



The Corporation of the District of Central Saanich

MEMORANDUM

Date: July 23, 1999 **File:** 5600-06 Water Supply – Extensions
To: Gary Nason, Clerk Administrator
From: Von Bishop, Senior Engineering Technologist
SUBJECT: Senanus / Mt. Newton Water Issue

RECOMMENDATIONS:

That Council receive this report and provide further direction to Staff on the nature and extent of the public input process that Council has previously indicated it wishes to conduct as the next step in the decision making process.

INTRODUCTION

This report is an amendment of the report of June 29, 1999, which was received for information by Council on July 5, 1999.

As requested by Council, reports on the issue of water for the Senanus Drive area have been prepared by Lowen Hydrogeology Consulting (Lowen), the Water Advisory Task Force (WATF), the Capital Health Region (CHR), and by Staff.

Reports by Lowen, the WATF, and the CHR, are attached as appendices to this summary report, with a brief statement on each one below. Staff reports on a Specified Area for a water line, on the Provincial "Local Government Grants Program for Infrastructure", and on the planning implications of a watermain extension, follow the summaries of the reports from others.

A number of other Staff reports have been prepared on this issue over the years on costs and specified areas, alternative supply routes, planning implications of a watermain, and alternative solutions. Copies of the previous staff reports are attached as Appendix E.

A copy of the original CHR report of March 3, 1999, which was previously distributed to Council, is available for reference from the Engineering Department.

REPORTS BY OTHER AGENCIES

Lowen Hydrogeology Consulting Report – Appendix A

Lowen Hydrogeology Consulting was retained by the District and CHR to sample the groundwater in the Senanus aquifer and to test it for chemicals, minerals and bacteria. The main conclusion from the report was that there are no health concerns indicated. Some individual

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wells had some elevated substances that affect palatability and may cause corrosion or deposits. The report suggested that any adverse effects could be rectified by in-home systems.

Water Advisory Task Force – Majority Report – Appendix B

The Water Advisory Task Force was split on the issue of water for Senanus Drive, and so they presented two reports.

The majority report was issued as a preliminary report dated April 30, 1999, and the final report was dated June 14, 1999.

The report recommended that any problems with water quality and quantity should be resolved on an individual household basis. They recommended further review of the situation and further research by the Task Force into a community water system (using communal wells or a very small pipe from the municipal system, flowing to a small reservoir) that also considered reclamation and reuse of waste water.

Water Advisory Task Force – Minority Report – Appendix C

The minority report recommended that Council support the residents in applying for infrastructure grant money for the construction of a watermain, and once funding is known, conduct public meetings/surveys to determine the level of support by residents.

Capital Health Region Report – Appendix D

The CHR report points out that the testing done in May was at a time of high groundwater, and may not be reflective of the conditions under low groundwater. The report recommends that the District pursue an extension of the water system as a long-term solution to the drinking water quality problems.

REPORTS BY STAFF

Staff were requested by Council to prepare, at the time of presentation of the reports from outside agencies, background information on the Provincial Grant Program. As well they were requested to provide information on the details of any Specified Area that would be created, were it ultimately determined that a sufficient problem existed to warrant the extension of the municipal watermain. At the Council meeting of July 5, 1999, Council asked for an update on the planning implications of a watermain extension. As well, Council requested that staff summarize the alternative options, most of which have been previously presented, to address the issue.

It was Council's wish that as much information as possible be available at one time. This also provided Staff an opportunity to update the information previously made available to Council, in light of amended legislation and new Provincial grant programs.

Specified Area / Local Improvement

As a first step, the cost estimate done in 1995 was reviewed and the estimate was increased from \$800,000 to \$850,000. This is for a 200mm (8 inch) line on Mt. Newton to West Saanich Road and a 150mm (6 inch) line west of West Saanich to the end of Senanus.

There are 64 properties, not exempt from taxation, that would have direct access to a water main on Mt. Newton/Senanus, as shown in Figure 1. The drawing also gives the current zoning of properties in the area.

It is assumed for the calculation of parcel taxes for a watermain extension, that the benefiting properties as shown on Figure 1 would comprise the Specified Area. Under the *Municipal Act*, Council is able to enlarge or reduce a Specified Area, although an unwillingness to pay for an improvement is not a sufficient reason to be excluded.

