

APPENDIX

C

CVWPCC EFFLUENT
DISCHARGE
PERMIT NO. 5856



Province of
British Columbia

Ministry of
Environment,
Lands and Parks

FEED FAX THIS END

FAX

To: Peter H.

Dept.: _____

Fax No.: WPK

No. of Pages: _____

From: B. Mann

Date: Mo 2

Company: _____

Fax No.: _____

Comments: _____

Post-It

Environmental Protection Division
Broughton Street
Vancouver, British Columbia
V6X 1X5

COPY

Phone: (604) 387-9974

File: (604) 356-9836

File: PE-5856

June 17, 1993

Regional District
P.O. Box 3370
Courtenay, British Columbia
V9N 5N5

Dear Permittee:

Re: Notification of Amendment to Permit No. PE-5856

Please note that Permit No. PE-5856, issued under the provisions of the Waste Management Act, in the name of Regional District of Comox-Strathcona is amended by adding to Appendix B-1 the following clauses:

G. FACILITY CLASSIFICATION

The Permittee shall classify the wastewater treatment facility authorized in part (d) of Appendix No. 01 (the facility) and the classification shall be maintained with the "British Columbia Water and Wastewater Operators Certification Program Society" (BCWWOCPS). The Permittee shall submit an application to classify the facility to BCWWOCPS by **August 1, 1993**. Although the facility may have already been voluntarily classified previously, an application for classification must be submitted by the above date.

H. OPERATOR CERTIFICATION

If the facility is classified by the BCWWOCPS (the Program) at Level II or higher, the Permittee shall ensure that all operators of the facility shall be certified by the Program to a Class I level, at a minimum, by **December 1, 1994**.

Operators in Training:

The Permittee shall ensure that all operators in training (OIT) working at the facility classified by the BCWWOCPS at Level II or higher shall be required to successfully pass an OIT examination within three (3) months of commencement of employment at the facility.

3841201 (X)

PE 5856

NOT 3841210



Province of
British Columbia

Ministry of
Environment

Vancouver Island Region 1
Regional Headquarters
2569 Kenworth Road
Nanaimo
British Columbia
V9T 4P7
Telephone: (604) 758-3951

REGISTERED MAIL

File: PE-5856

JUL 23 1985

Regional District of Comox-Strathcona
P. O. Box 3370
Courtenay, British Columbia
V9N 5N5

Gentlemen:

LETTER OF TRANSMITTAL

Enclosed is a copy of amended Permit No. PE-5856, issued under the provisions of the Waste Management Act, in the name of Regional District of Comox-Strathcona. Your attention is respectfully directed to the terms and conditions outlined in the Permit.

The administration of this Permit will be carried out by staff from our Regional Office located at 2569 Kenworth Road, Nanaimo, British Columbia, V9T 4P7 (telephone 758-3951). Plans, data and reports pertinent to the Permit are to be submitted to the Regional Waste Manager at this address.

You will note that values have been expressed in the International System of Units (SI). These units are to be used in submitting monitoring results and any other information in connection with this Permit.

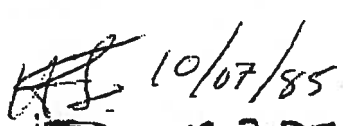
This Permit does not authorize entry upon, crossing over, or use for any purpose of private or Crown lands or works, unless and except as authorized by the owner of such lands or works. The responsibility for obtaining such authority shall rest with the Permittee.

Yours truly,



G. E. Oldham, P. Eng.
Regional Waste Manager.

Enclosure

 10/07/85



MINISTRY OF ENVIRONMENT

PERMIT

Under the Provisions of the Waste Management Act

REGIONAL DISTRICT OF COMOX-STRATHCONA

P. O. Box 3370

Courtenay, British Columbia

V9N 5N5

is hereby authorized to discharge effluent
from a municipal sewerage system located within
the Regional District of Comox-Strathcona
to Georgia Strait off Cape Lazo

This permit has been issued under the terms and
conditions prescribed in the attached appendices
01, A-1, B-1, C-1, and C-2

SFO.

