Kris Pastoriza, comments, Northern Pass Transmission, DES approval of permit:

Northern Pass wrote DES Findings in DES permit for NPT project.

Northern Pass letter to (DES below,) with edits showing how it was used by DES to write "their" findings in DES permit for NPT, pgs. 8 & 9.

" ADDITIONAL INFORMATION IN RESPONSE TO
NH DEPARTMENT OF ENVIRONMENTAL SERVICES
ADDITIONAL DATA REQUESTS
January 25, 2017
A. WETLANDS BUREAU

2. Per Rule Env-Wt 302.04(a)(2) the applicant is required to demonstrate by plan and example that the proposed alternative is the one with the least impact to wetlands or surface waters. It is not clear how the proposed 32 mile new ROW in Coös County avoids surrounding wetlands on a landscape scale when the wetland impact plans only represent wetlands located within the ROW. DES finds that the proposed 32 mile ROW in Coös County is not an alternative with the least impact to wetlands or surface waters.

Additional Information: *In response to your recent request for clarification of our original response to question #2, we have clarified the narrative and the supporting maps of the northern route alternatives. The revised narrative follows, and the maps are attached.*

The initial boundaries of the Northern Pass Project area were established based on the need to (i) locate a transmission line crossing at the border between Québec and New Hampshire and (ii) connect into the AC system grid at a location that allows for the delivery of 1,200 MW (currently 1,090 MW). In its initial consideration of routing options, Northern Pass sought to minimize environmental impacts by, among other things, maximizing the use of existing ROW, avoiding conservation areas and identifying the shortest route feasible.

The original routing effort was conducted by the Applicant to minimize environmental impacts through GIS analysis of publicly available social and natural resource data. Based on this effort, a preferred northern route and three alternatives were identified in ~~the~~ October 2010 ~~Presidential Permit Application (PPA), although~~ and the international border crossing location ~~in Pittsburg~~ was later identified in February of 2012 ~~not yet identified. A PPA Addendum was submitted in February of 2011 which included the border crossing location and the preferred route, the northern portion of which is shown on~~ (see maps 1- 4 dated March 11, 2011 which label the ~~(labelled~~ 2010 Preferred Route). ***(DES finding 5a- red words were added by DES, struck out ones were removed by DES)***

~~In response to public feedback voiced~~ during the applicant's -March 2011 ~~public~~ scoping meetings public concerns were raised about the visibility of the Project and its ~~potential~~ impact on private landowners, ~~Northern Pass~~ therefore the Applicant ~~substantially~~ reconfigured the North Segment to ~~move the proposed route to~~ a less populated area. ~~A~~ As a ~~C~~ complete underground construction was not considered a practicable option ~~(as described in the response to NHDES Data Request Question 1), so a concerted effort was made to locate the line in less populated areas where visual impacts would be of less concern.~~ ***(DES finding 5b)***

A landscape-level analysis of sensitive natural resources along approximately 38 alternative route segments proposed by the NP team was conducted, and these segments are shown in Maps 1-4 (labeled March 2011 Alternative Routes, and labeled A through MM). The routes were evaluated based on their intersection with conservation lands, rivers and streams, lakes and ponds, NWI wetlands, hydric soils, and Tier 1 and 2 Ranked Wildlife Habitat from WAP maps. This analysis revealed that 21 segments were located in conservation lands in Odell and Stratford. See Table 1 and Map 4. therefore additional alternative segments were investigation and prioritized to avoid these areas. ~~Creating new ROW within conservation lands was not considered a good option, so alternatives to these segments were given higher priority.~~ ***(DES finding 5c)***

~~The Project then began investigating the availability of land to purchase or lease. Property acquisition efforts~~ The applicant then commenced property acquisition efforts for the segments with the fewest natural resource and visual impacts that did not cross conservation land, and the preferred route was then again revised based on the successful acquisition of property rights and after avoiding other sensitive visible areas in the Dixville Notch area. ~~Land in Dixville, Dummer and Millsfield owned by the Bayroot Company and managed by Wagner Forest Management was available for lease, with certain restrictions and limitations, which negated the need to select segments crossing conservation land to the west. Several of the segments in Dixville were determined to be too visible from Route 26, Dixville Notch State Park and the Balsams resort, so the route was shifted even further north and east behind the high ridges, with a proposed crossing of Route 26 much further south. There was also~~ an effort was made to use more of the existing Coos Loop ROW (Maps 4 and 5, labeled Coos Loop).
(DES finding 5d)