There are three generally accepted methods to determine the charges to benefiting parcels:

1. Frontage Tax – This option was not pursued by staff because of the extreme variations in the frontages of the parcels.
2. Parcel Tax- This method divides the total cost of the works by the number of benefiting properties.
3. Tax Based on Assessment – This method divides the total cost of the works by the total assessed value of the benefiting parcels to derive a rate per \$1000 of assessed value, and then multiplies that rate times the assessed value for each parcel to determine the share of the cost for that parcel.

Throughout these calculations, it is assumed that the total cost of the works is to be borne by the benefiting parcels. Any infrastructure grants would reduce the amounts accordingly.

For a total cost of \$850,000 the commuted value or one time uniform parcel tax is estimated to be \$13,281.25 and the specified area charge based on assessed values is estimated to be \$28.32 per \$1,000 of assessed value.

Table 1 indicates the total charges for each property using both methods of calculation. It should be noted that the total commuted charge per parcel charge using a rate on land and improvements varies from a low of \$1,557.33 to a high of \$65,407.70. This is shown in the "Commuted Tax Rate" column of Table 1.

Table 1 also indicates the annual charge for each parcel under the two methods, based on a 15 year amortization period at an annual interest rate of 6.25%. Under the uniform parcel tax method, the annual charge is estimated to be \$1,389.90 and using assessed values, the annual rate per \$1,000 of assessment is estimated to be \$2.96. Again, it should be noted that there is a large variation in the costs using assessed values, ranging from a low of \$162.98 per year to a high of \$6,845.00 per year. This is shown in the "Annual Tax Rate" column of Table 1.

If Council wished to proceed with a Specified Area, there are two options:

1. Municipal Initiative – Council proposes the work on its own initiative and is required to advise the affected property owners of the nature and cost of the work. Council is also required to provide a counter petition opportunity against the proposed work.
2. Petition to Council for the Proposed Work by the Affected Property Owners – Sections 631 and 632 of the *Municipal Act* outline the information that must be contained in a petition for it to be considered valid.

One of the main requirements is that the petition must be signed by 2/3 of the property owners, representing at least 50% of the assessed value of the parcels liable to be specially charged.

Because of the technical requirements for a valid and sufficient petition, if the residents initiated a petition, Staff should prepare the petition and one or more of the proponents should solicit the required signatures, if Council wishes to pursue this option.

Provincial Local Government Grants Program for Water, Sewer and Other Infrastructure

In January 1999, the Provincial Government announced a program of grants, in the amount of \$50 million per year. Applications are assessed using a Funding Priority Matrix, attached as Table 2. It appears that the ranking for a watermain extension on Senanus/ Mt. Newton would be quite low, without a demonstrated need for Public Health Protection.

The deadline for funding for 1999 was February. No deadline is specified for later years, but applications received after February 28, 1999 will be considered for years 2 or 3 of the program. The District applied for sewer infrastructure grants for 1999, 2000 and 2001 in the total amount of \$475,000. To date the District has had no indication whether the applications will be approved or not.

Planning Implications of a Watermain Extension

Since the previous report to Council on the planning implications, the District has completed and adopted a new Official Community Plan (OCP) and a new Land Use Bylaw (LUB), both of which have a bearing on the issue of a watermain extension.

Official Community Plan

Nothing in the OCP speaks directly to the issue of providing water to the Mt. Newton Cross Road/Senanus Drive area, but there are some policies that are somewhat applicable.

Schedule A, the Land Use Plan, indicates that the majority of the properties north of Mt. Newton Cross Road are "Rural" and those south of Mt. Newton Cross Road are "Agriculture". Map 2, "Agricultural Land Reserve", shows that the properties designated "Agriculture" in the OCP Land Use Plan are also in the Agricultural Land Reserve (ALR).

Section 3 on Agricultural Lands has a policy under Section 3.2.2 as follows:

Policy 8 Within the term of this plan, the District will investigate the feasibility of increasing the supply and distribution of water for agricultural irrigation purposes, and will also develop a policy to manage water connections (e.g., number, size) that serve agricultural properties. (cross-reference: Section 11.2.2, Policy 4)

It could be argued therefore that if the District or the local residents undertake to extend the watermain, the feasibility of providing additional water for agricultural uses should be considered.

