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Shellfish Growing Water Sanitary Survey of The Vancouver Island Foreshore, Wallis Point to Horswell Bluff, Including Nanoose Harbour, British Columbia, 1977.

Surveillance Report
EPS-5-PR-77-6

Pacific Region
February, 1978

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SHELLFISH GROWING WATER SANITARY SURVEY
OF
THE VANCOUVER ISLAND FORESHORE, WALLIS POINT
TO HORSWELL BLUFF, INCLUDING NANOOSE HARBOUR,
BRITISH COLUMBIA, 1977

by

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Environmental Protection Branch
Environmental Protection Service
Pacific Region

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ABSTRACT

A sanitary survey of the molluscan shellfish growing waters of Nanoose Harbour and the Vancouver Island foreshore east to Lagoon Head, was conducted from March 14 to April 5, 1977, by personnel of the Environmental Protection Service, Pacific Region.

An investigation to determine the sources of fecal pollution was carried out in conjunction with bacteriological testing of the shellfish growing waters.

A total of 420 marine, 61 freshwater, and 3 oyster shellstock samples was collected for analysis of fecal coliform content. Of the 65 marine sample stations established, 4 were not of acceptable shellfish growing water quality.

Recommendations are made to add a portion of the Lantzville foreshore to Schedule 1 of the British Columbia Fishery Regulations, to more fully evaluate potential pollution sources in Hammond Bay and Page Lagoon (Piper's Lagoon), and to have appropriate agencies rectify identified pollution sources.

Résumé

Le personnel du Service de la protection de l'environnement, région du Pacifique, a étudié la salubrité des eaux à mollusques du havre Nanoose et de la laisse des marées de l'île Vancouver, à l'ouest de Lagoon Head.

Menée entre le 14 mars et le 15 avril 1977, cette étude visait à identifier les sources de pollution fécale. Concurrentement, on a soumis les eaux où baignent les coquillages à des essais bactériologiques.

On a amassé un total de 484 échantillons dont 420 d'eau salée, 61 d'eau douce, et de trois huîtres. On en a ensuite analysé la teneur en bactéries coliformes d'origine fécale. La qualité des eaux de quatre des 65 secteurs d'échantillonnage marin s'est révélée inacceptable.

Dès lors, on recommande l'adjonction d'une partie de la laisse de Lantzville au Plan 1 des "British Columbia Fisheries Regulations" de façon à pouvoir mieux évaluer les sources possibles de pollution de Hammond Bay et de Page Lagoon (Piper's Lagoon). Une telle mesure permettrait également aux agences responsables de voir à l'élimination des sources de pollution reconnues.

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CONCLUSIONS

1. The waters of Nanoose Harbour were found to be of acceptable shellfish growing water quality. Little change is evident in the bacteriological water quality since the Public Health Engineering survey conducted in 1971.
2. Consumption of shellfish harvested from a large portion of the Lantzville foreshore may constitute a public health hazard due to contamination of the shellfish growing waters. Contamination is attributable to:
 - (a) high fecal coliform levels in streams reaching the foreshore;
 - (b) the Pebble Beach Estates septic tank discharge; and
 - (c) the Shoregrove Resort combined septic tank effluent discharge and at times, high fecal coliform levels in Blood's Creek. Previous samples indicated a problem, but this was not substantiated during the survey.
3. The foreshore waters from Lantzville to Lagoon Head inclusive, were found to be of acceptable shellfish growing water quality. There are, however, potential sources of contamination in Hammond Bay and Piper's Lagoon. They are:
 - (a) a storm drain discharging into Piper's Lagoon;
 - (b) a sewage pump station overflow pipe terminating in a gravel bed under Piper's Lagoon; and
 - (c) questionable sewage disposal from summer dwellings on the islands in Hammond Bay.

RECOMMENDATIONS

1. It is recommended that the contaminated portion of the Lantzville foreshore be added to Schedule 1 of the British Columbia Fishery Regulations, and be defined as:

Area 17-20 - "The tidal foreshore of Lantzville, from Peterson Road eastward to a point 50 metres beyond the boat ramp at the Shoregrove Resort". (Figure 1)

2. It is recommended that the Central Vancouver Island Health Unit investigate and, where possible, eliminate the following suspected and definite sources of fecal contamination:
 - (a) septic seepage was observed at 231 and 246 or 247 Laika-way Road, West Bay Estates;
 - (b) high fecal coliform levels were evident in stream S4 at the mouth of Nanoose Harbour (foot of Sabre Road, by the Island Highway);
 - (c) moisture seeping down the rocky bluff, west of Blunden Point, exhibited significant fecal coliform levels at the two sites which were sampled;
 - (d) farmland, west of Leland Road, drains partly to the foreshore, west of Blunden Point;
 - (e) farmland, west of Leland and Peterson roads, drains into ditches which flow to Stewart Creek;
 - (f) septic seepage was observed at the B. Bagley property on Leland Road in Lantzville (a probable source of contamination to Stewart Creek);
 - (g) pastureland at Lantzville Road could contribute fecal contamination to Stewart Creek which passes through it;
 - (h) some of the homes between Peterson Road and Lancewood Avenue have been the subject of some complaints from residents to the Board of Trustees, regarding malfunctioning sewage systems;

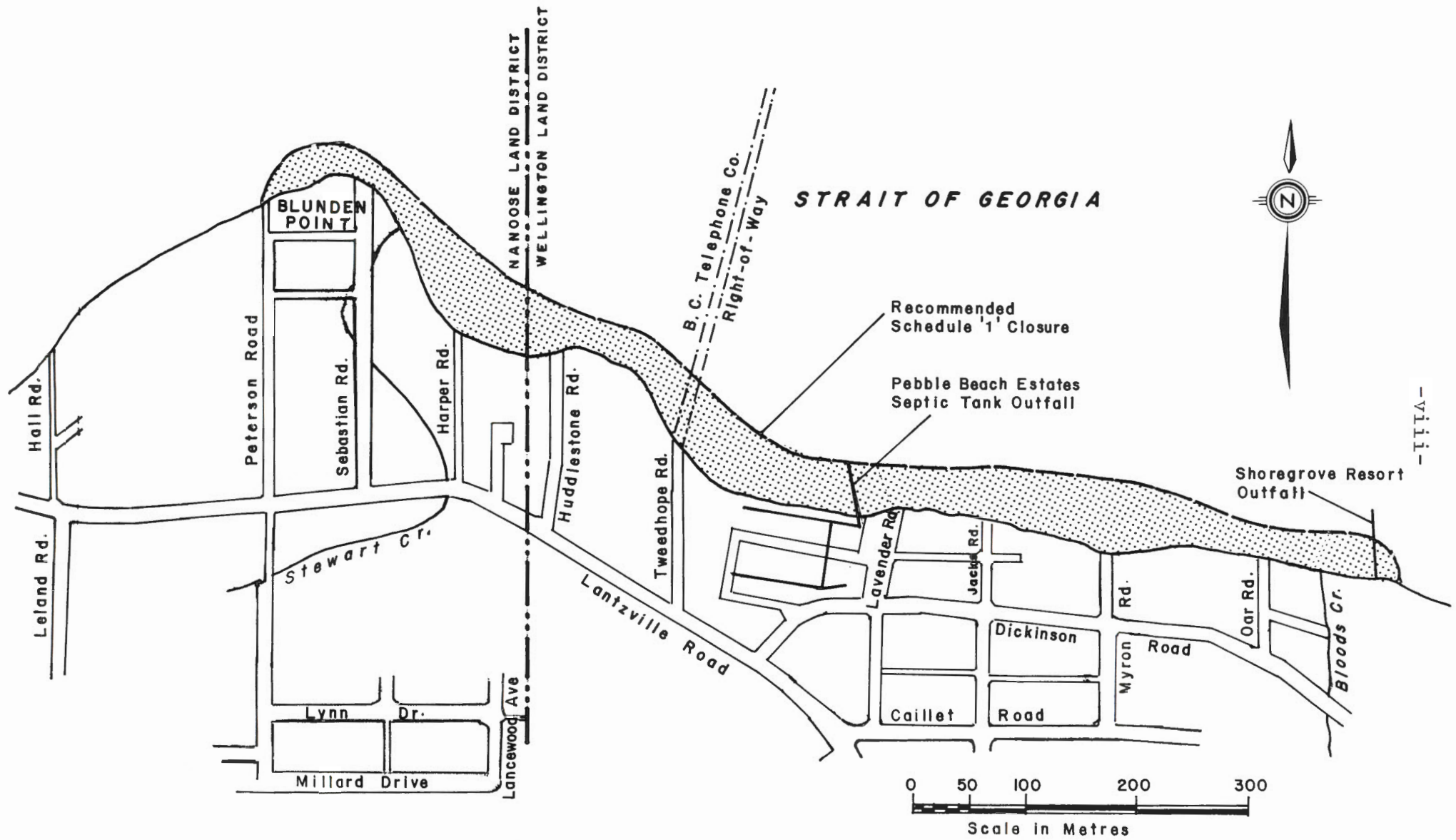


FIGURE 1 RECOMMENDED AREA 17-20 SCHEDULE '1' CLOSURE

- (i) stream S9 which drains the subdivision between Peterson Road and Lancewood Avenue could be contaminated by landwash from a pasture it passes through before reaching the foreshore; and
 - (j) at the G. Plecas property on Lantzville Road, a septic discharge was observed contaminating stream S12.
3. It is recommended that the Pollution Control Branch:
- (a) determine the efficacy of work done on the Pebble Beach Estates' septic tank and outfall (Pollution Control Branch Permit #PE-3633) in reducing bacteriological contamination of the intertidal foreshore at the outfall. (The work to be done included installation of a pump to prevent flooding of the septic tank at high tide, extension of the outfall to 305 metres offshore, and repairing of the outfall leak, all completed at the time of writing); and
 - (b) intensify intertidal sampling for fecal coliform analysis in the area of the Shoregrove Resort to determine if the resort's sewage effluent outfall is contributing the fecal contamination that had been detected in earlier studies (Pollution Control Branch Permit #PE-2626).
4. It is recommended that the following potential sources of contamination to Hammond Bay and Piper's Lagoon be evaluated by the Environmental Protection Service to assess their impact on the molluscan shellfish resource:
- (a) storm water discharges into Piper's Lagoon;
 - (b) the overflow in Piper's Lagoon from the Nanaimo Regional District sewage pump station; and
 - (c) domestic sewage disposal systems serving the summer dwellings located on the islands in Hammond Bay.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the success of any business and for the protection of the interests of all parties involved. The document outlines the various methods and systems that can be used to ensure the accuracy and reliability of financial records.

The second part of the document provides a detailed overview of the different types of financial statements that are commonly used in business. It explains the purpose and content of each statement, including the balance sheet, income statement, and cash flow statement. The document also discusses the importance of reconciling these statements and ensuring that they are consistent and accurate. This section includes a list of key items to check when reviewing financial statements.

The final part of the document offers practical advice and tips for businesses looking to improve their financial management. It covers topics such as budgeting, cost control, and the use of financial software. The document concludes by emphasizing the need for ongoing monitoring and review of financial performance to ensure long-term success.

1 INTRODUCTION

Nanoose Harbour is located about 13 kilometres northwest of Nanaimo on the east coast of Vancouver Island. It is approximately 3.4 kilometres long with an average depth of 19 metres (zero tide). The intertidal substrate varies between sand, gravel and rock, and a reported lack of sediments in the subtidal areas indicates there is relatively active water movement in the harbour (1).

There are three commercial oyster leases in the northwest portion of Nanoose Harbour, and the Provincial Government stocks a portion of the south shore designated for recreational oyster harvesting. Recreational harvesting of oysters also occurs on the north side of the Harbour.

Bacteriological data for Nanoose Harbour was previously obtained by the Environmental Protection Service from November 29 to December 17, 1971. All the sample stations satisfied the total coliform median and ninety percentile shellfish growing water standards in effect at that time (2).

Lantzville, a small community of approximately 1200 people, is located immediately southeast of Nanoose Harbour. The community is a mixed farmland and residential area and with the exception of a small subdivision and a resort, is presently unsewered. There is a significant oyster and clam resource along the Lantzville foreshore.

The Lantzville foreshore waters had been sampled by the Vancouver Island Health Unit, the Lantzville Improvement District and the Pollution Control Branch in 1976. Samples taken by these agencies indicated there was significant fecal contamination in the area, and results from the Central Vancouver Island Health Unit samples prompted the Medical Health Officer to close a portion of the Lantzville beach to swimming.

Most of the foreshore southeast of Lantzville is lightly populated with molluscan shellfish. However, there is an abundant oyster and clam resource in Piper's Lagoon.

Water and oyster shellstock samples had also been previously gathered in the vicinity of Hammond Bay and Piper's Lagoon in a study done by Malaspina College for the Nanaimo Regional District (3). High fecal coliform counts in oyster meats sampled at Lagoon Head, outside Piper's Lagoon, indicated the need for an investigation of pollution sources in the area.

Consequently, a shellfish growing water sanitary survey of the Vancouver Island foreshore from Wallis Point to Lagoon Head was conducted from March 14 to April 5, 1977. The areas studied are shown in Figure 2.

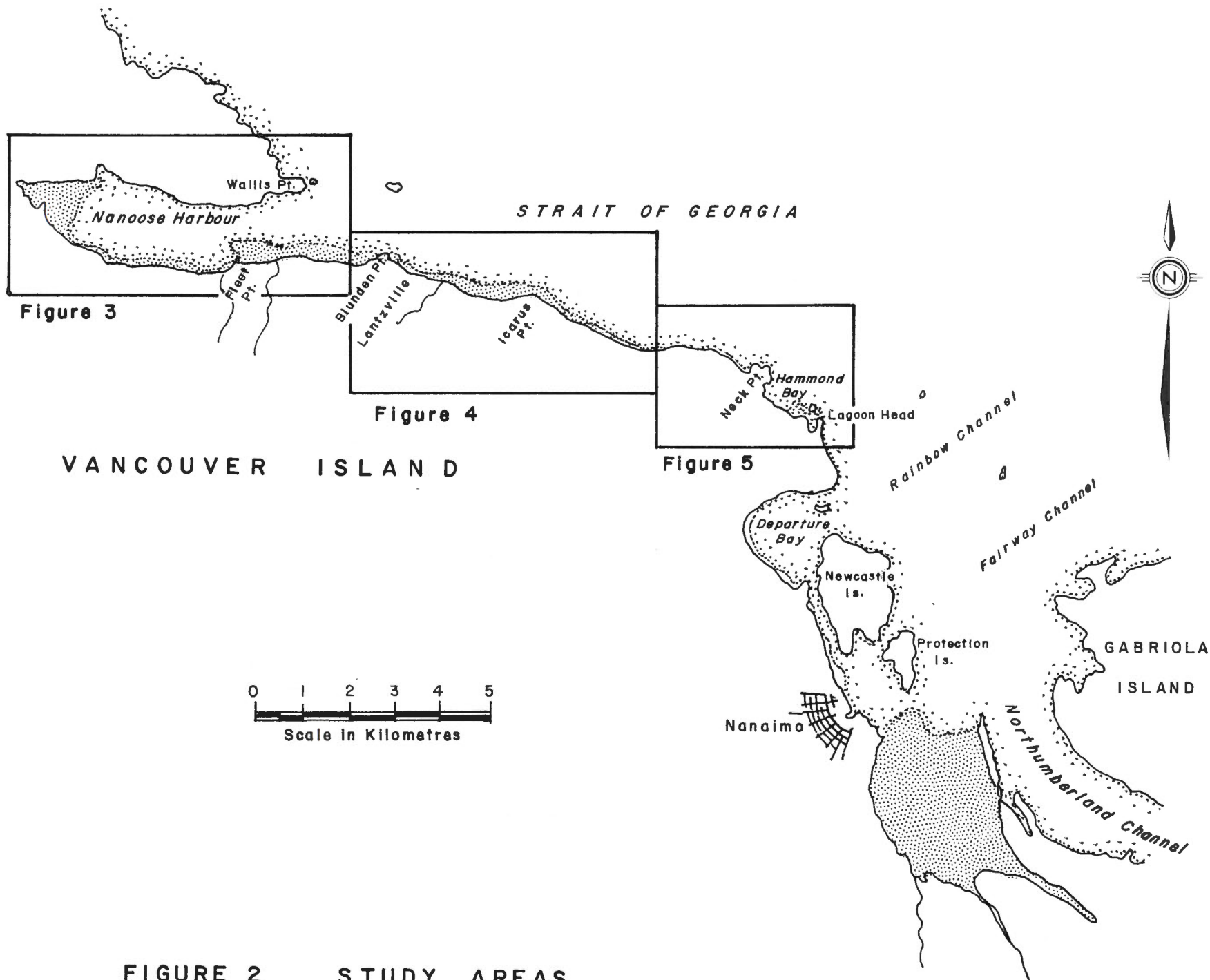


FIGURE 2 STUDY AREAS

2 SAMPLE STATION LOCATIONS

Marine sample stations were located:

- (a) along the middle of Nanoose Harbour to determine the movement of any fecal contamination with tidal fluctuations (several of the Nanoose Harbour sample stations were the same as those used in the 1971 survey);
- (b) offshore of potential fecal contamination sources such as dwellings, boat moorages, streams and sewage outfalls;
- (c) over shellfish beds to determine the quality of water in direct contact with the shellfish; and
- (d) in areas assumed to be free of fecal contamination (control stations).

Freshwater sample stations were established at streams to help locate sources of pollution that could influence intertidal water quality. Sewage effluent samples were also taken at Pebble Beach Estates and Shoregrove Resort for fecal coliform, suspended solids and biochemical oxygen demand analyses.

In addition to water samples, oysters were also sampled and analyzed for fecal coliform levels and for polychlorinated biphenyl (PCB) content. Marine and freshwater sample stations are shown in Figures 3, 4, and 5, and described in Appendices I and II.

