

REGIONAL DISTRICT OF NANAIMO

**ENVIRONMENTAL SERVICES COMMITTEE MEETING
TUESDAY, JANUARY 23, 2001
7:30 PM**

(Nanaimo City Council Chambers)

A G E N D A

PAGES

CALL TO ORDER

DELEGATIONS

2 **Helen Sims**, re Bennett Road Subdivision.

MINUTES

3-5 Minutes of the Environmental Services Committee meeting held on Tuesday, November 28, 2000.

COMMUNICATIONS/CORRESPONDENCE

6-8 **Derek Thompson, Ministry of Environment, Lands & Parks**, re Safe Drinking Water Plan - Information Sessions.

LIQUID WASTE/UTILITIES

9-13 Biosolids.

14-16 Applications for Infrastructure Planning Grants.

17-22 Bylaws No. 889.16 and 813.25 - Application for Inclusion in French Creek LSA - Johnstone Road - Area G.

23-26 Inclusion of Properties into French Creek LSA - Bennett Road - Area G.

27-33 Rural On Site Sewage Disposal Area Rating System.

SOLID WASTE

34-66 Solid Waste Customer Surveys.

67-70 Non-Public Residential Water Works Systems Within the RDN.

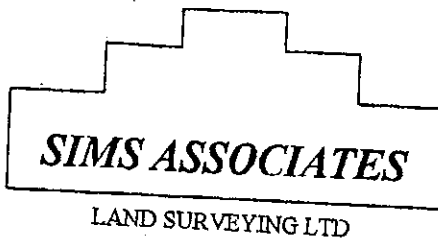
ADDENDUM

BUSINESS ARISING FROM DELEGATIONS OR COMMUNICATIONS

NEW BUSINESS

IN CAMERA

ADJOURNMENT



223 Fern Road West
 Qualicum Beach, B.C. V9K 1S4
 Telephone: (250) 752-9121 Facsimile: (250) 752-9241

TO: Maureen Pearce
COMPANY: Regional District of Nanaimo
FAX:
FROM: Helen Sims
DATE: January 11, 2001

No. of Pages 1 (including cover sheet)

File No:

COMMENTS:

Re: Bennett Road Subdivision

I wish to address the Environmental Services Committee Meeting on 23 January, 2001.

Please confirm that I am on the agenda.

REGIONAL DISTRICT OF NANAIMO

MINUTES OF THE ENVIRONMENTAL SERVICES COMMITTEE MEETING
HELD ON TUESDAY, NOVEMBER 28, 2000, AT 7:30 P.M. IN THE
COUNCIL CHAMBERS OF THE CITY OF NANAIMO
455 WALLACE STREET, NANAIMO, B.C.

Present:

Director L. Sherry	Chairperson
Director L. Elliott	Electoral Area A
Director B. Sperling	Electoral Area B
Director E. Hamilton	Electoral Area C
Director D. Haime	Electoral Area D
Director G. Holme	Electoral Area E
Director J. McLean	Electoral Area F
Director J. Stanhope	Electoral Area G
Director R. Quittenton	Electoral Area H
Director J. Macdonald	City of Parksville
Director T. Westbroek	Town of Qualicum Beach
Director G. Korpan	City of Nanaimo
Director L. McNabb	City of Nanaimo
Director D. Rispin	City of Nanaimo
Director T. Krall	City of Nanaimo
Director B. Holdom	City of Nanaimo

Also in Attendance:

K. Daniels	Chief Administrative Officer
J. Finnie	General Manager of Environmental Services
C. McIver	Manager of Solid Waste
W. Moorman	Manager of Engineering & Utilities
D. Trudeau	Manager of Liquid Waste
C. Mason	General Manager of Corporate Services
N. Avery	Manager of Financial Services
N. Tonn	Recording Secretary

MINUTES

MOVED Director McLean, SECONDED Director Hamilton, that the minutes of the regular Environmental Services Committee meeting held on Tuesday, October 31, 2000, be adopted.

CARRIED

LIQUID WASTE/UTILITIES

Bulk Water – Arrowsmith Water System 2001 Budget.

MOVED Director Holme, SECONDED Director McLean, that the Year 2001 Provisional Operating and Capital Budget as approved by the Management Committee on October 18, 2000 for a total of \$168,000.00 be approved by the Regional District of Nanaimo.

CARRIED

West Coast Reduction Limited Outfall Extension.

MOVED Director McNabb, SECONDED Director Elliott, that staff be directed to proceed with the WCR proposal and submit application for the "Disposition of Crown Land" and prepare an agreement with WCR for the joint use of the outfall that protects the RDN's interests.

CARRIED

SOLID WASTE

2001 Illegal Dumping Prevention Program Workplan.

MOVED Director Krall, SECONDED Director McNabb, that the report on the Illegal Dumping Prevention Program and the 2001 Workplan be received.

CARRIED

Self Haul Tipping Fees.

MOVED Director Westbrook, SECONDED Director Elliott,:

1. That the fee structure for self-haul loads be changed from a flat rate based on vehicle type to a flat rate based on weight.
2. That the fee structure be amended to \$4.00 for small loads less than 100 kg and \$90 per tonne for loads greater than 100 kg effective January 1, 2001.
3. That the "Regional District of Nanaimo Solid Waste Management Regulation Amendment Bylaw No. 894.13, 2000" be introduced and read three times.
4. That the "Regional District of Nanaimo Solid Waste Management Regulation Amendment Bylaw No. 894.13, 2000" be adopted.

A recorded vote was requested.

The motion CARRIED with Directors Holme, Hamilton, Quittenton, Westbrook, Sherry, Haime, Sperling, Macdonald, Holdom, McNabb, Elliott, Krall, Korpan and Stanhope voting in the affirmative and Directors Rispin and McLean voting in the negative.

OTHER

2001 Provisional Budget Presentation.

The General Manager of Environmental Services presented a visual and verbal summary of the services provided by the Solid Waste, Liquid Waste and Engineering and Utilities departments within the Environmental services area including their service goals, key activities and major budget highlights.

MOVED Director Westbrook, SECONDED Director Hamilton, that the 2001 Environmental Services provisional budget be approved.

CARRIED

IN CAMERA

MOVED Director Holme, SECONDED Director McNabb, that pursuant to Section 242.2(1)(e) of the Local Government Act the Committee proceed to an In Camera meeting to consider items related to the acquisition of land.

CARRIED

ADJOURNMENT

MOVED Director Holme, SECONDED Director McNabb, that this meeting terminate.

CARRIED

TIME: 8:34 PM

CHAIRPERSON



REGIONAL DISTRICT OF NANAIMO			
JAN 16 2001			
CHAIR		GRCS	
CAO		EMOS	
COMPL		EMES	
ESC Correspondence			✓

JAN 10 2001

File No.: 77515-40/Drinking

Re: Safe Drinking Water Plan – Information Sessions

The Government of British Columbia invites you to attend a consultation and information session on drinking water protection. This session will be your opportunity to provide advice and input into a plan to enhance the safety of drinking water throughout all British Columbia.

In a 1999 report, BC's Auditor General said that the water sources he examined provided water that could be consumed with only minimum treatment. But he also found that almost all our drinking water sources are threatened by human activities that are not adequately managed.

In his speech to the Union of British Columbia Municipalities annual convention in October 2000, the Premier committed the government to work with local communities to find ways of better protecting drinking water sources throughout the province.

To meet the Premier's commitment a package of initiatives has been identified and government has initiated a consultation process that seeks input from water providers, local governments, health officials, First Nations, environmental groups, resource industries, farmers, ranchers and communities. Ideas, opinions, suggestions and concerns gathered during these consultations will assist in finalizing a plan to protect our drinking water and may form the basis for new legislation to give this commitment the force of law.

Sessions will be held in the following locations:

- Nanaimo:** January 26, 2001
- Abbotsford:** January 29, 2001
- Kelowna:** January 31, 2001
- Cranbrook:** February 2, 2001
- Smithers:** February 5, 2001
- Prince George:** February 6, 2001
- Fort St. John:** February 7, 2001
- Williams Lake:** February 8, 2001
- Burnaby:** February 13, 2001.

• THE GOVERNMENT OF BRITISH COLUMBIA IS AN "EMPLOYMENT EQUITY EMPLOYER" •

Ministry of
Environment,
Lands and Parks

Office of the
Deputy Minister

Mailing Address:
PO Box 9339 Stn Prov Govt
Victoria BC V8W 9M1

Location:
5th Floor, 2975 Jutland Road
Victoria BC

3 PAGE
6

There will be daytime sessions held in each location for invited stakeholders, plus an open house in the evening for the general public. Invited stakeholders are welcome to attend the evening sessions as well. If you or your organization are interested in attending one of the consultation sessions please call Enquiry BC at:

- (604) 660-2421 in Greater Vancouver;
- (250) 387-6121 in Victoria; or
- 1-800-663-7867 in the rest of the province.

You can also complete the attached registration form and submit it by fax to (604) 983-3183.

If you are unable to attend, but would still like to provide input on this important issue you can do so through our website at <http://www.env.gov.bc.ca/wat/wq/dw/> after January 15, 2001. Those wishing to submit written comments can send them to:

PRAXIS
3848 St. Georges Avenue
North Vancouver BC V7N 1W5

You can also fax comments to PRAXIS at (604) 980-9992 or send comments by e-mail to britney@praxis.ca

A discussion paper will be available on our website after January 15, 2001, or by calling **Enquiry BC** at the above numbers.

On behalf of the Ministry of Environment, Lands & Parks and the Ministry of Health we would like to thank you for your interest in this initiative.

Yours sincerely,



Derek Thompson
Deputy Minister

Attachment

cc: Leah Hollins, Deputy Minister, Ministry of Health and Ministry Responsible for Seniors



FAX BACK REGISTRATION FORM ♦ 604-983-3183

Safe Drinking Water Plan - Information Sessions

Please select either a morning or afternoon session, indicating your choice with a check in the appropriate box. We will fax or e-mail a confirmation of your registration and include details of the session location.

Community - Date	Morning Session (8:45 am-noon)	Afternoon Session (12:45-4:00)
Nanaimo - January 26, 2001		
Abbotsford - January 29, 2001		
Kelowna - January 31, 2001		
Cranbrook - February 2, 2001		
Smithers - February 5, 2001	Not applicable	
Prince George - February 6, 2001	Not applicable	
Fort St. John - February 7, 2001	Not applicable	
Williams Lake - February 8, 2001	Not applicable	
Burnaby - February 13, 2001		

Person attending _____

Title _____

Organisation _____

Address _____

Community _____ Postal Code _____

Tel. Number _____ Fax Number _____

E-mail address _____

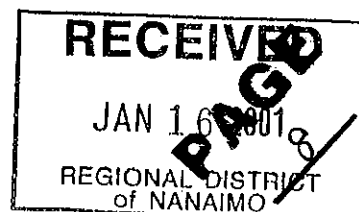
How would you like to receive the discussion paper and the session agenda?

(check one) Mail E-mail (as PDF/Acrobat file)

There is no charge for registration. You must register 7 days before your session to receive an information package by mail.

Please check here if you will not attend an information session, but would like the discussion paper sent to you.

Contact person for registration: Candice Velasco
(e-mail: candice@devonknight.com)





REGIONAL DISTRICT OF NANAIMO			
JAN 16 2001			
CHAIR		GMCrs	
CAO		GMDS	
GMCrs		GMES	
ESC			✓
DATE:			
FILE:			

MEMORANDUM

TO: Dennis Trudeau
Manager of Liquid Waste

FROM: Natalie Cielanga
Engineering Technologist

SUBJECT: Liquid Waste Management
Biosolids

January 10, 2001

5340-05

PURPOSE

To present the biosolids site assessment and pilot project design report and choose an option for biosolids.

BACKGROUND

In June 2000, the Board was presented with a status report on the biosolids program. The schedule was to present a plan for the reuse or disposal of biosolids to the Board by April 2001. However, landfill tipping fees came into effect for biosolids beginning January 2001, and in an effort to reduce costs, staff has advanced the program

A public information meeting was held on Sept. 7, 2000 for potential biosolids users, including, woodlot owners, agricultural operators, and gravel pit owners to assess local interest in biosolids recycling. The meeting concluded with six property owners/operators expressing interest in using biosolids. An article about the meeting in a local newspaper generated interest from two more property owners. The interested sites consisted of one reclamation area, one forested area and six farm properties.

Consultants experienced in biosolids reuse were retained to study the proposed sites. A report has been prepared titled "Regional District of Nanaimo Biosolids Site Assessment & Pilot Project Design" that assesses the proposed sites and makes recommendations on future biosolids reuse activities. The executive summary of this report is attached as Schedule A.

Assessment criteria were developed into a decision matrix that included cost, logistical constraints, environmental constraints and risk. Cost factors included transportation distance, application costs, monitoring and reporting. Logistical criteria included accessibility, property ownership, biosolids storage options, transportation routes, familiarity with biosolids and current land management practices. Environmental considerations included suitability of the soil, proximity to sensitive areas, depth to groundwater and benefit to the site. Risk factors included the landowner and commitment, neighbours, regulatory acceptance and biosolids application opportunities.

The matrix was used to evaluate the eight properties for inclusion in a two-year biosolids reuse pilot project. Three of the highest rated properties were recommended for inclusion in the first year of the pilot project. These include a farm on Jinglepot Road in Area "D" and a farm located south of the community of Parksville in Electoral Area "F", and the Malaspina University-College Forest (sites 4, 8 & 6, respectively on the map attached as schedule 'B'). Many of the other properties are or could be suitable

for biosolids applications in subsequent years provided some modifications to current land management are completed.

The RDN is permitted to recycle biosolids in accordance with our treatment plant permit. The Ministry of Environment has a new draft regulation for the recycling of organic matter that requires a land application plan be completed by a professional prior to an application. Also, public information meetings need to be held prior to storage or application of biosolids.

The following work plan outlines the tasks that staff plans to complete as part of the RDN's biosolids recycling program.

TASK	DATE
Complete land application plan	February
Public information meetings/presentations	March
Begin storing biosolids at application site(s)	March/April
Begin application	July

The results of the first year of biosolids application would be reviewed prior to planning activities in 2002.

ALTERNATIVES

1. Proceed with a two year program to beneficially reuse biosolids.
2. Dispose of biosolids in a landfill.

FINANCIAL IMPLICATIONS

Alternative 1: The first year of the pilot project is projected to cost \$111,000. The cost of beneficially reusing biosolids will decrease significantly in subsequent years since much of the costs in the first year are start-up costs. There are adequate funds identified in the 2001 provisional budget to complete the project. The cost for disposing biosolids in the landfill would be \$130,000.

Alternative 2: The solid waste department has started charging for the disposal of biosolids at the landfill. The cost to continue sending our biosolids to the landfill will be \$130,000 in 2001, \$235,000 in 2002 and \$335,000 in 2003. Landfilling options will decrease when the RDN landfill closes.

INTERGOVERNMENTAL IMPLICATIONS

It is noted that the application of biosolids to farmlands and forestlands is an accepted practice to enhance productivity of those lands.

The biosolids program is subject to approval and is regulated by the Ministry of Environment. Agricultural sites must meet requirements from the Ministry of Agriculture and Woodlots fall under the Forest Practices Code from the Ministry of Forests.

The Ministry of Environment has been consulted on the proposed plan and will be involved throughout the implementation.

CITIZENS/PUBLIC RELATIONS IMPLICATIONS

The workplan includes public information through news releases and presentations. Prior to proceeding with an application or on-site storage, the local property owners and residents will be advised and given an opportunity to obtain additional information on the biosolids program, application procedures and timing.

ENVIRONMENTAL IMPLICATIONS

Biosolids have been treated and are considered acceptable to reuse by the Ministry of Environment. Setback requirements from streams and other bodies of water will protect water quality and other requirements protect human and animal health.

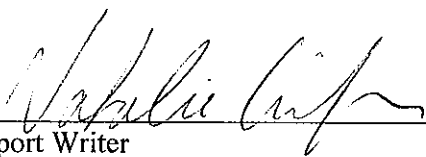
SUMMARY/CONCLUSIONS

The cost of disposing of biosolids in the landfill is increasing and the option to use our biosolids at the landfill will not be available when the landfill closes. Eight properties in the RDN have been assessed for suitability for biosolids application and three sites are recommended to receive biosolids in 2001.

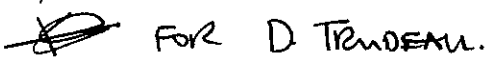
A pilot project has been designed to use the biosolids generated at the RDN treatment plants on the three properties in 2001. The cost of beneficially reusing biosolids is less than landfilling. The results of the first year of biosolids reuse will be evaluated and reviewed prior to planning additional applications in 2002.

RECOMMENDATION

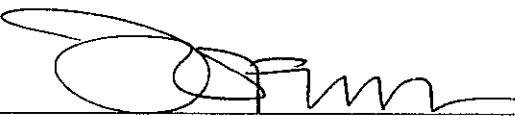
1. That the Biosolids Site Assessment & Pilot Project Report be received
2. That the biosolids recycling pilot project be implemented



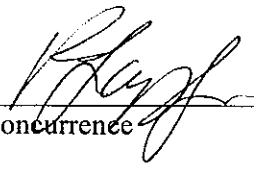
Report Writer



FOR D. TREMBLAY
Manager Concurrence



General Manager Concurrence



CAO Concurrence

COMMENTS:

Executive Summary

The Regional District of Nanaimo (RDN) produces approximately 3100 tonnes of biosolids per year from two wastewater treatment plants (WWTPs) – French Creek and Hammond Bay. The biosolids generated at these WWTPs are currently being stockpiled and used at the landfill as a soil amendment and top-dressing for closed areas. Biosolids production is increasing and the opportunity to use biosolids at the landfill is finite. An environmentally safe and economically feasible biosolids management plan must be developed to secure short and long term biosolids recycling options.

