding natural attributes, the parcel falls within the proposed Constitution Pipeline corridor. According to the director of the NYS Invasive Species Institute at Cornell University, a pipeline easement through the property would inevitably lead to infestation of this sensitive wetland system with invasive species. There is no justification for this when viable alternative routes exist.

It is also likely that direct impacts of the proposed project are significantly greater than the 95 acres referenced by CP. When the final EIS was released by FERC, many parcels within the proposed corridor had not yet been surveyed. These parcels may contain additional sensitive wetlands. Further, as discussed in Section I, above, CP proposes to use Direct Pipe installation in locations where Horizontal Direction Drilling (HDD) had been previously proposed. This increases the trenched distance over which wetlands would be directly impacted by almost an entire mile. Because trenchless segments would be shorter, the staging areas for Direct Pipe drilling may now also fall within wetlands that previously would have been avoided, creating additional impacts and much greater risk of wetland contamination. No additional mitigation appears to have been proposed for these additional impacts either.

Finally, CP has requested waivers from normal construction methods and operating procedures to allow for more wetland impacts, including the reduction of 50-foot workspace setbacks and a permanent right-of-way width in excess of 75 feet in several locations. To access water for drilling, CP now also wants to clear wetland vegetation within a 10-foot wide swath to the stream edge in several places where Direct Pipe is proposed. FERC staff has recommended against this in the final EIS, however it is unknown whether or how the matter will be resolved. (See FEIS, Section 2.3, Table 2.3-1, and Section 5.1.4.)

These are all substantial issues that demand the attention of DEC and preclude awarding of the 401 water quality certificate and permits.

IV. Proposed Greenfield Corridor Maximizes Environmental Harm.

The Constitution Pipeline threatens to directly impact more than 1000 acres of forest (57% of the corridor), 95 acres of wetlands, and 277 water bodies. Nevertheless, as significant as these impacts are, the total ecological damage would be far worse because the project is proposed in a “greenfield” corridor.

The proposed pipeline route blatantly and unnecessarily bisects a contiguous landscape of hills, valleys, forests and streams, including pristine natural habitats that support rare species and lands that have benefited from regrowth over the past century. At a macroscopic level, these lands constitute a large, undivided, and biologically diverse mosaic important to the Upper Susquehanna River basin with critical connectivity to the northern Catskill region. Bisecting this special area with a 122-mile pipeline would severely damage a natural resource of State and regional significance.

Contrary to federal and state guidelines, the location of the Constitution Pipeline has been proposed for a greenfield corridor instead of a route in or near an already disturbed corridor, such as existing pipeline easement or adjacent to a transportation facility. Section 18 C.F.R. §380.15(d)(1) states with respect to pipeline projects: “The use, widening, or extension of existing rights-of-way must be considered in locating proposed facilities.” Furthermore, in a letter from the NYSDEC dated September 25, 2013, Patricia J. Desnoyers specifically wrote:

NYSDEC requests that Constitution thoroughly analyze alternative routes that predominantly use existing utility corridors and rights-of-way (including road and railroad ROW) for all or most of the proposed pipeline route in New York.

However the proposed route fails to do this, with only 9% of the project collocated with existing facilities. The selected route needlessly divides a significant ecological corridor, separating thousands of acres located between the proposed project and Interstate 88 from forests south of the project that are ecologically connected with Catskill Park.

In addition, criteria in 18 C.F.R. §380.15(a) specifically require that the “The siting, construction, and maintenance of facilities shall be undertaken in a way that avoids or minimizes effects on scenic, historic, wildlife, and recreational values.” Similarly, provisions in §380.15(d)(2) and (3) call for avoidance of forested areas, steep slopes, wetlands, scenic lands, and areas that support wildlife. Nonetheless the proposed project, which would involve high-impact construction methods including blasting and trenching of waterways, traverses interior forests, steep slopes, high-quality wetlands,

and other sensitive habitat. The fact that CP has proposed a “greenfield” project with extensive impacts that cannot be mitigated demonstrates that the corridor was poorly selected.

Locating the proposed pipeline along the already impacted Interstate 88 corridor is an obvious alternative that is clearly preferable from an ecological standpoint. From an economic standpoint, it would also provide far greater opportunity for customer access to gas within the system. However this option has been summarily dismissed.