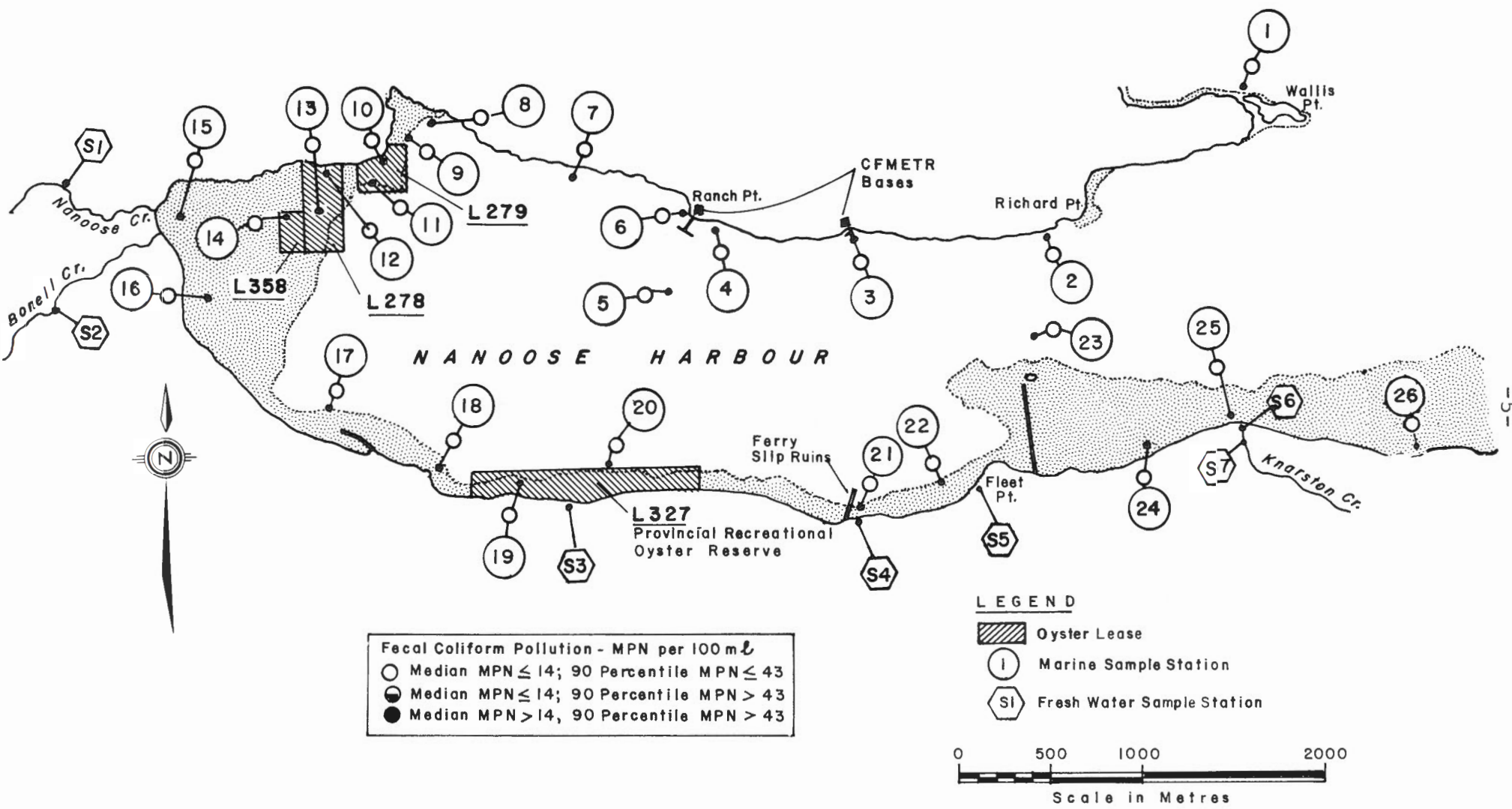


FIGURE 3 NANOOSE HARBOUR - SAMPLE STATION LOCATIONS

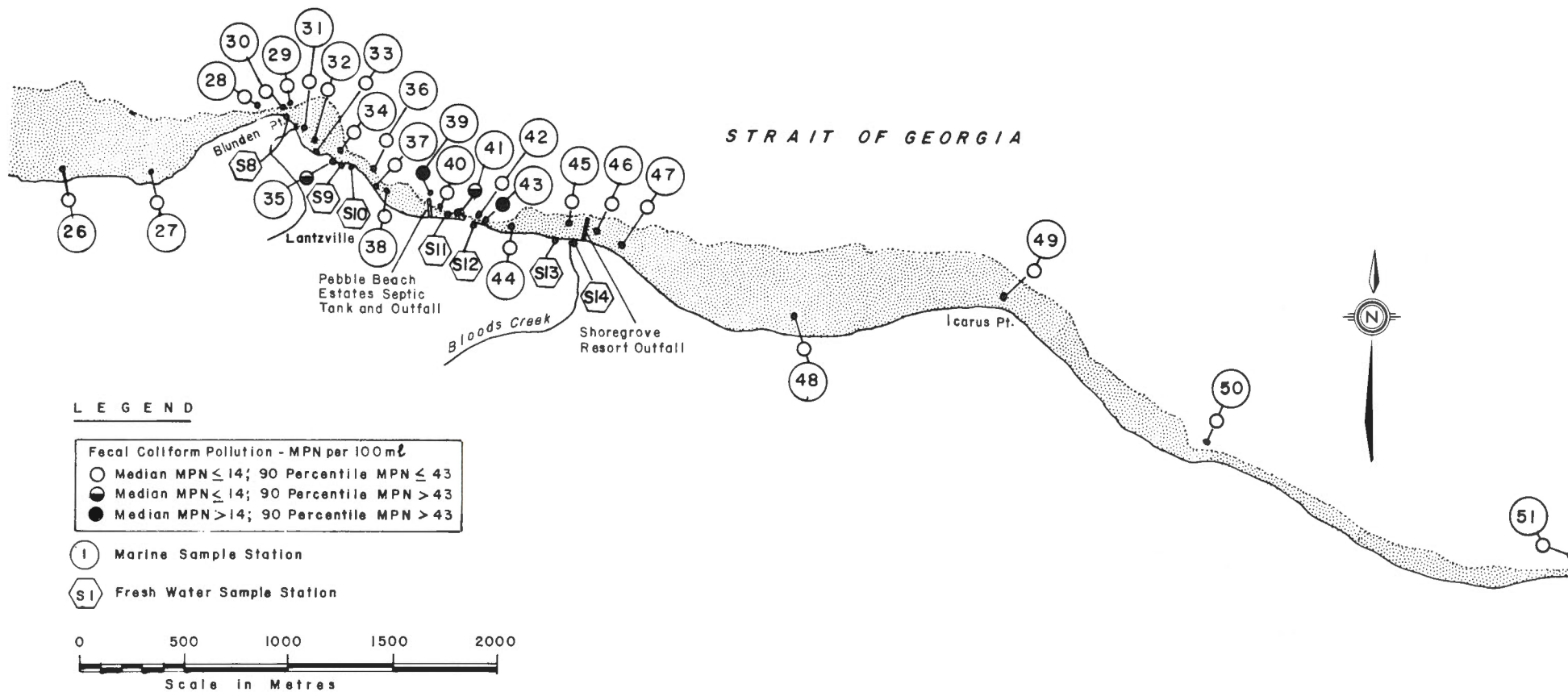


FIGURE 4 LANTZVILLE - SAMPLE STATION LOCATIONS

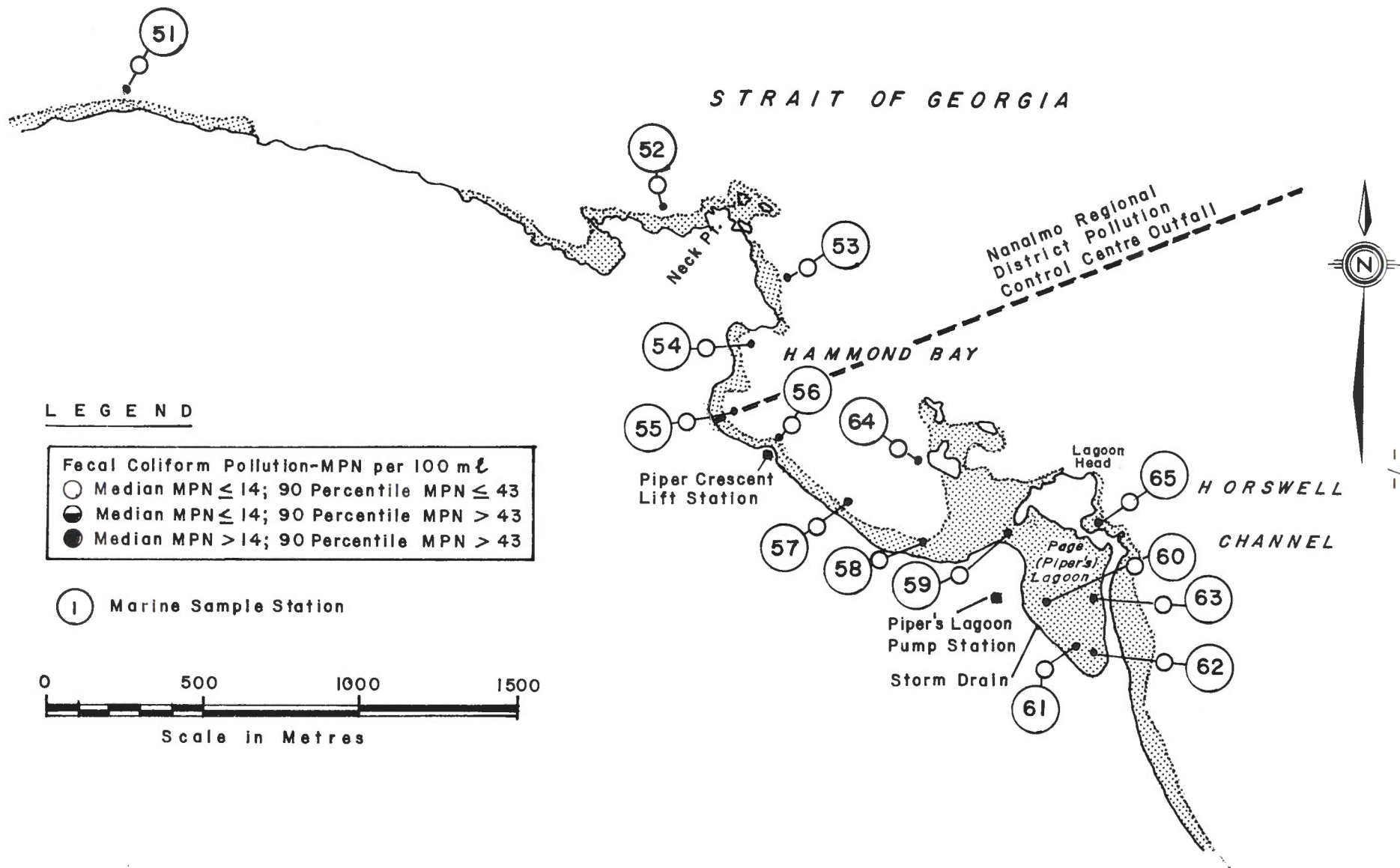


FIGURE 5 HAMMOND BAY - SAMPLE STATION LOCATIONS

3 FIELD PROCEDURES AND METHODS

Bacteriological and physical tests were carried out on the water at selected sample stations to assess the shellfish growing water quality. Concurrently, a sanitary survey was carried out to identify sources of pollution.

3.1 Bacteriological Sampling and Analyses

All water samples for bacteriological analysis were collected in sterile 170 or 340 cc wide-mouth bottles. Samples from the marine stations were taken approximately 15 to 30 cm below the water surface. The water depth at collection points over shellfish beds did not exceed 1.2 metres. Samples were collected by boat or on foot and were stored in coolers at temperatures not exceeding 10°C until processed. Analyses were carried out in the Environmental Protection Service mobile laboratory located in Nanaimo for the duration of the survey and were performed within four hours of collection.

The fecal coliform most probable number (MPN) per 100 ml was determined using the multiple tube fermentation technique (at least 3 decimal dilutions of 5 tubes each) as described in Part 908C of the 14th edition of Standard Methods for the Examination of Water and Wastewater (4). The incubation period was 24 \pm 2 hours in a water bath equipped with a circulation device, and was maintained at 44.5 \pm 0.2°C. Presumptive culture medium used was Bacto-Lauryl Tryptose Broth; fecal coliform determinations were made using Bacto-EC medium.

Shellstock samples were analyzed for fecal coliforms according to the method stated above, with the following preparatory steps. Approximately 250 g of shellstock were aseptically shucked into a sterile, tared blender jar. An equal weight of sterile phosphate-buffered dilution water was added to the jar, and the contents were blended at 14,000 rpm for 90-120 seconds. Immediately after blending, 20 g of this mixture was

added to 80 ml of dilution water, giving a final 1/10 dilution of the original shellstock. The standard MPN test was performed using this dilution. Twelve animals were included in each sample.

All the freshwater samples were analyzed for fecal coliforms and fecal streptococci using membrane filtration (MF) techniques (Part 909 of Standard Methods). The volume of sample filtered was not less than 100 ml and appropriate dilutions were made in order that the number of colonies per plate normally ranged between 20 and 80. Colonies were counted under 10 power magnification using a cool white fluorescent bulb as a light source. Bacto-mFC agar was used for the fecal coliform determinations; fecal streptococci determinations were made using KF streptococci agar. Factory sterilized membrane filters (0.45 micron pore size) were obtained from Sartorius (West Germany). Fecal coliform plates were incubated at $44.5 \pm 0.2^{\circ}\text{C}$ for 24 hours in water-tight plastic bags submerged in a water bath. Colonies which were totally or partially blue in colour were counted as fecal coliforms.

3.2 Physical and Chemical Testing Equipment and Analyses

Temperature and salinity measurements at marine sample stations were made at a depth of 15 to 30 cm below the water surface using a YSI Model 33 salinity-conductivity-temperature meter or a Beckman Model RB3-349 Solubridge Electrolytic conductivity meter in conjunction with a standard immersible thermometer. Wind data was determined with a Telcor series 210 electronic wind speed/direction indicator. Tidal data presented was obtained from the 1977 edition of the Canadian Tide and Current Tables, Volume 5, using the Point Atkinson reference port. Rainfall data was obtained from the Nanaimo (Cassidy) Airport station.

Sewage effluent samples were collected in 1 litre and 500 ml plastic bottles, frozen, and submitted to the Environmental Protection Service laboratory at Cypress Creek in West Vancouver for suspended solids and 5-day biochemical oxygen demand analyses.

4 RESULTS

Daily bacteriological, physical and elemental data for each sample station, both marine and freshwater, are presented in Appendices III and IV, respectively. Fecal coliform MPN results for the marine stations are summarized in Table 1 and freshwater bacteriological MF data are summarized in Table 2.

The following criteria were used to interpret the marine sample data:

In order that an area can be considered bacteriologically safe for the harvesting of shellfish, the fecal coliform median MPN of the water must not exceed 14/100 ml, and not more than 10% of the samples exceed an MPN of 43/100 ml for a 5-tube decimal dilution test, in those portions of the area most probably exposed to fecal contamination during the most unfavourable hydrographic and pollution conditions. (This report expresses the 10 percent limit in terms of a 90 percentile MPN value which must not exceed 43/100 ml).

A total of 420 marine and 61 freshwater samples was collected during the survey from the established sample stations. A minimum of six samples was collected at all but two marine stations. Four stations did not meet the shellfish growing water standard, all of which were located along the Lantzville foreshore. Stations 39 and 43 exceeded the median and ninety percentile limits while stations 35 and 41 exceeded the ninety percentile limit only (the latter two indicated intermittent pollution).