To assess local interest in biosolids recycling the RDN hosted an open house and provided information on biosolids use options. As a result of the meeting, several landowners expressed an interest in using biosolids in the fertilization of agriculture and forested land and in the reclamation and re-vegetation of disturbed land. The objective of this study was to develop an assessment matrix for the evaluation of these potential sites, evaluate each site, and plan and estimate a budget for a RDN biosolids pilot project.

The trace element concentrations in RDN biosolids are below the regulatory requirements as specified in the latest draft of the Draft Organic Matter Recycling Regulation (OMRR). From the limited sample analysis completed RDN biosolids are meeting the trace element regulatory limits – however several of the elements (i.e. mercury) are close to the limit and historical data has shown that these metals have been elevated and exceeded OMRR class "A" standards. In the implementation of a biosolids land application program it is strongly recommended that a source control program be concurrently developed and implemented. The French Creek PCC should be able to meet OMRR class "A" trace element concentrations and pathogen reduction requirements, however pathogen reduction was not confirmed at this time. The RDN should establish a routine biosolids sampling program with analytical parameters specific to land application recycling.

Assessment criteria were developed that included logistical constraints, environmental constraints and risk. Cost factors included transportation distance, application costs, monitoring and reporting. Logistic criteria included accessibility, property ownership, biosolids storage options, transportation routes, familiarity with biosolids and current land management practices. Environmental considerations included suitability of the soil, proximity to sensitive areas, depth to groundwater and benefit to the site. Risk factors included the landowner and commitment, neighbours, public acceptance, regulatory acceptance and biosolids application opportunities.

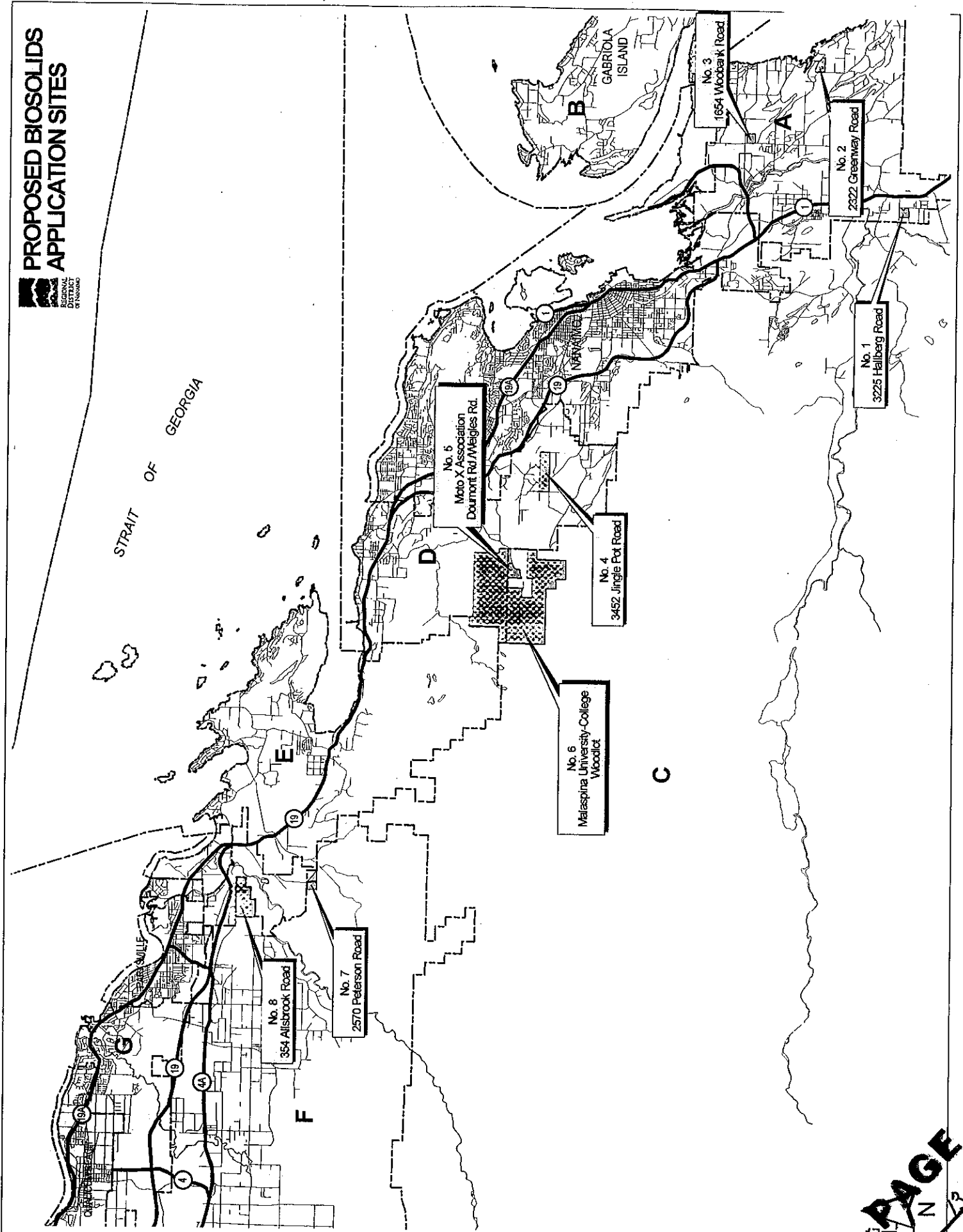
This matrix was used to evaluate eight properties for inclusion in a two-year pilot project. The application areas consisted of one reclamation area, one forested area and six farm properties. Several of the farm properties had both agriculture and forestry management objectives. Three properties were recommended for inclusion in the first year of the pilot project. These three are the Jinglepot farm, Allbrook farm, and the Malaspina University-College Forest. Many of the other properties are or could be suitable for biosolids applications in subsequent years provided some modifications to current land management be completed.

Based on the characteristics of these three properties, the amount and timing of biosolids required and authorization and mobilization schedule a pilot project was designed to use biosolids generated by the RDN in 2001. The biosolids pilot project is designed to demonstrate the beneficial use of biosolids through a number of various uses (agriculture/forestry), establish and maintain stakeholder acceptance and support and allow for the accurate determination of the costs associated with a biosolids land application program.

Based upon implementing the pilot project the first year cost to the RDN is estimated to be \$59 per bulk tonne of biosolids applied for the pilot project. In the first year of the pilot project 1924 bulk tonnes of biosolids will be recycled. Project costs are estimated at \$113,000. Project and budget details are found in the report text.



PROPOSED BIOSOLIDS APPLICATION SITES





REGIONAL DISTRICT OF NANAIMO		
JAN 16 2001		
CHAIR	SMCRS	
CAO	EMOS	
CMO	DMES	
ESC		DATE <input checked="" type="checkbox"/>
FILE:		

MEMORANDUM

TO: John Finnie, P. Eng.
General Manager, Environmental Services

FROM: Dennis M. Trudeau
Manager of Liquid Waste

SUBJECT: Applications for Infrastructure Planning Grants
2001 Local Government Grants Program

January 15, 2001

1855-03

PURPOSE

To receive support from the Board of the Regional District of Nanaimo for proposed infrastructure planning grant applications to be submitted to the Ministry of Municipal Affairs Local Government Grants Program.

BACKGROUND

On December 20, 2000 the British Columbia provincial government announced that infrastructure planning grant applications would be accepted for the first round of approvals until February 15, 2001.

The grants are provided for projects to study the feasibility, costs, technology, and location of proposed sewer, water, groundwater or stormwater drainage facilities. The maximum grant for approved studies is \$10,000. The first \$5,000 or less is funded 100% with the remaining costs being funded 50% up to the \$10,000 maximum.

Environmental Services staff has undertaken a review of future projects or studies that may fit the requirements of this grant program.

The following grant applications are all for the Nanoose Peninsula which is identified in the Regional District of Nanaimo Liquid Waste Management Plan and Official Community Plan as needing connection to the Nanoose Pollution Control Center. Although there are many other projects that may have merit it was decided that since there was support for these projects from previous planning exercises that they should now be advanced.

Proposed Infrastructure Planning Grant Projects:

1. Pre-design report on the extension of sanitary sewer trunk collection phase 2 on the Nanoose Peninsula as per the LWMP & OCP Report. This report will recommend staging, schedule for implementation and cost estimates for construction. Total cost - \$20,000.
2. Pre-design report on the extension of sanitary sewer trunk collection for Dorcas Point/Beachcomber on the Nanoose Peninsula as per the LWMP & OCP Report. This report will recommend staging, schedule for implementation and cost estimates for construction. Total cost - \$20,000.

3. Pre-design report on the extension of sanitary sewer trunk collection/integration for the West Bay and Arbutus service areas as per the LWMP & OCP Report. This report will recommend staging, schedule for implementation and cost estimates for construction. Total cost - \$20,000.
4. Pre-design report on the extension of sanitary sewer trunk collection on the Madrona Point Peninsula as per the LWMP & OCP Report. This report will recommend staging, schedule for implementation and cost estimates for construction. Total cost - \$20,000.

ALTERNATIVES

1. Submit applications for grants for the identified projects.
2. Do not submit applications for grants.

FINANCIAL IMPLICATIONS

Additional staff time will be required to manage the grant process and the subsequent work if the grants are approved. Depending on how many of the grants are approved and as available staff resources it may not be possible to undertake all of the projects at this time. The financial implications for a \$20,000 dollar study would be \$10,000. The additional funds would be accommodated in the 2002 Budget.

ENVIRONMENTAL IMPLICATIONS

All projects are environmentally friendly. The sewer extensions will potentially reduce the risk of ground water and surface water contamination from on-site disposal systems.

SUMMARY/CONCLUSIONS

On December 20, 2000, the British Columbia provincial government announced that infrastructure planning grant applications will be accepted for the first round of approvals until February 15, 2001.

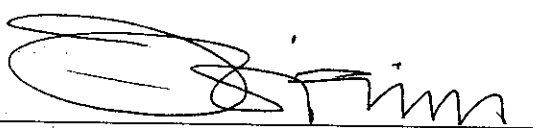
Environmental Services staff has undertaken a review of future projects or studies that may fit the requirements of this grant program and are recommending that 4 applications be made. The infrastructure planning grant applications are all for sewer infrastructure pre-design studies for areas on the Nanoose Peninsula identified for future servicing by the Regional District of Nanaimo Liquid Waste Management Plan and Official Community Plan.

RECOMMENDATION

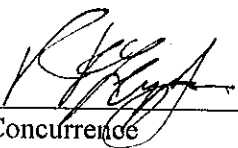
1. That the Board of the Regional District of Nanaimo support the Nanoose Peninsula Infrastructure Planning Grant applications.



Report Writer



General Manager Concurrence



A/ CAO Concurrence

COMMENTS:



REGIONAL DISTRICT OF NANAIMO			
JAN 12 2001			
CHAIR		GMCrs	
CAO		GMDS	
GMCrs		GMS	
<i>ESL</i>			
DATE:			

MEMORANDUM

TO: Wayne Moorman, P.Eng
 Manager of Engineering and Utilities

DATE: January 10, 2001

FROM: David Leitch, ASCT
 Engineering Technologist

FILE: 5500-20-01-FC

SUBJECT: Utilities
 French Creek Sewer Local Service Area
 Inclusion into Local Service Area

PURPOSE

To consider the request to include Lot 10, Plan 20609, DL 49, Nanoose Land District into the French Creek Sewer Local Service Area. (see attached map)

BACKGROUND

Current Board Policy adopted October 10, 1995 for considering local service area boundary amendment applications is "only those parcels identified for connection to community water and sewer in the Regional Growth Management Plan be considered for inclusion into the local service areas". The property requesting inclusion into the French Creek Sewer Local Service Area (FCSLSA) is within the Urban Containment Boundary as specified in the Plan.

Inclusion into the FCSLSA also requires the property to first be within the benefiting area of the French Creek Pollution Control Center, under the "Northern Community Sewer Local Service Area" (NCSLSA). The FCSLSA covers the sewer collection system; the NCSLSA covers the interceptor system and treatment and disposal facilities.

ALTERNATIVES

1. Do not accept the application.
2. Accept the application.

FINANCIAL IMPLICATIONS

There are no financial implications to the RDN. If accepted into the FCSLSA, all costs associated with the connection would be at the expense of the applicant. The subject property will pay a Capital Charge of \$5,436.00 for contribution to the downstream sanitary sewer capacity when being brought into the local service area.

INTERDEPARTMENTAL IMPLICATIONS

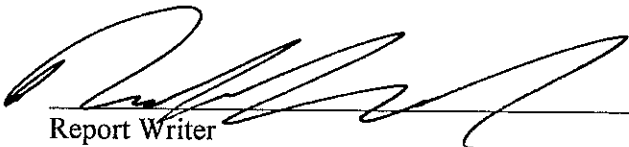
The Regional District Planning Department has no opposition to the boundary amendment. The subject property is within the area designated for community sewers in the Regional Growth Management Plan.

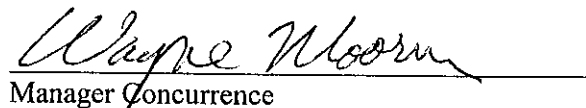
SUMMARY/CONCLUSIONS

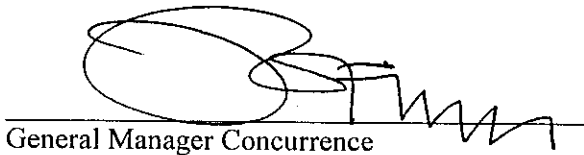
A petition has been received to amend the boundaries of the French Creek Sewer Local Service Area. The property being considered for inclusion is within the Urban Containment Boundary of the Regional Growth Management Plan and is identified for connection to community water and sewer systems. The property is also within the benefiting area of the French Creek Pollution Control Center. All costs associated with connection to the RDN sewer system will be at the expense of the property owner.

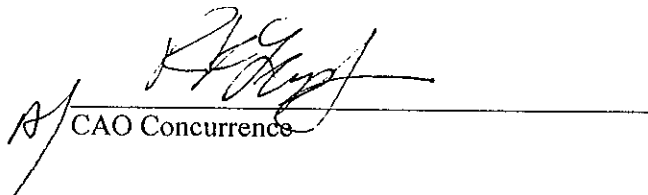
RECOMMENDATION

1. That Lot 10, Plan 20609, DL 49, Nanoose Land District be included into the French Creek Sewer Local Service Area.
2. That "Northern Community Sewer Local Service Area Amendment Bylaw No. 889.16, 2001" be introduced, read three times and forwarded to the Inspector of Municipalities for approval.
3. That "French Creek Sewer Local Service Area Bylaw No. 813.25, 2001" be introduced, read three times and forwarded to the Inspector of Municipalities for approval.

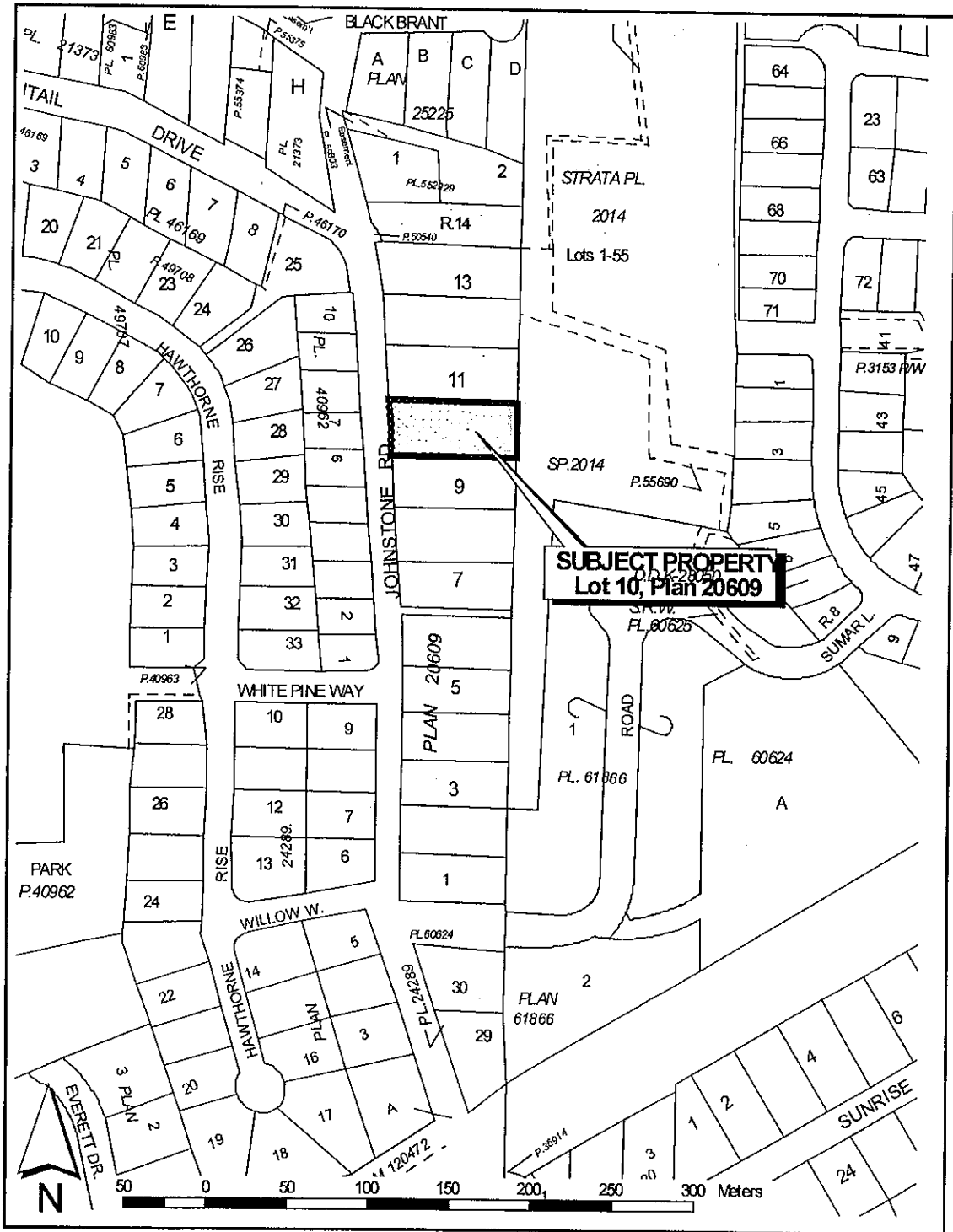

Report Writer


Manager Concurrence


General Manager Concurrence


CAO Concurrence

COMMENTS:



REGIONAL DISTRICT OF NANAIMO

BYLAW NO. 889.16

**A BYLAW TO AMEND SCHEDULE C OF
THE RDN NORTHERN COMMUNITY SEWER
LOCAL SERVICE AREA BYLAW**

WHEREAS the Board has enacted the "Regional District of Nanaimo Northern Community Sewer Local Service Conversion Bylaw No. 889, 1993" as amended which establishes the Northern Community Sewer Local Service Area;

AND WHEREAS the Board wishes to amend Schedule 'C' of Bylaw No. 889.01 to expand the boundaries of the benefiting area;

AND WHEREAS the Board has obtained the consent of at least two thirds of the participants;

NOW THEREFORE the Board of the Regional District of Nanaimo in open meeting assembled, enacts as follows:

1. This bylaw may be cited for all purposes as the "Regional District of Nanaimo Northern Community Sewer Local Service Area Amendment Bylaw No. 889.16, 2001".
2. Schedule 'C' attached to and forming a part of Bylaw No. 889.14, 2000 is hereby deleted and replaced with Schedule 'C' attached to and forming part of this bylaw.

