

March 8, 1999
Mayor and Councillors,
Municipality of Central Saanich,
Mt. Newton X-Road,

Dear Members of Council,

Re: Concerns with the Capital Health Region Report

We are writing to you as individual members of the Water Advisory Task Force.

As you know, one of the specific issues with which the task force is charged is the *Senanus Drive* issue. All of us recognize the existence of water problems for some residents of the area, and all of us are committed to finding appropriate solutions. In this context, the role the Task Force has defined is, in a rational fashion, to identify the nature of the problems and, based on that information, to elucidate the costs and benefits of alternative solutions as best we can. This information is to be forwarded to Council for its consideration.

This has been a time-consuming, and difficult, task. Unfortunately, the report of the Capital Health Region, *Senanus Drive Water Quality Study*, has made this job more difficult. At the Task Force's meeting on March 4, the CHR's representative acknowledged the report's serious deficiencies, and suggested that the report be treated as a draft. We would urge the Council to adopt this approach, and send the report back to the Region for significant reworking. Below are our reasons for this suggestion.

Given the range and depth of the problems of the Report, we are only able to touch on the problems in a brief fashion. In summary, we believe that the report is partial in its data, flawed in its analysis, unsubstantiated in its conclusions, and unwarranted in its recommendations.

Limited Data: The report is based on analyses taken at various times over a one-year period from 8 to 10 households out of 27 properties in the area. These households were not randomly selected for the survey, but rather, were selected through voluntary association with the survey (page 10, Section 5). In fact, based on the information gathered by the Water Advisory Task Force, many of the households used in the CHR survey appear to have water quality problems which are more extreme than those of the area in general, and are certainly not representative of the area.

Given both Council's and the Task Force's concern for more data, it is disappointing that the data which the CHR provides is, in the main, not new data at all. Table One (the chemical analysis) is identical to data which is widely available and which the Task Force has been considering for some time. Table Two (on bacteria) is virtually identical. By and large, what the CHR has given us is their particular interpretation of known information.

Health: The potential health effects of those chemicals and elements found in the water sampled are not systematically described or addressed in the report. For example, no clear distinction is made in their analysis between aesthetic issues (i.e. staining and taste) and health issues. Further, the discussions concerning health issues which are

included are incomplete, as they fail to explore both the complexities and uncertainties surrounding the health effects of various elements found in water. As well, the potential positive effects of certain characteristics on human health (e.g. trivalent chromium, magnesium and calcium that leads to water hardness) are not considered. The report fails to differentiate between the highly variable problems with the chemicals in issue and with the situations of the residents, but makes dangerous generalizations (in particular, that residents in the area should stop using the water for drinking and cooking) based on unwarranted extrapolations from a few cases.

Source Distinctions: The report clearly indicates that much of the problem associated with water quality at those properties tested on Senanus Drive is indicative of improper maintenance and cleaning of the existing water systems (page 7, Section 4.ii). Yet the report concludes that the groundwater "source" of drinking water for the entire "Senanus area" is "unsuitable for drinking"(page 16, Section 8). There is no clear distinction made between water quality problems that stem from the groundwater *source*, as opposed to those which stem from the existing water supply *systems*, let alone the vast differences which exist between properties. This distinction is crucial when addressing the issue of whether an alternative source of water is warranted.

Treatment: The report fails to explore which water quality problems are treatable, and by what sort of system. There are numerous types of water treatment systems on the market ranging from household installations right up to collective treatment facilities. There are many local companies which deal with water quality and treatment technologies. The report rules out chlorination due to its effects on chromium, but this generalization may not apply to all houses. The report fails to explore the many other methods available, at reasonable cost, for treating water. Its treatment of some options is essentially off-the-cuff and anecdotal. In this light, the report's endorsement of the highest cost solution (extension of the municipal pipeline) is simply unsupportable.

Unsupported Conclusions Despite the limited data set, conclusions are drawn, and recommendations made for an entire, undefined "Senanus area." Despite the fact that a fair number of the households considered in the report had only minor water problems, or none at all, the conclusions were based on the worst cases. Based on the sampled water from these few houses, generalized references are made throughout the report to "Senanus Drive water" and the "Senanus area." In order for a reasonable assessment of the water issues on Senanus Drive, water sampling and analysis should be done for more than simply ten of the twenty-seven households.

Recommendations without Information: While the report states that "a cost-benefit analysis, capital costing and the consideration of opportunity costs for the options examined are outside the scope of this study and have not been undertaken," it nevertheless makes recommendations about options for addressing the water problems on Senanus Drive. In order for sound recommendations to be made, a full analysis must consider all costs and benefits (including non-monetary costs, and long term implications for all options). Despite the failure to undertake any cost/benefit analysis, the report is nevertheless replete with numerous unsupported references to options having "significant cost factors", and makes numerous recommendations that exceed the information and, indeed, the Board's competence. Even with consideration of health

consideration of health issues only, the report is not based upon enough information to justify its recommendations.

Most importantly, any selection of one proposed solution over another must explicitly address the various values advanced by that solution over any other solution, including the so-called "opportunity costs" not considered by the CHR. This is especially important where large sums of public monies are involved. No such consideration was made by the CHR, but the report still made conclusive recommendations that far exceeded its mandate.

In summary, this report is based neither on good science nor on good policy analysis. It simply clouds an already controversial issue, and complicates the work of the Task Force in providing a competent analysis.

In conclusion, accepting the CHR's representative's acknowledgment of this report as a draft, we would urge the Council to:

- 1) send the draft report back to the CHR for further work;
- 2) point out to the CHR the need for revisions to take into account the serious deficiencies in the report as set out above;
- 3) and contract with an independent analyst to get comprehensive data on all the properties in the area.

Upon receipt of that data, it is our intention, as members of the Task Force, to address the full range of alternative solutions that this data presents, and to do so in a way that can offer the Council truly innovative, cost-effective options that can resolve the problems in a way that will be satisfactory to all.

We feel that the people of Senanus Drive, and of Central Saanich generally, will only be well served by such a well-considered, rational, and transparent decision process.

Sincerely yours,

**Calcium is non-toxic, but adds to water hardness.

Magnesium is non-toxic, but adds to water hardness. With high concentrations of sulphate, it can cause diarrhea.

(Water hardness has been correlated with reduction in heart attacks)

Manganese is non-toxic, but can cause staining.

Sodium is non-toxic, but affects those on reduced salt diets. Elevated sodium levels can be caused by water softeners.

Chromium in its trivalent state is non-toxic, and is often taken as a health supplement.