There appears to be very little correlation between rainfall data (Figure 6) and fecal coliform levels in both the marine and freshwater samples, except for some marine stations located along the Lantzville shore. Rainfall was heavy for the first half of March, but was not excessive during the survey. The total amount of precipitation during the survey was 40.8 mm (March 14 to April 5, 1977). The thirty-year

TABLE 1: SUMMARY OF FECAL COLIFORM MPN DATA FOR MARINE SAMPLE STATIONS

Sample Station	Number of Samples	MPN Range	MPN per 100 ml	
			Median	90 Percentile
1	6	< 2 - <2	< 2	< 2
2	6	< 2 - 2	< 2	< 2
3	6	< 2 - 33	< 2	14.4
4	6	< 2 - 9	2	6.6
5	6	< 2 - 13	< 2	6.4
6	6	< 2 - 2	< 2	< 2
7	6	< 2 - <2	< 2	< 2
8	6	< 2 - 11	< 2	9.2
9	6	< 2 - 11	2	5.6
10	6	< 2 - 5	< 2	3.2
11	6	< 2 - 2	< 2	< 2
12	6	< 2 - 7	< 2	4
13	6	< 2 - 4	< 2	2.8
14	6	< 2 - 17	< 2	8
15	6	< 2 - 46	< 2	19.6
16	5	< 2 - 2	< 2	< 2
17	6	< 2 - 2	< 2	< 2
18	6	< 2 - 2	< 2	< 2
19	6	< 2 - <2	< 2	< 2
20	6	< 2 - <2	< 2	< 2
21	6	< 2 - 33	< 2	16.2
22	6	< 2 - <2	< 2	< 2
23	6	< 2 - <2	< 2	< 2
24	6	< 2 - <2	< 2	< 2
25	6	< 2 - 4	< 2	2.8
26	6	< 2 - 2	< 2	< 2
27	6	< 2 - <2	< 2	< 2
28	6	< 2 - 5	< 2	3.2
29	6	< 2 - 2	< 2	2
30	6	< 2 - 5	< 2	3.2
31	6	< 2 - 8	3.5	8
32	10	< 2 - 17	2	8
33	6	< 2 - 8	< 2	4.4
34	10	< 2 - 13	2	11
35	6	< 2 - 350	5	150.2
36	10	< 2 - 17	2	8
37	6	< 2 - 8	2	4.4
38	10	< 2 - 11	2	8
39	7	2 - >1600	31	≈1124
40	10	< 2 - 240	< 2	13
41	6	< 2 - 1600	5	682
42	10	< 2 - 79	7.5	23
43	6	23 - 540	78	540
44	10	< 2 - 33	5	27

TABLE 1: SUMMARY OF FECAL COLIFORM MPN DATA FOR MARINE SAMPLE STATIONS
(continued)

Sample Station	Number of Samples	MPN Range	MPN per 100 ml	
			Median	90 Percentile
45	10	< 2 - 8	2	5
46	10	< 2 - 17	< 2	13
47	10	< 2 - 49	< 2	< 2
48	6	< 2 - 5	< 2	3.2
49	6	< 2 - 2	< 2	< 2
50	6	< 2 - 2	< 2	< 2
51	6	< 2 - 2	< 2	< 2
52	6	< 2 - 5	< 2	3.2
53	6	< 2 - 2	< 2	< 2
54	6	< 2 - 2	< 2	< 2
55	6	< 2 - 22	< 2	13
56	6	< 2 - 2	< 2	< 2
57	6	< 2 - 2	< 2	< 2
58	6	< 2 - 8	< 2	4.4
59	8	< 2 - 70	< 2	15.6
60	6	< 2 - 33	2	18
61	6	< 2 - 5	< 2	3.2
62	6	< 2 - 8	< 2	6.2
63	6	< 2 - 2	2	2
64	6	< 2 - <2	< 2	< 2
65	2	< 2 - <2	-	-

TABLE 2 SUMMARY OF MEMBRANE FILTRATION DATA FOR FRESHWATER SAMPLE STATIONS

Sample Station	Mean of MF Count per 100 ml			FC:FS Ratio	Mean Daily Flow (m ³ /sec)
	Total Coliform	Fecal Coliform	Fecal Streptococci		
S1	20 (1) ¹	55.7 (4)	2.75 (4)	20.3	0.725
S2	2 (1)	0 (3)	0.5 (4)	-	1.376
S3	N.D.	0.5 (4)	0.5 (4)	1.0	0.235
S4	150 (1)	102 (3)	216 (3)	0.47	0.031
S5	N.D.	0.5 (4)	32 (4)	0.02	0.008
S6	1 (2)	3 (4)	6.75 (4)	0.4	0.626
S7	2 (1)	3.3 (4)	3.5 (4)	0.93	0.017
S8	1094 (5)	381.5 (4)	47.5 (4)	8.03	-
S9	704.8 (5)	90 (4)	42 (3)	2.1	-
S10	72 (5)	31.2 (4)	12.2 (5)	25.6	-
S11	20.5 (4)	2.3 (4)	7.0 (5)	0.33	-
S12	13,966.6 (3)	4550 (3)	833 (4)	5.5	-
S13	247 (4)	4 (3)	50 (5)	0.08	-
S14	69 (4)	15.3 (4)	23.8 (5)	0.64	-

¹ Denotes number of samples taken

Note: Anomalies between total and fecal coliform counts (i.e., higher fecal count than total count) arise due to fewer total coliform analyses.

record (1941 to 1970) indicates a mean precipitation for March of 101.3 mm, whereas the total for March 1977 was 143.9 mm. No precipitation occurred during the last few days of the survey in April (5).

4.1 Nanoose Harbour

Twenty-five sample stations were located in Nanoose Harbour. Several of the sample stations used during the 1971 Environmental Protection Service bacteriological survey were resampled for comparison purposes. All stations indicated very low fecal coliform densities. (1971 survey bacteriological data are presented in Appendices V and VI.)

Stations 3, 4 and 6 were located offshore of a Department of National Defence marine base comprising two shore stations along the north side of the harbour - the Canadian Forces Maritime Experimental and Test Ranges (CFMETR) support stations. There are 28 personnel at the newer, more easterly shore base which is serviced by a septic tank - tile field system. Eight personnel work at the Ranch Point Shore base during the day, which is also serviced by a septic tank and tile field. No septic seepage from either tile field was observed.

At each base there are moorage facilities for visiting naval vessels and ships. Infrequent sewage discharges may occur from a work vessel with a crew of 3 at the new shore base, and there are continuous sewage discharges from a vessel, with a full-time crew of 8 to 10, moored at Ranch Point. No pumping facilities to handle sewage from ships exist at either station. One high fecal coliform count of 33/100 ml at station 3 on March 21 likely originated from a vessel discharge but other samples from stations 3, 4 and 6 indicated that the vessel discharges are not a significant source of contamination to the molluscan shellfish resource areas.

Nuclear submarines from the United States also visit the base. There are no intentional nuclear discharges from any of the submarines,

and submarine personnel monitor for any possible leaks. Sediment samples are gathered twice yearly in the vicinity of the submarine moorage by the Radiation Protection Service of the Provincial Ministry of Health. The samples are submitted to the Radiation Protection Branch of Health and Welfare Canada in Ottawa for gamma radiation analysis. No radiation above background levels has been detected in Nanoose Harbour.

To the west of CFMETR, on the south side of Nanoose Hill, is an unsewered subdivision. An inspection of some of the septic tank-tile field sites, plus water sample results from station 8 and a ditch draining the subdivision indicated the homes were not contributing any fecal contamination to the foreshore.

At the head of Nanoose Harbour there are three oyster leases - Lots 278, 279 and 358, operated by McLellan Oysters. Stations 9 to 14 were located over the leases and all indicated very low fecal coliform levels, the highest fecal coliform count observed being 17/100 ml.

Oysters that had been harvested from Lot 278 were collected whole and were submitted to the British Columbia Ministry of Agriculture and Environment for PCB analysis. No PCB's were detected in the oyster tissue at a lower detection limit of 0.05 mg/l.

Upland, at the head of Nanoose Harbour is West Bay Estates - a large unsewered mobile home park. An inspection of the area revealed that two septic tank-tile field systems were malfunctioning, discharging septic seepage to a small drainage ditch. The ditch was sampled where it crosses Apollo Road, near the entrance to the park, and MF analysis of the sample indicated a count of >500 fecal coliforms/100 ml.

Drainage from the trailer park area eventually enters Nanoose Harbour near the mouth of Nanoose Creek. Bacteriological results at station 15, located between Nanoose and Bonell creeks, indicated that the fecal contamination is diluted adequately at the foreshore. The median

fecal coliform MPN for station 15 was $<2/100$ ml, and the ninety percentile was $19.6/100$ ml. However, one high fecal coliform count of $46/100$ ml did occur at station 15 on March 22, and West Bay Estates cannot be ruled out as a possible source of infrequent contamination.

The land at the head of Nanoose Harbour is an estuary, formed by Bonell and Nanoose creeks. It has an area of approximately 29.2 hectares, and is maintained as an environmental preserve by the Canadian Wildlife Service of the Department of Fisheries and the Environment. At the time of the survey, approximately 8 cattle had access to the preserve, and they may have been responsible for the one high fecal coliform count of $46/100$ ml at station 15 on March 22. This count also corresponds to an increase in precipitation for that day.

On the south shore of Nanoose Harbour, the Provincial Government maintains an oyster lease - Lot 327 - for recreational harvesting. Onshore and across the highway from the lease, there is a picnic area with two portable outhouses for sanitation.

East of the picnic area, there is a small subdivision which is drained by ditches to a stream that flows onto the east end of the recreational oyster lease. A sample was taken of the stream, and it demonstrated a fecal coliform MF value of $2/100$ ml. Fecal coliform contamination was not detected at stations 19 and 20, located over the lease, since all of the samples had an MPN value of $<2/100$ ml.

Sample station 21 was located beside the old ferry dock ruins near the mouth of Nanoose Harbour. It met the shellfish growing water standard with a median and ninety percentile fecal coliform MPN of $<2/100$ ml and $16.2/100$ ml respectively; however, one high count of $33/100$ ml was obtained on March 18. This count corresponds with a high fecal coliform MF count of $176/100$ ml obtained from stream S4 which drains into the Harbour at this point. High fecal streptococci MF counts indicate that the fecal coliform contamination may arise from animal sources - some domestic fowl have access to the stream.

4.2 Lantzville

Sample stations 26 to 47 were located along the Lantzville shoreline, and of these, stations 35, 39, 41 and 43 failed to meet the shellfish growing water standard. Eight of the stations, six of which were sampled from shore, duplicated the sampling locations of studies conducted in 1976 by the Central Vancouver Island Health Unit and the Lantzville Improvement District. Median and ninety percentile fecal coliform levels from these two studies are listed for comparison with the Environmental Protection Service's results in Table 3.

Lower MPN values were obtained during the shellfish growing water survey, most likely, because the greatest amount of precipitation in March occurred before the survey was undertaken. No precipitation occurred on the days that stations 30, 33, 35, 37, 41 and 43 were sampled, and only 13.8 mm of the rain fell on the first three days that stations 44 and 45 were sampled.

Of the seven streams sampled in Lantzville, S3, S9 and S12 demonstrated significantly high fecal coliform levels. The Central Vancouver Island Health Unit and the Lantzville Improvement District sampled four streams in Lantzville and the results are listed for comparison with Environmental Protection Service results in Table 4.

Station 28 was located on the west side of Blunden Point and gave no indication of fecal contamination. Seepage at several locations runs down the cliff face to the shoreline at Blunden Point. Two of these sites were sampled - one exhibited fecal coliform counts of 46/100 ml and <2/100 ml, and the other exhibited counts of 1600/100 ml and 440/100 ml.

It was not confirmed, but the fecal levels could arise from the homes at Blunden Point - septic drainage from absorption tile fields could conceivably seep down to the rocky underburden, then laterally to the shore. Since the highest fecal coliform count obtained at station 28 was

TABLE 3 COMPARISON OF MARINE SAMPLE DATA FOR LANTZVILLE
(Fecal Coliform MPN/100 ml)

Sample Station	Environmental Protection Service		Central Vancouver Is. Health Unit Lantzville Improvement District		
	Median	90 Percentile	Median	90 Percentile	
	30 - Sebastian Road	2	3.2 (6)	15	274
33 - Harper Road	2	4.4 (6)	43	93	(8)
35 - Huddlestone Road	5	150.2 (6)	33	460	(8)
37 - Tweedhope Road	< 2	4.4 (6)	23	93	(18)
41 - Lavender Road	5	682 (6)	43	460	(58) ⁺
43 - Jacks Road	78	540 (6)	9	43	(10)
44 - Myron Road	5	27 (6)*	23	48	(9)
45 - Oar Road	2	5 (6)*	23	210.6	(12)

Numbers in brackets refer to number of samples.

⁺ Composite of three stations within area.

* Sampled by boat.

The Central Vancouver Island Health Unit - Lantzville Improvement District samples were taken from June to December, 1976.

5/100 ml on March 18, there would appear to be adequate dilution of any fecal contamination from these sources. (This is based on the assumption that the seepage, which was sampled March 23 and 24, also occurred on March 18 and was equally contaminated).

Stations 29 and 30 were located east of Blunden Point, off the foot of Sebastian Road. Station 29 was sampled by boat, and station 30 was sampled from shore. Both stations met the growing water standard. Stewart Creek (S8) however, which discharges just east of Sebastian Road, demonstrated significant levels of fecal contamination. The mean MF fecal coliform count of S8 was 381.5/100 ml.

Several suspected and definite sources of contamination to Stewart Creek were identified. The creek drains residential and farm areas, so conceivably, it can be contaminated by both domestic sewage and animal wastes.

West of Leland Road, landwash from grazing land drains north to the foreshore and east, eventually to Stewart Creek.

On Leland Road, a malfunctioning septic tank-tile field system at the B. Bagley property was contributing seepage to a ditch which drains to Stewart Creek (one other residence on Leland Road is suspect, but would require confirmation by testing).

Between Leland and Peterson roads there is a small farm area where contamination from livestock may be carried into Stewart Creek, which also passes through a small pasture before it crosses Lantzville Road and eventually discharges to the sea.

Significant fecal contamination was detected at the foot of Huddlestone Road, east of Sebastian and Harper roads. Station 34, which was sampled by boat, met the growing water standard with median and ninety percentile fecal coliform MPN's of 2/100 ml and 11/100 ml respectively.

However, station 35, sampled from shore, exceeded the growing water standard with a ninety percentile fecal coliform MPN of 150.2/100 ml. The contamination is attributable to a storm drain (S9) at Huddleston Road. Water samples from S9 demonstrated a mean fecal coliform MF of 90/100 ml.

Stream S9 drains a subdivision between Peterson Road and Lancewood Avenue. Complaints from residents regarding septic tank-tile field system malfunctions in the subdivision have been registered with the Board of Trustees in the past. An inspection of the subdivision did not reveal any definite sources of contamination, although some suspect moist areas were seen along the ditch on Millard Drive. The Lancewood Avenue ditch drains the subdivision. Two samples taken by the Lantzville Improvement District from this ditch in 1976 exhibited fecal coliform levels of 170/100 ml. (Time limitations did not permit dye testing of disposal systems during the survey). Definite sources of contamination would be more evident during rainy periods.

Any fecal contamination arising from the subdivision could conceivably be augmented by runoff from pastureland, which S9 flows through, between the subdivision and Huddleston Road.

Sample stations 39, 40 and 41 were located near the foot of Lavender Road, primarily to evaluate the effects of a direct marine discharge from the Pebble Beach Estates septic tank. The septic tank receives sewage from 13 homes in the subdivision, and at the time of the survey, was discharging the effluent through a 15.2 cm diameter outfall into 3 m of water (at low tide), approximately 83.8 m offshore. The effluent is not chlorinated, and treatment is hampered because sea water backs up through the outfall at high tide and enters the septic tank.

There were plans, at the time of the survey, to extend the outfall and to remedy the flooding by installing a back check valve and pump. The current Pollution Control Branch permit allows for a daily discharge of 31 m³ from the system.

One high fecal coliform count of 240/100 ml was obtained at station 40, which was sampled by boat off the foot of Lavender Road. Station 40, however, met the growing water standard with a median and ninety percentile fecal coliform MPN of <2/100 ml and 13/100 ml respectively.

Station 39, which was located over the Pebble Beach Estates septic tank outfall, exceeded the shellfish growing water standard with a median fecal coliform count of 31/100 ml and a ninety percentile fecal coliform count of approximately 1124/100 ml (calculation of the ninety percentile limit is approximate since the highest MPN value for the station is >1600/100 ml).

The direction of flow of the outfall sewage plume is influenced by tidal actions which would explain the lack of high counts at station 40, slightly east of the outfall. This is supported by observations made when fluorescent dye was added to the septic tank effluent. A leak was discovered in the outfall pipe approximately 10 to 15 m seaward of the low water mark, and a flood tide carried the effluent directly onshore.

Since the highest fecal coliform levels at station 41 were obtained on a flood tide, and since no significant fecal contamination was detected in the small stream at Lavender Road (S11), fecal pollution at the foot of Lavender Road is directly attributable to the septic tank outfall. Station 41 was sampled from the shore at the foot of Lavender Road and it exceeded the standard with a ninety percentile fecal coliform MPN of 862/100 ml, an indication of intermittent contamination.

Results of analyses for biochemical oxygen demand (BOD_5), suspended solids and fecal coliform bacteria in the Pebble Beach Estates septic tank effluent are presented in Table 5.

TABLE 5 ANALYSES RESULTS FOR PEBBLE BEACH ESTATES
SEPTIC TANK EFFLUENT

	BOD mg/l	Suspended Solids mg/l	Fecal Coliform MPN/100 ml
March 24	180	69	-
March 29	100	44	1.3×10^7
March 30	110	66	1.3×10^7
March 31	150	39	-

High levels of fecal contamination were detected at station 43 which was sampled from shore at the foot of Jacks Road. Median and ninety percentile fecal coliform MPN's of 78/100 ml and 540/100 ml respectively were obtained at this sample station. The contamination is, at least in part, attributable to high levels of fecal contamination in the stream (S12) which flows to the beach at Jacks Road. The mean fecal coliform MF of S12 was 4550/100 ml.

One definite source of contamination to stream S12 was found where the stream crosses Lantzville Road. A faulty septic tank absorption field system serving the G. Plecas residence was observed discharging effluent to the stream. One sample from the stream below this site demonstrated a fecal coliform MPN of 1.3×10^4 /100 ml.

A few domestic waterfowl have access to stream S12 before it reaches the foreshore, but should be considered a minor source of fecal coliforms.

Sample station 46 was located offshore of Shoregrove Resort at the east end of Lantzville. The resort comprises 9 mobile homes, 4 cottages, a home, washroom and laundry facilities, all serviced by a total of 13 septic tanks which discharge unchlorinated effluent into a common

outfall. The outfall is approximately 91 m long, and terminates in 3 m of water at low tide. The Pollution Control Branch permit allows for a daily discharge of 15.9 m³. Station 46 had median and ninety percentile fecal coliform MPN's of <2/100 ml and 13/100 ml respectively. Results from analyses of the combined septic tank effluent are presented in Table 6.

TABLE 6 ANALYSES RESULTS FOR SHOREGROVE RESORT COMBINED SEPTIC TANK EFFLUENT

	BOD mg/l	Suspended Solids mg/l	Fecal Coliform MPN/100 ml
March 24	56	17	-
March 29	75	35	3.3 x 10 ⁵
March 30	50	28	3.3 x 10 ⁵
March 31	60	35	-

There is little previous bacteriological data from the same area, but two samples were taken in 1976 from the shoreline in front of the Shoregrove Resort by the Central Vancouver Island Health Unit, one on either side of the outfall. Each sample demonstrated a fecal coliform MPN of 46/100 ml. The Rawn-Palmer formula, an empirical means of determining the dilution of effluents discharged from submarine outfalls, indicates that shoreline fecal coliform MPN's could exceed the safe limits for shellfish growing waters at the Shoregrove Resort (assuming an effluent fecal coliform MPN of 3.3 x 10⁵ or greater).

The contamination observed in 1976 may have arisen from the outfall, or from Blood's Creek (S14) adjacent to the resort. Blood's Creek demonstrated a mean fecal coliform MF of 15.3/100 ml during the survey, but the mean MPN value for the Health Unit and Lantzville Improvement District 1976 samples from Blood's Creek was 131.3/100 ml. In addition, the Pollution Control Branch sampled the shoreline

approximately 150 metres west of the outfall (near the mouth of Blood's Creek) in 1976 and obtained a fecal coliform MPN of 540/100 ml. A shoreline sample on the same date, at the outfall, yielded a fecal coliform MPN of 33/100 ml.