Introduced and read three times this 13th day of February, 2001.

Received the approval of the Inspector of Municipalities this ____ day of _____, 2001.

Adopted this ____ day of _____, 2001.

CHAIRPERSON

GENERAL MANAGER, CORPORATE SERVICES

PAGE
20

REGIONAL DISTRICT OF NANAIMO

BYLAW NO. 813.25

**A BYLAW TO AMEND THE FRENCH CREEK
SEWERAGE FACILITIES LOCAL SERVICE AREA
ESTABLISHMENT BYLAW NO. 813**

WHEREAS French Creek Sewerage Facilities Local Service Establishment Bylaw No. 813, 1990, as amended, establishes the French Creek Sewerage Facilities Local Service Area;

AND WHEREAS the Board has been petitioned to include a property within the local service area;

AND WHEREAS the Board wishes to include a property in the local service area to be consistent with revised Town of Qualicum Beach/RDN boundaries;

NOW THEREFORE the Board of the Regional District of Nanaimo, in open meeting assembled, enacts as follows:

1. The boundaries of the French Creek Sewerage Facilities Local Service Area, established by Bylaw No. 813, as amended, are hereby further amended to include the property shown outlined on Scheduled 'B-1' attached hereto and forming part of this bylaw.
2. The amended boundary of the French Creek Sewerage Facilities Local Service Area shall be as shown outlined on Schedule 'A' attached hereto and forming part of this bylaw.
3. Schedule 'A' of Bylaw No. 813.24 is hereby repealed.
4. This bylaw may be cited for all purposes as "French Creek Sewerage Facilities Local Service Area Amendment Bylaw No. 813.25, 2001".

Introduced and read three times this 13th day of February, 2001.

Received the approval of the Inspector of Municipalities this ____ day of _____, 2000.

Adopted this ____ day of _____, 2000.

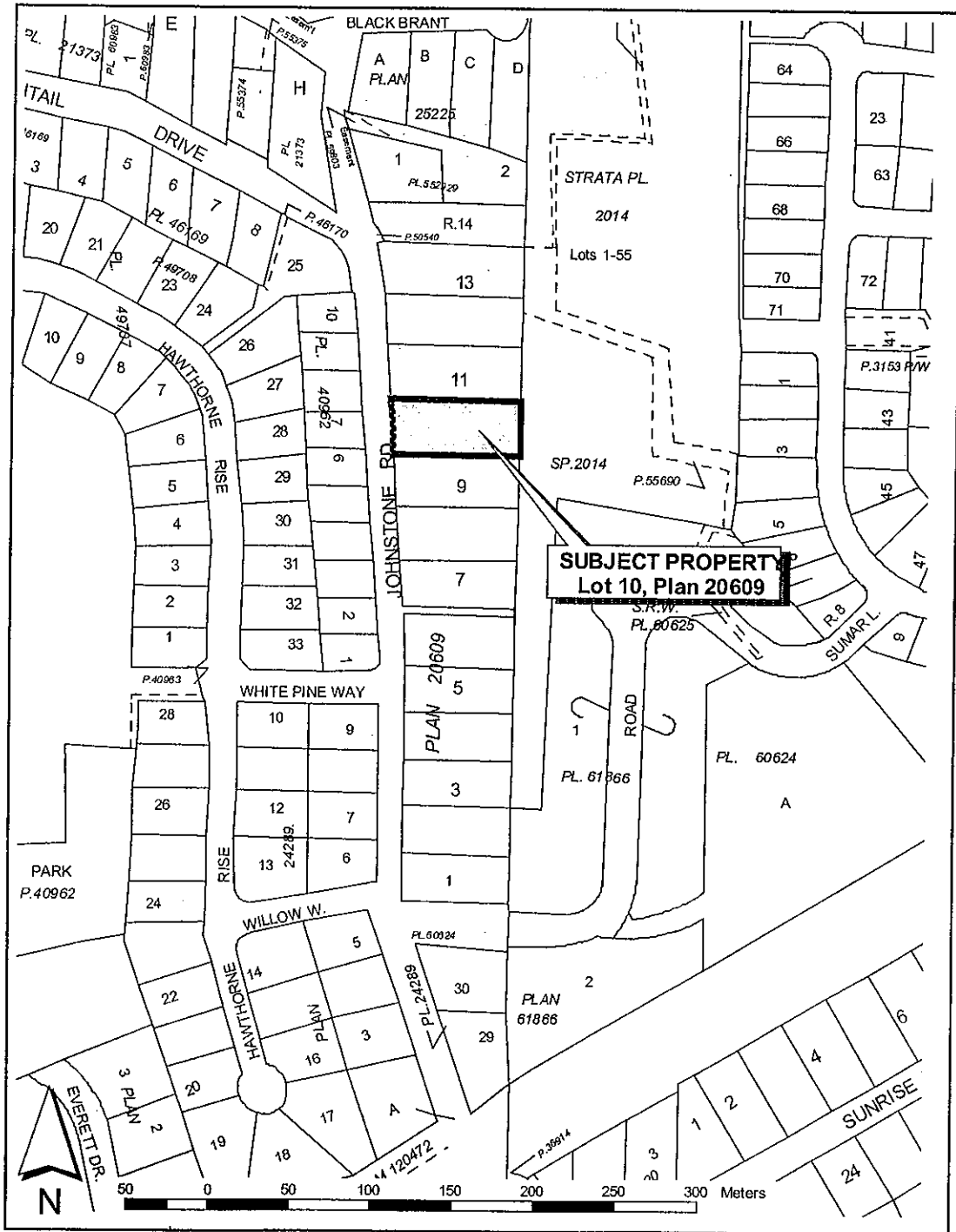
CHAIRPERSON

GENERAL MANAGER, CORPORATE SERVICES

PAGE
21

Chairperson

General Manager, Corporate Services





REGIONAL DISTRICT OF NANAIMO			
JAN 16 2001			
CHAIR		GRUPO	
CAO		GRMS	
GRDMS		GRMS	
		Epc	✓
		DATE:	
		FILE:	

MEMORANDUM

TO: John Finnie, P. Eng.
General Manager Environmental Services

FROM: Wayne Moorman, PEng
Manager of Engineering and Utilities

SUBJECT: Utilities
French Creek Water Local Service Area
Conditions of Inclusion of Properties into the Local Service Area

January 9, 2001

5500-22-FC-01

PURPOSE

To consider a request by the property owners of two lots on Bennett Road to reduce the length of water main to be installed along Bennett Road as required by previous Board motions as conditions of inclusion into the French Creek Water Local Service Area (FCWLSA).

BACKGROUND

In December 1999 the Board approved a recommendation to include a property on Bennett Road (specifically REM. A, Plan 17074, DL 88, Nanoose Land District) into the FCWLSA with the condition that servicing of the property be via a 200 mm diameter water main from Miraloma Drive, north along Bennett Road to the north property line of the property.

In June 2000 the Board approved another application for inclusion of property along Bennett Road (specifically REM Parcel A, Plan DD67388W & 17074, DL 88, Nanoose Land District) into the FCWLSA with the condition that servicing of the property be via a 200 mm diameter water main from Sunrise, south along Bennett Road to the south property line of the property. This property is adjacent to and north of the property approved for inclusion in December 1999

The local service area bylaws were amended and the two properties are now within the French Creek Water Local Service Area and can be connected to community water once the water mains are extended as approved. For reference see attached plan.

These two properties were the last two remaining lots along the east side of Bennett Road to be included in the water local service area. The water mains along Miraloma and Sunrise are dead end mains and looping of the mains was to be accomplished via development along Bennett Road. The looping of the mains was recommended by staff to ensure adequate fire protection, to be consistent with good engineering practice and to provide better water quality at the end of the system. Our policy in French Creek has been to have development pay for infrastructure installation and water/sewer main construction/extension.

Recently, the owners of the subject lots approached the RDN with a proposal to subdivide the properties into 6 lots with a common cul-de-sac off Bennett Road. They propose to construct a water line from Miraloma Drive along Bennett Road to approximately the north property line of REM A, Plan 17074, DL 88, Nanoose Land District with a short extension of a water line along the cul-de-sac. They have requested that staff approve this revision which is a change to the original conditions for inclusion into the

FCWLSA; their reason for this change in work scope is due to costs associated with development under the current economic conditions.

Staff are prepared to recommend a modification to the original Board approvals and require the water line to be installed from Miraloma Drive along Bennett Road to the north property line of the N ½ REM A, Plan DD67388W & 17074, DL 88, Nanoose Land District and further that the owners of the two lots complete the engineering design for the water line installation from the north property line of REM A to the tie-in on Sunrise Drive. The property owners do not agree to the revisions presented by staff. They are prepared to extend the water line as recommended but are not prepared to complete the engineering design for that portion of the line that would eventually be extended to Sunrise Drive.

Any changes to the original Board motions regarding the installation of a water line from Miraloma to Sunrise must be approved by the Board.

ALTERNATIVES

1. Support the original Board motions and require the water line to be installed along Bennett Road from Miraloma Drive through to Sunrise Drive.
2. Amend the original Board motions and require the water line to be installed from Miraloma along Bennett Road to the north property line of N ½ REM A and require completion of the design of the water line from the end of installation to the tie-in on Sunrise Drive.
3. Amend the original Board motions and require the water line to be installed from Miraloma along Bennett Road to the north property line of N ½ REM A, but do not require completion of the design for extension of the line to Sunrise Drive.

FINANCIAL IMPLICATIONS

Alternative 1 - there are no financial implications to the existing residents of the FCWLSA if this alternative is chosen. The developers of the two properties in question would incur the design and installation costs (Approx. \$20,000) for the line extension to Sunrise Drive.

Alternative 2 – there is a financial implication to the residents of the FCWLSA for this alternative. The extension of the water line from the north property line of N ½ REM A to Sunrise Drive is estimated to be 145 m and the supply and installation of this length of pipe is estimated to be \$17,500.00. The cost of this extension would be borne by the residents of the water local service area.

Alternative 3 – there is a financial implication to the residents of the FCWLSA for this alternative. The additional engineering for the estimated 145 m of design is estimated to cost \$2,500.00 and the supply and installation of this length of pipe is estimated to be \$17,500.00; total additional cost is \$20,000.00. The cost of this extension would be borne by the residents of the water local service area.

CITIZENS/PUBLIC RELATIONS IMPLICATIONS

Alternative 1 will provide a looped water system along Bennett Road and would benefit the residents of the new subdivision as proposed by the subdivision of the two lots along Bennett Road. Alternative 1 would also benefit the existing residents along the Sunrise and Miraloma Road at no cost to the existing residents.

Alternative 2 and 3 would only provide a looped water system along Bennett Road if and when the main is extended at a cost to the residents of the water local service area. There would be a benefit to the residents of Sunset Drive and Miraloma Drive in the FCWLSA to have this water main looped, it will improve fire protection and provide better water quality to the homes near the extremities of the water system.

SUMMARY/CONCLUSIONS

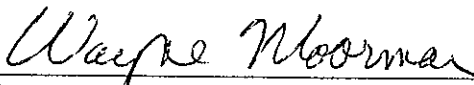
The Regional District of Nanaimo has approved the inclusion of two properties on Bennett Road into the French Creek Water Local Service Area on the condition that the water main is constructed from Miraloma Drive to Sunrise Drive at the expense of the two properties. The owners of the two lots would now like to develop the properties concurrently and have approached the RDN to reduce the level of servicing required and the cost to install a water main to the properties. They do not want to install the water main from Miraloma Drive to Sunrise Drive but only from Miraloma Drive to the north property line of the North 1/2, Parcel A. A proposal by staff that would also see the engineering design completed for the balance of the water main (additional 145 m) from the north property line of Parcel A to Sunrise Drive has not been agreed to.

Staff has determined that the looping of the water main would benefit the residents of Sunrise and Miraloma Drives as well as the new Bennett Road development. Requiring the developers to extend the water line from Miraloma to the north property line of the N1/2, Rem. A and completing the engineering design to Sunrise (i.e. Alternative 2) is a reasonable compromise from the original board motions and still requires existing properties within the local service area to cost share in the benefit.

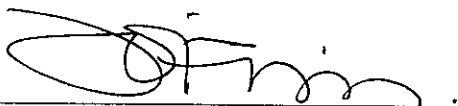
An amendment to the servicing requirement of the two lots on Bennett Road requires the approval of the Board as the initial terms of inclusion required the water main to be constructed from Miraloma Drive to Sunrise Drive.

RECOMMENDATION

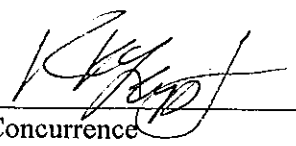
1. That as a condition of inclusion into the FCWLSA, the developers of the two lots along Bennett Road, specifically REM A, Plan 17074, DL 88, Nanoose Land District and North 1/2 REM A, DD67388W & 17074, DL 88, Nanoose Land District be required to supply and install a 200 mm dia. water line from Miraloma Drive along Bennett Road to the north property line of North 1/2 REM A, DD67388W & 17074, DL 88 Nanoose Land District and that further the developers be required to complete the engineering design of the water line along Bennett Road to the tie-in at Sunrise Drive.