In addition, DEC must recognize that a second pipeline project has been proposed by Tennessee Gas Pipeline (TGP), which would run adjacent to the Constitution Pipeline through much of the CP corridor. The granting of a water quality certificate and permits by DEC for CP to build this pipeline would therefore facilitate eventual construction of the adjacent TGP project, thus doubling all of the harmful impacts associated with Constitution Pipeline. Twice as many water crossings would be required, twice as many trees would be lost, and twice as many wetlands would be destroyed. Impacts to wildlife and water quality, and the likelihood of damaging floods, would all multiply as well. These are cumulative and reasonably foreseeable impacts that DEC must consider.

V. Forest Fragmentation and Degradation Of Ecosystems Have Been Ignored.

The many ecological impacts of the proposed pipeline on forests and ecosystems, including the effect of deforestation on water resources, have not been adequately considered.

As proposed, construction of the Constitution Pipeline would result in the loss of over 1,000 acres of forest land in New York. It has been estimated that up to a million trees could be cut in the process. To put it in context, this basically cancels out the Million Trees NYC project, which planted 943,205 trees since 2007. Trees not only provide essential habitat for wildlife, but are important for carbon sequestration and combating climate change. They are also vital to erosion control, preventing surface runoff, and reducing the risk of flooding and the severity of storm events.

Forestry best management practices call for maintaining a buffer of intact trees and vegetation along the shoreline of waterways to prevent erosion and storm water runoff from timbering activities. However because CP plans to use the dry-trench method to lay pipeline for almost every one of the 277 stream crossings proposed, a 100-foot wide swath of trees and vegetation would be cleared leading up to and away from the water’s edge more than 500 times along the corridor. This corresponds to over 50,000 feet—or about ten miles—of cleared shoreline that would become vulnerable to erosion and flooding. Considering that steep slopes dominate much of the proposed pipeline corridor, the DEC should be very concerned that storm water from higher elevations will rush down newly clear-cut corridors and carry sediment into streams below, thereby degrading water

quality, increasing the velocity of flows, and magnifying the danger of future floods. As discussed, above, this places CP's plans in violation of DEC water quality standards (DEC Regulations, Chapter X, Divisions of Water, Part 703.) For trout and other aquatic species like the hellbender salamander (*Cryptobranchus alleganiensis*), that depend on streams with fresh clear water, this could be catastrophic.

In addition to clear-cutting forests along the proposed corridor, the Constitution Pipeline would divide interior forest blocks, resulting in habitat fragmentation and degradation. Specifically, the project would result in 55 blocks of remnant forest patches, each less than 35 acres in size that would no longer be capable of supporting interior forest birds. (FEIS, Section 4.53.) CP fails to calculate the actual amount of forest land impacted. However, assuming a mean size of 17.5 acres for each remnant block, this could total nearly 1,000 acres of interior forest habitat that would be lost. This is in *addition* to over 1000 acres of forest habitat that would be directly impacted by construction. Although FERC acknowledged this additional loss of functional habitat in its final EIS after Otsego 2000 commented on it, there has been no effort to quantify, assess, or provide any additional mitigation for it. By ignoring and then dismissing this significant loss of functional interior forest habitat, CP and FERC have grossly underestimated environmental harm that would be caused by the project.

CP and FERC have also failed to fully consider the substantial negative impacts that the linear corridor will have upon wildlife by erroneously suggesting that the cleared pipeline easement could have beneficial impacts in providing travel corridors and additional forage habitat for "certain species" (FEIS Section 4.6.1.3). The continued fragmentation of forest areas may benefit certain opportunistic species, particularly predatory or parasitic species such as skunks, raccoons, and brown cowbirds that target interior nesting birds. However this cannot be construed as an environmental benefit. Due to changes in land use and fragmentation that has already occurred, there is no shortage of edge habitat in New York. Yet there is definitely a limited amount of interior forest habitat in the state which continues to diminish—a problem that will only worsen if the proposed 122-mile long Constitution Pipeline project is approved. The USGS Breeding Bird Survey has documented major downward trends in interior forest bird populations, including within New York State. Even with an "upland forest mitigation plan," (which CP has not completed) these are trends that cannot be reversed or mitigated if actions that fragment forest habitat continue. However, by selecting a different route for the project that is not a greenfield corridor, these additional impacts could be completely avoided.

