



Pacific and Yukon Region
Environmental Protection
401 Burrard Street
Vancouver, B.C. V7M 3H7

September 17, 2004

File: 2-4191-10-82/10

Linda Sullivan
Senior Program Officer
Suite 320, Sinclair Centre 757 Hastings Street West
Vancouver, British Columbia
Canada V6C 1A1

Dear Ms. Sullivan:

**Re: Chemainus Groundwater Well Project, District of North Cowichan
Canadian Environmental Assessment Act (CEAA)**

Environment Canada has reviewed the subject environmental assessment application and offers the following comments. If our understanding of the project is incorrect, the proponent should contact us immediately, as our comments may change.

Briefly, the proponent, the Corporation of the District of North Cowichan, is proposing to construct a groundwater supply system for the Community of Chemainus. The groundwater supply system will replace the Banon Creek Reservoir that currently supplies water for the community. Proposed principle projects works include:

- Three production wells located on the north shore of the Chemainus River approximately 60m east of the Trans Canada Highway (The location of two of the production wells has been confirmed. Two pilot holes will be drilled in 2004 and one of the pilot holes may be identified as the third production well depending on the results of 2004 pump program);
- Approximately 3970 m of water main, connecting the wells to an existing water main at the intersection of the Trans Canada Highway and Henry road;
- A 4.5 M litre concrete reservoir, to be constructed on River Road and connected to the other components via the existing water main;
- An underground pipe, to connect the production wells to the pump house (two option routes are being assessed; and,
- A pump house, which will include a chlorination addition facility that will facilitate initial groundwater disinfection, and a chlorine residual throughout the distribution facility.

Proposed ancillary physical works include:

- Hydroelectric connections, from the pump house and reservoir to the nearest BC Hydro lines;
- An access road, from the Trans Canada Highway west to the pump house facility; and,
- Four monitoring wells, located around the production wells.

The project proposal has the potential to impact sensitive ecosystem present within, and adjacent to, the project area. Based on Sensitive Ecosystem Inventory (SEI) data, a polygon is present in or near the project area, and specifically in proximity to the wells adjacent to the Chemainus River. This polygon – SEI polygon V0876 – contains riparian habitat features with a total are of 7.028 hectares.

Intact riparian ecosystems are rare on the east side of Vancouver Island. In the Sensitive Ecosystems Inventory (1993 to 1997), only 1.6% of the 4,100 km² study area between Sooke and Campbell River was identified as riparian ecosystems in a relatively natural condition. Recent SEI disturbance mapping indicates that 4.6% of this small area has been lost to disturbance in the approximately ten years since the original inventory.

Environment Canada recommends that further loss of sensitive ecosystems be prevented. We recommended that no actions be taken that compromise the integrity and ecosystem functions of the riparian areas. The referral does not, in our view, provide sufficient information for us to gauge the present habitat quality of the polygon, nor the potential impacts the proposed wells would have upon it. Canadian Wildlife Service will be conducting a site visit of this polygon in the very near future, for the purposes of assessing its ecological integrity (following SEI protocol). Once completed, CWS will report out on its findings and provide recommendations on impact mitigation. Recommendations will follow a hierarchical approach beginning with avoidance, mitigation, and then compensation as and where appropriate.

Some of the management plans (Section 32 – Environmental Management Plans) include mitigation measures to protect all watercourses while some only protect the Chemainus River. The proponent should either clarify that the Chemainus River is the only watercourse in the vicinity or adjust the management plans to include mitigation for all watercourses.

If you have any questions I can be reached by phone at 604-666-3567 or by email at Jennifer.Tennant@ec.gc.ca.

Yours sincerely,



for Jennifer Tennant
Environmental Assessment Officer

cc: Andrew Stewart, CEAA
Nadine Parker, CWS