

## VERMONT AGENCY OF NATURAL RESOURCES

### Clyde River Hydroelectric Project -- Water Quality Certification

#### Response to Public Comments

August 1, 2002

The Agency of Natural Resources (Agency or ANR) placed its tentative decision and draft water quality certification on public notice June 11 - July 12, 2002 for the purpose of receiving written statements and data bearing on the issuance of a water quality certification to Citizens Communications Company (the applicant) for the continued operation of the Clyde River Hydroelectric Project located on the Clyde River in the city of Newport and towns of Newport, Derby, Charleston, and Morgan.

The Agency received written comments from the applicant, the Vermont Natural Resources Council, the Seymour Lake Association, the New England Chapter of Public Employees for Environmental Responsibility (NEPEER), and Camp Winape, Inc.

Following is a summary response to the comments received. Comments may be paraphrased or quoted only in part. The full text of the comments is available for inspection or copying at the Department of Environmental Conservation's Water Quality Division.

The Agency notes that there may be changes to the certification related to its continuing review and not related to the public comments. Interested persons should carefully review the final decision.

#### **FLOW REGIME TO SUPPORT FISH AND OTHER AQUATIC BIOTA IN NEWPORT 1,2,3 BYPASS REACH**

**Comment:** The flows required by the Draft Certification fail to satisfy the aquatic biota, wildlife, and aquatic habitat requirements for Class B waters pursuant to Section 3-04 of the Vermont Water Quality Standards (VWQS). The criteria necessary to support this use require that "[a]ll life-cycle functions, including overwintering and reproductive requirements are maintained and protected" and that there be "[n]o change from reference conditions that would have an undue adverse effect on the composition of the aquatic biota, the physical or chemical nature of the substrate or the species composition or propagation of fishes." At the 30 cfs flow proposed for the bypass, there is no habitat available for salmonid spawning and incubation at stations U-3 and U-4. Finding of Fact 174 explicitly states that habitat for all target species and life stages is provided at 150 cfs.

- **Response:** The proposed bypass flow of 30 cfs (approximately 7Q10), which is 6 times higher than the flow proposed by the applicant, was chosen to balance the competing needs of the river and the project while also providing a minimum flow needed to comply with the VWQS. In making this determination, the Agency considered all relevant information, including the *Agency Procedure for Determining Acceptable Minimum Stream Flows* (July 14, 1993), which provides guidance on setting minimum stream flows at hydroelectric projects. The procedure provides:

Bypasses shall be analysed case-by-case. Generally, the Agency shall recommend bypass flows of at least 7Q10 in order to protect aquatic habitat and maintain dissolved oxygen concentration in the

bypass and below the project. In assessing values, consideration shall be given to the length of the bypass; wildlife and fish habitat potential; the aesthetic and recreational values; the relative supply of the bypass resource values in the project area; the public demand for these resources; and any additional impacts of such flows upon citizens of the State of Vermont . . . Where there are exceptional values in need of restoration or protection, the general procedure shall be followed . . .

**Comment:** The minimum flows necessary to meet the VWQS are not 5 cfs year round for the bypass as proposed by the applicant, nor 30 cfs year round as the new draft certification proposes. Rather, flows should be a minimum of 363 cfs for walleye spawning and incubation, and preferably in the range of 462 during these critical times of the year. Therefore, the minimum flows necessary for this bypass to meet the VWQS range from 150 - 363 cfs, depending upon the time of year.

- **Response:** Even with removal or breaching of the remnant dam and provision of flows on the order of 363 cfs, walleye would not be able to access the bypassed reach due to the natural falls at that dam. The certification provides for below-tailrace flows that are conducive for walleye spawning and egg incubation in the reach accessible to these fish.

## FISH PASSAGE

**Comment:** In addition to the inadequate flows, the provisions in the draft certification for passing fish upstream and downstream around the project works are insufficient to comply with VWQS requirements concerning aquatic biota, wildlife, and aquatic habitat requirements. First, the proposed trap-and-truck facility will likely not result in maintaining a sustainable fishery on the Clyde River. Such a facility, like similar facilities on the Winooski River, would fail to restore the fishery. The Agency should return to the conditions in the October 25, 2002, draft, relying upon the natural channel for upstream fish passage with a future fishway at the Newport Dam. Second, the proposal for downstream passage will not result in successful movement of fish in the Clyde River. Again, the Agency should return to the requirements of the October 25, 2002, draft, which calls for construction of a downstream fishway at the Newport Dam, passing of fish through the natural channel, and removal of the remnant dam at the lower end of the bypass.