There is a popular oyster harvesting site on a small shoal east of the Shoregrove Resort. Sample station 47 was located at the shoal and it had both median and ninety percentile fecal coliform MPN's of <2/100 ml.

One unexplained high fecal coliform count of 49/100 ml occurred at station 47 on March 29, however, no septic seepage was observed at the residential properties onshore from the station. It is unlikely that seepage would affect the water quality at station 47 considering the distance and intervening sandy beach. An oyster sample from station 47 on April 5 indicated a minimal level of fecal coliform bacteria with an MPN of 80/100 g.

With the exception of station 39, the stations exhibiting unacceptable fecal pollution were sampled from shore. Except for station 41, which was influenced by the Pebble Beach Estates outfall, pollution at stations 35 and 43 was attributable to fecally contaminated drainage. Corresponding offshore samples at stations 35 and 43, which were sampled 5 to 10 metres offshore, were of acceptable water quality, suggesting that contamination from the freshwater inputs is localized and is rapidly diluted. The health hazard with respect to consumption of shellfish in this area still remains high however, as many shellfish are in direct contact with the polluted water.

4.3 Lantzville to Neck Point

Sample stations 48 to 52 were located between Lantzville and Hammond Bay, and all of them met the shellfish growing water standard. Residences are located at intervals along this segment of shoreline, but except for the area at Icarus Point, the homes are well removed from the foreshore because the land rises abruptly above the beach.

4.4 Hammond Bay and Piper's Lagoon

Hammond Bay and Piper's Lagoon have dense shoreline housing and, with the exception of Neck Point, the area is sewered. There is an extensive shellfish resource in the southeast portion of Hammond Bay and Piper's Lagoon. All of the sample stations established during the survey in Hammond Bay and Piper's Lagoon (which dries at low tide) met the shellfish growing water standard.

The south side of Neck Point, in the northwest portion of Hammond Bay, has been purchased under Provincial Greenbelt legislation. The City of Nanaimo is to be responsible for development of the area as a park. At present, there are several unsewered cottages there but none showed signs of habitation during the survey. Sample station 54 was located off the cottages; the median and ninety percentile fecal coliform MPN's were both $<2/100$ ml.

Sewage from the Hammond Bay and Piper's Lagoon area is pumped to the Nanaimo Regional District Pollution Control Centre on Hammond Bay Road where it receives primary treatment. The chlorinated effluent is discharged through an outfall extending from the west end of Hammond Bay. The outfall is 2,030 m long, 91.4 cm in diameter and discharges effluent through a diffuser at a depth of 76.2 m.

Nine sample stations were established in the vicinity of the outfall by the Marine Studies Group of the Environmental Protection Service in 1975. They were sampled for bacteriological analysis by Shellfish Water Quality Program personnel during the July 1975 shellfish sanitary survey of Gabriola Island. Fifty-four samples were collected and none showed any signs of significant fecal contamination (6).

A study was also carried out by R. Waters of Malaspina College between July 24, 1975 and July 22, 1976 to evaluate the receiving water quality after commencement of primary treatment and chlorination at the

mid-way along this shore. Station 60, located at the mouth of the storm drain, exhibited one high fecal coliform count of 33/100 ml on March 31. No rainfall occurred on, or immediately preceding March 31, indicating the elevated fecal count was not induced by storm water.

There is a sewage pump station near Piper's Lagoon, at the corner of Lagoon Road and Place Drive, and the emergency overflow leads to a pit under the lagoon. One high fecal coliform count of 70/100 ml was obtained from station 59 at the mouth of Piper's Lagoon on March 24 during an ebb tide, and it was considered that an overflow from the pump station may have occurred. Information from the City of Nanaimo, who are responsible for maintaining the pump station, indicated that no sewage overflows had occurred prior to the sampling.

Rainfall totalling 22.8 mm occurred during the week of March 17-24, and it is possible that contaminated storm drainage to Piper's Lagoon may have resulted in the high fecal count. Unfortunately, bacteriological data from Piper's Lagoon is not available for the same day since sample stations were not established there until March 25.

The pump station overflow and the storm drain in Piper's Lagoon must be considered potential sources of contamination to the shellfish resource in the lagoon until further tests can prove otherwise. An oyster sample taken from station 59 on April 5 indicated an acceptable fecal coliform level, with an MPN of 20/100 g.

There are some small islands in the southeast area of Hammond Bay, off Lagoon Head. Station 64 was located off one of the islands to gather background bacteriological information; the median and ninety percentile fecal coliform MPN's for the station were both <2/100 ml. Several shacks are located on the islands, and are reportedly inhabited mainly during the summer. There was no evidence of habitation there during the survey.

The islands are held in reserve by the Provincial Government for the "use, recreation and enjoyment of the public". No further construction is allowed on the islands, and any shacks that are abandoned will likely be destroyed. Questionable sewage disposal at the shacks may be a potential source of contamination to local oyster beds.

Two high fecal coliform MPN's of 930/100 g each were obtained from oyster meat samples taken on May 27 and June 24, 1976 from the outside of Lagoon Head during the Malaspina College study (3). Corresponding water samples from that station on the same dates exhibited fecal coliform MPN's of 9/100 ml and <3/100 ml respectively. These samples were taken almost a year after the initiation of treatment and chlorination of sewage from the Hammond Bay Road sewage treatment plant in July, 1975.

Since the water samples indicated low densities of fecal coliforms present, and the sewage treatment plant had been discharging chlorinated effluent, it is assumed the source of contamination was both intermittent and local. Sample station 65 was established at the same location during the shellfish water quality survey and an oyster meat sample taken there on April 5 exhibited a fecal coliform MPN of <20/100 g. Two water samples were taken at station 65, and both exhibited a fecal coliform MPN of <2/100 ml. There was no discernable source of the fecal contamination that was detected in the oysters sampled during the Malaspina College study.

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APPENDIX I

MARINE SAMPLE STATION LOCATIONS

APPENDIX I MARINE SAMPLE STATION LOCATIONS

Sample Station	Latitude	Longitude	Description
1	49° 16.33' N	124° 06.50' W	N.W. of Wallis Point - at gap
2	49° 15.94' N	124° 07.39' W	N. side of Nanoose Harbour - at beacon
3	49° 15.96' N	124° 08.26' W	Nanoose Harbour - at new CFMETR dock
4	49° 15.98' N	124° 08.89' W	E. of Ranch Point - Nanoose Harbour
5	49° 15.90' N	124° 09.05' W	Middle of Nanoose Harbour - Armed Forces bouy
6	49° 16.03' N	124° 09.00' W	100 m. W. of wharf at Ranch Point Base - Nanoose Harbour
7	49° 16.16' N	124° 09.59' W	Approx. 500 m. W. of Ranch Point Base - Nanoose Harbour
8	49° 16.31' N	124° 10.15' W	N. side of Nanoose Harbour - in the small bay below subdivision
9	49° 16.30' N	124° 10.22' W	By oyster lease 279 - Nanoose Harbour
10	49° 16.20' N	124° 10.38' W	Oyster lease 279 - Nanoose Harbour
11	49° 16.14' N	124° 10.45' W	S.W. corner of L.279 - Nanoose Harbour
12	49° 16.18' N	124° 10.60' W	McLellan's oyster shucking plant (L. 278)
13	49° 16.04' N	124° 10.64' W	L. 278 - Nanoose Harbour
14	49° 16.03' N	124° 10.75' W	L. 358 - Nanoose Harbour
15	49° 16.04' N	124° 11.31' W	Between Bonell and Nanoose Creeks - Nanoose Harbour
16	49° 15.81' N	124° 11.28' W	Nanoose Harbour - at church camp
17	49° 15.48' N	124° 10.64' W	S. side of Nanoose Harbour - at end of pilings
18	49° 15.28' N	124° 10.15' W	Nanoose Harbour - at large grouping of old pilings
19	49° 15.24' N	124° 09.80' W	E. portion of Provincial oyster preserve - Nanoose Harbour
20	49° 15.28' N	124° 09.41' W	W. portion of Provincial oyster preserve - Nanoose Harbour
21	49° 15.16' N	124° 08.24' W	SE side of old ferry docks - Nanoose Harbour
22	49° 15.22' N	124° 07.96' W	W. side of breakwater - Nanoose Harbour
23	49° 15.62' N	124° 07.48' W	Mouth of Nanoose Harbour
24	49° 15.32' N	124° 06.91' W	E. of breakwater - Nanoose Harbour
25	49° 15.39' N	124° 06.60' W	Off Knarston Cr., E. of breakwater
26	49° 15.26' N	124° 05.77' W	Mouth of Nanoose Harbour, S. side
27	49° 15.26' N	124° 05.42' W	W. of Blunden Point - mouth of Nanoose Harbour
28	49° 15.48' N	124° 05.00' W	W. side of Blunden Point
29	49° 15.48' N	124° 04.90' W	Offshore of Sebastian Road
30	49° 15.46' N	124° 04.88' W	Foot of Sebastian Road - sampled from shore

APPENDIX I MARINE SAMPLE STATION LOCATIONS (continued)

Sample Station	Latitude	Longitude	Description
31	49° 15.40' N	124° 04.81' W	Offshore of Stewart Creek - E. of Sebastian Road
32	49° 15.37' N	124° 04.77' W	Offshore of Harper Road
33	49° 15.33' N	124° 04.76' W	Foot of Harper road - sampled from shore
34	49° 15.33' N	124° 04.70' W	Offshore of Huddlestone Road
35	49° 15.31' N	124° 04.67' W	Foot of Huddlestone Road - sampled from shore
36	49° 15.29' N	124° 04.53' W	Offshore of stream 100 m. W. of Tweedhope Road
37	49° 15.24' N	124° 04.52' W	Foot of Tweedhope Road - sampled from shore
38	49° 15.23' N	124° 04.48' W	Offshore of flagpole E. of Tweedhope Road
39	49° 15.23' N	124° 04.30' W	Over outfall from Pebble Beach Estates septic tank
40	49° 15.17' N	124° 04.27' W	Offshore of outfall marker - Lavender Road
41	49° 15.13' N	124° 04.13' W	Foot of Lavender Road - sampled from shore
42	49° 15.17' N	124° 04.10' W	Offshore of Jacks Road
43	49° 15.13' N	124° 04.08' W	Foot of Jacks road - sampled from shore
44	49° 15.12' N	124° 03.97' W	Offshore of Myron Road
45	49° 15.14' N	124° 03.74' W	Offshore of Oar Road
46	49° 15.12' N	124° 03.63' W	Offshore of boat ramp - Shoregrove Resort
47	49° 15.08' N	124° 03.53' W	At Shoal - E. of Shoregrove Resort
48	49° 14.89' N	124° 02.81' W	Middle of shallow bay - W. of Icarus Point
49	49° 14.94' N	124° 01.98' W	Icarus Point
50	49° 14.56' N	124° 01.15' W	Shallow bay E. of Icarus Point
51	49° 14.27' N	123° 59.78' W	Offshore of stream - w. of Neck Pt.
52	49° 14.21' N	123° 57.96' W	Offshore of houses at Neck Point
53	49° 14.09' N	123° 57.64' W	Offshore of large residence - W. end of Hammond Bay
54	49° 13.98' N	123° 57.72' W	Offshore of summer cabins - W. end of Hammond Bay
55	49° 13.85' N	123° 57.78' W	Offshore of outfall sign - Hammond Bay
56	49° 13.81' N	123° 57.66' W	Offshore of log house - head of Hammond Bay
57	49° 13.70' N	123° 57.48' W	Offshore of white fence - head of Hammond Bay
58	49° 13.62' N	123° 57.29' W	Offshore of boat launching ramp - Hammond Bay

APPENDIX I MARINE SAMPLE STATION LOCATIONS (continued)

Sample Station	Latitude	Longitude	Description
59	49° 13.63' N	123° 57.07' W	At mouth of Page Lagoon (Piper's Lagoon)
60	49° 13.52' N	123° 56.97' W	Piper's Lagoon - offshore of storm drain
61	49° 13.44' N	123° 56.88' W	Piper's Lagoon - offshore of grey and green stucco home
62	49° 13.43' N	123° 56.84' W	Piper's Lagoon - offshore of beach access road
63	49° 13.52' N	123° 56.84' W	Piper's Lagoon - E. side
64	49° 13.77' N	123° 57.29' W	Offshore of largest island in Hammond Bay
65	49° 13.65' N	123° 56.82' W	Small beach on outside of Lagoon Head

APPENDIX II

FRESHWATER SAMPLE STATION LOCATIONS

APPENDIX II

FRESHWATER SAMPLE STATION LOCATIONS

Sample	Description
Station	Description
S1	Nanoose Creek - at bridge on road to Ranch Point
S2	Bonell Creek - at Island Highway
S3	West end of Arbutus Grove Park - Nanoose Harbour
S4	Small creek by old ferry dock - Nanoose Harbour
S5	West of rock breakwater on Indian Reserve - Nanoose Harbour
S6	Knarston Creek
S7	Small stream feeding Knarston Creek
S8	Stewart Creek - midway between Harper and Sebastian Road access
S9	Storm drain - Huddlestone Road access
S10	Storm drain - midway between Huddlestone Road access and Tweedhope Road access
S11	Storm drainage - Lavender Road access
S12	Stream at Jacks Road access
S13	Stream at Oar Road access
S14	Blood's Creek

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND
SAMPLING CONDITIONS FOR MARINE SAMPLES

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 1		Location: N.W. of Wallis Point - at gap							
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.	
		Time	Height (m)						
Mar. 15	1355	1330	3.8	-	5.8	300 @ 9	-	< 2	
		2030	1.4						
16	1419	0940	2.7	7.9	0.0	300 @ 7	29.0	< 2	
		1455	3.9						
17	1055	1015	2.5	-	0.0	270 @ 9	-	< 2	
		1555	4.1						
18	1022	0450	4.5	7.5	0.0	300 @ 10	29.0	< 2	
		1050	2.3						
21	1038	0605	4.3	8.0	0.6	090 @ 4	29.5	< 2	
		1240	1.7						
22	1013	0640	4.2	-	4.4	090 @ 7	-	< 2	
		1300	1.6						

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 2

Location: N. side of Nanoose Harbour - at beacon

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1405	1330	3.8	5.0	5.8	220 @ 6	29.0	< 2
		2030	1.4					
16	1429	0940	2.7	8.0	0.0	240 @ 7	29.0	< 2
		1455	3.9					
17	1102	1015	2.5	-	0.0	210 @ 8	-	< 2
		1555	4.1					
18	1014	0450	4.5	7.0	0.0	270 @ 5	29.0	< 2
		1050	2.3					
21	1031	0605	4.3	8.0	0.6	140 @ 10	29.0	2
		1240	1.7					
22	1004	0640	4.2	-	4.4	060 @ 8	-	< 2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 3		Location: Nanoose Harbour - at new CFMETR dock						
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1410	1330	3.8	6.0	5.8	200 @ 5	28.0	< 2
		2030	1.4					
16	1435	0940	2.7	8.0	0.0	240 @ 7	29.0	< 2
		1455	3.9					
17	1106	1015	2.5	-	0.0	210 @ 8	-	< 2
		1555	4.1					
18	1011	0450	4.5	7.5	0.0	240 @ 7	29.0	< 2
		1050	2.3					
21	1026	0605	4.3	8.0	0.6	130 @ 4	28.5	33
		1240	1.7					
22	0950	0640	4.2	-	4.4	090 @ 7	-	2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 4

Location: E. of Ranch Point - Nanoose Harbour

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1415	1330	3.8	7.5	5.8	240 @ 9	27.0	< 2
		2030	1.4					
16	1440	0940	2.7	8.0	0.0	240 @ 6	29.0	< 2
		1455	3.9					
17	1111	1015	2.5	-	0.0	270 @ 7	-	5
		1555	4.1					
18	1000	0450	4.5	7.5	0.0	270 @ 5	28.5	9
		1050	2.3					
21	1021	0605	4.3	7.5	0.6	090 @ 1	27.5	2
		1240	1.7					
22	0944	0640	4.2	-	4.4	090 @ 6	-	2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 5