VI. Invasive Species Are Ignored And Herbicides Use Is Flawed.

Permanently maintained easements also encourage the spread of invasive plants, an effect exacerbated by soil disturbance and vehicles used during and after construction. Once established, invasive plants such as phragmites, purple loosestrife, Japanese knotweed, and stilt-grass are difficult to eliminate and are very likely to spread into other areas, including sensitive wetlands. Herbicide treatment is only partially effective and its application can be harmful to wildlife. Despite the widespread failure of such measures, CP and FERC summarily assert without evidence that invasive plants will be controlled and mitigated if the project is approved. Within previously undisturbed and pristine lands like the Kernan Land Trust property, the damage could be catastrophic. Again, a non-greenfield route would prevent these impacts.

There also appears to be miscommunication between CP and agencies at the federal and state level with respect to herbicide treatment. For example in a recent draft Biological Assessment, CP states that vegetation along the pipeline easement would be cleared by mechanical mowing or cutting “where necessary,” omitting any discussion of the use of herbicides or pesticides. In a recent letter dated February 13, 2015, the U.S. Fish and Wildlife Service asks for confirmation that herbicides or pesticides will not be used. However in the Final EIS supported by CP, there is nothing to suggest that these chemicals will *not* be routinely applied.

Harm to native plants and wildlife caused by herbicides and pesticide treatment is a serious concern affecting the health of ecosystems, including not only aquatic habitat and wetlands, but also fields and forest blocks where interior birds and other wildlife already placed in jeopardy by the project live. Given the extreme sensitivity of the region through which this project is proposed, only mechanical methods should be permitted for routine maintenance.

VII. Water Withdrawal And Discharge Impacts Have Been Overlooked.

CP proposes to withdraw almost 16.6 million gallons of water from New York waterbodies for the purpose of hydrostatic testing, including 6.2 million gallons from the Ouleout Creek, 5.7 million from Schoharie Creek, 2.6 million gallons from Oquaga Creek, and 2 million gallons from Kortright Creek. (FEIS, Section 4.3.3.5.) This is in addition to 286,000 gallons of water from Bennettsville Creek, Middle Brook Creek, and Schoharie Creek for hydrostatic testing of Direct Pipe installations, and 8,000 gallons of water for testing of above-ground facilities. An unspecified amount of water would also be needed for drilling related to Direct Pipe construction and dust control.

These are large amounts of water to be taken from small creeks, portions of which are designated as trout (T) waters and trout-spawning (TS) waters. The immediate impacts of this withdrawal on trout

and other aquatic species have not been adequately considered. According to the final EIS, CP will ensure that “base flows” are maintained during water withdrawal, however no information has been provided to indicate what those base flows are or how they will be maintained. Therefore it is not possible for DEC to conclude that CP is not in violation of §703.2 Narrative Water Quality Standards for flow.

Nor have the impacts of discharged water, which may become contaminated after drilling and hydrostatic testing operations are complete, been considered. According to the NOAA Northeast Fisheries Science Center:

Biocides (e.g., copper and aluminum compounds) are often utilized in the hydrostatic testing of pipelines... The release of contaminants can reduce or eliminate the suitability of water bodies as habitat for fish species and their prey. In addition, contaminants, such as copper and aluminum, can accumulate in sediments and become toxic to organisms contacting or feeding on the bottom.³

CP has provided essentially no information on how water would be eliminated, stating only that hydrostatic test water would be discharged into “well vegetated upland locations”. (FEIS, Section 4.3.3.5) Much more information must be provided regarding the location and method of disposal for test water, other chemicals, or hazardous waste materials to ensure that vegetation and other natural resources are not harmed. This must also include an explanation of how test water will be slowly released to ensure that flooding does not occur. In the absence of additional detailed information, it is not possible for DEC to conclude that CP is *not* in violation of DEC water quality standards §703.2, §703.3, or §703.5 pertaining to turbidity, pH, taste, odor, color, toxicity, oils, and solids. (DEC Regulations, Chapter X, Divisions of Water, Part 703.)