- **Response:** Trap-and-truck facilities are commonly used as an upstream passage option, and adequate success in the operation of such facilities has been demonstrated in other states. This option also obviates the need of building a fishway at Newport dam, and eliminates whatever risk may exist that fish will not be able to ascend Arnolds Falls. The conditions of the certification provide for post-installation effectiveness studies for both upstream and downstream passage facilities and modifications, if necessary, to assure effectiveness

## FLOW REGIME TO SUPPORT AESTHETICS IN NEWPORT 1,2,3 BYPASS REACH

**Comment:** The flows in the bypass reach are insufficient to meet the aesthetic criterion in Section 3-04 of the VWQS. The criterion necessary to support this use is defined as "water of a quality that

consistently exhibits good aesthetic value.” Based upon the aesthetics study conducted by the applicant, the flow of 30 cfs in the bypass failed to provide good visual aesthetic value. Flows of 75, 115, and 149 cfs were necessary to provide good visual and aural values. As a result, the draft certification must be modified to meet the aesthetic criterion of the VWQS.

- **Response:** The proposed bypass flow of 30 cfs was chosen to balance the competing needs of the river and the project while also providing a minimum flow needed to comply with the VWQS. In making this determination, the Agency considered all relevant information, including the *Agency Procedure for Determining Acceptable Minimum Stream Flows* (July 14, 1993), which provides guidance on setting minimum stream flows at hydroelectric projects.

### USE OF FLASHBOARDS ON NEWPORT DAM

**Comment:** The new draft certification allows use of flashboards at Clyde Pond based on the condition that when they are installed, the facility be operated at full capacity any time that the pond rises above the concrete crest. This practice will effectively raise the level of Clyde Pond causing prolonged and greater magnitude of flooding in the pond and in the riverine habitat. There is no evidence presented that this change will not cause a negative impact in the vegetative and hydrologic characteristics of these areas. Furthermore, it is unclear how such a condition could ever be enforced in a reasonable manner. The flashboards should be permanently removed.

- **Response:** The effective height of the flashboards is only 15 inches, and the spillway length of 324 feet is relatively long, providing a substantial amount of hydraulic capacity when surcharged. These two facts significantly limit the amount that Clyde Pond would stage up above the concrete crest during high inflow periods. The flooding of wetlands and shoreline areas is not expected to be unusual or damaging.

### REMOVAL OF NEWPORT DAM IF PROJECT NOT VIABLE

**Comment:** If the reality is that the dams will no longer be economical when maintaining the flows of between 150 and 363 cfs, ANR should issue a denial and require a financial responsibility instrument to be provided in full within 60 days to cover full decommissioning, dam removal and restoration of the Clyde. A financial responsibility instrument or bond should be required under all scenarios that is adequate to cover decommissioning and removal. The instrument should also be required to be adjusted for inflation annually as may be necessary.

- **Response:** The Agency has determined that bypass flows of between 150 cfs and 363 cfs are not necessary to comply with the VWQS, and a denial is not warranted. Moreover, the Agency has never required a financial responsibility instrument in the context of a 401 water quality certification, although it takes no position at this time whether such an instrument may be warranted in future cases under appropriate circumstances.

## SEYMOUR LAKE

**Comment:** The Seymour Lake Association has expressed a preference for maintaining the normal lake level between elevation 1278.83 feet msl and elevation 1279.00 feet msl. The draft decision sets a target elevation of 1278.86 feet msl. The reason for this particular elevation is not clear. Perhaps the target should be seven inches above the low pin, or elevation 1278.90 feet msl.

- **Response:** The target elevation is explained in Finding 48 and again discussed in Finding 253. It is the average summer level based on a recent review of historic operating records from 1986-2001. A permanent adjustment of average summer levels has regulatory implications as it defines the jurisdictional level for permitting under 29 V.S.A. Chapter 11, Management of Lakes and Ponds.

**Comment:** The post-construction crest adjustment period should extend at least two full summer seasons after final construction, completion of all punch list items, and acceptance by the owner and approval by the State.

- **Response:** The Agency agrees that it may take at least a couple seasons of monitoring to set the final crest elevation. To clarify that the Agency will oversee the final configuration of the dam crest, Condition H has been revised to provide for monitoring and adjustment to the Agency's satisfaction and approval.

**Comment:** A gate should be installed in the dam as part of the initial reconstruction. Even with the gate fully open, the lake staged up 13.25 inches above the high pin on June 12, 2002. A cottage at the northwest end of the lake had water at its steps and within half a foot of the floor elevation. If the new dam, without a gate and one half the flow of the current dam in high rainfall situations, produces levels in April through June that are twice the current level of 13.25 inches above the high pin, then a further study of the effect of the lake and properties surrounding the lake should be accomplished.