Location: Middle of Nanoose Harbour - Armed Forces buoy

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1635	1330	3.8	-	5.8	270 @ 7	-	< 2
		2030	1.4					
16	1625	1455	3.9	8.0	0.0	250 @ 12	29.0	< 2
		2120	1.4					
17	1235	1015	2.5	8.0	0.0	300 @ 9	29.0	< 2
		1555	4.1					
18	1115	1050	2.3	7.5	0.0	300 @ 6	29.0	< 2
		1640	4.1					
21	1118	0605	4.3	7.5	0.6	150 @ 9	24.5	2
		1240	1.7					
22	0947	0640	4.2	-	4.4	050 @ 5	-	13
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 6		Location: 100 m. W. of wharf at Ranch Point Base - Nanoose Harbour						
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1420	1330	3.8	-	5.8	220 @ 5	-	< 2
		2030	1.4					
16	1444	0940	2.7	8.0	0.0	240 @ 7	29.0	< 2
		1455	3.9					
17	1115	1015	2.5	-	0.0	220 @ 14	-	< 2
		1555	4.1					
18	1004	0450	4.5	7.0	0.0	270 @ 5	29.0	< 2
		1050	2.3					
21	1016	0605	4.3	7.5	0.6	120 @ 1	26.0	< 2
		1240	1.7					
22	0940	0640	4.2	8.0	4.4	-	28.5	2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 7		Location: Approx. 500 m. W. of Ranch Point Base - Nanoose Harbour						
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total		Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)		Precip. (mm)	Wind (Knots)		
Mar. 15	1430	1330	3.8	-	5.8	220 @ 7	-	< 2
		2030	1.4					
16	1448	0940	2.7	8.0	0.0	240 @ 7	30.0	< 2
		1455	3.9					
17	1015	0425	4.5	8.0	0.0	-	29.0	< 2
		1015	2.5					
18	1000	0450	4.5	-	0.0	-	-	< 2
		1050	2.3					
21	1015	0605	4.3	7.5	0.6	090 @ 1	20.0	< 2
		1240	1.7					
22	0940	0640	4.2	8.0	4.4	-	29.0	< 2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 8		Location: N. side of Nanoose Harbour - in the small bay below subdivision																																																						
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.																																																
		Time	Height (m)																																																					
Mar. 15	1420	1330	3.8	-	5.8	240 @ 10	-	< 2																																																
		2030	1.4						16	1453	0940	2.7	8.5	0.0	240 @ 5	29.0	< 2	1455	3.9	17	1025	1015	2.5	8.5	0.0	-	29.0	< 2	1555	4.1	18	1005	0450	4.5	-	0.0	-	-	< 2	1050	2.3	21	1025	0605	4.3	7.0	0.6	-	18.0	8	1240	1.7	22	0950	0640	4.2
16	1453	0940	2.7	8.5	0.0	240 @ 5	29.0	< 2																																																
		1455	3.9						17	1025	1015	2.5	8.5	0.0	-	29.0	< 2	1555	4.1	18	1005	0450	4.5	-	0.0	-	-	< 2	1050	2.3	21	1025	0605	4.3	7.0	0.6	-	18.0	8	1240	1.7	22	0950	0640	4.2	8.0	4.4	-	23.5	11	1300	1.6				
17	1025	1015	2.5	8.5	0.0	-	29.0	< 2																																																
		1555	4.1						18	1005	0450	4.5	-	0.0	-	-	< 2	1050	2.3	21	1025	0605	4.3	7.0	0.6	-	18.0	8	1240	1.7	22	0950	0640	4.2	8.0	4.4	-	23.5	11	1300	1.6															
18	1005	0450	4.5	-	0.0	-	-	< 2																																																
		1050	2.3						21	1025	0605	4.3	7.0	0.6	-	18.0	8	1240	1.7	22	0950	0640	4.2	8.0	4.4	-	23.5	11	1300	1.6																										
21	1025	0605	4.3	7.0	0.6	-	18.0	8																																																
		1240	1.7						22	0950	0640	4.2	8.0	4.4	-	23.5	11	1300	1.6																																					
22	0950	0640	4.2	8.0	4.4	-	23.5	11																																																
		1300	1.6																																																					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 9

Location: By oyster lease 279 - Nanoose Harbour

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1440	1330	3.8	-	5.8	300 @ 10	-	< 2
		2030	1.4					
16	1455	0940	2.7	8.5	0.0	090 @ 2	29.0	< 2
		1455	3.9					
17	1025	1015	2.5	8.0	0.0	-	29.0	2
		1555	4.1					
18	1013	0450	4.5	-	0.0	-	-	11
		1050	2.3					
21	1030	0605	4.3	7.0	0.6	-	19.0	2
		1240	1.7					
22	1000	0640	4.2	8.0	4.4	-	25.0	2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 10		Location: Oyster lease 279 - Nanoose Harbour						
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1445	1330	3.8	-	5.8	-	-	< 2
		2030	1.4					
16	1500	1455	3.9	8.5	0.0	030 @ 1	29.0	< 2
		2120	1.4					
17	1035	1015	2.5	8.5	0.0	-	29.0	< 2
		1555	4.1					
18	1010	0450	4.5	-	0.0	-	-	< 2
		1050	2.3					
21	1025	0605	4.3	7.0	0.6	-	16.5	5
		1240	1.7					
22	1005	0640	4.2	8.0	4.4	-	30.0	2
		1350	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 11		Location: S.W. corner of L. 279 - Nanoose Harbour						
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1450	1330	3.8	-	5.8	030 @ 2	-	< 2
		2030	1.4					
16	1512	1455	3.9	9.0	0.0	210 @ 3	29.0	< 2
		2120	1.4					
17	1040	1015	2.5	8.3	0.0	-	29.0	< 2
		1555	4.1					
18	1020	0450	4.5	-	0.0	-	-	< 2
		1050	2.3					
21	1040	0605	4.3	7.0	0.6	-	12.5	2
		1240	1.7					
22	1005	0640	4.2	8.0	4.4	-	30.0	< 2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 12

Location: McLellan's oyster shucking plant (L. 278)

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1455	1330	3.8	-	5.8	060 @ 4	-	<2
		2030	1.4					
16	1516	1455	3.9	8.5	0.0	220 @ 7	29.0	<2
		2120	1.4					
17	1050	1015	2.5	8.3	0.0	-	29.0	<2
		1555	4.1					
18	1024	0450	4.5	-	0.0	-	-	<2
		1050	2.3					
21	1045	0605	4.3	7.0	0.6	-	10.5	7
		1240	1.7					
22	1010	0640	4.2	8.0	4.4	-	30.0	<2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 13		Location: L. 278 - Nanoose Harbour						
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1500	1330	3.8	-	5.8	240 @ 3	-	< 2
		2030	1.4					
16	1518	1455	3.9	8.5	0.0	240 @ 7	30.0	< 2
		2120	1.4					
17	1055	1015	2.5	8.0	0.0	-	29.5	2
		1555	4.1					
18	1030	0450	4.5	-	0.0	-	-	< 2
		1050	2.3					
21	1050	0605	4.3	7.5	0.6	-	24.0	4
		1240	1.7					
22	1015	0640	4.2	8.0	4.4	-	28.5	< 2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 14

Location: L. 358 - Nanoose Harbour

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1505	1330	3.8	-	5.8	300 @ 3	-	< 2
		2030	1.4					
16	1522	1455	3.9	8.5	0.0	240 @ 8	30.0	< 2
		2120	1.4					
17	1100	1015	2.5	8.5	0.0	-	29.5	< 2
		1555	4.1					
18	1025	0450	4.5	-	0.0	-	-	< 2
		1050	2.3					
21	1053	0605	4.3	8.0	0.6	-	26.0	< 2
		1240	1.7					
22	1020	0640	4.2	7.5	4.4	-	11.0	17
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 15

Location: Between Bonell and Nanoose Creeks - Nanoose Harbour

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 16	1450	0940	2.7	-	0.0	-	-	< 2
		1455	3.9					
17	1105	1015	2.5	8.7	0.0	-	30.0	< 2
		1555	4.1					
18	1045	0450	4.5	-	0.0	-	-	< 2
		1050	2.3					
21	1103	0605	4.3	8.0	0.6	-	21.0	< 2
		1240	1.7					
22	1020	0640	4.2	7.5	4.4	-	12.5	46
		1300	1.6					
29	1040	0735	3.2	-	0.0	-	-	< 2
		1130	3.4					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 16

Location: Nanoose Harbour - at church camp.

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 16	1455	0940	2.7	-	0.0	-	-	< 2
		1455	3.9					
17	1110	1015	2.5	8.0	0.0	-	29.0	< 2
		1555	4.1					
18	1055	1050	2.3	-	0.0	-	-	< 2
		1640	4.1					
21	1110	0605	4.3	8.0	0.6	-	26.5	< 2
		1240	1.7					
22	1035	0640	4.2	8.0	4.4	-	28.0	2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 17

Location: S. side of Nanoose Harbour - at end of pilings.

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1515	1330	3.8	8.5	5.8	220 @ 9	30.0	2
		2030	1.4					
16	1529	1455	3.9	8.5	0.0	270 @ 7	27.0	< 2
		2120	1.4					
17	1120	1015	2.5	8.0	0.0	-	30.0	< 2
		1555	4.1					
18	1053	1050	2.3	-	0.0	-	-	< 2
		1640	4.1					
21	1120	0605	4.3	8.0	0.6	-	26.5	< 2
		1240	1.7					
22	1045	0640	4.2	8.1	4.4	-	-	< 2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 18

Location: Nanoose Harbour - at large grouping of old pilings

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1515	1330	3.8	-	5.8	240 @ 10	-	2
		2030	1.4					
16	1532	1455	3.9	8.5	0.0	240 @ 4	27.0	< 2
		2120	1.4					
17	1125	1015	2.5	8.0	0.0	-	30.0	< 2
		1555	4.1					
18	1050	1050	2.3	9.2	0.0	-	-	< 2
		1640	4.1					
21	1125	0605	4.3	7.5	0.6	-	24.5	< 2
		1240	1.7					
22	1100	0640	4.2	8.0	4.4	-	-	< 2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 19		Location: E. portion of Provincial oyster preserve - Nanoose Harbour						
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1520	1330	3.8	-	5.8	300 @ 8	-	< 2
		2030	1.4					
16	1536	1455	3.9	8.5	0.0	300 @ 8	27.0	< 2
		2120	1.4					
17	1130	1015	2.5	8.0	0.0	-	29.0	< 2
		1555	4.1					
18	1105	1050	2.3	8.0	0.0	-	-	< 2
		1640	4.1					
21	1130	0605	4.3	8.5	0.6	-	27.0	< 2
		1240	1.7					
22	1105	0640	4.2	8.1	4.4	-	-	< 2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 20		Location: W. portion of Provincial oyster preserve - Nanoose Harbour						
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1540	1330	3.8	-	5.8	270 @ 4	-	< 2
		2030	1.4					
16	1543	1455	3.9	8.5	0.0	210 @ 8	28.0	< 2
		2120	1.4					
17	1135	1015	2.5	8.0	0.0	-	29.5	< 2
		1555	4.1					
18	1100	1050	2.3	-	0.0	-	-	< 2
		1640	4.1					
21	1133	0605	4.3	8.0	0.6	-	28.0	< 2
		1240	1.7					
22	1115	0640	4.2	8.0	4.4	-	-	< 2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 21

Location: SE side of old ferry dock - Nanoose Harbour.

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1550	1330	3.8	-	5.8	270 @ 5	-	2
		2030	1.4					
16	1547	1455	3.9	8.0	0.0	270 @ 6	28.0	< 2
		2120	1.4					
17	1200	1015	2.5	8.0	0.0	270 @ 4	29.0	< 2
		1555	4.1					
18	1109	1050	2.3	-	0.0	300 @ 6	-	33
		1640	4.1					
21	1138	0605	4.3	7.5	0.6	-	28.0	< 2
		1240	1.7					
22	1125	0640	4.2	8.1	4.4	-	-	5
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 22

Location: W. side of breakwater - Nanoose Harbour.

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1550	1330	3.8	-	5.8	270 @ 8	-	< 2
		2030	1.4					
16	1550	1455	3.9	8.0	0.0	-	28.0	< 2
		2120	1.4					
17	1200	1015	2.5	8.0	0.0	280 @ 10	28.5	< 2
		1555	4.1					
18	1103	1050	2.3	7.0	0.0	270 @ 5	27.5	< 2
		1640	4.1					
21	1111	0605	4.3	8.0	0.6	150 @ 7	30.0	< 2
		1240	1.7					
22	0958	0640	4.2	-	4.4	060 @ 7	-	2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 23		Location: Mouth of Nanoose Harbour.						
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1555	1330	3.8	-	5.8	270 @ 6	-	< 2
		2030	1.4					
16	1555	1455	3.9	8.0	0.0	210 @ 10	28.0	< 2
		2120	1.4					
17	1208	1015	2.5	7.5	0.0	330 @ 7	29.0	< 2
		1555	4.1					
18	1057	1050	2.3	7.5	0.0	240 @ 7	28.5	< 2
		1640	4.1					
21	1107	0605	4.3	8.0	0.6	180 @ 10	30.0	< 2
		1240	1.7					
22	1001	0640	4.2	-	4.4	080 @ 10	-	< 2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 24		Location: E. of breakwater - Nanoose Harbour.						
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1600	1330	3.8	-	5.8	270 @ 7	-	< 2
		2030	1.4					
16	1600	1455	3.9	8.0	0.0	240 @ 11	29.0	< 2
		2120	1.4					
17	1210	1015	2.5	8.0	0.0	240 @ 10	29.0	< 2
		1555	4.1					
18	1052	1050	2.3	8.0	0.0	270 @ 7	28.5	< 2
		1640	4.1					
21	1103	0605	4.3	8.0	0.6	150 @ 5	29.0	< 2
		1240	1.7					
22	1023	0640	4.2	-	4.4	090 @ 5	-	< 2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 25

Location: Off Knarston Creek, E. of breakwater.

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1605	1330	3.8	-	5.8	300 @ 4	-	2
		2030	1.4					
16	1605	1455	3.9	8.0	0.0	240 @ 11	28.0	< 2
		2120	1.4					
17	1210	1015	2.5	8.0	0.0	210 @ 10	28.5	4
		1555	4.1					
18	1049	0450	4.5	8.0	0.0	240 @ 6	28.5	< 2
		1050	2.3					
21	1100	0605	4.3	8.0	0.6	150 @ 7	30.0	< 2
		1240	1.7					
22	1026	0640	4.2	-	4.4	090 @ 5	-	< 2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 26

Location: Mouth of Nanoose Harbour, S. side.

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1610	1330	3.8	-	5.8	300 @ 10	-	< 2
		2030	1.4					
16	1605	1455	3.9	8.5	0.0	240 @ 10	27.0	< 2
		2120	1.4					
17	1215	1015	2.5	7.5	0.0	300 @ 12	28.5	< 2
		1555	4.1					
18	1042	0450	4.3	7.5	0.0	270 @ 7	29.0	< 2
		1050	2.3					
21	1055	0605	4.3	8.0	0.6	140 @ 10	30.0	< 2
		1240	1.7					
22	1031	0640	4.2	-	4.4	040 @ 8	-	2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 27

Location: W. of Blunden Point - mouth of Nanoose Harbour

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1615	1330	3.8	-	5.8	300 @ 5	-	< 2
		2030	1.4					
16	1610	1455	3.9	8.0	0.0	240 @ 10	28.0	< 2
		2120	1.4					
17	1220	1015	2.5	7.5	0.0	300 @ 6	29.0	< 2
		1555	4.1					
18	1036	0450	4.5	7.0	0.0	300 @ 8	28.5	< 2
		1050	2.3					
21	1053	0605	4.3	8.0	0.6	140 @ 11	30.0	< 2
		1240	1.7					
22	1039	0640	4.2	-	4.4	090 @ 8	-	< 2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 28

Location: W. side of Blunden Point.

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 15	1625	1330	3.8	-	5.8	270 @ 10	-	< 2
		2030	1.4					
16	1615	1455	3.9	8.0	0.0	210 @ 10	28.0	< 2
		2120	1.4					
17	1225	1015	2.5	7.5	0.0	300 @ 10	28.5	< 2
		1555	4.1					
18	1030	0450	4.5	7.0	0.0	270 @ 8	29.0	5
		1050	2.3					
21	1045	0605	4.3	8.0	0.6	180 @ 5	30.0	2
		1240	1.7					
22	1045	0640	4.2	-	4.4	090 @ 8	-	< 2
		1300	1.6					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 29		Location: Offshore of Sebastian Road.						
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 23	0958	0655	4.1	8.0	2.2	090 @ 9	29.0	< 2
		1345	1.5					
24	0925	0720	4.1	8.0	11.2	nil	27.0	2
		1420	1.5					
25	0926	0750	3.9	8.0	0.4	nil	28.5	2
		1500	1.5					
28	1041	0955	3.5	7.0	0.0	270 @ 10	26.5	< 2
		1740	1.7					
29	0922	0735	3.2	7.0	0.0	240 @ 7	30.5	< 2
		1130	3.4					
30	1000	0820	3.0	7.0	0.0	270 @ 19	29.5	< 2
		1255	3.5					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 30

Location: Foot of Sebastian Road - sampled from shore.

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 30	1400	1255	3.5	-	0.0	-	-	< 2
		1955	1.7					
31	1035	0910	2.7	-	0.0	-	-	< 2
		1415	3.7					
Apr. 1	0945	0940	2.4	-	0.0	-	-	< 2
		1520	3.9					
2	1155	1025	2.0	-	0.0	-	-	< 2
		1615	4.1					
3	1125	1055	1.7	-	0.0	-	-	5
		1700	4.3					
4	1555	1135	1.3	-	0.0	-	-	2
		1805	4.4					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 31

Location: Offshore of Stewart Creek - E. of Sebastian Road.