Section 3.2.3 has a policy to support the B.C. Agricultural Land Commission (ALC) in the retention of agricultural lands in large parcels and a further policy to retain the lands designated as Agriculture as agricultural, even if the ALC changes the ALR.

Section 4 on Residential Growth has no policies regarding water supply, but Map 3 and Appendix 3 indicate a potential for 16 additional dwelling units in census area 301 and 32 in census area 305. Of those in area 305, some 30% or 11, could be attributed to the Mt. Newton Cross Road/Senanus Dr area. This would give a total of 27 additional dwelling units, in addition to the approximately 100 dwelling units that currently exist in the area not served by a municipal watermain.

There is also a policy under Section 4.2.2 that directs growth to the Residential-Settlement areas of the Land Use Plan, as opposed to the Rural and Agriculture areas.

Section 8 on the Environment includes a policy under Section 8.2.4 that deals with steep slopes:

Policy 4 In order to minimize development impacts on areas with steep slopes greater than 30%, the plan recommends limited development through retention of larger lot sizes or clustered development in these areas. Future zoning for these properties shall reflect this requirement. Map 6 shows areas of steeper slopes; further interpretations can be derived from the Central Saanich Resource Atlas, as it becomes available.

A number of the properties in the northwest area of the District have slopes over 30% and the majority of lots on the north side of Mt. Newton Cross Road are identified on Map 6 of the OCP as having thin soils over bedrock. This suggests that it may not be possible to find suitable areas on a number of properties for additional sewage disposal sites.

Section 9, Heritage, designates Mt. Newton Cross Road as a possible Heritage Roadway, and has a policy under Section 9.2.2 as follows:

Policy 3 The District will investigate the potential to establish Benvenuto Avenue and Mount Newton X Road as Heritage Roadways. All maintenance and upgrading of the roads should be done in consultation with the Central Saanich Heritage Commission.

Any construction of a watermain, therefore, should not adversely affect the landscaping or the character of Mt. Newton Cross road.

Section 11, Municipal Utilities, has two policies under Section 11.2.2 that are relevant:

Policy 1 Detailed expansion of utility services shall be in conformity with overall land use and development policies of this plan; as a general principle, water and sanitary services will be available in areas designated as Residential-Settlement Area and Industrial on Schedule A, Land Use Plan.

Policy 4 The District will investigate the feasibility of increasing the supply of water for agricultural irrigation purposes (cross-reference Section 3.2.2, Policy 8).

In Section 13, Implementation of the OCP, there is a commitment under Agriculture for the following action:

Action A3 The Engineering Department will investigate the feasibility of increasing the supply and distribution of water for agricultural purposes, and will also develop a policy to manage water connections that serve agricultural properties. (reference: 3.2.2 – Policy 8)

In summary, as far as the Official Community Plan goes, it appears that there is:

- acceptance of very modest additional growth in the rural and agricultural areas, based on a continuation of existing policies and zoning,
- no policy to provide utilities to the area,
- a desire to provide water for agriculture if feasible, and
- a desire to preserve the existing character of Mt. Newton Cross Road as a Heritage Roadway.

The implication of a watermain extension under the OCP, therefore, is that it could facilitate the very limited growth that is expected in the area, and could provide a basis for provision of water to the agricultural properties if desired.

Land Use Bylaw

Since the previous Staff report of July 15, 1997, the RE-3 zoning regulations were amended, on April 6, 1999, to delete the minimum lot area of 0.8 hectares (2 acres) when on a community water system. This means that all RE-3 zoned properties are now subject to a minimum lot area of 2.0 hectares (5 acres). As a result, there is now only one RE-3 zoned property that would front on a watermain on Senanus Drive, which could be subdivided. This property now has the potential for only 2 additional lots instead of the 6 additional lots estimated earlier. Overall, the total number of potential additional RE-3 zoned lots has been reduced from 10 to 2.

As indicated on Figure 1, the properties in the area are zoned A1, RE1, RE2, RE3, P1 and P2. Having municipal water available to the properties does not allow any relaxation of minimum lot sizes or allow subdivision or development, in and of itself.

As pointed out in the original report, the indirect implications of having a watermain extension are difficult to quantify. The availability of water could encourage some property owners to either develop under the existing zoning, or to apply for rezoning.

With the current Provincial support for the ALR and given the policies of the OCP, however, it would be difficult to support any rezoning of or development of the lands zoned Agriculture.