Similarly, CP has provided no information regarding the disposal of other liquid or solid water materials such as drill cuttings, grease, oil or other construction waste. According to the final EIS, drilling mud would be recycled or disposed of at an approved upland location or disposal facility. However, CP has provided no information regarding where that would be. The final EIS also states that no recovered drilling mud would be disposed of in streams or storm drains, but does not commit to protecting wetlands from drilling mud or cuttings. (FEIS, Section 4.3.3.5) Because CP now plans to use Direct Pipe installation instead of HDD, it appears that staging areas for drilling would be located within wetlands that would not have been impacted by the original proposal. The risk that CP will dump this waste material within wetlands areas, where drilling occurs, is clearly foreseeable and should be prohibited.

³ NOAA Technical Memorandum NMFS-NE-209: *Impacts to Marine Fisheries Habitat from Nonfishing Activities in the Northeastern United States*; <http://www.nefsc.noaa.gov/publications/tm/tm209/pdfs/ch3.pdf>

VIII. Planned Construction Practices Will Not Withstand Weather Impacts.

The construction plans put forth by CP fail to ensure the protection of natural resources or public safety in the face of readily anticipated weather conditions.

For the purpose of DEC permitting, CP states that construction methods, such as the size of pipe flumes and the placement of silt fences, will be based on engineering calculations for a 5-year storm event. This is entirely inadequate, as it means that water quality and wetland protection measures have a significant probability (almost a 1 in 5 chance) of failing in any given year. This also assumes that floodplain maps and 5-year storm data are accurate. As the DEC knows, Central New York has experienced four 100-year floods within a ten year timeframe, likely due to climate change which this project also exacerbates. It is therefore reasonable to expect that “5-year storm events” are now much more frequent, if not regular annual occurrences. Under these circumstances, condoning construction methods that are capable of withstanding no greater than a 5-year storm is blatantly reckless and insufficiently protective of New York’s water and wetland resources.

In addition to heavy rains and flooding, the region in which the Constitution Pipeline is proposed is subject to significant snow and ice. Construction during winter, late autumn, and early spring is certain to result in flows of water, snow, and mud within exposed trenches that are likely to freeze. Laying pipeline in trenches that have been partially inundated in this manner could result in loose soils or empty space beneath the pipeline when thawing occurs, and could also lead to greater uplifting during subsequent freezes. Even if this does not cause immediate pipeline failure, inadequate support and settling, along with seasonal tensions caused by this type of poor installation, will reduce structural integrity of the pipeline that could eventually result in leaks or catastrophic failure.

Construction occurring through frozen stream beds and wetland areas would involve cutting through ice and suspended soils. If not dug deep enough, and because dewatering of frozen soil may be impossible, the pipeline could be laid within frozen trenches that will have little or no structural support when thawing occurs. This too could lead to washout and pipeline failure. Although construction is proposed to occur over only a few months, the consequence of allowing it to take place during freezing conditions is that the pipeline will be subjected to greater amounts of settling, tension, and stress year after year that could lead to failure. Winter construction should be prohibited.

Ground heaving is also a problem that has not been adequately addressed. This occurs when seasonal freezing of soil causes uplifting of the earth, which can compromise the structural integrity of a pipeline. FERC briefly discusses ground heaving in the EIS but inappropriately dismissed the concern, stating that “typical” bottom depth of the proposed pipeline is 5.5 feet and that the flow of

gas could warm the pipeline in the winter. (FEIS, Section 4.2.2.9) However, “typical” depth provides no assurance that dangerous ground heaving will not occur in areas where pipeline burial is more shallow, nor is this depth sufficient to ensure that a 30 inch pipe is entirely below the frost line. Furthermore, significant pipeline warming can only be expected in the vicinity of compressor stations. Except for at the beginning and end of the project, no compressor station has been proposed anywhere along the entire length of the Constitution Pipeline corridor, so this warming effect is of little consequence. Nor is gas flow guaranteed at all times. Clearly, failure to require burial entirely below the frost line will place stresses and tension that could compromise the pipeline’s structural integrity and eventually lead to leaks or explosion.