Report Writer

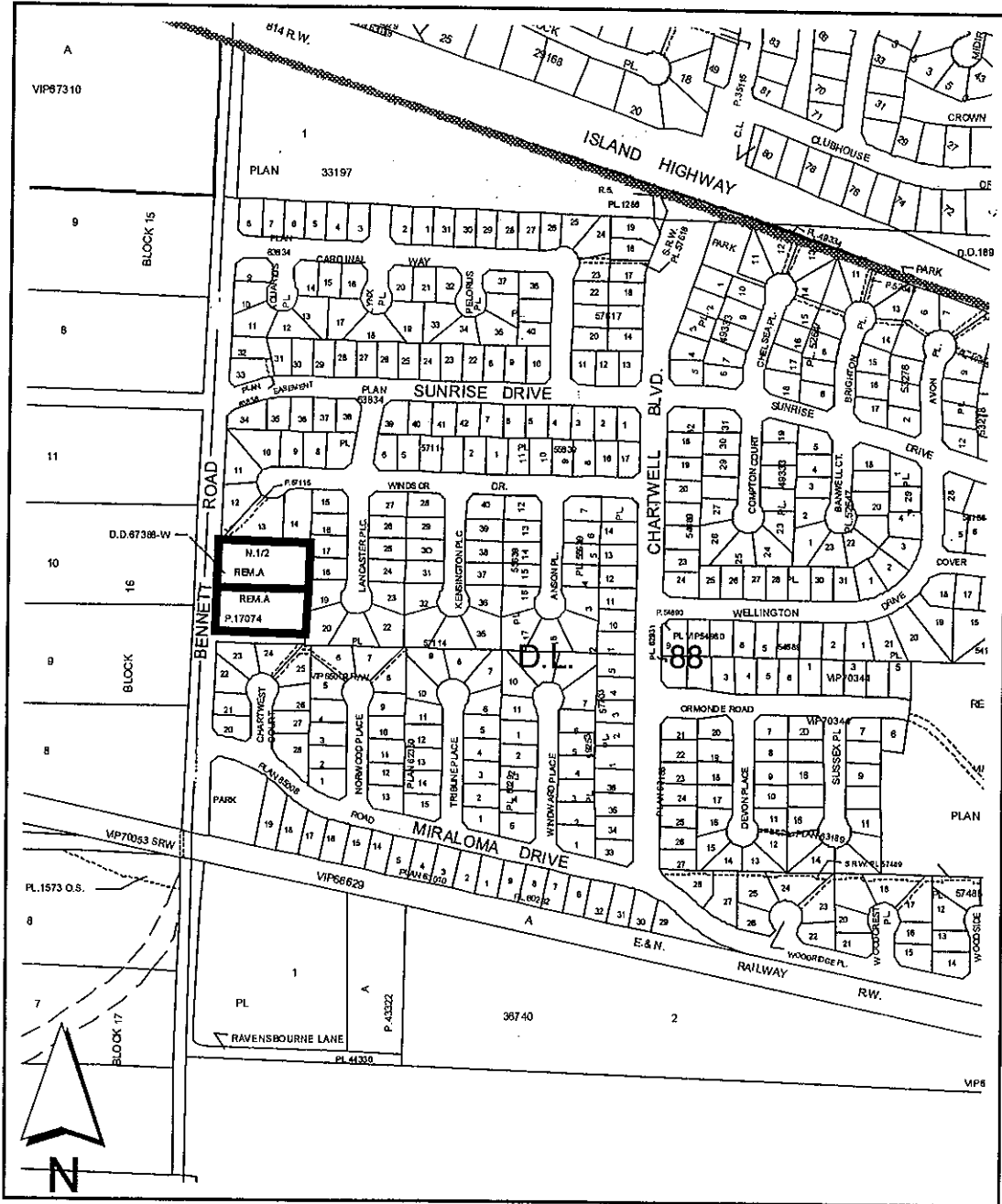


General Manager Concurrence



A/CAO Concurrence

COMMENTS:





REGIONAL DISTRICT OF NANAIMO			
JAN 17 2001			
CHAIR		GMCrS	
CAC		CMDS	
CMOCS		ONES	
ESC			✓
			DATE:
			FILE:

MEMORANDUM

TO: Dennis Trudeau
Manager, Liquid Waste

FROM: Sean De Pol
Engineering Technician

SUBJECT: Liquid Waste Management
Rural On-Site Sewage Disposal Area Rating System

January 11, 2001

5340-20

PURPOSE

To present an on-site sewage disposal area rating system for rural areas of the Regional District of Nanaimo and to obtain Board support for a provincial planning grant application to assess potential strategies for problem on-site sewage disposal area.

BACKGROUND

Throughout the Regional District of Nanaimo on-site sewage failures have been a growing concern due to the impacts they may have on public health and the environment. Failed on-site systems have the potential of polluting surface and ground waters and creating an unsafe environment for the public. Failures may be caused by a number of factors such as increasing densities in the rural areas, aging systems, inadequate inspections, or inappropriate siting.

47 "Problem" sites (areas experiencing high on-site disposal system failures) in rural areas of the Regional District were identified with help from the Central Vancouver Island Health Region, the Ministry of Environment, and the Islands Trust (see Appendix A).

While it would be impossible to address all 47 problem areas at once, staff considers it important to initiate progress in this area. By prioritizing the identified sites staff could begin to address the sites that have a higher-level of concern in a more systemic manner.

To establish priority rankings for the 47 sites a rating matrix was developed (see Appendix B). The matrix examines 11 different criteria (Appendix C). These criteria relate to the suitability of an area for on-site disposal systems and the sensitivity of the area and its surroundings related to the environment and the local residents. All criteria in the matrix have been assigned values ranging from a minimum of "0" to a maximum of "3". Due to the additional importance of the criteria for the number of homes in the area, lot size and age of the development in the area, a weighting factor of 1.5 is multiplied to their total values. By using this matrix staff were able to rate the 47 sites. The point value for each site allows staff to determine which sites have a higher priority. The sites with the higher point rating pose a greater risk to health and/or the environment than those sites with lower rating.

The sites that have a higher priority would be good initial candidates for provincial planning grant applications. A planning grant study of each area could determine options for the site. These might include:

1. Community collection and on-site disposal system
2. Connection to an existing sewage collection and disposal system
3. Improve the existing on-site systems on an individual basis
4. Do nothing

Staff are proposing that the highest rated site be the subject of a planning grant application. The formation and results of the study will be reviewed by staff to determine whether this process is a supportable strategy for addressing problem on-site sewage disposal areas in the future. It is anticipated that some of the results of and strategies established by the first study would be applicable to subsequent future studies of other problem areas.

It was evident during this exercise that any areas that depend upon on-site disposal and have a large number of residents on small lots, there is a higher risk that they may have problems. This rating system has attempted to prioritize the sites based upon the best available information. Further investigation may prove that some of the higher rated sites are not as much of a concern as some of the lower rated sites.

Based on the information that was available to staff the highest rated site is #57 on Gabriola Island. Site #57 is located on the North West shore of Gabriola Island. This site has 151 small lots that were subdivided over 30 years ago, the surface soils are rapidly draining with rock outcrops and steep slopes, there has been a number of failures in the past three years and this area is part of a sensitive shellfish ecosystem. In addition, the residents of this area draw their water from a local aquifer that is considered vulnerable to contamination.

Currently, planning grants are being considered by the Ministry of Municipal Affairs. The maximum grant for approved studies is \$10,000. The first \$5,000 would be covered by 100% provincial grant with the next \$5,000 covered by 50%. Staff estimates that study costs for determining the best approach to address failing on-site systems for a specific area would be approximately \$15,000. The cost to the Regional District would be \$5,000. Generally the funds would be a part of the planning function. In this case Gabriola Island is not part of the planning function. The only available options would be for the \$5,000.00 to be paid out of the feasibility fund or for the residents of the area to pay it themselves. This proposal has been discussed with the Area Director and the Islands Trust. While there was support for a study of this area there was concern that any recommended solutions would put increased pressures on growth. In addition it was indicated that any proposed solutions should be discussed and decided upon at a local level.

Increased growth pressures are a common concern on the island and the proposed study will have to address this issue. The results of this study will be discussed with the local residents and their input will be considered prior to any further decisions.

ALTERNATIVES

1. That staff be directed to make application to the Ministry of Municipal Affairs for a planning grant of \$15,000 to determine the best options for addressing the on-site sewage disposal problems of Site #57 on Gabriola Island and that the feasibility fund be made available to pay for the \$5,000.00 Regional District portion of the study.
2. Do not undertake to address on-site sewage disposal system failures.

FINANCIAL IMPLICATIONS

Alternative 1 – It is expected that the first step in this process will be to apply for the provincial grant. If approved, staff and resources would be required in order to manage the project. Staff would develop the proposal with consultants and manage the project to ensure the results of the study are meaningful.

Alternative 2 – There are no additional costs to the RDN with this alternative.

SUMMARY/CONCLUSIONS


Throughout the Regional District of Nanaimo on-site sewage failures have been a concern due to the impacts they may have on public health and the environment. Regional District of Nanaimo staff established liaisons with various government agencies to identify and rate "Problem" areas within the Regional District of Nanaimo. 47 sites within the rural areas were identified. A matrix was developed to rank each of the identified areas by examining 11 different criteria; these criteria relate to the suitability of an area for on-site disposal and the sensitivity of the area and its surroundings related to the environment and the local residents. A priority ranking was established using this matrix to help decide which areas should be addressed and in what order. The top ranked area is a site on Gabriola Island.

RECOMMENDATION

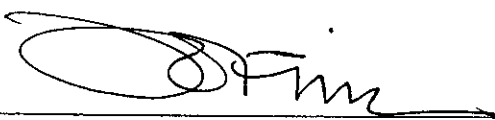
That staff be directed to make application to the Ministry of Municipal Affairs for a planning grant of \$15,000.00 to determine the best options for addressing the on-site sewage disposal problems of Site #57 on Gabriola Island and that the feasibility fund be made available to pay for the \$5,000.00 Regional District portion of the study.



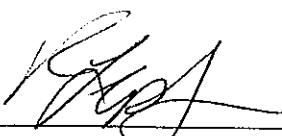
Report Writer



Manager Concurrence



General Manager Concurrence

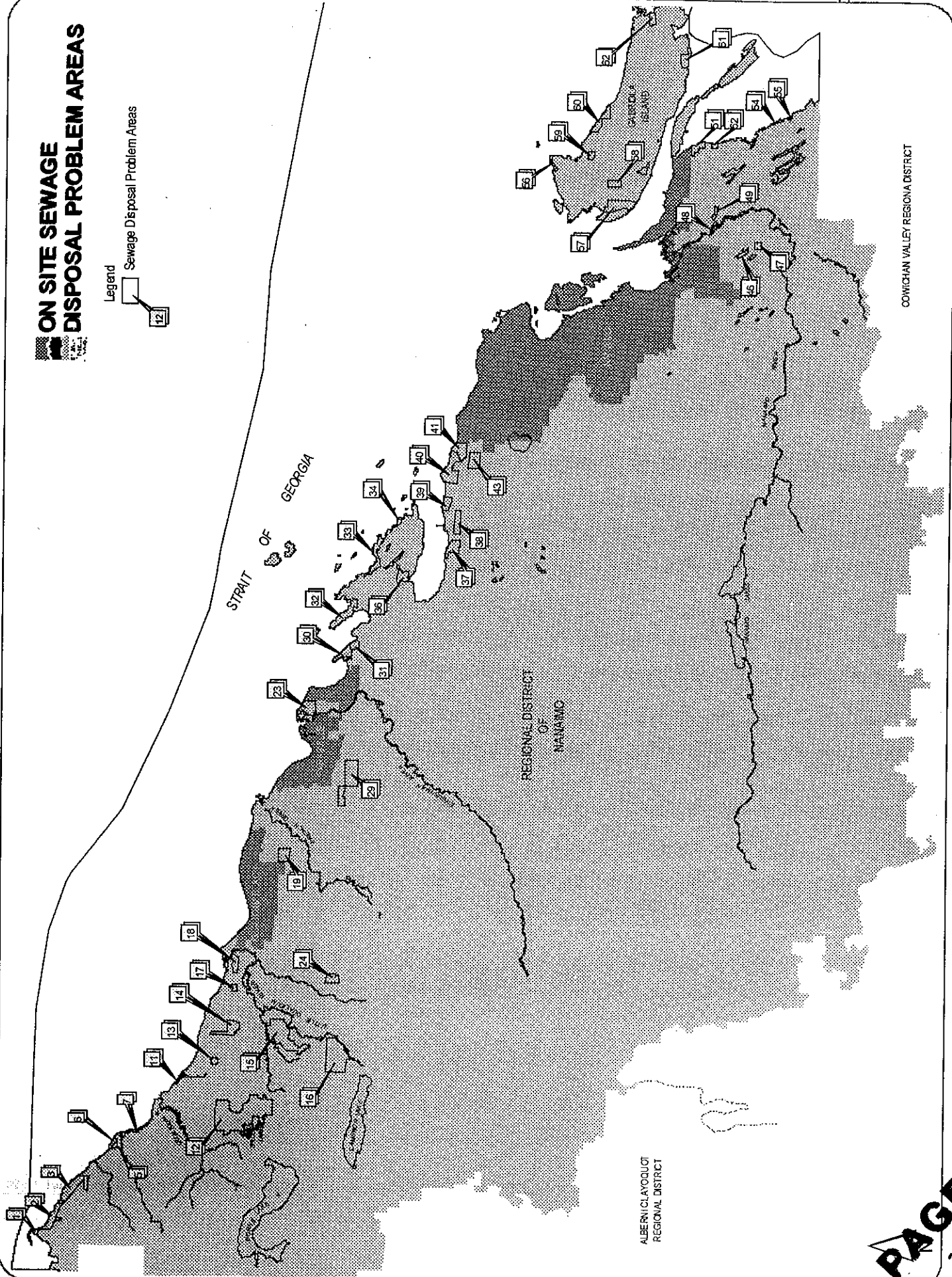


C.A.O. Concurrence

COMMENTS

ON SITE SEWAGE DISPOSAL PROBLEM AREAS

Legend
[Shaded Box] Sewage Disposal Problem Areas



Sewage Disposal Failure Rating Matrix

Appendix B

CRITERIA	Point Value		
	1	2	3
1) NUMBER OF HOMES IN POLYGON	0-50	51-150	151-Over
2) AVERAGE LOT SIZE	1 Hectare - Larger	.99 - .5 Hectare	.49 Hectare - Smaller
3) AGE OF EXISTING AREA	Less than 5 years	6-19 years	More than 20 years
4) SURFACE SOILS AND UNDERLYING GEOMORPHOLOGY (E.G. BEDROCK, CLAYS...)	Well Drained	Rapid Draining	Impermeable
5) ENVIRONMENTALLY SENSITIVE AREA (S) CLOSE TO OR PART OF POLYGON	0	1-2	3+
6) ESTIMATED NUMBER OF FAILURES IN PAST THREE YEARS	1-3	4-8	9-Over
7) COASTAL SENSITIVITY	Low	Moderate	High
8) BUILDING INSPECTIONS	Complete Building Inspections	Partial Building Inspections	No Building Inspections
9) SERVICED BY COMMUNITY WATER	Completely	Plans for servicing	No servicing
10) AQUIFER VULNERABILITY	Low	Moderate	High
11) OVERALL AQUIFER RANKING	0-9	10-12	13-21

MATRIX CRITERIA

Criteria #1 - Number of homes within a polygon. Generally speaking the more homes within a selected area translates to more potential failures. Therefore an identified area with 200 lots has a higher point value assigned than one with 50 lots.

Criteria #2 - Average lot size. Larger lots generally have a greater number of locations suitable for onsite disposal systems; therefore systems on larger lots are generally located in more suitable locations than systems on smaller lots. Also, larger lots discharge less sewage per unit area of land. Lot size was determined following the examination of maps from the planning department.

Criteria #3 - Age of existing area. On site disposal systems have an anticipated life span of 25 to 30 years if maintained properly, therefore the older the settlement area the more likely the system is to fail.

Criteria #4 - Surface soils and underlying geomorphology. Impermeable soils limit the amount of sewage absorbed into the ground, consequently during heavy usage sewage can surface. Rapidly draining soils on the other hand can release sewage contaminants into the groundwater before adequate treatment in the soils has been achieved. All soil data for this study was obtained from the Ministry of Environment soils maps.

Criteria #5 - Environmentally Sensitive Areas close to or part of a polygon. The Regional District of Nanaimo Environmentally Sensitive Areas Atlas was used to identify locally sensitive areas. The sensitive areas considered were: Streams (Fish Habitat), Coastal Bluffs, Riparian Vegetation, and Wetlands.

Criteria #6 - Estimated number of failures in the past three years. The actual number of failures in the past three years has not been determined; it should be recognized that homeowners make many repairs to failing systems without an application for a health permit. Therefore the actual number of failing systems in an area is difficult to confirm. Point Values were determined following consultation with the Central Vancouver Island Health Unit.

Criteria #7 - Coastal sensitivity. The values assigned to this rating take into account the size and commercial/recreational importance of the adjacent coastal areas. Point Values were determined following consultation with the Shellfish program coordinator for the Department of Fisheries and Oceans.

Criteria #8 - Permit Compliance. Areas without building inspection are of concern since there is a higher potential that works may have been constructed or repaired in an inadequate manner that may cause premature failure of the on-site sewage system.

Criteria #9 - Serviced by community water. Areas that are not serviced by community water must rely on groundwater that can potentially be contaminated by on-site disposal systems. To determine which areas in the Regional District of Nanaimo are serviced by water the Regional District planning department and the local Improvement Districts of Lantzville and Cedar were consulted. In addition some of the local Official Community Plans contain recommendations for a number of the identified areas to receive community water, consequently the possibility of being serviced by water reduces the long term threat of contaminated water.

Criteria #10 - Aquifer vulnerability. The vulnerability of an aquifer to contamination from surface sources is assessed based on; type and thickness of aquifer, depth to water, and the type of aquifer materials. Data for this criterion was obtained from the Ministry of Environment report "*An aquifer classification system for groundwater management in British Columbia*". Areas 7, 11, 12, 14, 16, 17, 18, and Gabriola Island were not included in this study; these values were obtained following consultation with the Ministry of Environment, Water Management Branch.

Criteria # 11 - Overall aquifer ranking. The overall ranking was determined by summing the point values for each of the following hydrogeologic and water use criteria: productivity, size, vulnerability, demand, type of use, quality concerns, and quantity concerns. As for Criteria 10, data was obtained from the Ministry of Environment report "*An aquifer classification system for groundwater management in British Columbia*". Areas 7, 11, 12, 14, 16, 17, 18, and Gabriola Island where not included in this study; these values were obtained following consultation with the Ministry of Environment, Water Management Branch.



**REGIONAL
DISTRICT
OF NANAIMO**

REGIONAL DISTRICT OF NANAIMO			
JAN 12 2001			
CHAIR		GMCrsS	
CAO		GMDS	
GMCrsS		GWES	
<i>ESC ✓</i>			

MEMORANDUM

TO: Carey McIver
Manager of Solid Waste

DATE: January 10, 2001

FROM: Alan Stanley
Waste Reduction Coordinator

FILE: 5370-02

SUBJECT: Solid Waste Customer Surveys

PURPOSE

To present the results of the 2000 Solid Waste Customer Surveys.