Regional Waste Manager

Permit No. PE-5856

Date issued: November 21, 1980

Date amended: August 17, 1981

JUL 23 1985

ENV 2093

~~10/07/85~~

~~12.7.85~~

RAB 16/07/85



MINISTRY OF ENVIRONMENT
WASTE MANAGEMENT BRANCH

APPENDIX 01
to Permit No. PE-5856
(Effluent)

- (a) The discharge of effluent to which this appendix is applicable is from a municipal sewerage system as shown on the attached Appendix A-1.
- (b) The maximum rate at which effluent may be discharged is 18 500 m³/d.
- (c) The characteristics of the effluent shall be equivalent to or better than:

5-day biochemical oxygen demand	45 mg/L
total suspended solids	60 mg/L.
- (d) The works authorized are screening, degritting and ancilliary facilities, secondary-type treatment plant, sludge digestion facilities and an outfall with diffuser terminating at a depth of 60 m below low water level and extending seaward off Cape Lazo approximately 2750 m from low water mark and related appurtenances approximately located as shown on the attached Appendix A-1.
- (e) The location of the facilities from which the effluent originates and to which this appendix is appurtenant is Rem. D. L. 190, Comox District.
- (f) The location of the point of discharge and to which this appendix is appurtenant is Georgia Strait off Cape Lazo.
- (g) The works authorized must be complete and in operation on and from the date of this appendix.