There is also significant ambiguity which must be resolved regarding the depth to which the pipeline would actually be buried throughout much of the corridor. According to the final EIS, top coverage proposed by CP in Class 1 areas would be only 36 inches in areas of “normal soil” and 24 inches in “consolidated rock.” However much of the region’s rugged terrain contains a combination of soil and rock of various consistencies, and since a comprehensive survey of ground conditions has not been performed, it is impossible to know that “typical” bottom depth would actually be 5.5 feet (36 inches + 30 inches). Furthermore, Class 1 regulations require only 30 inches of coverage in normal soil and 18 inches in consolidated rock (49 CFR 192.327), so it is unclear that “proposed” measures will be enforced.

IX. Past Corporate Violations Must Be Considered.

It is a matter of public record that Williams Partners Operating Company (“Williams”), principal owner of Constitution Pipeline Company, has an extremely poor track record of compliance with applicable regulations and has been fined for numerous repeated violations. For example, in Pennsylvania, three subsidiaries of Williams (Williams Field Services, Laurel Mountain Midstream, and Laser Northeast Gathering) were fined \$388,694 in 2013 by the Pennsylvania Department of Environmental Protection (PADEP).⁴ These constitute the highest fines of any oil and gas company in the state.

In addition, Williams Field Services received the second highest level of fines in the state, totaling \$169,648 in 2013. In a scathing nineteen-page Penalty Report, the PADEP documented that Williams Field Services routinely ignored erosion and sediment best management practices and were cited by inspectors who found that violations caused repeated “pollution discharge into the waters of the commonwealth in violation of the clean streams law.”⁵ The company was also fined for failing to

⁴ <http://stateimpact.npr.org/pennsylvania/2014/02/27/dep-fined-oil-and-gas-companies-2-5-million-last-year/>

⁵ <https://www.documentcloud.org/documents/1017799-williams-field-services-penalty-assessment.html>

obtain and comply with necessary permits. The PADEP found that within a period of just four months, Williams repeatedly violated permit conditions at multiple sites including:

- Failure to implement and maintain Erosion and Sediment Best Management Practices
- Failure to provide an Erosion and Sediment Plan for review at the time of inspection
- Failure to follow 25 Pa. Code 102.22(b)(1), which states "upon temporary cessation of an earth disturbance activity or any stage or phase of an activity where a cessation of earth disturbance activities will exceed 4 days, the site shall be immediately seeded, mulched, or otherwise protected from accelerated erosion and sedimentation pending future earth disturbance activities"
- Creating a danger of pollution to waters of the commonwealth in violation of clean stream laws
- Allowing sediment to enter a water of the Commonwealth
- Pollution discharge into the waters of the Commonwealth in violation of clean streams law

According to the PADEP, Williams also attempted to circumvent state authority by not disclosing the location of dozens of streams, wetlands, and floodplains in an effort to bypass required permits and best management practices. The following are violations cited from a single inspection (PA codes referenced):⁶

- Failed to describe the location of all surface waters of the Commonwealth for 34 stream and wetland crossings
- Failed to implement BMP's at 34 stream and wetland crossings of pipeline
- Failed to implement ABACT BMP's at 5 locations requiring ABACT BMP's
- Dam Safety and Encroachment Act Section 6.a. Failed to obtain prior written permit for impacts
- Dam Safety and Encroachment Act Section 8.a. Failed to provide complete maps and testing data showing streams and wetlands
- 105.13.d.1.A. Failed to provide complete demarcation of the floodplain and regulated waters of the Commonwealth
- 105.15.a. Failed to provide an environmental assessment for 34 wetland and stream impacts
- 105.18.a.a. Failed to address the requirement under this section for Exceptional Value wetlands

The above demonstrates a clear and willful disregard for regulations and the necessary protection of natural resources. Williams' actions show that the company considers fines to be simply a "cost of doing business" and has no interest in taking corrective action to become a more responsible corporate citizen. With respect the Constitution Pipeline, this also means that DEC must question whether CP, which is owned by Williams, will adhere to the conditions of FERC's order, best

⁶ "Williams Field Services" 9/5/12

http://www.depreportingservices.state.pa.us/ReportServer/Pages/ReportViewer.aspx?/Oil_Gas/OG_Compliance

management practices described in the final EIS, or *any* of the additional requirements and conditions that DEC would require. CP plans to build the Constitution Pipeline rapidly over a nine-month period with multiple crews working simultaneously on individual segments. If the project is approved, DEC will need to commit ample staff to monitor and inspect every aspect of CP's operations, and must be willing to issue citations and stop-work orders to enforce rules that the company violates. Due to the deplorable track record of this company, the requested water quality certificate and permits should be denied.