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 23	1000	0655	4.1	7.5	2.2	090 @ 10	29.0	8
		1345	1.5					
24	0935	0720	4.1	8.0	11.2	nil	29.0	5
		1420	1.5					
25	0925	0750	3.9	8.0	0.4	nil	28.0	8
		1500	1.5					
28	1046	0955	3.5	7.5	0.0	270 @ 8	27.0	< 2
		1740	1.7					
29	0925	0735	3.2	7.5	0.0	240 @ 7	30.0	< 2
		1130	3.4					
30	1005	0820	3.0	8.0	0.0	270 @ 16	26.0	< 2
		1255	3.5					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 32		Location: Offshore of Harper Road																																																																																																		
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.																																																																																												
		Time	Height (m)																																																																																																	
Mar. 23	1005	0655	4.1	7.5	2.2	090 @ 9	29.0	< 2																																																																																												
		1345	1.5						24	0935	0720	4.1	8.0	11.2	330 @ 3	28.5	17	1420	1.5	25	0930	0750	3.9	8.0	0.4	nil	29.0	8	1500	1.5	28	1048	0955	3.5	8.0	0.0	270 @ 3	28.5	2	1740	1.7	29	0928	0735	3.2	7.5	0.0	240 @ 7	30.0	5	1130	3.4	30	1008	0820	3.0	8.0	0.0	270 @ 16	26.0	< 2	1255	3.5	31	1002	0910	2.7	8.0	0.0	270 @ 1	26.5	< 2	1415	3.7	Apr. 1	0946	0940	2.4	7.5	0.0	270 @ 10	26.5	2	1520	3.9	4	1355	1135	1.3	9.5	0.0	300 @ 5	28.5	< 2	1805	4.4	5	1505	1225	1.0
24	0935	0720	4.1	8.0	11.2	330 @ 3	28.5	17																																																																																												
		1420	1.5						25	0930	0750	3.9	8.0	0.4	nil	29.0	8	1500	1.5	28	1048	0955	3.5	8.0	0.0	270 @ 3	28.5	2	1740	1.7	29	0928	0735	3.2	7.5	0.0	240 @ 7	30.0	5	1130	3.4	30	1008	0820	3.0	8.0	0.0	270 @ 16	26.0	< 2	1255	3.5	31	1002	0910	2.7	8.0	0.0	270 @ 1	26.5	< 2	1415	3.7	Apr. 1	0946	0940	2.4	7.5	0.0	270 @ 10	26.5	2	1520	3.9	4	1355	1135	1.3	9.5	0.0	300 @ 5	28.5	< 2	1805	4.4	5	1505	1225	1.0	10.5	0.0	030 @ 2	29.5	< 2	1855	4.5				
25	0930	0750	3.9	8.0	0.4	nil	29.0	8																																																																																												
		1500	1.5						28	1048	0955	3.5	8.0	0.0	270 @ 3	28.5	2	1740	1.7	29	0928	0735	3.2	7.5	0.0	240 @ 7	30.0	5	1130	3.4	30	1008	0820	3.0	8.0	0.0	270 @ 16	26.0	< 2	1255	3.5	31	1002	0910	2.7	8.0	0.0	270 @ 1	26.5	< 2	1415	3.7	Apr. 1	0946	0940	2.4	7.5	0.0	270 @ 10	26.5	2	1520	3.9	4	1355	1135	1.3	9.5	0.0	300 @ 5	28.5	< 2	1805	4.4	5	1505	1225	1.0	10.5	0.0	030 @ 2	29.5	< 2	1855	4.5															
28	1048	0955	3.5	8.0	0.0	270 @ 3	28.5	2																																																																																												
		1740	1.7						29	0928	0735	3.2	7.5	0.0	240 @ 7	30.0	5	1130	3.4	30	1008	0820	3.0	8.0	0.0	270 @ 16	26.0	< 2	1255	3.5	31	1002	0910	2.7	8.0	0.0	270 @ 1	26.5	< 2	1415	3.7	Apr. 1	0946	0940	2.4	7.5	0.0	270 @ 10	26.5	2	1520	3.9	4	1355	1135	1.3	9.5	0.0	300 @ 5	28.5	< 2	1805	4.4	5	1505	1225	1.0	10.5	0.0	030 @ 2	29.5	< 2	1855	4.5																										
29	0928	0735	3.2	7.5	0.0	240 @ 7	30.0	5																																																																																												
		1130	3.4						30	1008	0820	3.0	8.0	0.0	270 @ 16	26.0	< 2	1255	3.5	31	1002	0910	2.7	8.0	0.0	270 @ 1	26.5	< 2	1415	3.7	Apr. 1	0946	0940	2.4	7.5	0.0	270 @ 10	26.5	2	1520	3.9	4	1355	1135	1.3	9.5	0.0	300 @ 5	28.5	< 2	1805	4.4	5	1505	1225	1.0	10.5	0.0	030 @ 2	29.5	< 2	1855	4.5																																					
30	1008	0820	3.0	8.0	0.0	270 @ 16	26.0	< 2																																																																																												
		1255	3.5						31	1002	0910	2.7	8.0	0.0	270 @ 1	26.5	< 2	1415	3.7	Apr. 1	0946	0940	2.4	7.5	0.0	270 @ 10	26.5	2	1520	3.9	4	1355	1135	1.3	9.5	0.0	300 @ 5	28.5	< 2	1805	4.4	5	1505	1225	1.0	10.5	0.0	030 @ 2	29.5	< 2	1855	4.5																																																
31	1002	0910	2.7	8.0	0.0	270 @ 1	26.5	< 2																																																																																												
		1415	3.7						Apr. 1	0946	0940	2.4	7.5	0.0	270 @ 10	26.5	2	1520	3.9	4	1355	1135	1.3	9.5	0.0	300 @ 5	28.5	< 2	1805	4.4	5	1505	1225	1.0	10.5	0.0	030 @ 2	29.5	< 2	1855	4.5																																																											
Apr. 1	0946	0940	2.4	7.5	0.0	270 @ 10	26.5	2																																																																																												
		1520	3.9						4	1355	1135	1.3	9.5	0.0	300 @ 5	28.5	< 2	1805	4.4	5	1505	1225	1.0	10.5	0.0	030 @ 2	29.5	< 2	1855	4.5																																																																						
4	1355	1135	1.3	9.5	0.0	300 @ 5	28.5	< 2																																																																																												
		1805	4.4						5	1505	1225	1.0	10.5	0.0	030 @ 2	29.5	< 2	1855	4.5																																																																																	
5	1505	1225	1.0	10.5	0.0	030 @ 2	29.5	< 2																																																																																												
		1855	4.5																																																																																																	

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 33

Location: Foot of Harper Road - sampled from shore.

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 30	1405	1255	3.5	-	0.0	-	-	< 2
		1955	1.7					
31	1040	0910	2.7	-	0.0	-	-	< 2
		1415	3.7					
Apr. 1	0950	0940	2.4	-	0.0	-	-	2
		1520	3.9					
2	1200	1025	2.0	-	0.0	-	-	8
		1615	4.1					
3	1130	1055	1.7	-	0.0	-	-	< 2
		1700	4.3					
4	1600	1135	1.3	-	0.0	-	-	< 2
		1805	4.4					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 34		Location: Offshore of Huddleston Road.						
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 23	1010	0655	4.1	7.5	2.2	090 @ 5	30.0	13
		1345	1.5					
24	0937	0720	4.1	8.0	11.2	350 @ 2	28.0	11
		1420	1.5					
25	0934	0750	3.9	8.0	0.4	nil	29.0	4
		1500	1.5					
28	1050	0955	3.5	7.5	0.0	240 @ 10	21.0	2
		1740	1.7					
29	0929	0735	3.2	7.5	0.0	270 @ 6	30.5	2
		1130	3.4					
30	1010	0820	3.0	8.0	0.0	270 @ 10	26.0	2
		1255	3.5					
31	1004	0910	2.7	8.0	0.0	270 @ 7	27.0	< 2
		1415	3.7					
Apr. 1	0949	0940	2.4	8.0	0.0	270 @ 12	26.5	< 2
		1520	3.9					
4	1400	1135	1.3	9.0	0.0	300 @ 10	26.5	< 2
		1805	4.4					
5	1505	1225	1.0	12.0	0.0	030 @ 3	-	< 2
		1855	4.5					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 35

Location: Foot of Huddleston Road - sampled from shore.

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 30	1410	1255	3.5	-	0.0	-	-	350
		1955	1.7					
31	1045	0910	2.7	-	0.0	-	-	8
		1415	3.7					
Apr. 1	0955	0940	2.4	-	0.0	-	-	17
		1520	3.9					
2	1205	1025	2.0	-	0.0	-	-	< 2
		1615	4.1					
3	1135	1055	1.7	-	0.0	-	-	2
		1700	4.3					
4	1605	1135	1.3	-	0.0	-	-	< 2
		1805	4.4					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 36		Location: Offshore of stream 100 m. W. of Tweedhope Road.						
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 23	1015	0655	4.1	7.5	2.2	080 @ 9	30.0	5
		1345	1.5					
24	0942	0720	4.1	8.0	11.2	330 @ 3	28.5	2
		1420	1.5					
25	0945	0750	3.9	8.0	0.4	120 @ 3	29.0	8
		1500	1.5					
28	1053	0955	3.5	7.0	0.0	240 @ 10	28.5	2
		1740	1.7					
29	0931	0735	3.2	7.5	0.0	240 @ 3	30.5	< 2
		1130	3.4					
30	1013	0820	3.0	8.0	0.0	270 @ 10	26.5	< 2
		1255	3.5					
31	1007	0910	2.7	8.0	0.0	270 @ 6	27.0	17
		1415	3.7					
Apr. 1	0952	0940	2.4	8.0	0.0	270 @ 20	27.0	< 2
		1520	3.9					
4	1405	1135	1.3	10.0	0.0	300 @ 8	26.5	2
		1805	4.4					
5	1505	1225	1.0	11.0	0.0	030 @ 3	-	< 2
		1855	4.5					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 37

Location: Foot of Tweedhope Road - sampled from shore.

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total		Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)		Precip. (mm)	Wind (Knots)		
Mar. 30	1415	1255	3.5	-	0.0	-	-	< 2
		1955	1.7					
31	1050	0910	2.7	-	0.0	-	-	2
		1415	3.7					
Apr. 1	1000	0940	2.4	-	0.0	-	-	8
		1520	3.9					
2	1210	1025	2.0	-	0.0	-	-	< 2
		1615	4.1					
3	1145	1055	1.7	-	0.0	-	-	< 2
		1700	4.3					
4	1625	1135	1.3	-	0.0	-	-	2
		1805	4.4					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 38		Location: Offshore of flagpole E. of Tweedhope Road.							
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.	
		Time	Height (m)						
Mar. 23	1017	0655	4.1	7.5	2.2	090 @ 8	30.0	4	
		1345	1.5						
24	0945	0720	4.1	8.0	11.2	330 @ 5	29.0	< 2	
		1420	1.5						
25	0947	0750	3.9	8.0	0.4	120 @ 1	29.0	2	
		1500	1.5						
28	1059	0955	3.5	7.5	0.0	220 @ 8	29.0	< 2	
		1740	1.7						
29	0934	0735	3.2	7.5	0.0	270 @ 6	31.0	< 2	
		1130	3.4						
30	1015	0820	3.0	8.0	0.0	270 @ 8	26.0	9	
		1255	3.5						
31	1009	0910	2.7	8.0	0.0	240 @ 7	27.0	< 2	
		1415	3.7						
Apr. 1	0953	0940	2.4	8.0	0.0	270 @ 14	27.0	< 2	
		1520	3.9						
4	1405	1135	1.3	10.0	0.0	300 @ 7	-	< 2	
		1805	4.4						
5	1510	1225	1.0	12.0	0.0	360 @ 4	-	11	
		1855	4.5						

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 39

Location: Over outfall from Pebble Beach Estates septic tank.

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 24	1440	1420	1.5	8.5	11.2	-	29.0	2
		2125	4.0					
25	0955	0750	3.9	8.0	0.4	-	29.0	350
		1500	1.5					
29	0938	0735	3.2	7.5	0.0	270 @ 6	-	8
		1130	3.4					
30	1020	0820	3.0	7.5	0.0	270 @ 10	27.0	31
		1255	3.5					
31	1014	0910	2.7	8.0	0.0	240 @ 5	27.0	> 1600
		1415	3.7					
Apr. 1	0955	0940	2.4	8.0	0.0	270 @ 10	27.0	920
		1520	3.9					
4	1410	1135	1.3	9.5	0.0	270 @ 8	26.5	2
		1805	4.4					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 40		Location: Offshore of outfall marker - Lavender Road.																																																																																																		
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.																																																																																												
		Time	Height (m)																																																																																																	
Mar. 23	1020	0655	4.1	7.5	2.2	090 @ 2	30.0	13																																																																																												
		1345	1.5						24	0947	0720	4.1	8.0	11.2	330 @ 3	29.0	2	1420	1.5	25	0952	0750	3.9	8.0	0.4	060 @ 4	29.0	8	1500	1.5	28	1102	0955	3.5	7.5	0.0	220 @ 11	29.0	< 2	1740	1.7	29	0940	0735	3.2	7.5	0.0	270 @ 6	32.0	< 2	1130	3.4	30	1021	0820	3.0	7.5	0.0	270 @ 15	26.0	< 2	1255	3.5	31	1016	0910	2.7	8.0	0.0	240 @ 7	27.0	240	1415	3.7	Apr. 1	0956	0940	2.4	8.0	0.0	270 @ 8	27.0	2	1520	3.9	4	1410	1135	1.3	10.5	0.0	300 @ 8	27.5	< 2	1805	4.4	5	1515	1225	1.0
24	0947	0720	4.1	8.0	11.2	330 @ 3	29.0	2																																																																																												
		1420	1.5						25	0952	0750	3.9	8.0	0.4	060 @ 4	29.0	8	1500	1.5	28	1102	0955	3.5	7.5	0.0	220 @ 11	29.0	< 2	1740	1.7	29	0940	0735	3.2	7.5	0.0	270 @ 6	32.0	< 2	1130	3.4	30	1021	0820	3.0	7.5	0.0	270 @ 15	26.0	< 2	1255	3.5	31	1016	0910	2.7	8.0	0.0	240 @ 7	27.0	240	1415	3.7	Apr. 1	0956	0940	2.4	8.0	0.0	270 @ 8	27.0	2	1520	3.9	4	1410	1135	1.3	10.5	0.0	300 @ 8	27.5	< 2	1805	4.4	5	1515	1225	1.0	12.0	0.0	030 @ 4	-	< 2	1855	4.5				
25	0952	0750	3.9	8.0	0.4	060 @ 4	29.0	8																																																																																												
		1500	1.5						28	1102	0955	3.5	7.5	0.0	220 @ 11	29.0	< 2	1740	1.7	29	0940	0735	3.2	7.5	0.0	270 @ 6	32.0	< 2	1130	3.4	30	1021	0820	3.0	7.5	0.0	270 @ 15	26.0	< 2	1255	3.5	31	1016	0910	2.7	8.0	0.0	240 @ 7	27.0	240	1415	3.7	Apr. 1	0956	0940	2.4	8.0	0.0	270 @ 8	27.0	2	1520	3.9	4	1410	1135	1.3	10.5	0.0	300 @ 8	27.5	< 2	1805	4.4	5	1515	1225	1.0	12.0	0.0	030 @ 4	-	< 2	1855	4.5															
28	1102	0955	3.5	7.5	0.0	220 @ 11	29.0	< 2																																																																																												
		1740	1.7						29	0940	0735	3.2	7.5	0.0	270 @ 6	32.0	< 2	1130	3.4	30	1021	0820	3.0	7.5	0.0	270 @ 15	26.0	< 2	1255	3.5	31	1016	0910	2.7	8.0	0.0	240 @ 7	27.0	240	1415	3.7	Apr. 1	0956	0940	2.4	8.0	0.0	270 @ 8	27.0	2	1520	3.9	4	1410	1135	1.3	10.5	0.0	300 @ 8	27.5	< 2	1805	4.4	5	1515	1225	1.0	12.0	0.0	030 @ 4	-	< 2	1855	4.5																										
29	0940	0735	3.2	7.5	0.0	270 @ 6	32.0	< 2																																																																																												
		1130	3.4						30	1021	0820	3.0	7.5	0.0	270 @ 15	26.0	< 2	1255	3.5	31	1016	0910	2.7	8.0	0.0	240 @ 7	27.0	240	1415	3.7	Apr. 1	0956	0940	2.4	8.0	0.0	270 @ 8	27.0	2	1520	3.9	4	1410	1135	1.3	10.5	0.0	300 @ 8	27.5	< 2	1805	4.4	5	1515	1225	1.0	12.0	0.0	030 @ 4	-	< 2	1855	4.5																																					
30	1021	0820	3.0	7.5	0.0	270 @ 15	26.0	< 2																																																																																												
		1255	3.5						31	1016	0910	2.7	8.0	0.0	240 @ 7	27.0	240	1415	3.7	Apr. 1	0956	0940	2.4	8.0	0.0	270 @ 8	27.0	2	1520	3.9	4	1410	1135	1.3	10.5	0.0	300 @ 8	27.5	< 2	1805	4.4	5	1515	1225	1.0	12.0	0.0	030 @ 4	-	< 2	1855	4.5																																																
31	1016	0910	2.7	8.0	0.0	240 @ 7	27.0	240																																																																																												
		1415	3.7						Apr. 1	0956	0940	2.4	8.0	0.0	270 @ 8	27.0	2	1520	3.9	4	1410	1135	1.3	10.5	0.0	300 @ 8	27.5	< 2	1805	4.4	5	1515	1225	1.0	12.0	0.0	030 @ 4	-	< 2	1855	4.5																																																											
Apr. 1	0956	0940	2.4	8.0	0.0	270 @ 8	27.0	2																																																																																												
		1520	3.9						4	1410	1135	1.3	10.5	0.0	300 @ 8	27.5	< 2	1805	4.4	5	1515	1225	1.0	12.0	0.0	030 @ 4	-	< 2	1855	4.5																																																																						
4	1410	1135	1.3	10.5	0.0	300 @ 8	27.5	< 2																																																																																												
		1805	4.4						5	1515	1225	1.0	12.0	0.0	030 @ 4	-	< 2	1855	4.5																																																																																	
5	1515	1225	1.0	12.0	0.0	030 @ 4	-	< 2																																																																																												
		1855	4.5																																																																																																	

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 41

Location: Foot of Lavender Road - sampled from shore.

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 30	1420	1255	3.5	-	0.0	-	-	< 2
		1955	1.7					
31	1055	0910	2.7	-	0.0	-	-	8
		1415	3.7					
Apr. 1	1005	0940	2.4	-	0.0	-	-	< 2
		1520	3.9					
2	1215	1025	2.0	-	0.0	-	-	70
		1615	4.1					
3	1150	1055	1.7	-	0.0	-	-	1600
		1700	4.3					
4	1630	1135	1.3	-	0.0	-	-	< 2
		1805	4.4					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 42		Location: Offshore of Jacks Road						
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 23	1023	0655	4.1	7.5	2.2	090 @ 2	30.0	8
		1345	1.5					
24	0953	0720	4.1	8.0	11.2	330 @ 2	28.5	23
		1420	1.5					
25	0957	0750	3.9	8.0	0.4	060 @ 4	29.0	8
		1500	1.5					
28	1105	0955	3.5	7.5	0.0	220 @ 16	28.5	< 2
		1740	1.7					
29	0943	0735	3.2	7.5	0.0	270 @ 10	32.0	17
		1130	3.4					
30	1023	0820	3.0	8.0	0.0	270 @ 14	26.5	79
		1255	3.5					
31	1018	0910	2.7	8.0	0.0	270 @ 7	27.0	7
		1415	3.7					
Apr. 1	0959	0940	2.4	8.0	0.0	270 @ 14	27.0	5
		1520	3.9					
4	1415	1135	1.3	11.0	0.0	300 @ 10	28.0	< 2
		1805	4.4					
5	1520	1225	1.0	10.0	0.0	030 @ 3	-	< 2
		1855	4.5					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 43

Location: Foot of Jacks Road - sampled from shore.