1cm

DATE ISSUED: NOVEMBER 21, 1980

Date amended: August 17, 1981

Regional Waste Manager

JUL 23 1985

~~HS~~ 04/07/85

~~ST~~ 12.7.85

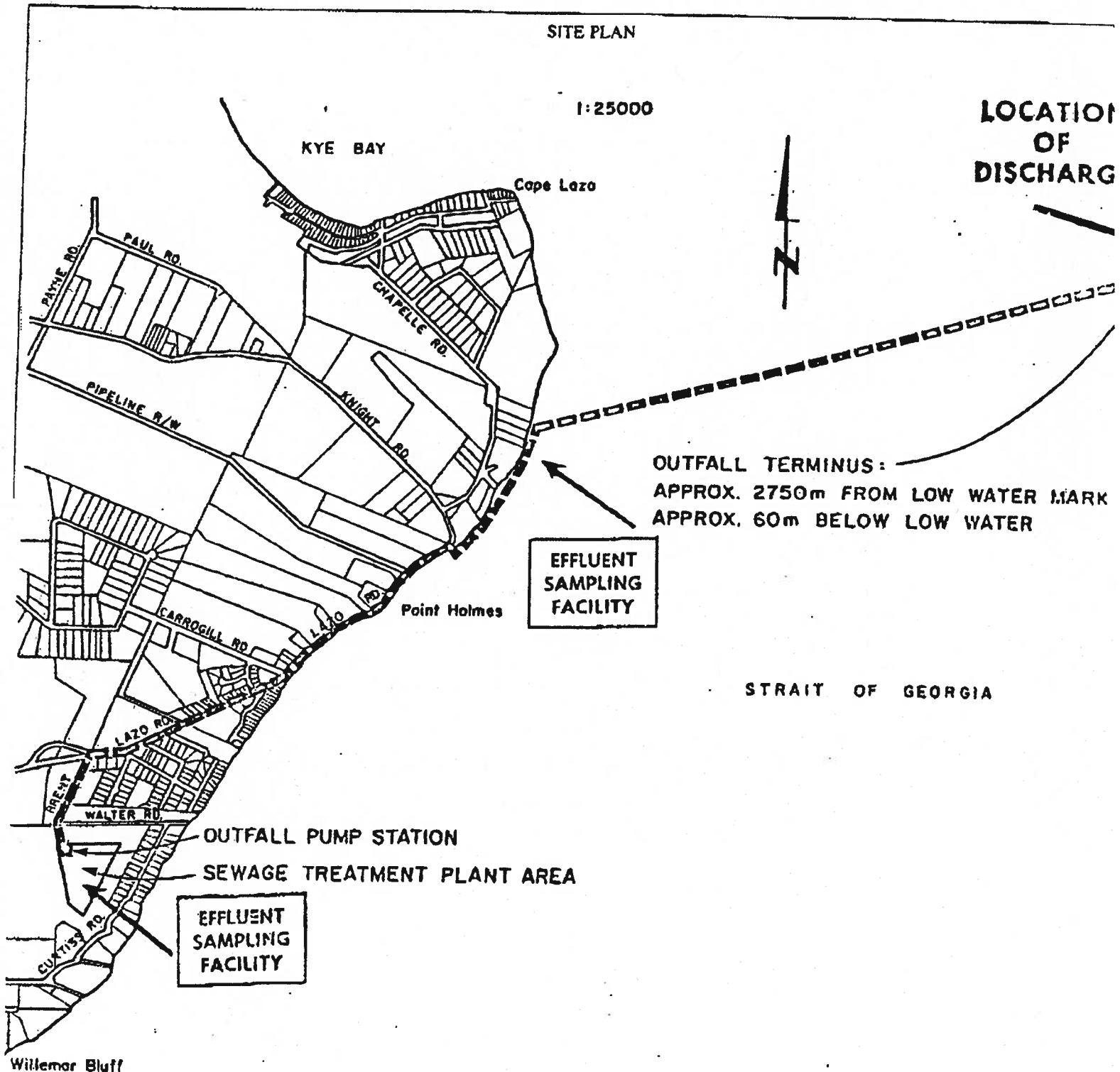
RAB 10/07/85



Province of
British Columbia

Ministry of
Environment

WASTE MANAGEMENT BRANCH

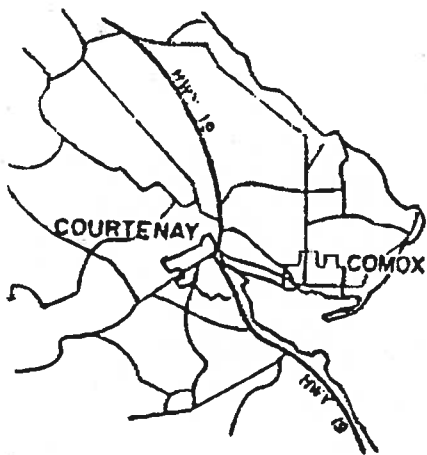


ASSOCIATED ENGINEERING SERVICES LIMITED

DRAWING: V41E-21-001

LOCATION MAP

LOCATION OF DISCHARGE



STRAIT OF GEORGIA

REG. DISTRICT OF COMOX-STRAATHCONA

(Name of applicant(s))

(Date)

(Signature of applicant(s) or agent)

JUL 23 1985

(FOR OFFICE USE ONLY)

Date Issued

Regional Waste Manager

Date Amended

Appendix A-1

to Permit No. PE-5856

Approval No.

1987

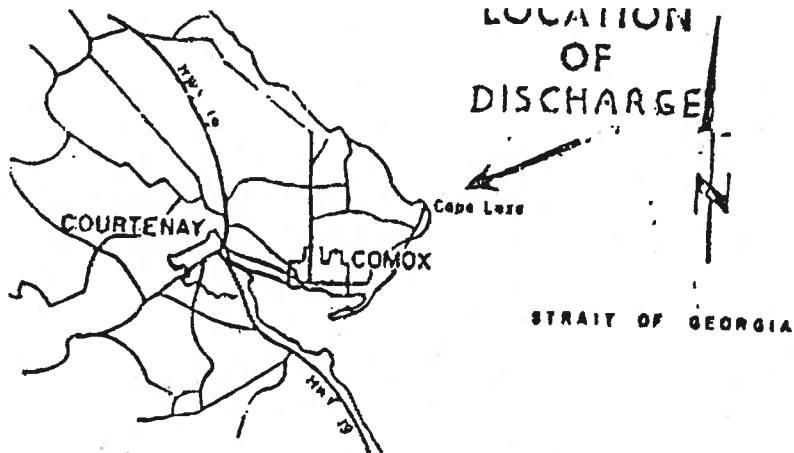
04/07/85

127-85

DAB 16/07/85



LOCATION OF DISCHARGE



(Name of applicant(s))

(Date)

(Signature of applicant(s) or agent)

JUL 23 1985

(FOR OFFICE USE ONLY)

Date Issued

L. E. Oldham
Regional Waste Manager

Date Amended

Appendix A-1

to Permit No. PE-5856

Approval No.