BACKGROUND

In order to improve customer service and program delivery, the Solid Waste Department surveyed RDN residents on the following issues:

- RDN Curb Side Garbage and Recycling Collection Program Satisfaction/Effectiveness
- Composting Behaviours
- Use of RDN Solid Waste Facilities
- Support for User Pay Programs
- Support for Additional Recycling Collection
- Illegal Dumping Behaviours

Viewpoints Research, an established market research company carried out a telephone survey. Some aspects of the survey, such as curbside program customer satisfaction, related only to RDN customers, while other issues, such as use of solid waste facilities were region wide. To this end, Viewpoints Research was instructed to poll a total of 400 respondents, split evenly between City of Nanaimo and the rest of the RDN. The accuracy of a sample this size means that if every person in the RDN was asked these questions, the results would be the same, 19 times out of twenty with a margin of error of 5%. This telephone survey represents the most accurate and current information available on the various issues presented above.

In conjunction with the telephone survey, a newsletter survey was mailed to 38,000 households in the RDN Garbage and Recycling Collection Program Area. This newsletter survey was also posted on the RDN Internet web site. The total number of respondents to the newsletter and Internet survey was 2,031.

The results of both surveys are attached as schedule 'A'.

The following are some of the significant findings of the surveys and the direction that will be taken based on the results of the surveys:

RDN GARBAGE AND RECYCLING COLLECTION PROGRAM

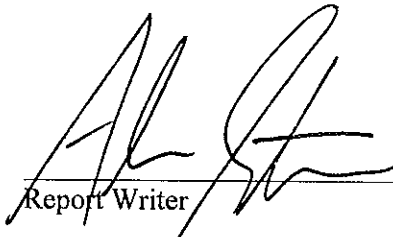
- There is a high level of satisfaction with the RDN curbside collection program.
- Most people have adapted well to can limits.
- There is strong support for additional plastics recycling, but little support for additional costs. Methods to increase plastics recycling at minimal or no cost will be explored.
- There is mixed support for yard waste collection, but little support for additional costs. There is stronger support in urban areas for yard waste collection. Methods will be explored that will allow yard waste collection service to be provided where needed at an affordable cost.

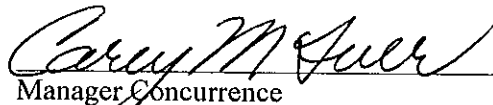
REGION-WIDE SOLID WASTE ISSUES

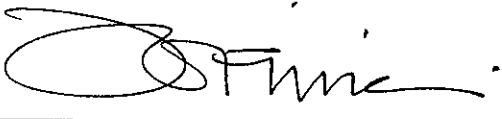
- There is a high level of awareness of backyard composting.
- The backyard composter distribution program has achieved good market penetration. This program will be reviewed annually.
- Most RDN residents are not regular users of the solid waste disposal facilities.
- A small percentage of residents are responsible for increases in self-haul activity.
- There is overwhelming support for a user pay disposal fee structure.
- Most residents dispose of waste responsibly. Illegal dumpers are a tiny percentage of the population. The Illegal Dumping Prevention Program will attempt to focus on the few people that are actually doing the dumping.
- Yard waste dumping is not thought of as seriously as other forms of illegal dumping. Targeted public education campaigns will be initiated to let people know that yard waste has to be treated responsibly.

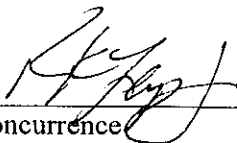
RECOMMENDATION

That this report and the two solid waste public opinion surveys be received for information.


Report Writer


Manager Concurrence


General Manager Concurrence


CAO Concurrence

COMMENTS:

Regional District of Nanaimo
SOLID WASTE MANAGEMENT SURVEY

AUGUST 2000

Viewpoints Research Ltd.
702-900 West Hastings Street
Vancouver, BC
Canada V6C 1E6
Ph: (604) 646-3700
Fax: (604) 683-0049

<http://www.viewpointsresearch.com>

TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	1
BACKGROUND.....	3
RESEARCH METHODOLOGY.....	4
RESEARCH SUMMARY.....	5
DISPOSAL OF YARD & GARDEN WASTE.....	5
COMPOSTING OF YARD AND GARDEN WASTE.....	6
PROPOSED COLLECTION OF YARD AND GARDEN WASTE.....	7
HOW OFTEN SHOULD YARD AND GARDEN WASTE BE COLLECTED?.....	8
HOW MUCH PEOPLE WOULD BE WILLING TO PAY TO HAVE YARD WASTE COLLECTED.....	9
COMPOSTING OF KITCHEN WASTE.....	10
METHODS OF COMPOSTING KITCHEN WASTE.....	10
PROPOSED COLLECTION OF KITCHEN WASTE.....	11
LANDFILLS AND TRANSFER STATIONS.....	12
SHOULD PEOPLE WHO PRODUCE MORE GARBAGE PAY MORE?.....	13
HOW SHOULD GARBAGE DISPOSAL AT LANDFILLS & TRANSFER STATIONS BE PAID FOR?.....	14
REGIONAL DISTRICT OF NANAIMO PROGRAMS.....	15
REGIONAL DISTRICT (EXCLUDING THE CITY OF NANAIMO) 16	
GARBAGE COLLECTION: RESIDENT SATISFACTION.....	16
EXCEEDING GARBAGE COLLECTION ALLOWABLE LIMITS.....	17
DISPOSAL OF EXTRA GARBAGE.....	18
RECYCLING OF PLASTICS.....	19
HOW MUCH RESIDENTS WOULD BE WILLING TO PAY FOR ADDITIONAL RECYCLING OF PLASTICS.....	20

EXECUTIVE SUMMARY

The purpose of this quantitative study was to examine garbage disposal and composting habits and attitudes among the residents of the Regional District of Nanaimo. Following is a summary of the findings of this research which was conducted with 400 residents living within the Regional District of Nanaimo. The reliability of a sample of this size would be $\pm 5\%$, 19 out of 20 times.

- Six in ten (59%) of residents said they compost yard and garden waste while 14% said they take it to a landfill. A total of 34% of respondents claim that they use a plastic, backyard composter for their yard and garden waste while 30% said that they use a homemade composter. Twenty nine per cent of participants indicated that they use a compost heap.
- Slightly more than half of respondents (53%) are in favour of a proposal to recycle yard and garden waste although 21% said they are not prepared to pay for this service while 36% said they do not know how much they would be prepared to pay. Based on these findings it is fair to say that most people are not prepared to pay more than \$25.00 per year for this service.
- A total of 51% of respondents compost kitchen waste and 48% of those individuals use a plastic, backyard composter while 32% use a homemade composter. Slightly less than half of respondents (49%) are in favour of recycling of kitchen waste.
- The majority of respondents have disposed of garbage at a landfill or transfer station at least once in the past year.
- Most respondents (79%) feel that those people who produce more garbage should pay more to dispose of it via a user fee based on the amount of garbage dumped.
- The majority of respondents receive information about Regional District of Nanaimo programs through newsletters or through stories or ads in newspapers.

- The majority of residents outside the City of Nanaimo are satisfied with their current garbage and recycling program with 54% saying they are very satisfied and 39% saying they are somewhat satisfied.
- Slightly more than half of people living outside the City of Nanaimo (54%) never exceed their allowable limit of garbage. Those that do, on occasion, produce more than the limit either take it to a landfill or transfer station (42%) or purchase extra garbage bags (31%).
- Eighty five per cent of respondents living outside the City of Nanaimo would like to see additional plastics added to their current recycling program. However, 46% indicated that they do not know how much they would be prepared to pay for this service while 29% said that they would not be willing to pay anything for it.

BACKGROUND

In August 2000, the Regional District of Nanaimo commissioned Viewpoints Research to conduct a quantitative study among 400 residents living within the Regional District of Nanaimo in one of the following areas: the City of Nanaimo, the City of Parksville, Qualicum Beach or another area that falls within the Regional District of Nanaimo boundaries. The specific objectives of the present research are as follows:

- To determine garbage disposal and composting habits of residents with regards to yard and garden waste and kitchen waste.
- To ascertain how participants feel about the proposed recycling of yard & garden waste as well as kitchen waste and to determine how much, if anything, they would be willing to pay for extra recycling services.
- To establish how frequently residents use landfills and transfer stations for the disposal of garbage and to determine whether or not residents feel that people who produce more garbage should pay more for its disposal and, if so, how this payment should be exacted.
- To clarify various sources of information pertaining to the Regional District of Nanaimo programs among participants.

In addition, certain information was collected from respondents who live within the Regional District of Nanaimo but excluding the City of Nanaimo as follows:

- To determine resident satisfaction with current garbage collection in the area in which they reside
- To establish how frequently people exceed their allowable limit of garbage and what, in those cases, they do with it.
- To ascertain whether or not residents would like additional plastics added to their current recycling program and if so how much they are willing to pay for the additional service.

RESEARCH METHODOLOGY

To fulfill the Regional District of Nanaimo's objectives, Viewpoints Research conducted 400 telephone surveys in the month of August 2000. A quota sample was randomly drawn, proportional to population size, from residents of the area as follows:

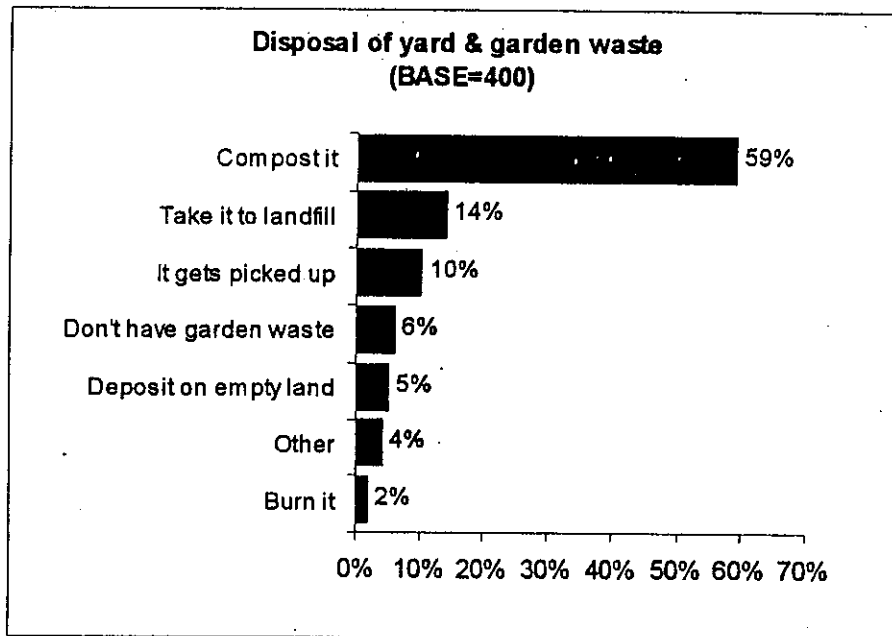
- 200 participants from within the City of Nanaimo.
- 200 participants from the City of Parksville, Qualicum Beach and other areas within the Regional District of Nanaimo but excluding the City of Nanaimo.

The total sample of 400 would have a reliability $\pm 5\%$, 19 out of 20 times. Each sub-sample of 200 has a reliability of $\pm 6.9\%$, 19 out of 20 times.

RESEARCH SUMMARY

DISPOSAL OF YARD & GARDEN WASTE

Respondents were asked how they usually dispose of yard and garden waste such as grass and pruning clippings. A full 59% of respondents said that they compost yard waste while 14% said they take it to a landfill. Ten per cent indicated that someone comes to their residence and picks it up while 6% indicated that they do not have yard and garden waste. Five per cent said that they deposit yard and garden waste on empty land while 2% said they burn it.

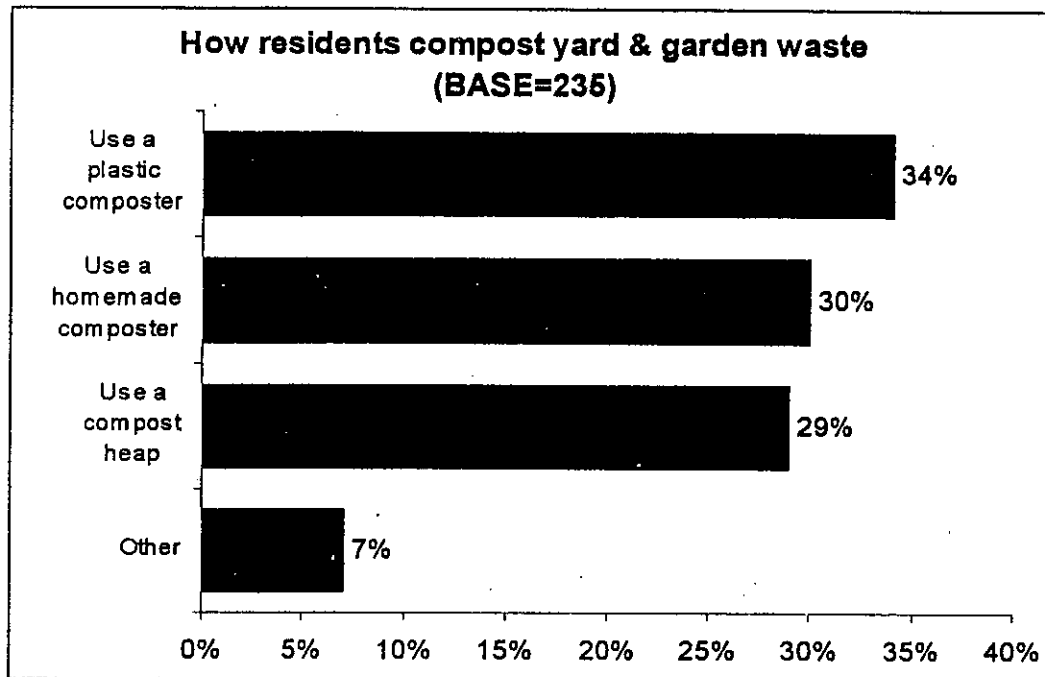


Respondents between the ages of 18 to 24 are the most likely to indicate that they compost yard waste (75%) compared with 68% of those between the ages of 25 to 34 and 35 to 49. Fifty six per cent of participants aged 50 to 64 indicated that they compost yard and garden waste while 21% in this age cohort said that they take it to a landfill. Less than half of people aged 65 or older indicated that they compost yard waste (47%) while 23% in this age group said that someone comes to their residence and picks it up.

COMPOSTING OF YARD AND GARDEN WASTE

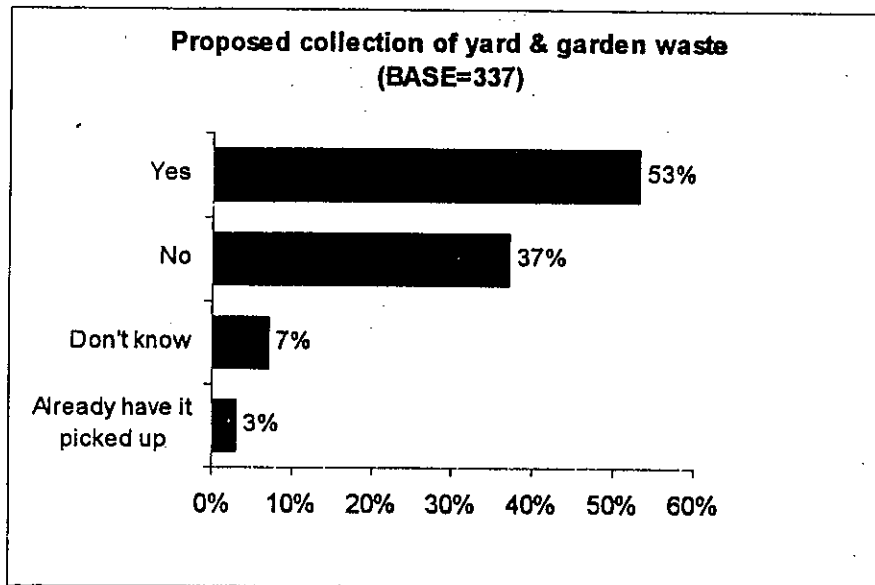
Of the 59% of residents who indicated they compost yard and garden waste, one in three (34%) said they use a plastic, backyard composter while 30% said that they use a homemade composter.

Twenty nine per cent indicated they use a compost heap while 7% said they use another method of composting.



PROPOSED COLLECTION OF YARD AND GARDEN WASTE

Respondents who were asked if they would like to see their yard and garden waste added to their municipal garbage collection so that it can be recycled. A total of 53% were in favour of this proposal while 37% indicated they were not in favour of it. Seven per cent of participants said that they do not know while 3% explained that their yard waste is already picked up. Women were somewhat more likely than men to approve of the proposal (59% compared with 46%).



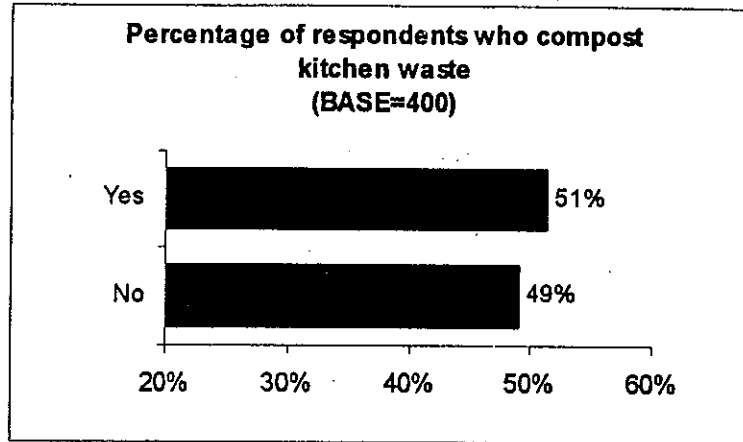
HOW MUCH PEOPLE WOULD BE WILLING TO PAY TO HAVE YARD WASTE COLLECTED

Respondents in favour of the municipal collection of yard and garden waste were asked how much they would be willing to pay *per year* to have this waste added to their garbage collection program based on their desired frequency of collection. While 21% said that they would not be willing to pay any amount of money for this program 36% indicated that they do not know which suggests that they might be willing to pay something in order to have their yard and garden waste collected for recycling. It is fair to say that people would not likely be willing to pay more than twenty five dollars per year as the following table indicates.