~~Normandeau~~ In 2012 the applicant provided "hot-spot" mapping and GIS modeling within 3 miles of the entire proposed Project route in 2012 to identify locations with the greatest sensitivity and ~~permitting~~ regulatory concerns. The model included the natural features mentioned above, along with: ridgetops/mountaintops, where headwater streams, fragile soils, wildlife corridors and unique habitats ~~are present and ROW maintenance issues may be greater;~~ calcareous soils ~~and excessively drained soils where rare plants may be more abundant;~~ known threatened and endangered species/habitat locations ~~(plants, lynx, marten, snakes, turtles, etc.);~~ known deer yards; archeologically sensitive areas; streams and rivers with added regulations (SWQPAs, ORWs, Class A, Designated and areas where ROW management would be more difficult.) ~~Where possible~~, In addition,~~-~~reconnaissance level field investigations were ~~undertaken~~ done across the northern route parcels to better define environmental and other sensitive natural resources ~~within each parcel.~~ This information along with consideration of existing infrastructure ~~(e.g. roads, camps, Granite Reliable Wind),~~ potential visual impacts, and ~~Wagner's~~ landowner's overall forest planning and land management goals and objectives, was included in the ultimate route determinations on ~~the~~ properties acquired or leased for the project. Shifts were made in a few route locations to minimize resource impacts. The hot-spot mapping was eventually also used to evaluate off-ROW access road selections. ***(DES finding 5e)***

To avoid crossing over or under conservation land in Stewartstown ~~where conservation lands are present diagonally across a point~~ where four parcels meet along the 2012 Proposed Route, ~~the Project considered~~ two alternative underground routes were considered in Clarksville and Stewartstown along road ROWs. See map dated March 25th, 2013 showing Option 2, Blue Route and Option 3, Green Route.) ~~These routes have the north and south ends in common, so the divergent portions of these two routes (Option 2, the Blue Route; and Option 3, the Green Route, Figure 5),~~ These alternatives were then evaluated for natural resource issues. and found that Option 2 Blue Route is shorter in length and intersects fewer wetlands and streams, ~~Option 2, the Blue Route, is shorter than the Green Route, and intersects fewer wetlands and streams, but more WAP Highest Ranked Habitat in State, primarily~~

~~*grassland, with potential habitat for northern harrier. Both alternatives pass along grassland reserve land (Conserved by NRCS). Generally, work within the road bed and shoulder would not have permanent impacts to natural resources adjacent to the road, although some temporary impacts may be possible. Both routes cross Pond Brook, Bishop Brook, and Haynes Brook, and the Green Route also crosses Cedar Brook twice. The Green Route also has a small cross-country portion that crosses a wetland. Both routes cross several other un-named streams. The Blue Route also follows less travelled roads, diminishing the impact to the travelling public.*~~ *Therefore The decision was made to proceed with Option 2, the Blue Route.* ***(DES finding 5f)***

Additional Field work within the 2013 proposed project ROW revealed two sensitive areas in Dixville that were worthy of further avoidance efforts. ~~*A potentially exemplary Northern Hardwood Seepage Forest (later found to be Exemplary by NHNHB) was observed along the eastern slope of Sugar Hill near Nathan Pond. Botanical surveys were conducted to determine the extent and see if avoidance would be possible by shifting the ROW. Shifting the route to the north would have a much greater impact on wetlands, a stream and riparian area, and shifting to the south would put the line on top of the ridge, increasing visibility issues and impacting more of the natural community, so the route was not shifted. However, in another location*~~ *Although not all areas could be avoided without creating greater wetland and stream impacts the ROW was shifted to avoid a moose concentration area at a sensitive rocky ridge. Temporary access roads and structure locations were also shifted to minimize resource impacts within the ROW.* ***(DES finding 5g)***

In summary, The resulting northern section of the Project route is located slightly further east than the original 2010 route, maximizes use of existing ROW (the Coos Loop), traverses ~~*a far*~~ *less populated* ~~*portion of northern New Hampshire,*~~ *areas and relies in large part on property that was acquired or leased* ~~*an affiliate of Northern Pass has acquired in fee or by way of lease or easement for Project purposes*~~ *from willing property owners. Approximately 7.5 miles of this route are located underground within existing road ROWs, while the overhead* ~~*portion*~~ *is generally situated along the mid-slope landscape position,* ~~*avoiding to the extent possible*~~ *to avoid* ~~*the*~~ *sensitive high elevation areas* ~~*(which are also potentially more visible)*~~ *as well as the valleys where streams, wetlands, riparian corridors, archeological resources and highest ranked habitats are most abundant.* ~~*These mid-slope landscape positions are generally comparable with respect to wetlands attributes throughout this region, and a large proportion is within commercial forest land.*~~ *This portion of the Project route involves 155 fewer landowner parcels than would have been required for the section of the original 2010 route* ~~*above the Lost Nation Substation.*~~ ***(DES finding 5h)*** *Finally, The result of the entire Project routing effort is that the selected route eliminates potential visual impacts in the White Mountain National Forest, Franconia Notch area, and along the Appalachian Trail by* ~~*undergrounding an additional*~~ *proposing 52 miles of underground transmission lines in public roadways and eliminating more than 400 structures.*~~*With this change, Northern Pass will now have a total of*~~ *Overall 60 miles of underground construction is proposed,* ~~*making it*~~ *that would make the project the largest* ~~*installation of*~~ *underground DC cable in North America. And greater* ~~*More*~~ *than 80 percent of the overall project* ~~*will be*~~ *is located* ~~*along*~~ *within existing transmission corridors or underground in public roadways.* ***(DES finding 5i)***