Date issued: _____

Date amended: _____

M. C. U. A.
Regional Waste Manager

~~th~~ 04/07/85
~~12.7.85~~
RMP 16/07/85

11 2040



MINISTRY OF ENVIRONMENT
WASTE MANAGEMENT BRANCH

APPENDIX C-1
PE-5856

to Permit No.

I. DISCHARGE MONITORING

A. COMPOSITE SAMPLING

The Permittee shall install a suitable sampling facility and obtain a composite sample of the effluent once every month. The sample is to consist of four grab samples taken over a four-hour period at maximum flow and mixed to form a single sample for subsequent analysis. Proper care should be taken in sampling, storing and transporting the sample to adequately control temperature and avoid contamination, breakage, etc.

B. ANALYSIS

Obtain analysis of the sample for the following parameters:

5-day biochemical oxygen demand
Total suspended solids

Analyses are to be carried out in accordance with procedures described in the second edition (February, 1976) of "A Laboratory Manual for the Chemical Analysis of Waters, Wastewaters, Sediments and Biological Materials," or by suitable alternative procedures as approved by the Regional Waste Manager.

Copies of the above mentioned manual are available from the Environmental Laboratory, 3650 Wesbrook Crescent, Vancouver, British Columbia, V6S 2L2, at a cost of \$10.00 and are also available for inspection at all Waste Management offices.

C. FLOW MEASUREMENT

Provide and maintain a suitable flow measuring device and record once per day the effluent volume discharged over a 24-hour period.

100

Date amended:

Regional Waste Manager

~~TS~~ 04/07/85
~~TS~~ 12.7.85
PMB 16/07/85

SV 2096 or



MINISTRY OF ENVIRONMENT
WASTE MANAGEMENT BRANCH

APPENDIX C-2
to Permit No. PE-5856

D. REPORTING

Maintain data of analyses and flow recordings for inspection and annually submit the data, suitably tabulated, to the Regional Waste Manager. The first report is to be submitted by January 31, 1986.

II. RECEIVING ENVIRONMENT MONITORING

The Permittee shall complete the receiving environment monitoring program approved by letter dated January 8, 1982. The program includes collection and analysis of samples, tabulation and interpretation of the results and submission of a report to the Regional Waste Manager by December 31, 1985.

Date amended:

Regional Waste Manager

~~11/1~~ 04/07/85

~~12~~ 12 7 85

SS 20946

~~11/1~~ 16/07/85

FILE: PE-5856
DATE: May 9, 1985
FROM: H. Faust

RESUME FOR AMENDMENT WORK ORDER

Work order on behalf of the Regional District of Comox-Strathcona
dated June 29, 1984

1. APPLICATION

The work order was initiated upon receipt of notification from the Regional District of Comox-Strathcona that the official address was changed from: 4795 Headquarters Road
Courtenay, B.C.
V9N 5W3

to: P. O. Box 3370
Courtenay, B. C.
V9N 5N5

2. AMENDMENTS PROPOSED BY WASTE MANAGEMENT

Waste Management is reviewing the existing documents with the intent to update to the current format and to consolidate the documents. Routine outfall inspection is being proposed.

3. PERMIT

On November 21, 1980, a permit was issued for grit and floatables removal and chlorination prior to discharge via an outfall extending 2750 m from mean low water to a depth of 60 m below mean low water. The discharge of 18 500 m³/D of municipal type sewage was from Courtenay, Comox and CFB Comox. No qualitative effluent parameters were established; however, a receiving environment monitoring program was required.

The permit was appealed by concerned citizens with the hearing convened by the Pollution Control Board on April 7, 8, and 9, 1981. The board adjudication was that "the board upholds the appeal and orders that the point of discharge proposed in Permit PE-5856 be considered an embayed area and that municipal sewage discharged to this area must meet the Pollution Control Objectives of 45 mg/l BOD and 60 mg/l suspended solids. Disinfection of such secondary treated effluent will be required if monitoring indicates a significant danger of shellfish contamination."

The Board's order dealt with four key elements of the permit:

- (a) level of treatment,
- (b) possible further reduction of bacteria content,
- (c) receiving environment--shellfish and

(d) sludge disposal.

The original permit was amended August 17, 1981, to reflect the board order. The amended permit required:

- (a) a secondary treatment plant,
- (b) sludge digestion,
- (c) effluent characteristics of BOD 45/TSS 60, and
- (d) possible effluent disinfection, based on receiving environment monitoring.