The above history also demonstrates that Williams and CP cannot be trusted to provide accurate information, a major concern since FERC and the DEC rely on surveys and other data supplied by CP. This is all the more reason that DEC must question all information that it receives, perform its own field verifications, and not be rushed to a decision.

X. Impacts Of Fracking And Climate Change Must Be Considered.

In December of 2014, following an exhaustive review lasting several years, the New York State Department of Health and DEC determined that the practice of high-volume hydraulic fracturing poses unacceptable risks to public health and therefore should not be permitted in the State of New York. This was a commendable decision. However, if the DEC approves the Constitution Pipeline, it will enable the increased transport of natural gas into New York, thus intensifying fracking activity in Pennsylvania and exposing people living just south of our border to the same type of harm that has been found unacceptable for New Yorkers. Further, expanded drilling and fracking operations in Pennsylvania would result in more collateral damage within New York due to toxic or radioactive materials brought into our state for disposal (flowback fluid, drill cuttings, and production "brine"), increased truck traffic and road damage, watershed and aquifer contamination, and degradation of air quality in the Southern Tier or beyond. A "frack your neighbor" policy that increases New York's dependency on natural gas to the peril of those living elsewhere, and which is based on the false premise that impacts occurring beyond our borders do not affect New York, cannot be ethically or logically supported.

In addition to promoting fracking, the Constitution Pipeline project would exacerbate climate change. The DEC must acknowledge that pound for pound, methane—the primary component of natural gas—is 86 times more potent than carbon dioxide as a greenhouse gas according to the Intergovernmental Panel on Climate Change. Moreover it has been shown that the U.S. Environmental Protection Agency has grossly underestimated the amount of methane leakage occurring during production, processing, transport, and distribution. Along with carbon dioxide produced during combustion, this renders natural gas equal to or worse than coal as a driver of climate change. Instead of encouraging dependency on fossil fuel from elsewhere, the environment

and economy of New York would be far better served by aggressively pursuing renewable energy like wind and solar power that can be readily produced in New York.

A more detailed discussion of these issues relating to the dangers of fracking, proliferation of gas infrastructure, and effects on climate change can be found in comments dated May 30, 2014 by Otsego 2000 on the draft New York State Energy Plan (accessible at http://www.otsego2000.org/wp-content/uploads/2012/08/Otsego-2000-comments-on-NYS-Energy-Plan_FINAL-2.pdf). Because gas extraction and transmission poses a serious threat to the climate, natural resources, and people—both within and outside of New York—the DEC must not allow this project to proceed.

XI. Impacts Of Gas Infrastructure Build-Out Must Be Cumulatively Considered.

In analyzing whether a water quality certificate and permits should be granted for CP to construct the proposed Constitution Pipeline, the DEC should consider the cumulative impacts of all related and reasonably foreseeable projects.

As discussed above, a second pipeline project has been proposed by Kinder Morgan—parent of company of the Tennessee Gas Pipeline Company (“TGP”)—which would be adjacent to or co-located with the Constitution Pipeline through much of the corridor. Known as the TGP Northeast Energy Direct (“NED”) pipeline, this project would essentially double all of the harmful impacts associated with the Constitution Pipeline if built. Granting water quality certificates and permits to build the Constitution Pipeline would foreseeably lead to construction of the NED pipeline. Accordingly DEC must consider the cumulative impacts of these two projects together.

Significantly, plans for the NED pipeline also include a new 30,000 horsepower compressor station in the Town of Franklin in Delaware County. The location of this compressor station would be midway between the origin and terminus of the Constitution Pipeline, so it is reasonably foreseeable that the facility will provide compression for the Constitution Pipeline as well. Indeed, the absence of a compressor station in CP’s currently proposed project is highly suspect. Modern pipelines require an in-line compressor stations every 40 to 60 miles. The fact that this is missing from CP’s application strongly suggests that the company is attempting to gain piecemeal approval of a more complex project, thus violating federal rules governing illegal segmentation. It is inconceivable that an in-line compressor station would not eventually be built midway along the 124-mile Constitution Pipeline corridor if this project moves forward. Therefore, the DEC must consider the foreseeable impacts of this, including air quality and greenhouse gas emissions.