For the lands designated Rural, the OCP and the Land Use Bylaw should continue as constraints on development. Another constraint on development would be the suitability of the soil for sewage disposal. Whether rezoning applications would ever result in more growth would depend on future Council decisions and on the physical capacity of the lands.

Water Availability

Aside from the Community Planning and Land Use Bylaw issues, the availability of water has the greatest impact on the implications of a watermain extension.

The watermain design as presented is the minimum that the Engineering Department would recommend. It will satisfy residential demands and provide minimum fire flow requirements for those properties shown on Figure 1. If agricultural properties were to be connected to the system as designed, there would likely not be adequate fire flows during periods of high agricultural usage.

The system as designed could be extended to a similar standard, north and south along West Saanich Road and supply those properties along the east side of West Saanich Road and down to the water, with the same minimum pressures and fire flows as the properties shown on Figure 1.

If water is to be provided to the agricultural properties in the volumes they would like, or to those properties uphill from Mt. Newton Cross Road, such as on Thompson Road, Rae Leigh Place, or Alec Road, the proposed system and the existing supply line from Saanichton would have to be substantially upgraded.

PREVIOUS REPORTS

Previous reports that are available for information in Appendix D include the following:

1	Nov 23, 1995	A.C.Mackey	Watermain Extension – Mt. Newton Cross Rd and Senanus Drive
2	Dec 5, 1995	G. Naim	West Saanich Rd / Senanus Watermain Extension Cost Estimate
3	July 15, 1997	J. Winsor	Planning Implications of Providing Water to Senanus Drive Area
4	Oct 17, 1997	A.C.Mackey	Senanus Drive – Water Supply Alternatives

AVAILABLE OPTIONS

The alternatives available to deal with the issue of water are to:

- Leave things as they are, with individual homeowners solving their own problems with water, or
- Initiate a supply of water on a communal basis.

There are four basic ways that a communal supply of water to the Senanus Road/ Mt. Newton Cross Road area can be initiated:

1. A person or persons could undertake to install an extension to our water system at their expense, to our specifications. The works would be approved by the District, would be taken over by the District upon completion, and would be maintained by the District.
2. Council can undertake to install a system, either by paying for it entirely or by Specified Area. The system could be an extension of the existing watermain, a communal system with well(s) and a reservoir, or some other system such as desalination or a small municipal line feeding a reservoir.
3. The local residents can petition Council to allow a Local Improvement. The works would be approved by the District, would be taken over by the District upon completion, and would be maintained by the District. The options for the form of the works to be installed could also be an extension of the existing watermain, a communal system with well(s) and a reservoir, or some other system such as desalination or a small municipal line feeding a reservoir.
4. The local residents could apply to the Province to allow a Water Improvement District and could install whatever works they wish, with the approval of the Province for the system itself and of the District where land use issues or use of road allowances was involved.

If Council wished to pursue option 2, and initiate a communal water system, Staff could be directed to investigate more fully the alternative forms that the system could take, other than in accordance with our standard specifications. Information provided by the Water Advisory Task Force would be considered in our review.

For any other option, the onus would be on the local residents to bring forward for approval the system that they wished to pay for and to have installed. At that time, Staff would review the application and report to Council.

A number of alternatives, other than an extension of the municipal watermain system, have been considered by Staff and others over the years. Table 3 lists those alternatives and indicates where more information is available on them.

RECOMMENDATIONS

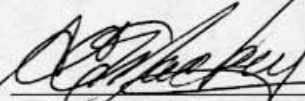
That Council receive this report and provide further direction to Staff on the nature and extent of the public input process that Council has previously indicated it wishes to conduct as the next step in the decision making process.

Submitted by: 
Donavon Bishop, A.Sc.T. Senior Technologist

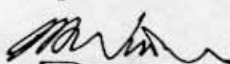
Financial implications contained in this report have been reviewed and endorsed by the Director of Financial Services.


E. Sykora, CMA
Director of Financial Services

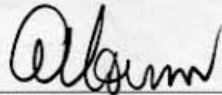
I concur with the recommendations of this report.


A.C. Mjokey, P.Eng.
Municipal Engineer

Planning implications contained in this report have been reviewed and endorsed by the Director of Planning and Building Services


John Winsor, MCIP
Director of Planning and Building Services

I concur with the recommendations of this report.


G. Nason
Clerk Administrator