HOW MUCH PEOPLE ARE PREPARED TO PAY (PER YEAR) FOR GRASS CUTTINGS & YARD & GARDEN WASTE TO BE ADDED TO THEIR COLLECTION PROGRAM FOR PICK UP							
Amount people are prepared to pay	% Overall per year	% By desired frequency of collection		Amount people are prepared to pay	% Overall per year	% By desired frequency of collection	
Nothing	21	Weekly	36	\$30.00 to \$34.99	0.5	Weekly	5
		Bi-monthly	9			Bi-monthly	4
		Monthly	18			Monthly	5
		Bi-Annual	30			Bi-Annual	7
		Other	26			Other	11
1¢ to \$4.99	8	Weekly	9	\$35.00 to \$39.99	0	Weekly	NA
		Bi-monthly	13			Bi-monthly	NA
		Monthly	8			Monthly	NA
		Bi-Annual	3			Bi-Annual	NA
		Other	0			Other	Na
\$5.00 to \$9.99	6	Weekly	5	\$40.00 to \$44.99	0.5	Weekly	0
		Bi-monthly	9			Bi-monthly	0
		Monthly	6			Monthly	1
		Bi-Annual	3			Bi-Annual	0
		Other	5			Other	0
\$10.00 to \$14.99	4	Weekly	9	\$45.00 to \$49.99	2	Weekly	0
		Bi-monthly	4			Bi-monthly	2
		Monthly	2			Monthly	2
		Bi-Annual	7			Bi-Annual	3
		Other	0			Other	0
\$15.00 to \$19.99	3	Weekly	0	\$50.00 or more	6	Weekly	0
		Bi-monthly	0			Bi-monthly	11
		Monthly	4			Monthly	7
		Bi-Annual	7			Bi-Annual	0
		Other	5			Other	5
\$20.00 to \$24.99	9	Weekly	0	Don't Know	36	Weekly	36
		Bi-monthly	18			Bi-monthly	27
		Monthly	12			Monthly	35
		Bi-Annual	3			Bi-Annual	37
		Other	0			Other	47
\$25.00 to \$29.99	5	Weekly	5			Weekly	
		Bi-monthly	4			Bi-monthly	
		Monthly	5			Monthly	
		Bi-Annual	7			Bi-Annual	
		Other	11			Other	

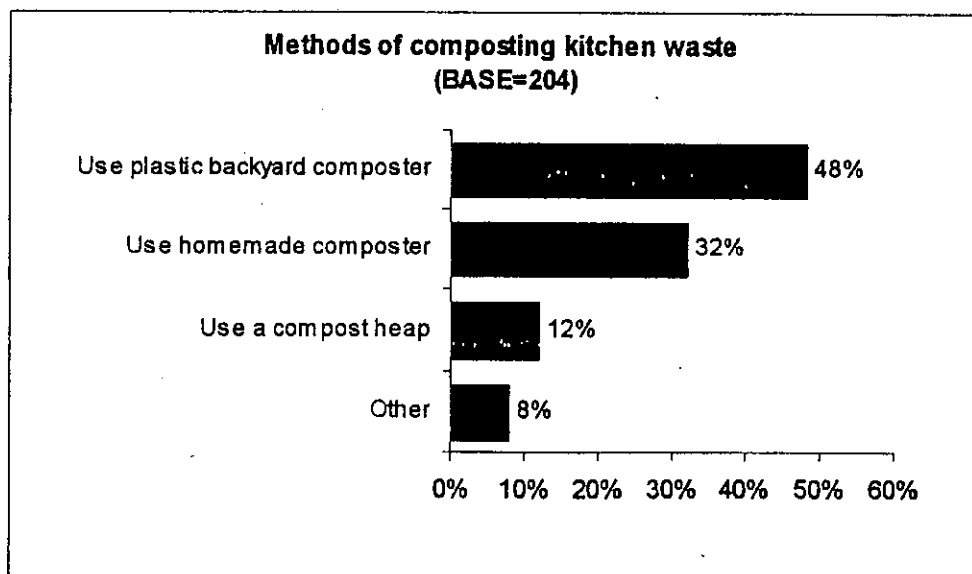
COMPOSTING OF KITCHEN WASTE

Residents were asked whether or not they compost kitchen waste such as egg shells, coffee grounds and fruit and vegetable clippings. A total of 51% claimed that they do compost kitchen waste while 49% said that they do not compost this type of waste.



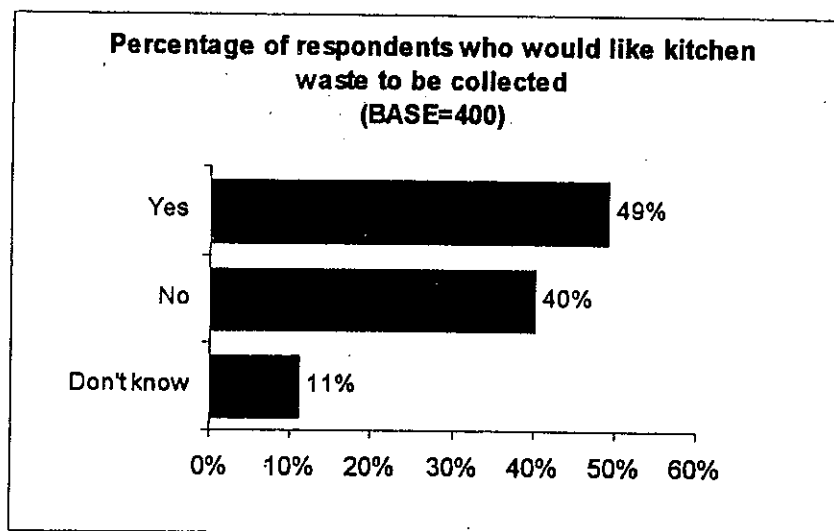
METHODS OF COMPOSTING KITCHEN WASTE

Respondents who compost their kitchen waste were asked how they compost it. Almost half of those who compost kitchen waste (48%) said that they use a plastic, backyard composter while 32% said that they use a homemade composter. Twelve per cent indicated that they use a compost heap while 8% said that they use another method for composting kitchen waste.



PROPOSED COLLECTION OF KITCHEN WASTE

Respondents were asked if they would like their kitchen waste to be collected along with yard and garden waste in order for the material to be recycled. Forty nine per cent of participants indicated that they are in favour of this proposal while 40% are not in favour. A further eleven per cent of respondents were not sure if they would like to see kitchen waste collected for the purpose of recycling.

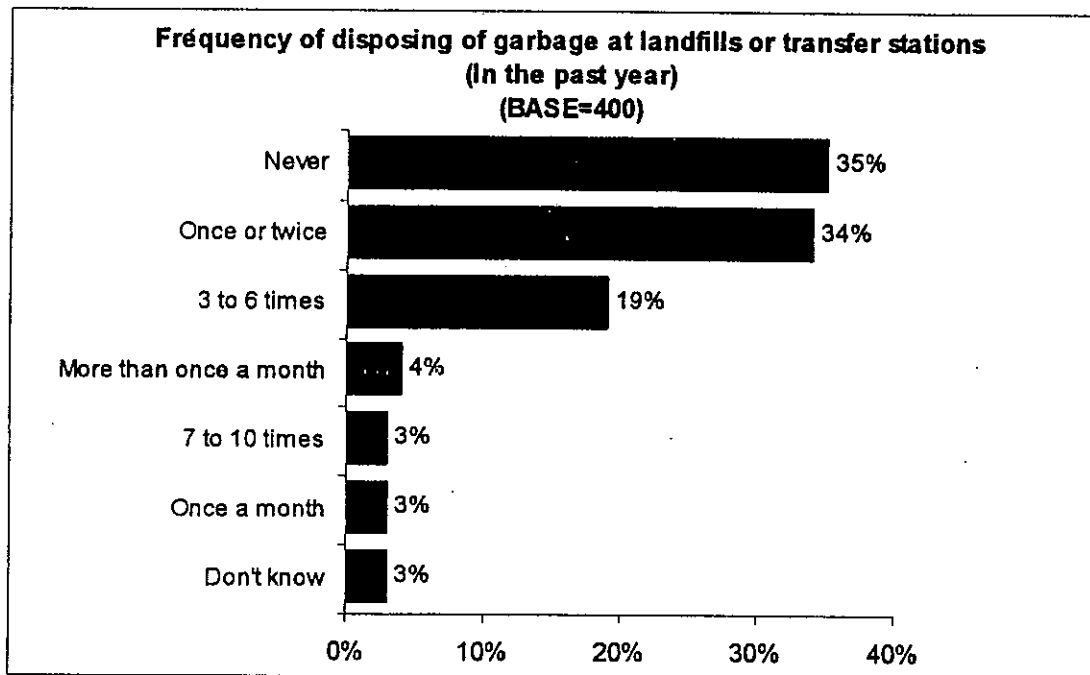


Respondents in the younger age cohorts were more likely to say that they would like kitchen waste to be recycled (67% of those 18 to 24 compared with 38% of those 65 years of age or older).

Respondents in the other age groups fell in between these two poles with 51% of those aged 25 to 34, 58% of those 35 to 49 years of age and 45% of participants aged 50 to 64 indicating approval for this proposal.

LANDFILLS AND TRANSFER STATIONS

All of the respondents were asked how often in the past year they disposed of garbage at a landfill or transfer station. While 35% said they never disposed of garbage in this manner 34% said that they have done it once or twice in the past year. Nineteen per cent of participants indicated that they disposed of garbage at a landfill or transfer station 3 to 6 times in the past year while 4% said they did it more than once per month. Three per cent of participants said they went to a landfill or transfer station once a month over the past year while 3% said they disposed of garbage in the manner 7 to 10 times.

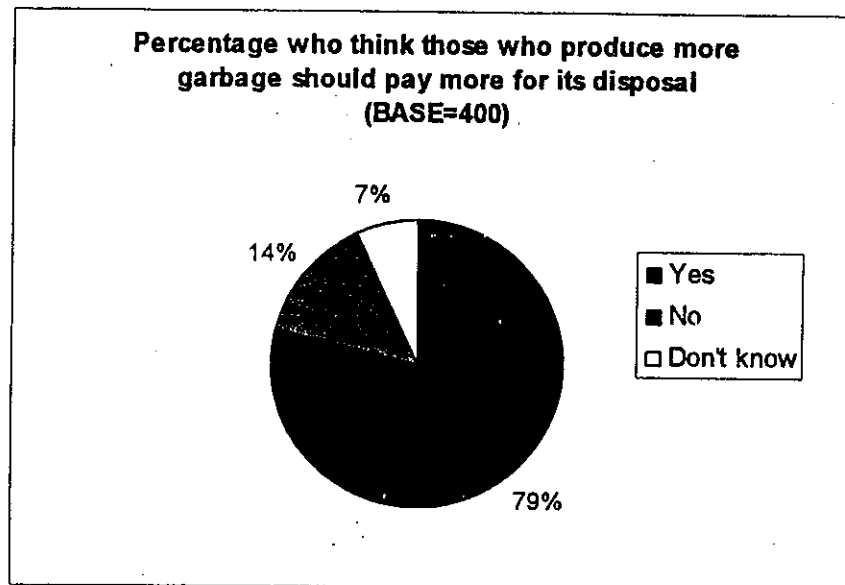


Respondents between the ages of 25 to 34 were the least likely to say that they never disposed of garbage at a landfill or transfer station (16%) compared with 22% of those 18 to 24, 29% of those 35 to 49, 31% of those aged 50 to 64 and 52% of those aged 65 or older.

Also, respondents who live in higher income households are the least likely to say they have never disposed of garbage at a landfill or transfer station (22%) compared with 41% of those living in households earning \$30,000 or less and 36% of those in households earning between \$30,000 and \$60,000 per year.

SHOULD PEOPLE WHO PRODUCE MORE GARBAGE PAY MORE?

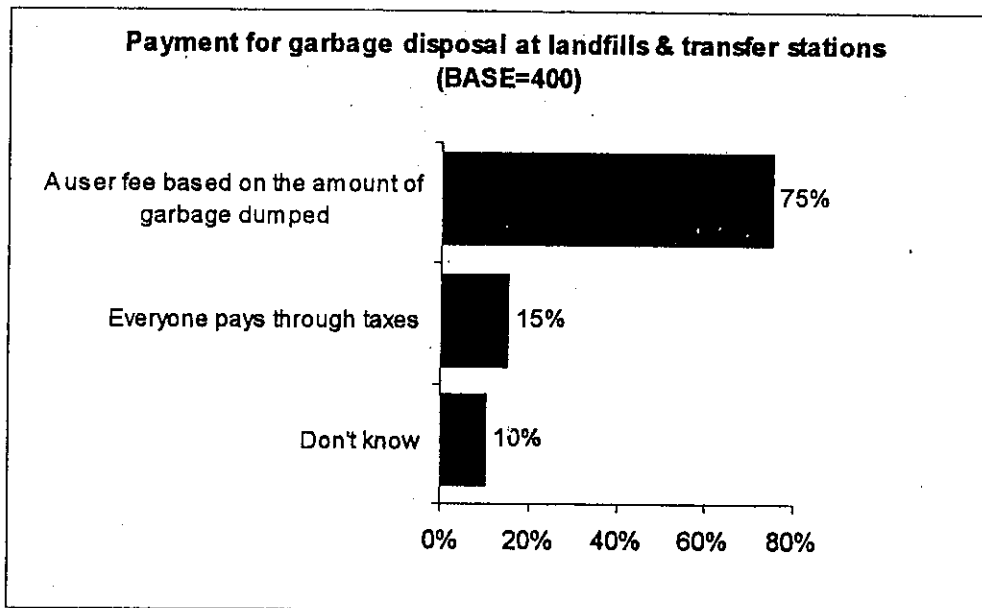
Respondents were told that the cost of environmentally responsible waste disposal at landfills and transfer stations has risen dramatically in the last decade. They were then asked whether or not those individuals who produce more garbage should pay more for the disposal of their garbage. A total of 79% indicated that they do feel that people should pay if they produce more garbage while 14% disagreed with this proposal. Seven per cent said that they did not know.



Respondents in households with higher annual incomes are significantly more likely to feel that people should pay more based on the amount of waste they produce (89% of those living in households with an annual income more than \$60,000 and 85% of those earning between \$30,000 and \$60,000 compared with 66% of those living in households with an annual income less than \$30,000).

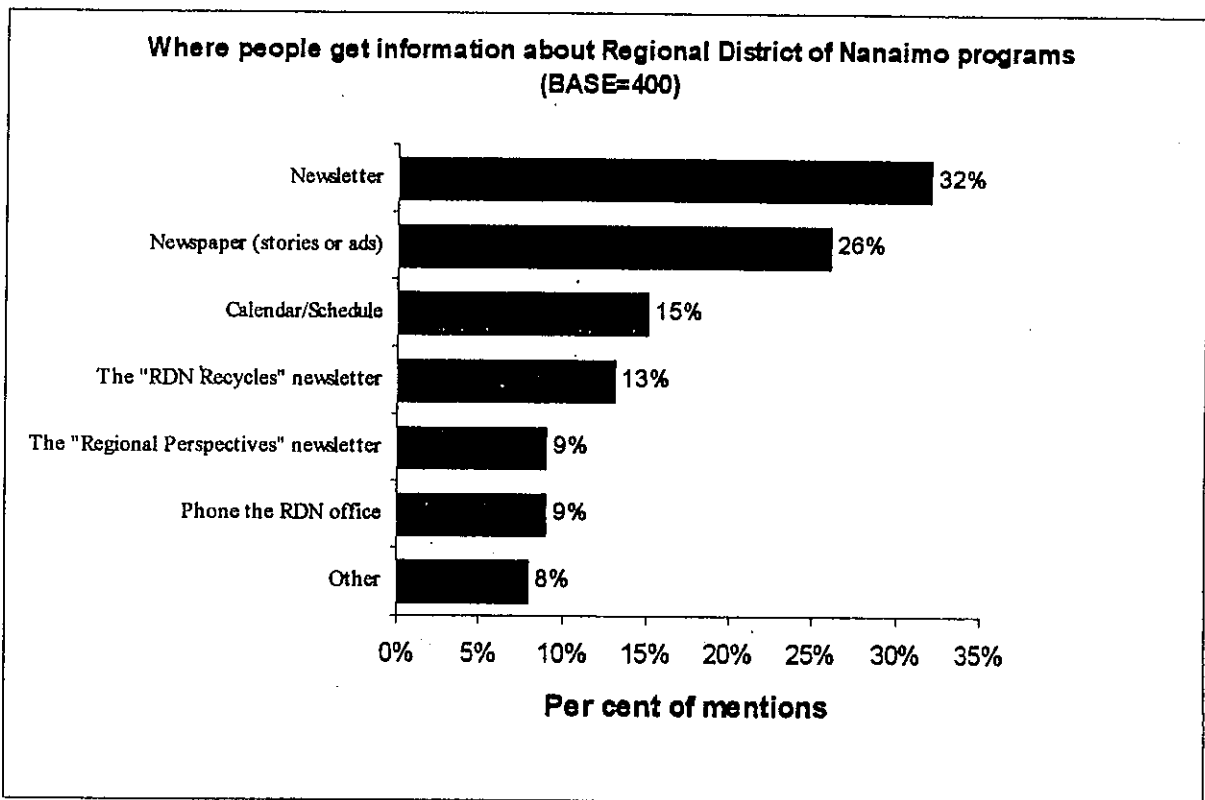
HOW SHOULD GARBAGE DISPOSAL AT LANDFILLS & TRANSFER STATIONS BE PAID FOR?