In addition, it is well known that plans are presently underway to reverse the flow of the Iroquois Pipeline at the terminus of the Constitution Pipeline, for the purpose of transporting gas to Canada.

(<http://www.iroquois.com/project/sono/>) According to information on the Iroquois website:

Traditionally a north-to-south pipeline, SoNo will reverse flow on the Iroquois system providing new deliverability options for shippers to serve eastern Canadian and northern New England markets... The SoNo project would transport up to 650,000 Dt/day from Iroquois' existing interconnects with Dominion Transmission in Canajoharie, NY and Algonquin Gas Transmission in Brookfield, CT, **as well as the Constitution Pipeline in Wright, NY**... (*Emphasis added.*)

CP has tried to justify its project based on the claim that the Constitution Pipeline will provide affordable gas to customers in the northeastern United States. However, since there are no major population centers in the United States along the *northwesterly* extension of the Iroquois Pipeline, it is obvious that reversing the Iroquois line would result in the flow of nearly all gas from the Constitution Pipeline to Canada. From there, that gas will likely be sent to terminals for export overseas.

The DEC should not condone this gaming of state and federal review processes. CP must provide all information regarding its future plans and related foreseeable projects, including the adjacent NED pipeline and connecting Iroquois SoNo project, which together with the Constitution Pipeline could have substantial cumulative impacts. Failure to do so constitutes an independent basis for denial of the water quality certificate and permits now under review by the DEC.

The DEC must also acknowledge that these are not the only major gas transmission projects proposed in New York. The Dominion “New Market Project” and the Algonquin Incremental Market (“AIM”) project are two additional expansion projects intended to deliver more gas to the Iroquois Pipeline for export. These involve the construction or expansion of multiple compressor stations and other facilities that, if built, will produce significant harmful emissions and other adverse environmental impacts. For a comprehensive analysis of various projects under consideration by FERC as of April 7, 2014, see *Report on the Need for the Proposed Constitution Pipeline* by Ann Marie Garti, filed in the FERC proceeding related to the Constitution Pipeline.

(http://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20140407-5237) See also comments by Otsego 2000, filed in the FERC proceeding related to the Dominion New Market Project on December 3, 2014. (http://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20141204-5113)

Public outcry over this inundation of New York by gas infrastructure projects is vocal and growing. All of these projects are clearly interrelated and their impacts cumulative. DEC should prepare a comprehensive build-out analysis of current and anticipated environmental, health and climate impacts, including emissions at existing and foreseeable gas power plants, new and/or expanded compressor stations, gas storage facilities, gas transmission pipelines, and gas distribution networks.

All reasonably foreseeable “upstream” emissions and impacts must also be analyzed, including increased gas extraction and high-volume hydraulic fracturing in neighboring states and its impacts on the environment, public health and climate change. Until this occurs, the piecemeal consideration of a major infrastructure project like the Constitution Pipeline is premature.

In conclusion, we appreciate that Otsego 2000 and others have been afforded this opportunity to comment on the 401 water quality certificate and other permits for the proposed Constitution Pipeline. In its decision to prohibit high volume fracking, the DEC demonstrated a commitment to consider all facts, and despite pressure from interests that would place profit over the protection of New Yorkers and the natural resources of our State, render informed decisions guided by science. We ask that the same take place in this matter. For all of the above reasons, Otsego 2000 respectfully urges the DEC to deny the water quality certificate and permits for this project.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Nicole A. Dillingham', with a long horizontal flourish extending to the right.

Nicole A. Dillingham, Esq.
President, Otsego 2000
Board of Directors

A handwritten signature in black ink, appearing to read 'Keith W. Schue', with a long horizontal flourish extending to the right.

Keith W. Schue
Technical advisor, Otsego 2000
Environmental Stewardship Committee

CC:

The Honorable Governor Andrew Cuomo
DEC Commissioner Joseph Martens