5. The applicant has provided evidence which demonstrates that this proposal is the alternative with the least adverse impact to areas and environments under the department's jurisdiction per Env-Wt 302.03, and are listed in greater detail as follows:
   a) The original project location and routing effort was conducted by the applicant to minimize environmental impacts through GIS analysis of publically available social and natural resource data. Based on this information, a preferred northern route and three alternatives were identified in October 2010, and the international border crossing was later identified in February 2011 (see Maps 1-4 dated March 11, 2011 which label the "2010 Preferred Route").
   b) During the applicant's March 2011 scoping meetings, public concerns were raised about the visibility of the project and its impact on private landowners, therefore the applicant reconfigured the north segment to a less populated area, as complete underground construction was not considered a practicable option for the project.
   c) A landscape level analysis of sensitive natural resources along 38 alternative route segments was conducted as shown on Maps 1-4 labeled March 2011 Alternative Routes, segments A through MM. These routes were evaluated based on their intersection with conservation lands, rivers and streams, lakes and ponds, National Wetlands Inventory (NWI) maps, hydric soils, and Tier 1 and Tier 2 Ranked Wildlife Habitat from Wildlife Action Plan (WAP) maps. This analysis revealed that 21 segments were located in conservation lands in Odell and Stratford (see Table 1 and Map 4); therefore additional alternative segments were investigated and prioritized to avoid these areas.
   d) The applicant then commenced property acquisition efforts for segments with the fewest natural resources and visual impacts, and in areas that did not cross conservation lands. The

preferred route was then again revised based on successful acquisition of property rights, and after avoiding other sensitive visible areas in the Dixville Notch area. Also, an effort was made to use more of the existing Coos Loop ROW (see Maps 4 and 5 labeled "Coos Loop").

   e) In 2012, the applicant then conducted "hot spot" mapping and GIS modeling within 3 miles of the entire proposed route to identify locations with the greatest sensitivity and regulatory concerns. The model included the natural features mentioned above, along with ridgetops/mountain tops, headwater streams, fragile soils, wildlife corridors and unique habitats, calcareous soils, known threatened and endangered species/habitat locations, known deer yards, archeologically sensitive areas, streams and rivers with added regulations (i.e. Shoreland Protection, Outstanding Resource Waters, Class A, Designated Rivers) and areas where ROW maintenance would be more difficult. In addition, reconnaissance level field investigations were done across the northern route parcels to better define environmental and other sensitive natural resources. This information along with consideration of existing infrastructure, potential visual impacts, and landowner's forest planning and land management goals, were used to determine the ultimate route on properties acquired or leased for the project. The hot spot mapping was also used to evaluate off-ROW access road selections.
   f) To avoid crossing over or under conservation land in Stewartstown where four parcels meet along the 2012 proposed route, two underground alternative routes were considered in Clarksville and Stewartstown along existing road ROWs (See Map dated March 25, 2013 showing Option 2 Blue Route and Option 3 Green Route). These alternatives were then evaluated for natural resource issues and found that Option 2 Blue Route is shorter in length and intersects fewer wetlands and streams; therefore the decision was made to proceed with the Option 2 Blue Route.
   g) Additional field work within the 2013 proposed ROW revealed sensitive areas in Dixville that were worthy of further avoidance efforts. Although not all areas could be avoided without creating greater wetland and stream impacts, the ROW was shifted to avoid a moose

h) In summary, the resulting northern section of the project route is located slightly further east than the original 2010 route, maximized use of existing ROW (Coos Loop), traverses less populated areas, and relies in large part on property that was acquired or leased from willing landowners. Approximately 7.5 miles of this route is located underground within existing road ROWs, while the overhead is generally situated along the mid-slope landscape position to avoid sensitive high elevation areas, as well as the valleys where streams, wetlands, riparian corridors, archeological resources and the highest ranked wildlife habitats are most abundant. This portion of the project involves 155 fewer landowner parcels than would have been required for the original 2010 route.

i) Finally, the result of the entire project routing effort is that the selected route eliminates potential visual impacts in the White Mountain National Forest (WMNF), Franconia Notch area, and along the Appalachian Trail by proposing 52 miles of underground transmission lines in public roadways and eliminating more than 400 structures. Overall, 60 miles of underground construction is proposed that would make the project the largest underground DC cable in North America, and greater than 80 percent of the overall project is located within existing transmission corridors or underground in public roadways.

https://www.nhsec.nh.gov/projects/2015-06/letter-memos-correspondance/jan_des_response/2015-06_2017-01-25_des_wetlands_shorelands_cover.pdf

“What is 'Regulatory Capture '

Regulatory capture is a theory associated with George Stigler, a Nobel laureate economist. It is the process by which regulatory agencies eventually come to be dominated by the very industries they were charged with regulating. Regulatory capture happens when a regulatory agency, formed to act in the public's interest, eventually acts in ways that benefit the industry it is supposed to be regulating, rather than the public.”

http://www.investopedia.com/terms/r/regulatory-capture.asp

March 5, 2017