Three-quarters of those surveyed (75%) feel that there should be a user fee for garbage dumped at a landfill or transfer station based on the amount of garbage that is being dumped. Fifteen percent of respondents said that everyone should pay for this through taxes while 10% of participants did not know.



REGIONAL DISTRICT OF NANAIMO PROGRAMS

Respondents were asked where they get information about Regional District of Nanaimo programs. Thirty two per cent said that they receive information via a newsletter although these respondents could not name it specifically. A little over a quarter of respondents indicated that they get information from newspaper stories or ads (26%) while 15% said they get information from the District calendar or schedule. The newsletter "RDN Recycles" was mentioned by 13% of respondents as a source of information while the "Regional Perspectives" newsletter was mentioned by 9% of participants. Nine per cent of people also said that they phone the Regional District of Nanaimo office to get information while 8% indicated some other source of information.



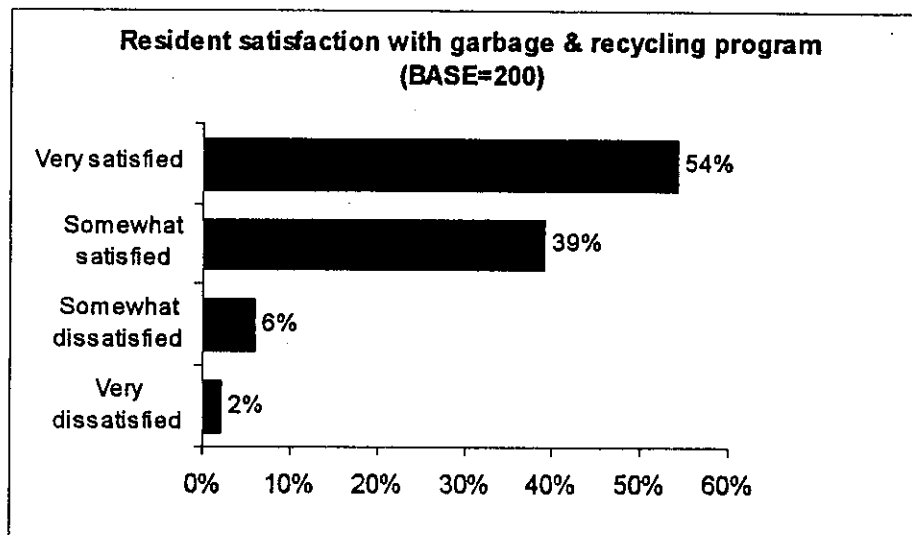
REGIONAL DISTRICT (EXCLUDING THE CITY OF NANAIMO)

The following section pertains to questions asked of those respondents who reside in the Regional District of Nanaimo excluding the City of Nanaimo. The base size of this sample is 200.

GARBAGE COLLECTION: RESIDENT SATISFACTION

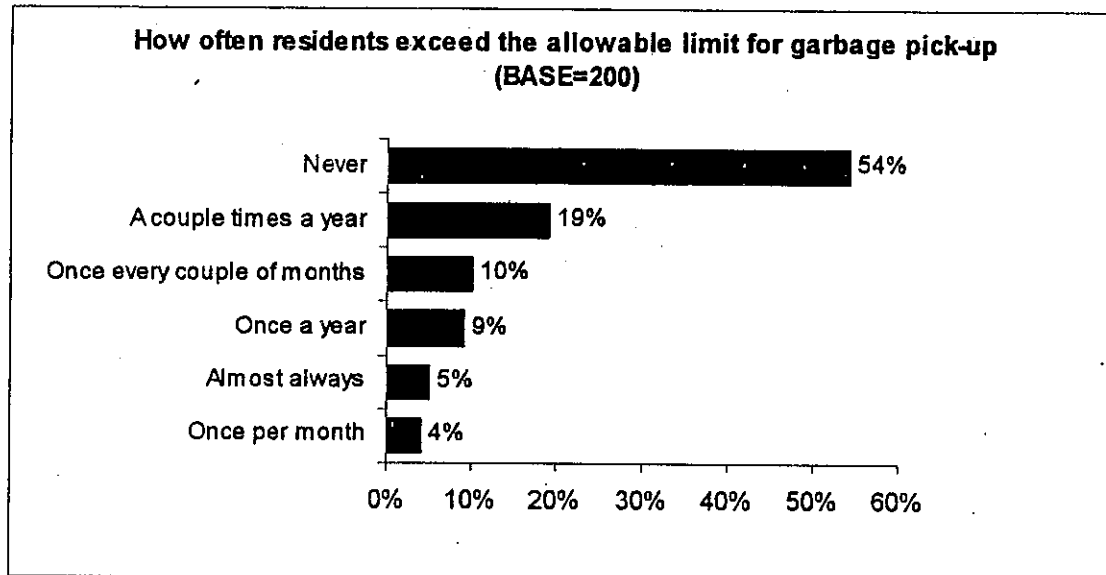
Respondents were asked how satisfied they are with their garbage and recycling collection program. The overwhelming majority indicated that they are very satisfied or somewhat satisfied (a total of 93%). Only 6% of respondents said that they were somewhat dissatisfied while 2% said they were very dissatisfied.

Participants living in the City of Parksville are the most likely to say that they are very satisfied (59%) compared with 48% of those living in Qualicum Beach and 54% of those who live in an area other than Parksville or Qualicum Beach.



EXCEEDING GARBAGE COLLECTION ALLOWABLE LIMITS

Respondents were told what the current allowable limits are for garbage collection and then asked how often in the past year they produced more garbage than the limit allows. Over half of residents (54%) said they never exceeded the limit in the past year while 19% indicated that they surpassed the allowable limit a couple of times. Ten per cent of respondents said they had more than their allowable limit of garbage once every couple of months, 9% said they exceed the limit once a year and 5% said they almost always have more than their limit.

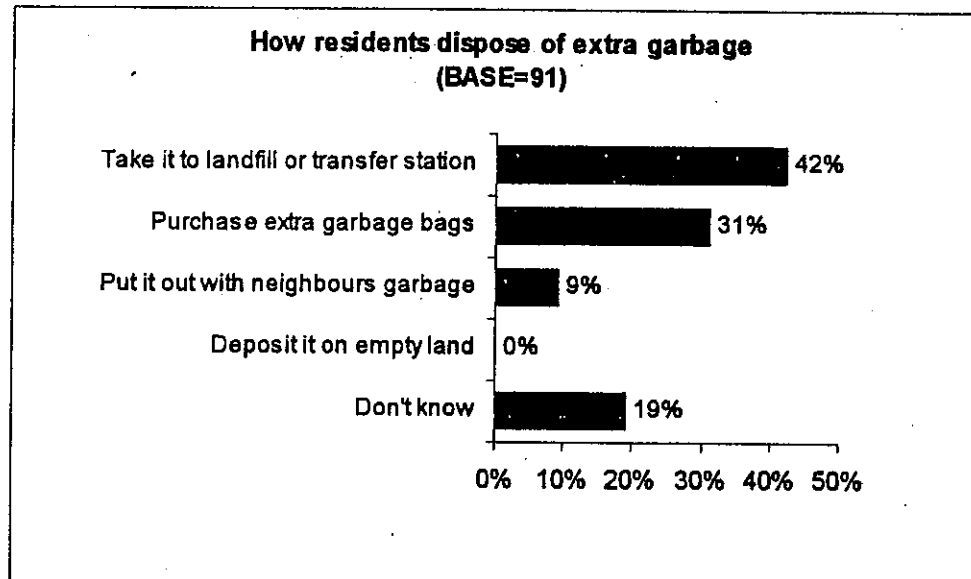


Respondents in the younger age cohorts were the most likely to exceed the allowable limit of garbage with 17% of those aged 18 to 24 and 17% of those aged 25 to 34 indicating that they almost always exceed the allowable limit of garbage compared with 8% of those 35 to 49, 2% of those 50 to 64 and 1% of respondents aged 65 or older.

Correspondingly, older participants are the most likely to profess that they never exceed the limit (75%) compared with 33% of those aged 18 to 24, 25% of those 25 to 34, 40% of those 35 to 49 and 48% of those respondents aged 65 or older.

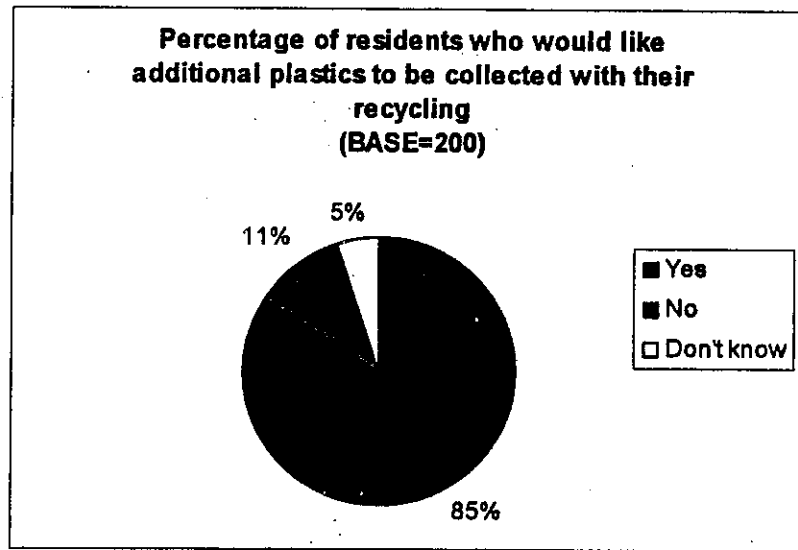
DISPOSAL OF EXTRA GARBAGE

Those respondents who indicated that they sometimes exceed the allowable limit for garbage were asked how they usually dispose of extra garbage. A total of 42% said that they take it to a landfill or transfer station while 31% simply said that they purchase extra garbage bags. Nineteen per cent of participants claimed that they don't know how they dispose of extra garbage while 9% claimed that they put it out with their neighbour's garbage. None of the respondents said that they deposit extra garbage on empty land.



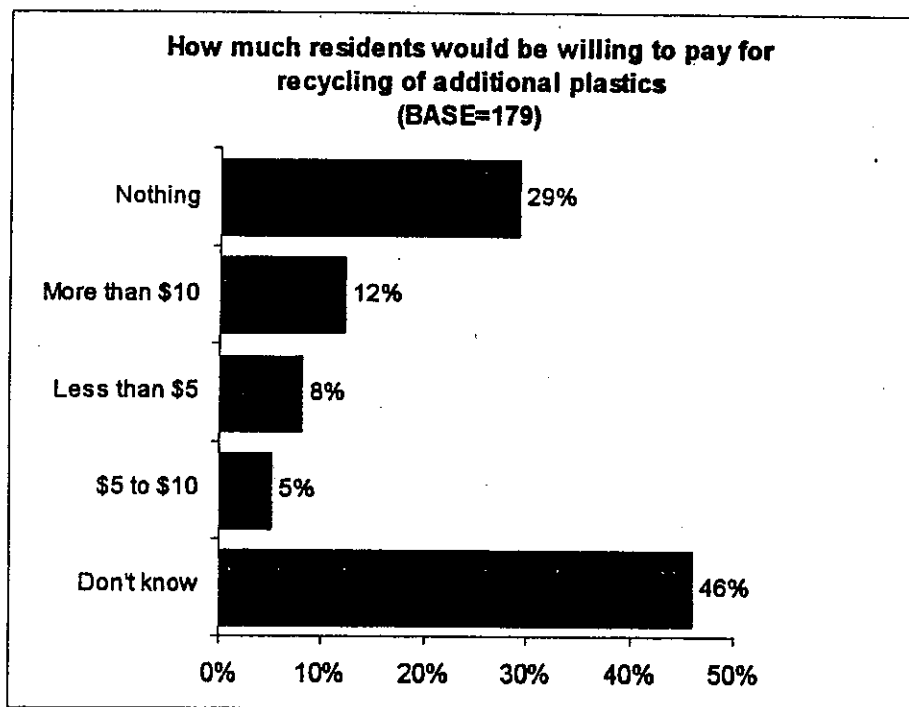
RECYCLING OF PLASTICS

It was explained to respondents that currently not all plastics are allowed to be recycled and they were asked if they would like to see additional plastics collected with their usual recycling. The overwhelming majority (85%) were in support of this proposal while 11% opposed it. Five per cent of respondents indicated that they did not know whether or not additional plastics should be included in their recycling program.



HOW MUCH RESIDENTS WOULD BE WILLING TO PAY FOR ADDITIONAL RECYCLING OF PLASTICS

Those respondents who were in favour of having additional plastics included in their recycling program were asked how much they would be willing to pay *per year* for this service. While 29% said they would not be willing to pay for it a full 46% said they do not know how much they'd be willing to pay. Sixteen per cent of participants said they would pay more than \$10.00 per year while 6% said they would pay less than \$5.00 and 3% said they would pay between \$5.00 and \$10.00 per year.



Men were significantly more likely to say that they would not pay for it (43% compared with 16% of women). Women on the other hand were more likely to say that they don't know how much they would pay (59% compared with 32% of men).

RDN 2000 Solid Waste Newsletter Survey

Overall Results

Use of Transfer Station or Regional Landfill

- How often do you use the RDN Transfer Station or Regional Landfill?

Never	28%	578
Once a year	28%	562
Twice a year	14%	276
Three times a year	8%	162
Four times a year	15%	311
Monthly or more	7%	134
Total responses to Question		2023

Expanded Recycling Services

- Do you want the curbside-recycling program expanded to accept more plastic containers other than the #2 type (e.g. milk jugs, vinegar containers, etc.) currently accepted?

Yes	74%	1504
No	26%	527
Total Responses to Question		2031

- How much are you willing to pay per year for this expanded service?

\$0	34%	606
\$1-\$5	48%	837
\$6-\$10	18%	322
Total Responses to Question		1765

Yard waste / food waste collection service

- Would you support collection of yard waste or food and yard waste at the curbside and pay for such extra service?

Yes	48%	978
No	52%	1053
Total Responses to Question		2031

- If yes, what level of service or collection options would you support?

Spring/Fall collection of yard waste - \$5	61%	663
Biweekly collection of yard waste - \$20	28%	308
Biweekly collection of Yard/Food Waste - \$30	11%	116
Total Responses to Question		1087

RDN 2000 Solid Waste Newsletter Survey

Results by Area

Electoral Areas A & C – *South Wellington, Cassidy, Cedar, and Extension*

Use of Transfer Station or Regional Landfill

- How often do you use the RDN Transfer Station or Regional Landfill?

Never	31%	9
Once a year	41%	12
Twice a year	15%	4
Three times a year	3%	1
Four times a year	7%	2
Monthly or more	3%	1
Total responses to Question		29

Expanded Recycling Services

- Do you want the curbside-recycling program expanded to accept more plastic containers other than the #2 type (e.g. milk jugs, vinegar containers, etc.) currently accepted?

Yes	84%	24
No	17%	5
Total Responses to Question		29

- How much are you willing to pay per year for this expanded service?

\$0	31%	8
\$1-\$5	50%	13
\$6-\$10	19%	5
Total Responses to Question		26

Yard waste / food waste collection service

- Would you support collection of yard waste or food and yard waste at the curbside and pay for such extra service?

Yes	24%	7
No	76%	22
Total Responses to Question		29

- If yes, what level of service or collection options would you support?

Spring/Fall collection of yard waste - \$5	83%	5
Biweekly collection of yard waste - \$20	17%	1
Biweekly collection of Yard/Food Waste - \$30	0%	0
Total Responses to Question		6

RDN 2000 Solid Waste Newsletter Survey

Results by Area

Electoral Area B - Gabriola and Surrounding Islands

Use of Transfer Station or Regional Landfill

- How often do you use the RDN Transfer Station or Regional Landfill?

Never	62%	231
Once a year	26%	95
Twice a year	5%	17
Three times a year	2%	9
Four times a year	2%	7
Monthly or more	3%	13
Total responses to Question		372

Expanded Recycling Services

- Do you want the curbside-recycling program expanded to accept more plastic containers other than the #2 type (e.g. milk jugs, vinegar containers, etc.) currently accepted?

Yes	55%	206
No	45%	170
Total Responses to Question		376

- How much are you willing to pay per year for this expanded service?

\$0	42%	101
\$1-\$5	41%	99
\$6-\$10	17%	42
Total Responses to Question		242

Yard waste / food waste collection service

- Would you support collection of yard waste or food and yard waste at the curbside and pay for such extra service?

Yes	19%	71
No	81%	305
Total Responses to Question		376

- If yes, what level of service or collection options would you support?

Spring/Fall collection of yard waste - \$5	83%	64
Biweekly collection of yard waste - \$20	8%	6
Biweekly collection of Yard/Food Waste - \$30	9%	7
Total Responses to Question		77

RDN 2000 Solid Waste Newsletter Survey

Results by Area

Electoral Area D - *Lantzville, East Wellington, Pleasant Valley*

Use of Transfer Station or Regional Landfill

- How often do you use the RDN Transfer Station or Regional Landfill?

