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MEMORANDUM

To: Dave Haas
From: Art Gilman
Date: 6 July 2006
Re: VELCO Lamoille County Project, Reroutes and Other Issues

Cady Hill Reroute

I have delineated wetlands on this proposed reroute, as shown on the site plans. The methodology of the delineations was identical to that of the originally filed corridor, and as required by the Army Corps of Engineers and the Vermont Wetlands Rules.

This corridor contains extensions of the wetlands that occur on the originally filed corridor. Overall, there is a greater ratio of wetland to upland along this corridor, and there are 3 additional seasonal streams that enter on the west side of the man-made pond (the original route passed along the east side of the pond). The functions and values of the wetlands are similar, however, and I do not believe that the impacts would be significantly greater.

I observed no rare, threatened, or endangered species or rare and irreplaceable natural areas along this reroute. Similarly, although the wetlands are significant for the wildlife function, I did not observe any necessary wildlife habitat.

Shaw Hill Reroute

Additional wetlands were delineated using standard methodology at the Shaw Hill Reroute, and are shown on the project site plans. For the most part, these wetlands are extensions of wetlands that were delineated on the originally filed corridor, but there are some additional ones on the more steeply sloping terrain of the reroute. As with many wetlands on the project, they primarily serve a 'groundwater discharge' function.

I observed no rare, threatened, or endangered species, no significant communities, and no rare and irreplaceable natural areas on this segment.

As noted for the originally filed corridor, there is a mapped deer wintering area in this vicinity. The area that is mapped is west of the original corridor, and VELCO proposed a 'deer crossing area' for the corridor. In this 'deer crossing area,' as much vegetation as possible, up to a height consistent with safety of the conductors would be left, to provide shelter for deer that may wish to cross the otherwise open corridor.

During field work for the reroute, I observed some use of the upland portions of the forest patch between the existing corridor and River Road by deer, i.e., numerous pellet-groups. This was consistent with the previous observations and with VELCO's earlier proposal. The proposed Shaw Hill Reroute will traverse this area, and will result in the loss of a small area of deer wintering habitat. Offsetting that loss, however, will be the recapture of additional deer wintering area in the original corridor, which will be abandoned and which will grow back up to forest cover. Given the nature of the forests in the area, it is likely to grow back up to hemlocks, which can provide good cover in heavy snow conditions. Given also the much larger size of the overall deer wintering area upslope to the west, there will be sufficient habitat available in the interim to maintain the local population, while the existing corridor is reverting to forest cover. Therefore, there should be no significant impacts to this resource.

Cahill Reroute

I delineated one small wetland on this reroute; it is a small depressional area on the hilltop west of the existing corridor. Although depressional, this wetland did not retain sufficient water in spring 2006 (a very wet year) to function as a 'vernal pool' type wetland.

I observed no rare species, no significant natural communities, and no rare and irreplaceable natural areas on this reroute. I also observed no necessary wildlife habitat.

Gregg Hill Reroute

I have delineated several wetlands on this corridor, as shown on the site plans. At the northern end, the extensive wetland complex that is adjacent to Gregg Hill Road extends back to this reroute. At the reroute it differs in character from near the road, and is forested rather than open. There are also several small streams rather than one larger stream on this reroute, as can easily be seen in the aerial photograph.

The functions and values are similar throughout the wetland, and the comparison of impacts (the originally filed corridor vs. the reroute) depend primarily on the considerations of 1) creating a new corridor through otherwise +/- 'natural' terrain, including the forested wetland, 2) aesthetics of one vs. the other, and 3) practicability of access.

As to the first, use of the existing corridor may be preferable, although we have elsewhere noted, and firmly believe that powerline corridors usually provide good wildlife habitat even when cut through forested wetland.

As to the second, the aesthetics of the reroute are better than the originally filed corridor, and it is important to recall that aesthetics is a recognized function of wetlands under the Vermont Wetland Rules.

As to the third, the reroute may have easier access and also easier conditions for construction than the originally filed corridor.

I did not observe any rare, threatened, or endangered species on this reroute. Similarly, I did not observe any significant natural communities, or rare and irreplaceable natural areas.

One area in the reroute, roughly in the area of wetland G6-13, was noted previously as being a potential deer wintering area (although it is not mapped as such), because of the coniferous forest cover. When delineating wetland in that area in June 2006, I observed typical use by deer, but not heavy use. In any case, the viability of this area as a deer wintering area at present is severely compromised by the large area of "blowdown," estimated to be > 1acre. In any event, if this area were to recover to full canopy of trees over time, and function as a deer wintering area, I suggest that a 'deer crossing area' as mentioned for the two other instances of deer wintering area on the project, be implemented and if so, that would mitigate any potential impacts. Note, I have not as yet discussed this matter with John Austin, Biologist with the Vermont Department of Fish and Wildlife.

Harvey Property Reroute

I have inspected much but not all of the Harvey Property Reroute. In particular, there is a small wetland north of River Road, in the flat field area near the riding oval that I have identified but not yet delineated. The location of one structure will be +/- near the margin of this wetland. I anticipate delineating this wetland prior to the filing of the final project plans. I do not anticipate particular issues with the pole location or with impacts to functions and values of the wetland.

South of River Road, as noted in the original submittal and in the second submittal, the terrain is steep and is dissected with small seasonal streams. It is in this area that VELCO is planning a 'switch,' which to my understanding consists of 3 separate poles on which the switches are located, plus a fourth pole. There will be an access drive to service this location.

I inspected the proposed location on 5 July, and discussed the matter with VELCO staff, the project engineer, and the visual consultant. It appears that the switch can be built, and the driveway placed, with a minimum of disturbance to wetlands or streams, i.e., no wetland areas and 2 culverts. As noted in my original report, the steep slopes and erodible soils will require special considerations for erosion control and sediment control, to prevent undue adverse effects to the seasonal streams, especially because the site is within the so-called 'riparian buffer' of the seasonal streams (i.e., less than 50' from the 'top-of-bank'). With the forest cover removed, I anticipate that the low-growing natural vegetation in the area will increase greatly and will stabilize the soil, perhaps to a degree greater than the forest cover itself does. The small streams will become shaded with ferns, grasses, and low shrubs, and should maintain water quality.

I did not observe any rare, threatened, or endangered species on this reroute, nor any significant natural communities, nor any rare and irreplaceable natural communities. I also did not observe any necessary wildlife habitat.

New England Grape

I have inspected the most recent plans for the proposed Stowe substation expansion in relation to the location of this rare species of grape, and note that the grape occurs in a hedgerow at the edge of the proposed driveway. The grading plan shows that there will only be some minor fill in this area, so I suggest that the plant be flagged and avoided during the project construction, with a minor adjustment to the grading.

“Fen” wetland

I have inspected the proposed structure locations in relation to the ‘fen’ wetland area just south of Holmes Lane in Stowe, and note that the proposed structures are located outside of the fen. The southern-most pole of the 115 kV line is at the upland/wetland edge, but the ‘fen’ portion is centered in the wetland, and I believe that the fen community will not be impacted. I recommend not crossing the fen with a temporary access road, as there is adequate access both north and south of it.