Resume--PE-5856

- 2 -

4. HISTORY

An application for municipal type sewage disposal was submitted by the Regional District of Comox-Strathcona, dated March 10, 1980. The application was made following over 5 years of studies and discussions between the Regional District, CFB Comox, Courtenay (PE-258, issued January 9, 1969), Comox (PE-111, issued August 26, 1967), and unorganized sections as far south as Union Bay. CFB Comox, Comox and Courtenay systems were all in the position where major expenditures on their systems were going to be required in the near future. The final result was that CFB Comox, Comox and Courtenay combined under the Regional District to develop one comprehensive system.

A permit was issued November 21, 1980, appealed and amended August 17, 1981, in accordance with board orders (see discussion in item 3 Permit).

As part of the requirements of the permit, the Regional District has incorporated a sludge composting operation into their system, rather than anaerobic digestion.

According to permit inspections, the plant operation is in compliance.

The pre- and post-discharge environmental monitoring sampling and analysis have apparently been completed. The report is yet to be submitted.

The plant has experienced normal start-up problems which have been rectified. There seems to be a persistent odor problem related to this plant and its location to dwellings.

5. ADMINISTRATIVE ASPECTS

As this is a work order for a minor amendment, initiated by a change of address from the permittee, no advertising or circulation (except Waste head office) was done. Advertising and notification of the Regional Managers decision will be done at the appropriate time.

6. POLICY OR OBJECTIVES

The permit conforms to the Pollution Control Objectives for Municipal Type Discharges in British Columbia. As well, it is in accordance with the orders of the Pollution Control Board, arising from an appeal hearing of April 7, 8, and 9, 1981.

7. AGENCY COMMENTS

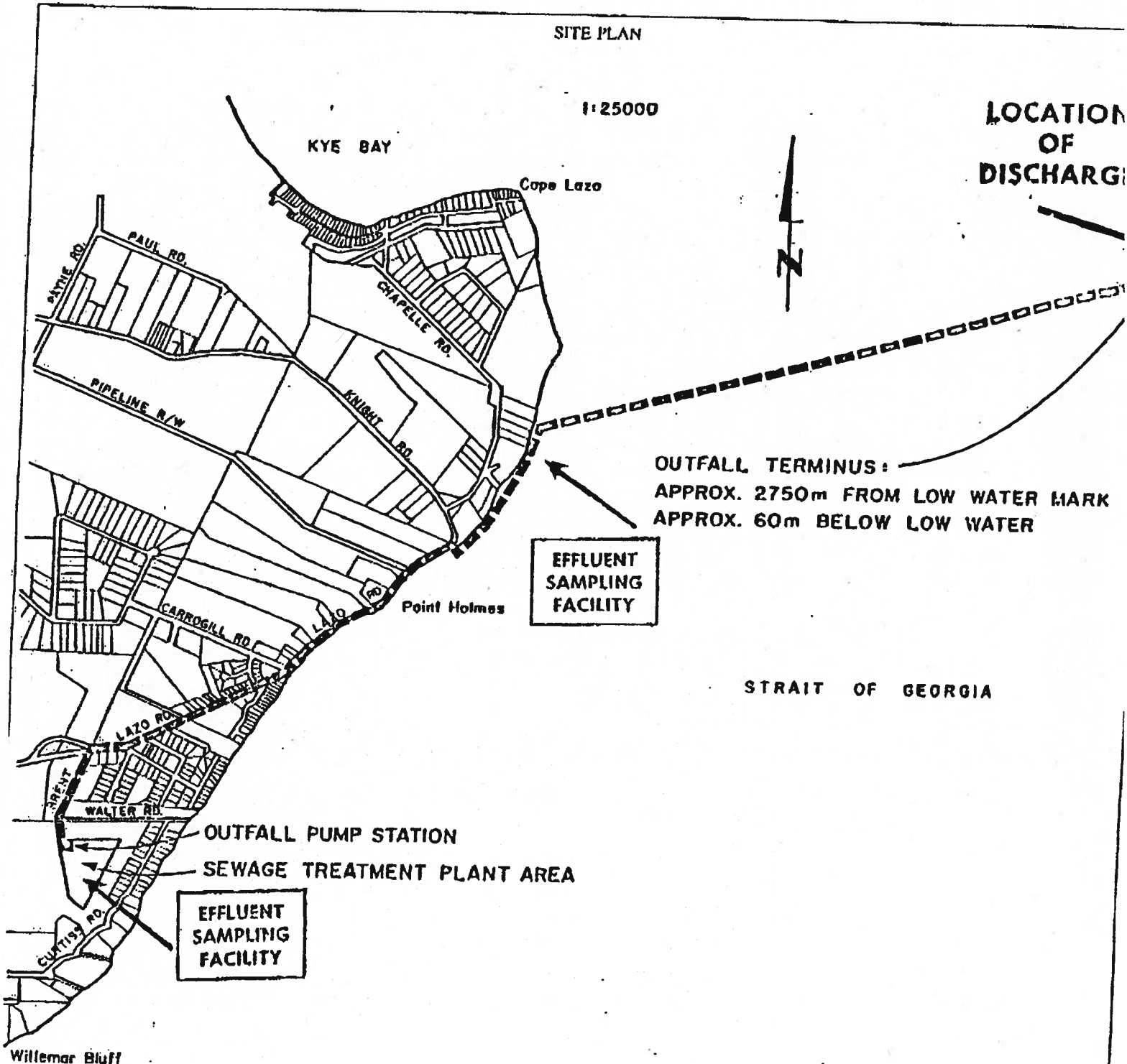
As the various agencies were involved in the adjudication of the permit since this is an amendment of a minor nature and