Never	26%	68
Once a year	32%	86
Twice a year	16%	42
Three times a year	8%	23
Four times a year	14%	37
Monthly or more	4%	10
Total responses to Question		266

Expanded Recycling Services

- Do you want the curbside-recycling program expanded to accept more plastic containers other than the #2 type (e.g. milk jugs, vinegar containers, etc.) currently accepted?

Yes	82%	218
No	18%	49
Total Responses to Question		267

- How much are you willing to pay per year for this expanded service?

\$0	28%	71
\$1-\$5	49%	121
\$6-\$10	23%	56
Total Responses to Question		248

Yard waste / food waste collection service

- Would you support collection of yard waste or food and yard waste at the curbside and pay for such extra service?

Yes	41%	116
No	59%	157
Total Responses to Question		248

- If yes, what level of service or collection options would you support?

Spring/Fall collection of yard waste - \$5	70%	88
Biweekly collection of yard waste - \$20	20%	26
Biweekly collection of Yard/Food Waste - \$30	10%	12
Total Responses to Question		126

RDN 2000 Solid Waste Newsletter Survey

Results by Area

Electoral Area E - Nanoose

Use of Transfer Station or Regional Landfill

- How often do you use the RDN Transfer Station or Regional Landfill?

Never	24%	61
Once a year	35%	92
Twice a year	16%	42
Three times a year	7%	18
Four times a year	13%	34
Monthly or more	5%	12
Total responses to Question		259

Expanded Recycling Services

- Do you want the curbside-recycling program expanded to accept more plastic containers other than the #2 type (e.g. milk jugs, vinegar containers, etc.) currently accepted?

Yes	75%	195
No	25%	64
Total Responses to Question		259

- How much are you willing to pay per year for this expanded service?

\$0	33%	74
\$1-\$5	47%	104
\$6-\$10	20%	45
Total Responses to Question		223

Yard waste / food waste collection service

- Would you support collection of yard waste or food and yard waste at the curbside and pay for such extra service?

Yes	52%	134
No	48%	125
Total Responses to Question		259

- If yes, what level of service or collection options would you support?

Spring/Fall collection of yard waste - \$5	69%	99
Biweekly collection of yard waste - \$20	19%	28
Biweekly collection of Yard/Food Waste - \$30	12%	17
Total Responses to Question		144

RDN 2000 Solid Waste Newsletter Survey

Results by Area

Electoral Area F – *Coombs, Hilliers, Errington*

Use of Transfer Station or Regional Landfill

- How often do you use the RDN Transfer Station or Regional Landfill?

Never	11%	2
Once a year	39%	7
Twice a year	17%	3
Three times a year	11%	2
Four times a year	17%	3
Monthly or more	5%	1
Total responses to Question		18

Expanded Recycling Services

- Do you want the curbside-recycling program expanded to accept more plastic containers other than the #2 type (e.g. milk jugs, vinegar containers, etc.) currently accepted?

Yes	89%	16
No	11%	2
Total Responses to Question		18

- How much are you willing to pay per year for this expanded service?

\$0	47%	8
\$1-\$5	35%	6
\$6-\$10	18%	3
Total Responses to Question		17

Yard waste / food waste collection service

- Would you support collection of yard waste or food and yard waste at the curbside and pay for such extra service?

Yes	28%	5
No	72%	13
Total Responses to Question		18

- If yes, what level of service or collection options would you support?

Spring/Fall collection of yard waste - \$5	60%	3
Biweekly collection of yard waste - \$20	40%	2
Biweekly collection of Yard/Food Waste - \$30	0%	0
Total Responses to Question		5

Results by Area

Electoral Area H – *Shaw Hill, Deep Bay, Bowser*

Use of Transfer Station or Regional Landfill

- How often do you use the RDN Transfer Station or Regional Landfill?

Never	37%	24
Once a year	36%	23
Twice a year	9%	6
Three times a year	8%	5
Four times a year	8%	5
Monthly or more	2%	1
Total responses to Question		64

Expanded Recycling Services

- Do you want the curbside-recycling program expanded to accept more plastic containers other than the #2 type (e.g. milk jugs, vinegar containers, etc.) currently accepted?

Yes	77%	49
No	23%	15
Total Responses to Question		64

- How much are you willing to pay per year for this expanded service?

\$0	35%	22
\$1-\$5	52%	32
\$6-\$10	13%	8
Total Responses to Question		62

Yard waste / food waste collection service

- Would you support collection of yard waste or food and yard waste at the curbside and pay for such extra service?

Yes	42%	27
No	58%	37
Total Responses to Question		64

- If yes, what level of service or collection options would you support?

Spring/Fall collection of yard waste - \$5	80%	24
Biweekly collection of yard waste - \$20	20%	6
Biweekly collection of Yard/Food Waste - \$30	0%	0
Total Responses to Question		30

Results by Area

City of Parksville

Use of Transfer Station or Regional Landfill

- How often do you use the RDN Transfer Station or Regional Landfill?

Never	19%	101
Once a year	23%	121
Twice a year	16%	86
Three times a year	9%	47
Four times a year	25%	130
Monthly or more	8%	43
Total responses to Question		528

Expanded Recycling Services

- Do you want the curbside-recycling program expanded to accept more plastic containers other than the #2 type (e.g. milk jugs, vinegar containers, etc.) currently accepted?

Yes	79%	420
No	21%	111
Total Responses to Question		531

- How much are you willing to pay per year for this expanded service?

\$0	37%	188
\$1-\$5	48%	246
\$6-\$10	15%	74
Total Responses to Question		508

Yard waste / food waste collection service

- Would you support collection of yard waste or food and yard waste at the curbside and pay for such extra service?

Yes	58%	309
No	42%	222
Total Responses to Question		531

- If yes, what level of service or collection options would you support?

Spring/Fall collection of yard waste - \$5	57%	202
Biweekly collection of yard waste - \$20	30%	104
Biweekly collection of Yard/Food Waste - \$30	13%	47
Total Responses to Question		353

Results by Area

Town of Qualicum Beach

Use of Transfer Station or Regional Landfill

- How often do you use the RDN Transfer Station or Regional Landfill?

Never	17%	83
Once a year	26%	125
Twice a year	15%	76
Three times a year	12%	57
Four times a year	19%	93
Monthly or more	11%	53
Total responses to Question		487

Expanded Recycling Services

- Do you want the curbside-recycling program expanded to accept more plastic containers other than the #2 type (e.g. milk jugs, vinegar containers, etc.) currently accepted?

Yes	77%	376
No	23%	111
Total Responses to Question		487

- How much are you willing to pay per year for this expanded service?

\$0	31%	134
\$1-\$5	49%	216
\$6-\$10	20%	89
Total Responses to Question		439

Yard waste / food waste collection service

- Would you support collection of yard waste or food and yard waste at the curbside and pay for such extra service?

Yes	65%	315
No	35%	172
Total Responses to Question		487

- If yes, what level of service or collection options would you support?

Spring/Fall collection of yard waste - \$5	51%	178
Biweekly collection of yard waste - \$20	40%	137
Biweekly collection of Yard/Food Waste - \$30	9%	31
Total Responses to Question		346



REGIONAL DISTRICT
OF NANAIMO

JAN 12 2001

MEMORANDUM

CHAIR		GMCPS	
CAO		GMDS	
GMCMS		GMES	
		<i>ESC</i>	<input checked="" type="checkbox"/>

TO: John Finnie, P. Eng.
General Manager Environmental Services

DATE: January 11, 2001

FROM: Wayne Moorman, P. Eng
Manager of Engineering and Utilities

FILE: 5500-31-01

SUBJECT: Non-Public Residential Water Works Systems
within the Regional District of Nanaimo

PURPOSE

To provide available information to the Board on the numbers, locations and status of non-public residential water works systems within the Regional District of Nanaimo.

BACKGROUND

For the purpose of this report, non-public residential water works systems are water systems not owned by the City of Nanaimo, City of Parksville, Town of Qualicum Beach or the Regional District of Nanaimo and which are monitored by the Central Vancouver Island Health Unit (CVIHU) for health and water quality. Not included are commercial or institutional facilities such as businesses/seasonal facilities (i.e. stores, campsites) or schools.

Following concerns by residents of the Little Qualicum Water Works Improvement District (located near Dashwood) on the matter of a recent boil water advisory issued by the water utility and imposed by the CVIHU, staff were requested to prepare a report detailing the locations and status of non-public residential water works systems within the Regional District.

Staff does not have complete up-to-date information on the names, locations and other details on the non-public residential utilities. We have requested this information from the CVIHU but they have not yet been able to supply us with all the information. Therefore, the information in this report may not all be current, but is relevant in that it is based on the best available information at this time. If the Board wishes, an updated report can be prepared when CVIHU provides us with more current information.

Government Agencies

The Office of the Comptroller of Water Rights (CoWR), a branch of the Ministry of Environment, Lands and Parks (MELP), is the agency responsible for reviewing applications for the creation of new water systems and the expansion of existing private water systems. In the case of Improvement Districts, expansion of their systems is approved by the Ministry of Municipal Affairs. For private water systems the CoWR issues a Certificate of Public Convenience and Necessity or makes amendments to the certificate and they work closely with the various health units. Further responsibilities of CoWR for private water systems are regulation and approval of water rates and dealing with complaints or problems within the water system.

Water quality issues and health issues (including engineering design/construction permits) surrounding water systems are looked after by the Central Vancouver Island Health Unit (CVIHU) and are governed by the Safe Drinking Water Regulations of BC230/92 and the Guidelines for Canadian Drinking Water Quality – 6th Edition (they issue operating permits annually to water systems under their jurisdiction). The CVIHU requires each water purveyor to supply water samples to them on a regular basis and from pre-determined locations (CVIHU dictates the frequency of testing and sample locations and base them on the size of the system). Water samples are tested by an appointed/approved testing laboratory for the presence of total coliform and fecal coliform bacteria. If water contamination problems are suspected/encountered, the CVIHU under the direction of the Medical Health Officer sends a “Boil Water – Advisory/Order” to the water purveyor and requires the purveyor to inform all users of the condition and the requirement to boil their water prior to consumption. The Advisory/Order remains in effect until a written notification is sent to the purveyor from the CVIHU lifting the Order. The CVIHU mandatory water testing and sample location standards are the same for all non-public and public water systems.

There is no provincial body or legislation that determines the level of operation and maintenance required for any public or non-public water utility in British Columbia. Further, there are no mandatory educational requirements for operators of public and non-public water systems in BC

Information that we currently have indicates that there are numerous non-public residential water utilities within the RDN with the majority of the water systems in SD 69. Some of the systems are owned and operated by a form of local government (Improvement Districts or Fire Protection Districts) such as the Lantzville Improvement District and others by private companies such as Breakwater Private Water Utility. There are also other private residential water utilities owned and operated by strata developments such as Pacific Shores Nature Resort and trailer parks.

Staff is currently aware of five boil water advisories/orders issued by water purveyors as required by the MoH. They are as follows (including the start date of boil advisory) :

Water System	Start Date of Boil Advisory
Little Qualicum Water Works Improvement District	January 5, 2001
Olympic Springs Users Association	April 21, 1994
Seagirt Water Users Association	August 15, 2000
Whiskey Creek Utilities	December 7, 1999
Williams Springs Water Works Improvement District	May 5, 1994

The particulars surrounding the boil advisories are related to coliform contamination within the water system, the lack of chlorination equipment or the lack of confidence in the chlorination system. The boil water advisories are related to public health and safety.

Staff is not yet fully informed on the operating and maintenance (O & M) procedures of the various non-public water systems but do know there are extreme differences in O & M procedures throughout the RDN. For example, the larger Improvement Districts such as Lantzville and North Cedar and the Breakwater Private Water Utility do have dedicated staff assigned to their systems and are therefore operated and maintained at a higher level. Smaller systems, such as Whiskey Creek, have part time O & M staff assigned to them but the level of experience and effort maintaining the systems is not known.

PAGE
68

Attached to this report is Schedule 'A' showing the names and locations of non-public water works systems within the RDN. This map is not up to date but is the best information that we have at this time. The locations of the five systems currently under boil water advisories/orders are highlighted with clouds around the name.

SUMMARY/CONCLUSIONS

Within the Regional District of Nanaimo there are numerous non-public residential water works systems owned and operated by Improvement Districts, Fire Protection Districts, Private Water Utilities or Strata Developments. The majority of these water systems are located within SD 69. The attached map shows various water systems within the RDN but is based on older information, more current information was not available in time for presentation in this report.

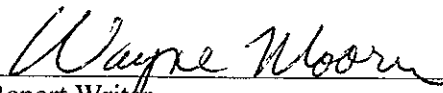
The Central Vancouver Island Health Unit mandates the frequency and location of water sampling in all public and non-public residential developments. Samples are submitted to the CVIHU as required for testing for the presence of total coliform and fecal coliform bacteria. There are no standards in BC that dictates the level of operation and maintenance that a water purveyor must maintain and there are no standards for level of education for O & M staff.

The O & M of the water systems vary and may depend on the ownership of the utility. The Improvement Districts and larger private water systems seem to be better operated and maintained than the smaller private systems.

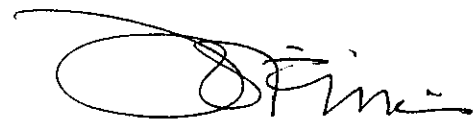
Currently staff is aware of five boil water advisories/orders within the regional district.

RECOMMENDATION

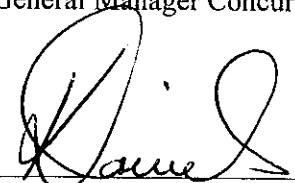
That this report be received for information.



Report Writer



General Manager Concurrence



CAO Concurrence

COMMENTS:

PAGE
69

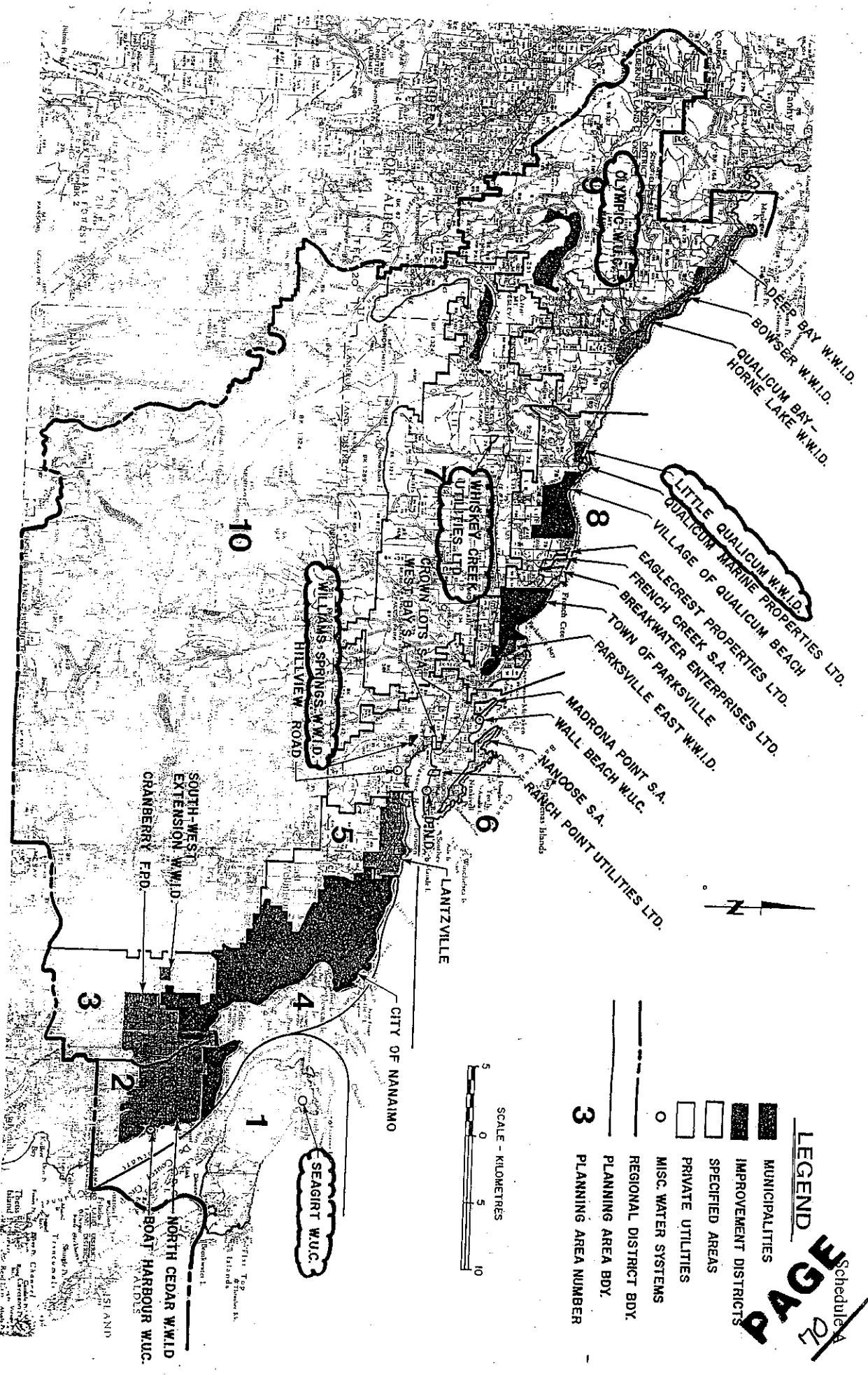


FIG. 1: PLANNING AREAS AND COMMUNITY WATER SYSTEMS