- **Response:** The Agency agrees that consideration should be given to the flood benefits of installing and operating a gate and has provided for the possibility of a gate in the water quality certification. However, the Agency believes that the spillway and stream channel provide adequate capacity to obviate the need for human intervention (i.e., a gate) during highwater periods. The certification provides for refinement of the hydrologic/hydraulic analysis as part of finalizing the dam design and does not rule out incorporation of a gate initially or as a modification based on post-construction experience.

**Comment:** The preliminary design plans dated May 17, 1999 for Seymour Lake dam modifications incorporated an operable gate. We feel that the engineers wanted an operable gate as part of the design for a workable dam and spillway system.

- **Response:** The design for the 1999 plans left the gate structure intact; however, it was not the applicant's proposal to have the gate continue to be operable. In fact, in its May 19, 1999 letter to FERC transmitting the plans, the applicant stated: "At the Seymour Dam the existing timber crib w/concrete cap dam will be replaced with a new structure. To compensate for the lost gate discharge capacity at the Seymour Dam the spillway length has been increased to include the area of the existing abutment wall." At that time, the applicant's consultant estimated that the capacity of the new dam with the lake at the high pin and no gate operation would be 110 cfs as compared to 145 cfs for the existing dam with the gate fully open, but that the proposed dam would actually perform better at design floods. More recent analyses suggest that may not be the case. As indicated in the water quality certification, the Department believes that it is appropriate to further refine the analysis and to obtain a more robust database for model calibration before the design is finalized.

**Comment:** The proposed reconstruction of the dam at Seymour Lake will involve lands owned by Camp Winape, Inc. and the Bowen family. Contrary to assertions by Citizens that it owns land along the west side of the outlet stream, these two parties own the lands along the west side of the outlet stream between the Seymour and Echo lakes. Citizens has no rights to provide public access to this stream.

- **Response:** The land ownership issue is one for the applicant to resolve and has limited relevance to the certification.

## GENERAL COMMENTS

**Comment:** Compliance with the water quality standards applies to all reaches of Vermont's waters, including bypass sections.

- **Response:** The Agency agrees with this comment. As noted above, the proposed flow of 30 cfs (approximately 7Q10) for the Newport 1,2,3 bypass was chosen to balance the competing needs of the river and the project while also providing a minimum flow needed to comply with the VWQS. In making this determination, the Agency considered all relevant information, including the *Agency Procedure for Determining Acceptable Minimum Stream Flows* (July 14, 1993), which provides guidance on setting minimum stream flows at hydroelectric projects.

**Comment:** ANR's issuance of a draft certification that its own professional staff members with expertise in their respective fields believe to be inadequate to meet the VWQS raises grave questions and the specter of impropriety. ANR employees have made it abundantly clear that the June 11, 2002 proposed water quality certificate is contrary to science and law, and have at various times been told by ANR management to change their scientific determinations for political reasons.

- **Response:** The Agency understands the commenter to be referring to changes made

regarding the bypass flows. The Secretary of the Agency, as the authority issuing the certification, considered all relevant information including technical information and expert opinions provided by staff. The final certification is a determination by the Secretary. While all of the staff's recommendations were considered, not all were accepted; however, at no time were staff members ordered to change their opinions, whether for political or other reasons. The Agency further notes that NEPEER's letter cites certain statements by staff (one of whom does not work on the project and is not a qualified expert in this area) in support of its comment above. However, those statements reflect personal speculation by staff as to why the Secretary intended to make certain decisions relative to this project, or are opinions on the potential outcome of an appeal of the certification. Again, anything provided by staff by way of technical information or opinions was appropriately considered in the process.

**Comment:** This is the second draft certification of the Project. The first draft certification, issued on October 25, 2001, contained materially different conditions, especially with regard to the flows in the Newport 1,2,3 Bypass. This is so despite the fact that this new decision is based upon the same information the Agency had when it issued the first draft certification. The reasons for this difference are not scientifically justifiable. Furthermore, statements made by the Secretary of ANR during a radio broadcast and correspondence from the Governor to a Newport citizen indicate that the Agency and the administration are considering factors well outside of the proper scope of a certification decision under Section 401 of the federal Clean Water Act.

- **Response:** The Agency agrees that the purpose of the water quality certification process is to determine a project's compliance with the VWQS. In that regard, extemporaneous statements of the Secretary or the Governor, made outside the official record, are not relevant to whether the project complies with the VWQS as reflected in the water quality certification. Again, the Agency considered all relevant information in reaching this decision, including but not limited to information and comments received at the time the October 25, 2001 draft certification was released for public comment. See also previous response.

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**END OF COMMENTS**