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total		Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)		Precip. (mm)	Wind (Knots)		
Mar. 30	1425	1255	3.5	-	0.0	-	-	540
		1955	1.7					
31	1100	0910	2.7	-	0.0	-	-	540
		1415	3.7					
Apr. 1	1010	0940	2.4	-	0.0	-	-	110
		1520	3.9					
2	1220	1025	2.0	-	0.0	-	-	23
		1615	4.1					
3	1200	1055	1.7	-	0.0	-	-	46
		1700	4.3					
4	1630	1135	1.3	-	0.0	-	-	33
		1805	4.4					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 44		Location: Offshore of Myron Road																																																																																																		
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.																																																																																												
		Time	Height (m)																																																																																																	
Mar. 23	1025	0655	4.1	7.5	2.2	070 @ 5	29.0	< 2																																																																																												
		1345	1.5						24	0956	0720	4.1	8.0	11.2	360 @ 5	29.0	< 2	1420	1.5	25	1000	0750	3.9	8.0	0.4	060 @ 5	29.0	< 2	1500	1.5	28	1108	0955	3.5	7.5	0.0	240 @ 16	29.5	8	1740	1.7	29	0945	0735	3.2	7.5	0.0	240 @ 10	30.5	33	1130	3.4	30	1025	0820	3.0	8.0	0.0	270 @ 12	26.5	27	1255	3.5	31	1020	0910	2.7	8.0	0.0	270 @ 10	27.0	22	1415	3.7	Apr. 1	1001	0940	2.4	8.0	0.0	270 @ 12	27.0	8	1520	3.9	4	1415	1135	1.3	9.5	0.0	300 @ 11	27.0	< 2	1805	4.4	5	1520	1225	1.0
24	0956	0720	4.1	8.0	11.2	360 @ 5	29.0	< 2																																																																																												
		1420	1.5						25	1000	0750	3.9	8.0	0.4	060 @ 5	29.0	< 2	1500	1.5	28	1108	0955	3.5	7.5	0.0	240 @ 16	29.5	8	1740	1.7	29	0945	0735	3.2	7.5	0.0	240 @ 10	30.5	33	1130	3.4	30	1025	0820	3.0	8.0	0.0	270 @ 12	26.5	27	1255	3.5	31	1020	0910	2.7	8.0	0.0	270 @ 10	27.0	22	1415	3.7	Apr. 1	1001	0940	2.4	8.0	0.0	270 @ 12	27.0	8	1520	3.9	4	1415	1135	1.3	9.5	0.0	300 @ 11	27.0	< 2	1805	4.4	5	1520	1225	1.0	14.0	0.0	030 @ 4	-	< 2	1855	4.5				
25	1000	0750	3.9	8.0	0.4	060 @ 5	29.0	< 2																																																																																												
		1500	1.5						28	1108	0955	3.5	7.5	0.0	240 @ 16	29.5	8	1740	1.7	29	0945	0735	3.2	7.5	0.0	240 @ 10	30.5	33	1130	3.4	30	1025	0820	3.0	8.0	0.0	270 @ 12	26.5	27	1255	3.5	31	1020	0910	2.7	8.0	0.0	270 @ 10	27.0	22	1415	3.7	Apr. 1	1001	0940	2.4	8.0	0.0	270 @ 12	27.0	8	1520	3.9	4	1415	1135	1.3	9.5	0.0	300 @ 11	27.0	< 2	1805	4.4	5	1520	1225	1.0	14.0	0.0	030 @ 4	-	< 2	1855	4.5															
28	1108	0955	3.5	7.5	0.0	240 @ 16	29.5	8																																																																																												
		1740	1.7						29	0945	0735	3.2	7.5	0.0	240 @ 10	30.5	33	1130	3.4	30	1025	0820	3.0	8.0	0.0	270 @ 12	26.5	27	1255	3.5	31	1020	0910	2.7	8.0	0.0	270 @ 10	27.0	22	1415	3.7	Apr. 1	1001	0940	2.4	8.0	0.0	270 @ 12	27.0	8	1520	3.9	4	1415	1135	1.3	9.5	0.0	300 @ 11	27.0	< 2	1805	4.4	5	1520	1225	1.0	14.0	0.0	030 @ 4	-	< 2	1855	4.5																										
29	0945	0735	3.2	7.5	0.0	240 @ 10	30.5	33																																																																																												
		1130	3.4						30	1025	0820	3.0	8.0	0.0	270 @ 12	26.5	27	1255	3.5	31	1020	0910	2.7	8.0	0.0	270 @ 10	27.0	22	1415	3.7	Apr. 1	1001	0940	2.4	8.0	0.0	270 @ 12	27.0	8	1520	3.9	4	1415	1135	1.3	9.5	0.0	300 @ 11	27.0	< 2	1805	4.4	5	1520	1225	1.0	14.0	0.0	030 @ 4	-	< 2	1855	4.5																																					
30	1025	0820	3.0	8.0	0.0	270 @ 12	26.5	27																																																																																												
		1255	3.5						31	1020	0910	2.7	8.0	0.0	270 @ 10	27.0	22	1415	3.7	Apr. 1	1001	0940	2.4	8.0	0.0	270 @ 12	27.0	8	1520	3.9	4	1415	1135	1.3	9.5	0.0	300 @ 11	27.0	< 2	1805	4.4	5	1520	1225	1.0	14.0	0.0	030 @ 4	-	< 2	1855	4.5																																																
31	1020	0910	2.7	8.0	0.0	270 @ 10	27.0	22																																																																																												
		1415	3.7						Apr. 1	1001	0940	2.4	8.0	0.0	270 @ 12	27.0	8	1520	3.9	4	1415	1135	1.3	9.5	0.0	300 @ 11	27.0	< 2	1805	4.4	5	1520	1225	1.0	14.0	0.0	030 @ 4	-	< 2	1855	4.5																																																											
Apr. 1	1001	0940	2.4	8.0	0.0	270 @ 12	27.0	8																																																																																												
		1520	3.9						4	1415	1135	1.3	9.5	0.0	300 @ 11	27.0	< 2	1805	4.4	5	1520	1225	1.0	14.0	0.0	030 @ 4	-	< 2	1855	4.5																																																																						
4	1415	1135	1.3	9.5	0.0	300 @ 11	27.0	< 2																																																																																												
		1805	4.4						5	1520	1225	1.0	14.0	0.0	030 @ 4	-	< 2	1855	4.5																																																																																	
5	1520	1225	1.0	14.0	0.0	030 @ 4	-	< 2																																																																																												
		1855	4.5																																																																																																	

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 45		Location: Offshore of Oar Road						
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 23	1028	0655	4.1	7.5	2.2	070 @ 4	30.0	2
		1345	1.4					
24	1000	0720	4.1	7.8	11.2	360 @ 6	28.0	2
		1420	1.5					
25	1002	0750	3.9	8.0	0.4	060 @ 6	29.0	5
		1500	1.5					
28	1110	0955	3.5	7.5	0.0	210 @ 12	30.0	2
		1740	1.7					
29	0948	0735	3.2	7.5	0.0	270 @ 7	31.0	2
		1130	3.4					
30	0951	0820	3.0	8.0	0.0	270 @ 14	27.0	4
		1255	3.5					
31	1023	0910	2.7	8.0	0.0	270 @ 9	27.0	< 2
		1415	3.7					
Apr. 1	1004	0940	2.4	8.0	0.0	270 @ 15	27.0	8
		1520	3.9					
4	1420	1135	1.3	11.0	0.0	270 @ 9	28.0	< 2
		1805	4.4					
5	1520	1225	1.0	12.0	0.0	030 @ 4	-	< 2
		1855	4.5					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 46		Location: Offshore of boat ramp - Shoregrove Resort.						
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 23	1030	0655	4.1	7.5	2.2	070 @ 2	30.0	< 2
		1345	1.5					
24	1002	0720	4.1	8.0	11.2	360 @ 5	28.5	< 2
		1420	1.4					
25	1005	0750	3.9	8.0	0.4	060 @ 3	29.0	< 2
		1500	1.5					
28	1112	0955	3.5	8.0	0.0	240 @ 15	29.0	2
		1740	1.7					
29	0950	0735	3.2	7.5	0.0	270 @ 14	30.0	4
		1130	3.4					
30	0954	0820	3.0	8.0	0.0	270 @ 14	26.5	< 2
		1255	3.5					
31	1029	0910	2.7	8.0	0.0	270 @ 10	27.0	13
		1415	3.7					
Apr. 1	1006	0940	2.4	8.0	0.0	270 @ 15	27.0	17
		1520	3.9					
4	1420	1135	1.3	10.0	0.0	300 @ 9	29.0	4
		1805	4.4					
5	1525	1225	1.0	11.0	0.0	030 @ 3	-	< 2
		1855	4.5					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 47

Location: At Shoal - E. of Shoregrove Resort.

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.																																																																																												
		Time	Height (m)																																																																																																	
Mar. 23	1038	0655	4.1	7.5	2.2	120 @ 4	29.5	< 2																																																																																												
		1345	1.5						24	1006	0720	4.1	8.0	11.2	030 @ 2	29.0	< 2	1420	1.5	25	1010	0750	3.9	8.0	0.4	060 @ 4	29.0	< 2	1500	1.5	28	1115	0955	3.5	7.5	0.0	270 @ 14	29.5	< 2	1740	1.7	29	0953	0735	3.2	7.5	0.0	270 @ 12	31.0	49	1130	3.4	30	0957	0820	3.0	8.0	0.0	270 @ 15	26.5	< 2	1255	3.5	31	1034	0910	2.7	8.0	0.0	300 @ 10	27.0	2	1415	3.7	Apr. 1	1008	0940	2.4	8.0	0.0	270 @ 16	27.0	< 2	1520	3.9	4	1430	1135	1.3	10.5	0.0	300 @ 10	27.5	< 2	1805	4.4	5	1525	1225	1.0
24	1006	0720	4.1	8.0	11.2	030 @ 2	29.0	< 2																																																																																												
		1420	1.5						25	1010	0750	3.9	8.0	0.4	060 @ 4	29.0	< 2	1500	1.5	28	1115	0955	3.5	7.5	0.0	270 @ 14	29.5	< 2	1740	1.7	29	0953	0735	3.2	7.5	0.0	270 @ 12	31.0	49	1130	3.4	30	0957	0820	3.0	8.0	0.0	270 @ 15	26.5	< 2	1255	3.5	31	1034	0910	2.7	8.0	0.0	300 @ 10	27.0	2	1415	3.7	Apr. 1	1008	0940	2.4	8.0	0.0	270 @ 16	27.0	< 2	1520	3.9	4	1430	1135	1.3	10.5	0.0	300 @ 10	27.5	< 2	1805	4.4	5	1525	1225	1.0	10.0	0.0	060 @ 3	-	< 2	1855	4.5				
25	1010	0750	3.9	8.0	0.4	060 @ 4	29.0	< 2																																																																																												
		1500	1.5						28	1115	0955	3.5	7.5	0.0	270 @ 14	29.5	< 2	1740	1.7	29	0953	0735	3.2	7.5	0.0	270 @ 12	31.0	49	1130	3.4	30	0957	0820	3.0	8.0	0.0	270 @ 15	26.5	< 2	1255	3.5	31	1034	0910	2.7	8.0	0.0	300 @ 10	27.0	2	1415	3.7	Apr. 1	1008	0940	2.4	8.0	0.0	270 @ 16	27.0	< 2	1520	3.9	4	1430	1135	1.3	10.5	0.0	300 @ 10	27.5	< 2	1805	4.4	5	1525	1225	1.0	10.0	0.0	060 @ 3	-	< 2	1855	4.5															
28	1115	0955	3.5	7.5	0.0	270 @ 14	29.5	< 2																																																																																												
		1740	1.7						29	0953	0735	3.2	7.5	0.0	270 @ 12	31.0	49	1130	3.4	30	0957	0820	3.0	8.0	0.0	270 @ 15	26.5	< 2	1255	3.5	31	1034	0910	2.7	8.0	0.0	300 @ 10	27.0	2	1415	3.7	Apr. 1	1008	0940	2.4	8.0	0.0	270 @ 16	27.0	< 2	1520	3.9	4	1430	1135	1.3	10.5	0.0	300 @ 10	27.5	< 2	1805	4.4	5	1525	1225	1.0	10.0	0.0	060 @ 3	-	< 2	1855	4.5																										
29	0953	0735	3.2	7.5	0.0	270 @ 12	31.0	49																																																																																												
		1130	3.4						30	0957	0820	3.0	8.0	0.0	270 @ 15	26.5	< 2	1255	3.5	31	1034	0910	2.7	8.0	0.0	300 @ 10	27.0	2	1415	3.7	Apr. 1	1008	0940	2.4	8.0	0.0	270 @ 16	27.0	< 2	1520	3.9	4	1430	1135	1.3	10.5	0.0	300 @ 10	27.5	< 2	1805	4.4	5	1525	1225	1.0	10.0	0.0	060 @ 3	-	< 2	1855	4.5																																					
30	0957	0820	3.0	8.0	0.0	270 @ 15	26.5	< 2																																																																																												
		1255	3.5						31	1034	0910	2.7	8.0	0.0	300 @ 10	27.0	2	1415	3.7	Apr. 1	1008	0940	2.4	8.0	0.0	270 @ 16	27.0	< 2	1520	3.9	4	1430	1135	1.3	10.5	0.0	300 @ 10	27.5	< 2	1805	4.4	5	1525	1225	1.0	10.0	0.0	060 @ 3	-	< 2	1855	4.5																																																
31	1034	0910	2.7	8.0	0.0	300 @ 10	27.0	2																																																																																												
		1415	3.7						Apr. 1	1008	0940	2.4	8.0	0.0	270 @ 16	27.0	< 2	1520	3.9	4	1430	1135	1.3	10.5	0.0	300 @ 10	27.5	< 2	1805	4.4	5	1525	1225	1.0	10.0	0.0	060 @ 3	-	< 2	1855	4.5																																																											
Apr. 1	1008	0940	2.4	8.0	0.0	270 @ 16	27.0	< 2																																																																																												
		1520	3.9						4	1430	1135	1.3	10.5	0.0	300 @ 10	27.5	< 2	1805	4.4	5	1525	1225	1.0	10.0	0.0	060 @ 3	-	< 2	1855	4.5																																																																						
4	1430	1135	1.3	10.5	0.0	300 @ 10	27.5	< 2																																																																																												
		1805	4.4						5	1525	1225	1.0	10.0	0.0	060 @ 3	-	< 2	1855	4.5																																																																																	
5	1525	1225	1.0	10.0	0.0	060 @ 3	-	< 2																																																																																												
		1855	4.5																																																																																																	

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 48

Location: Middle of shallow bay - W. of Icarus Point.

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 23	1038	0655	4.1	7.5	2.2	090 @ 5	30.0	5
		1345	1.5					
24	1009	0720	4.1	8.0	11.2	330 @ 3	29.0	< 2
		1420	1.5					
25	1016	0750	3.9	8.0	0.4	060 @ 5	29.0	< 2
		1500	1.5					
28	1122	0955	3.5	8.0	0.0	270 @ 14	29.5	< 2
		1740	1.7					
29	0959	0735	3.2	7.5	0.0	270 @ 11	30.0	< 2
		1130	3.4					
30	1037	0820	3.0	8.0	0.0	270 @ 12	27.0	< 2
		1255	3.5					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 49

Location: Icarus Point

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 23	1045	0655	4.1	7.5	2.2	090 @ 14	30.0	< 2
		1345	1.5					
24	1020	0720	4.1	8.0	11.2	030 @ 6	29.0	< 2
		1420	1.5					
25	1020	0750	3.9	8.0	0.4	090 @ 4	29.0	< 2
		1500	1.5					
28	1125	0955	3.5	7.5	0.0	240 @ 15	30.0	< 2
		1740	1.7					
29	1003	0735	3.2	7.5	0.0	270 @ 12	30.0	< 2
		1130	3.4					
30	1048	0820	3.0	8.0	0.0	270 @ 12	27.0	2
		1255	3.5					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 50

Location: Shallow bay E. of Icarus Point.

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 23	1055	0655	4.1	7.5	2.2	070 @ 7	30.0	< 2
		1345	1.5					
24	1026	0720	4.1	8.0	11.2	030 @ 3	30.0	< 2
		1420	1.5					
25	1029	0750	3.9	8.0	0.4	030 @ 3	29.0	< 2
		1500	1.5					
28	1136	0955	3.5	7.0	0.0	240 @ 12	29.5	< 2
		1740	1.7					
29	1027	0735	3.2	8.0	0.0	270 @ 14	-	< 2
		1130	3.4					
30	1056	0820	3.0	8.0	0.0	270 @ 10	27.0	2
		1255	3.5					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 51		Location: Offshore of stream - W. of Neck Pt.							
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.	
		Time	Height (m)						
Mar. 23	1100	0655	4.1	7.5	2.2	090 @ 3	30.0	< 2	
		1345	1.5						
24	1040	0720	4.1	8.0	11.2	010 @ 5	30.0	< 2	
		1420	1.5						
25	1034	0750	3.9	8.0	0.4	060 @ 3	29.0	< 2	
		1500	1.5						
28	1140	0955	3.5	7.5	0.0	270 @ 10	29.5	< 2	
		1740	1.7						
29	1030	0735	3.2	8.0	0.0	270 @ 16	-	2	
		1130	3.4						
30	1058	0820	3.0	8.0	0.0	270 @ 9	27.0	< 2	
		1255	3.5						

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 52

Location: Offshore of houses at Neck Point.

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 23	1105	0655	4.1	7.5	2.2	090 @ 8	30.0	< 2
		1345	1.5					
24	1045	0720	4.1	8.0	11.2	030 @ 5	30.0	< 2
		1420	1.5					
25	1043	0750	3.9	8.0	0.4	060 @ 4	29.0	< 2
		1500	1.5					
28	1145	0955	3.5	7.5	0.0	250 @ 10	29.5	2
		1740	1.7					
29	1034	0735	3.2	7.5	0.0	270 @ 15	-	< 2
		1130	3.4					
30	1102	0820	3.0	8.0	0.0	270 @ 7	27.0	5
		1255	3.5					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 53

Location: Offshore of large residence - W. end of Hammond Bay

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 23	1115	0655	4.1	7.5	2.2	100 @ 16	30.0	2
		1345	1.5					
24	1052	0720	4.1	8.5	11.2	090 @ 3	30.0	< 2
		1420	1.5					
25	1050	0750	3.9	8.0	0.4	120 @ 5	29.0	< 2
		1500	1.5					
28	1151	0955	3.5	7.5	0.0	300 @ 11	30.0	< 2
		1740	1.7					
29	1041	0735	3.2	8.0	0.0	270 @ 10	-	< 2
		1130	3.4					
30	1110	0820	3.0	8.0	0.0	300 @ 11	27.0	< 2
		1255	3.5					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 54		Location: Offshore of summer cabins W. end of Hammond Bay						
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 23	1120	0655	4.1	7.5	2.2	090 @ 10	30.0	2
		1345	1.5					
24	1054	0720	4.1	9.0	11.2	060 @ 4	29.5	< 2
		1420	1.5					
25	1052	0750	3.9	8.0	0.4	090 @ 4	29.0	< 2
		1500	1.5					
28	1153	0955	3.5	7.5	0.0	060 @ 2	30.0	< 2
		1740	1.7					
29	1044	0735	3.2	8.0	0.0	270 @ 8	-	< 2
		1130	3.4					
30	1113	0820	3.0	8.0	0.0	300 @ 10	27.0	< 2
		1255	3.5					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 55

Location: Offshore of outfall sign - Hammond Bay

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 23	1123	0655	4.1	8.0	2.2	090 @ 8	29.0	< 2
		1345	1.5					
24	1057	0720	4.1	9.0	11.2	060 @ 4	29.0	7
		1420	1.5					
25	1056	0750	3.9	8.0	0.4	090 @ 5	28.5	22
		1500	1.5					
28	1156	0955	3.5	8.0	0.0	330 @ 2	30.0	2
		1740	1.7					
29	1047	0735	3.2	8.0	0.0	270 @ 4	-	< 2
		1130	3.4					
30	1116	0820	3.0	8.5	0.0	330 @ 8	26.5	< 2
		1255	3.5					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 56

Location: Offshore of log house - head of Hammond Bay

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 23	1125	0655	4.1	8.0	2.2	090 @ 12	30.0	< 2
		1345	1.5					
24	1100	0720	4.1	8.5	11.2	030 @ 4	30.0	< 2
		1420	1.5					
25	1056	0750	3.9	8.0	0.4	090 @ 5	29.0	< 2
		1500	1.5					
28	1158	0955	3.5	8.0	0.0	270 @ 10	29.5	< 2
		1740	1.7					
29	1049	0735	3.2	8.0	0.0	270 @ 10	-	2
		1130	3.4					
30	1116	0820	3.0	8.0	0.0	270 @ 12	26.5	< 2
		1255	3.5					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 57		Location: Offshore of white fence - head of Hammond Bay						
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 23	1130	0655	4.1	8.0	2.2	090 @ 8	30.0	< 2
		1345	1.5					
24	1103	0720	4.1	8.5	11.2	090 @ 6	30.0	< 2
		1420	1.5					
25	1100	0750	3.9	8.0	0.4	090 @ 5	29.0	< 2
		1500	1.5					
28	1201	0955	3.5	7.5	0.0	270 @ 12	30.0	2
		1740	1.7					
29	1048	0735	3.2	8.0	0.0	270 @ 15	-	< 2
		1130	3.4					
30	1118	0820	3.0	8.0	0.0	270 @ 12	27.0	< 2
		1255	3.5					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 58

Location: Offshore of boat launching ramp - Hammond Bay

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 23	1132	0655	4.1	8.0	2.2	080 @ 7	30.0	< 2
		1345	1.5					
24	1106	0720	4.1	8.5	11.2	330 @ 4	30.0	8
		1420	1.5					
25	1102	0750	3.9	8.0	0.4	060 @ 4	29.0	< 2
		1500	1.5					
28	1202	0955	3.5	7.5	0.0	270 @ 10	29.5	2
		1740	1.7					
29	1051	0735	3.2	8.0	0.0	270 @ 14	-	< 2
		1130	3.4					
30	1120	0820	3.0	8.0	0.0	270 @ 10	27.0	< 2
		1255	3.5					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 59

Location: At mouth of Page Lagoon (Piper's Lagoon)

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 23	1135	0655	4.1	8.0	2.2	060 @ 10	30.0	2
		1345	1.5					
24	1111	0720	4.1	8.5	11.2	040 @ 7	30.0	70
		1420	1.5					
25	1105	0750	3.9	8.0	0.4	070 @ 4	29.0	< 2
		1500	1.5					
28	1206	0955	3.5	8.0	0.0	270 @ 14	29.5	< 2
		1740	1.7					
29	1055	0735	3.2	7.5	0.0	270 @ 14	-	< 2
		1130	3.4					
30	1121	0820	3.0	8.0	0.0	270 @ 12	27.0	< 2
		1255	3.5					
31	1050	0910	2.7	8.0	0.0	270 @ 8	27.5	< 2
		1415	3.7					
Apr. 1	1031	0940	2.4	8.0	0.0	270 @ 26	27.0	< 2
		1520	3.9					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 60		Location: Piper's Lagoon - offshore of storm drain						
Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 25	1000	0750	3.9	8.0	0.4	-	-	8
		1500	1.5					
28	1020	0955	3.5	-	0.0	-	-	< 2
		1740	1.7					
29	1025	0735	3.2	-	0.0	-	-	2
		1130	3.4					
30	1400	1255	3.5	11.5	0.0	-	-	< 2
		1955	1.7					
31	1427	1415	3.7	11.3	0.0	-	30.5	33
		2040	1.7					
Apr. 1	1430	0940	2.4	-	0.0	-	-	2
		1520	3.9					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 61		Location: Piper's Lagoon - offshore of grey and green stucco home						
Date	Sample Time	Tide Conditions		Water	Total	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)	Temp. (C)	Precip. (mm)			
Mar. 25	1010	0750	3.9	7.5	0.4	-	-	5
		1500	1.5					
28	1025	0955	3.5	-	0.0	-	-	< 2
		1740	1.7					
29	1030	0735	3.2	-	0.0	-	-	< 2
		1130	3.4					
30	1405	1255	3.5	13.5	0.0	-	-	< 2
		1955	1.7					
31	1413	0910	2.7	13.0	0.0	-	29.5	< 2
		1415	3.7					
Apr. 1	1425	0940	2.4	-	0.0	-	-	< 2
		1520	3.9					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 62

Location: Piper's Lagoon - offshore of beach access road

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 25	1020	0750	3.9	7.0	0.4	-	-	8
		1500	1.5					
28	1020	0955	3.5	9.0	0.0	-	27.0	5
		1740	1.7					
29	1045	0735	3.2	11.0	0.0	-	27.0	< 2
		1130	3.4					
30	1415	1255	3.5	15.0	0.0	-	-	< 2
		1955	1.7					
31	1416	1415	3.7	15.7	0.0	-	-	< 2
		2040	1.7					
Apr. 1	1420	0940	2.4	-	0.0	-	-	2
		1520	3.9					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 63

Location: Piper's Lagoon - E. side

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 25	1025	0750	3.9	7.0	0.4	-	-	2
		1500	1.5					
28	1025	0955	3.5	-	0.0	-	-	2
		1740	1.7					
29	1045	0735	3.2	11.0	0.0	-	27.0	< 2
		1130	3.4					
30	1420	1255	3.5	14.0	0.0	-	-	< 2
		1955	1.7					
31	1409	0910	2.7	14.7	0.0	-	-	2
		1415	3.7					
Apr. 1	1410	0940	2.4	-	0.0	-	-	2
		1520	3.9					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 64

Location: Offshore of largest island in Hammond Bay

Date	Sample Time	Tide Conditions		Water Temp. (C)	Total Precip. (mm)	Wind (Knots)	Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)					
Mar. 23	1140	0655	4.1	7.5	2.2	090 @ 10	30.0	< 2
		1345	1.5					
24	1115	0720	4.1	8.5	11.2	030 @ 9	30.0	< 2
		1420	1.5					
25	1107	0750	3.9	8.0	0.4	060 @ 6	29.0	< 2
		1500	1.5					
28	1210	0955	3.5	7.5	0.0	270 @ 15	30.0	< 2
		1740	1.7					
29	1059	0735	3.2	7.5	0.0	270 @ 17	-	< 2
		1130	3.4					
30	1123	0820	3.0	8.0	0.0	300 @ 18	27.0	< 2
		1255	3.5					

APPENDIX III

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES

Sample Station: 65

Location: Small beach on outside of Lagoon Head

Date	Sample Time	Tide Conditions		Water	Total		Salinity (ppt)	Fecal coliform MPN/100 ml.
		Time	Height (m)	Temp. (C)	Precip. (mm)	Wind (Knots)		
Mar. 29	1050	0735	3.2	10.0	0.0	-	25.5	< 2
		1130	3.4					
30	0925	0820	3.0	-	0.0	-	-	< 2
		1255	3.5					

APPENDIX IV

BACTERIOLOGICAL ANALYSES RESULTS AND
SAMPLING CONDITIONS FOR FRESHWATER SAMPLES

APPENDIX IV

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES

Sample Station: S1			Location: Nanoose Creek - at bridge on road to Ranch Point			
Date	Sample Time	Water Temp. (C)	Total Precip. (mm.)	MF Count per 100 ml		
				Fecal Coliform	Fecal Streptococci	
Mar. 16	1100	-	0.0	88	6	
17	1625	4.5	0.0	92	3	
18	1010	5.0	0.0	30	2	
22	1550	7.2	4.4	13	0	

APPENDIX IV

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES

Sample Station: S2

Location: Bonell Creek - at Island Highway

Date	Sample Time	Water Temp. (C)	Total Precip. (mm.)	MF Count per 100 ml	
				Fecal Coliform	Fecal Streptococci
Mar. 16	1115	-	0.0	-	0
17	1640	-	0.0	0	0
18	1025	4.7	0.0	0	1
22	1605	6.9	4.4	0	1

APPENDIX IV

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES

Sample Station: S3

Location: West end of Arbutus Grove Park -
Nanoose Harbour

Date	Sample Time	Water Temp. (C)	Total Precip. (mm.)	MF Count per 100 ml	
				Fecal Coliform	Fecal Streptococci
Mar. 16	1125	-	0.0	0	0
17	1610	4.5	0.0	0	1
18	1100	5.0	0.0	2	1
22	1535	6.6	4.4	0	0

APPENDIX IV

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES

Sample Station: S4

Location: Small creek by old ferry dock -
Nanoose Harbour

Date	Sample Time	Water Temp. (C)	Total Precip. (mm.)	MF Count per 100 ml	
				Fecal Coliform	Fecal Streptococci
Mar. 17	1550	5.5	0.0	60	470
18	1115	6.5	0.0	176	68
22	1525	8.0	4.4	70	110

APPENDIX IV

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES

Sample Station: S5

Location: West of Rock breakwater on Indian
Reserve - Nanoose Harbour

Date	Sample Time	Water Temp. (C)	Total Precip. (mm.)	MF Count per 100 ml	
				Fecal Coliform	Fecal Streptococci
Mar. 16	1015	-	0.0	0	2
17	1535	6.0	0.0	1	6
18	1130	6.9	0.0	0	3
22	1520	8.4	4.4	1	117

APPENDIX IV

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES

Sample Station: S6

Location: Knarston Creek

Date	Sample Time	Water Temp. (C)	Total Precip. (mm.)	MF Count per 100 ml	
				Fecal Coliform	Fecal Streptococci
Mar. 16	0940	-	0.0	0	7
17	1520	6.0	0.0	9	10
18	1140	6.3	0.0	2	5
22	1510	7.6	4.4	1	5

APPENDIX IV

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES

Sample Station: S7

Location: Small stream feeding Knarston Creek

Date	Sample Time	Water Temp. (C)	Total Precip. (mm.)	MF Count per 100 ml	
				Fecal Coliform	Fecal Streptococci
Mar. 16	0950	-	0.0	5	5
17	1525	6.0	0.0	5	1
18	1140	7.0	0.0	1	5
22	1510	8.8	4.4	2	3

APPENDIX IV

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES

Sample Station: S8

Location: Stewart Creek - midway between Harper
and Sebastian Road access

Date	Sample Time	Water Temp. (C)	Total Precip. (mm.)	MF Count per 100 ml	
				Fecal Coliform	Fecal Streptococci
Mar. 22	0920	7.0	4.4	-	21
23	1120	6.5	2.2	1320	108
24	0930	5.5	11.2	100	-
25	0905	5.5	0.4	31	61
29	0935	6.0	0.0	75	0

APPENDIX IV

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES

Sample Station: S9

Location: Storm drain - Huddleston Road access

Date	Sample Time	Water Temp. (C)	Total Precip. (mm.)	MF Count per 100 ml	
				Fecal Coliform	Fecal Streptococci
Mar. 22	0930	7.5	4.4	-	T.N.T.C.*
23	1115	7.5	2.2	180	110
24	0920	6.0	11.2	110	10
25	0910	6.5	0.4	60	60
29	0940	7.0	0.0	10	-

*Too Numerous to Count.

APPENDIX IV

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES

Sample Station: S10

Location: Storm drain - midway between Huddlestone
Road access and Tweedhope Road access

Date	Sample Time	Water Temp. (C)	Total Precip. (mm.)	MF Count per 100 ml	
				Fecal Coliform	Fecal Streptococci
Mar. 22	0935	7.0	4.4	-	38
23	1110	7.0	2.2	26	11
24	0910	6.0	11.2	3	4
25	0915	6.5	0.4	94	7
29	1000	7.0	0.0	2	1

APPENDIX IV

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES

Sample Station: S11

Location: Storm drainage - Lavender Road access

Date	Sample Time	Water Temp. (C)	Total Precip. (mm.)	MF Count per 100 ml	
				Fecal Coliform	Fecal Streptococci
Mar. 22	0955	8.0	4.4	-	1
23	1055	7.5	2.2	2	18
24	0907	7.0	11.2	0	3
25	0925	6.5	0.4	6	8
29	0945	9.0	0.0	1	5

APPENDIX IV

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES

Sample Station: S12

Location: Stream at Jacks Road access

Date	Sample Time	Water Temp. (C)	Total Precip. (mm.)	MF Count per 100 ml	
				Fecal Coliform	Fecal Streptococci
Mar. 22	1000	7.0	4.4	-	172
23	1050	5.5	2.2	850	380
25	0930	4.5	0.4	3300	2500
29	0950	5.5	0.0	9500	280

APPENDIX IV

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES

Sample Station: S13

Location: Stream at Oar Road access

Date	Sample Time	Water Temp. (C)	Total Precip. (mm.)	MF Count per 100 ml	
				Fecal Coliform	Fecal Streptococci
Mar. 22	1015	8.5	4.4	-	12
23	1040	7.5	2.2	-	80
24	0850	6.0	11.2	6	14
25	0935	7.0	0.4	4	27
29	0955	7.0	0.0	2	6

APPENDIX IV

BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES

Sample Station: S14

Location: Blood's Creek

Date	Sample Time	Water Temp. (C)	Total Precip. (mm.)	MF Count per 100 ml	
				Fecal Coliform	Fecal Streptococci
Mar. 22	1015	7.0	4.4	-	17
23	1040	6.0	2.2	2	5
24	0845	5.0	11.2	6	2
25	0935	5.5	0.4	38	6
29	0955	6.0	0.0	15	89

APPENDIX V

SUMMARY OF ENVIRONMENTAL PROTECTION SERVICE 1971
SURVEY BACTERIOLOGICAL DATA FOR MARINE SAMPLES

APPENDIX V

SUMMARY OF ENVIRONMENTAL PROTECTION SERVICE 1971
SURVEY BACTERIOLOGICAL DATA FOR MARINE SAMPLES

Sample Station		No. of Samples	Total Coliform MF per 100 ml ⁺		
1971	1977*		Range	Median	90 Percentile
1	5	9	1 - 10	2	10
2	-	9	0 - 11	3	9.2
3	6	9	0 - 18	8	12.6
4	7	8	1 - 12	3.5	10.4
5	8	14	2 - 530	12.5	37.6
6	11	14	0 - 360	2	31
7	10	13	0 - 22	2	10
8	13	14	0 - 220	12	36
9	12	13	0 - 24	5	19.4
10	15	13	1 - 59	14	48.6
11	16	13	0 - 39	8	15
12	17	8	0 - 20	7.5	20
13	18	8	0 - 34	2.5	19.6
14	21	8	1 - 32	10	29.6
15	-	8	3 - 22	11	20.4
16	-	9	3 - 29	10	16.4
17	23	8	4 - 46	9	25.2
18	2	8	1 - 14	5	10.8
19	-	7	0 - 10	4	7.2
19 (3 m depth)		5	1 - 17	1	13

* Corresponding 1977 survey sample stations.

+ MF - Membrane Filtration. The MF data was used to characterize the shellfish growing waters according to the total coliform MPN standard applicable at that time: the total coliform median MPN must not exceed 70/100 ml, and not more than 10% of the samples exceed an MPN of 230/100 ml.

APPENDIX VI

SUMMARY OF ENVIRONMENTAL PROTECTION SERVICE 1971
SURVEY BACTERIOLOGICAL DATA FOR FRESHWATER SAMPLES

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SUMMARY OF ENVIRONMENTAL PROTECTION SERVICE 1971
SURVEY BACTERIOLOGICAL DATA FOR FRESHWATER SAMPLES

Sample Station		No. of Samples	Total Coliform MF per 100 ml	
1971	1977*		Range	Mean
C1	S1	8	130 - 390	255.6
C2	S2	8	40 - 870	260.8
C3	-	8	10 - 390	103.6
C4	S6	8	50 - 850	264.4

*Corresponding 1977 survey sample stations.