Province of
British Columbia

Ministry of
Environment

WASTE MANAGEMENT BRANCH



ASSOCIATED ENGINEERING SERVICES LIMITED

DRAWING: V4IE-21-001

OUR FILE 1503.20.6

Regional District of Comox-Strathcona

4795 Headquarters Road. COURTENAY, B.C. V9N 5W3 • Telephone 334-4452

November 30, 1981.

MINISTRY OF ENVIRONMENT

PE-5856

DEC 4 1981

WASTE MANAGEMENT

Mr. H.P. Klassen, P. Eng.,
Assistant Director of Pollution Control,
Ministry of the Environment,
Waste Management Branch,
810 Blanshard Street,
Victoria, B.C. V8V 1X5

Dear Sir:

Re: Effluent Discharge Permit PE5856

Please find enclosed, in slightly different form, the Environmental Monitoring Program we previously recommended, incorporating the requirements outlined in your letter of November 23, 1981.

① We trust this meets the requirements of the Letter of Transmittal of August 17, 1981, and our permit is now complete.

Please advise.

Yours truly,

C.V. Flemming
C.V. Flemming, P. Eng.,
Director of Engineering.

CVF/dh
Encl.

② PNB.
Dept. Response

NAME	DATE	INITIALS
H.P.K.		HK
PNB.		

MEMBER MUNICIPALITIES: Campbell River • Comox • Courtenay • Cumberland • Sayward
Gold River • Tahsis • Zeballos

ELECTORAL AREAS: A - Baynes Sound - Islands • B - Comox North • C - Black Creek - Puntledge • D - Oyster Bay - Buttle Lake • E - Quinsam
F - North Campbell River • G - West Coast - Nootka • H - Sayward - Bloedel • I - Cortes • J - Coast - Discovery

REGIONAL DISTRICT OF COMOX-STRAATHCONA
ENVIRONMENTAL MONITORING PROGRAM
POLLUTION CONTROL PERMIT NO. PE-5856

The following shall be the "Environmental Monitoring Program" undertaken by the Regional District of Comox-Strathcona to satisfy the requirements under Clause B of the Letter of Transmittal of August 17, 1981, in connection with effluent discharge permit PE-5856.

A. Coliform Bacteria

One fecal coliform sample is to be secured from each sampling location one foot below the surface on four successive days quarterly for one year before discharge commences and one year afterwards. Samples shall be taken at the locations indicated on the sketch attached prepared by Associated Engineering Services Ltd. and numbered V41E-002. Samples will be taken only by a qualified experienced technician and will be analyzed by the Provincial Lab if their services are available, and, if not, by a reliable commercial laboratory.

B. Heavy Metal Testing

E.V.S. consultants will be contracted to conduct two heavy metal sediment tests. One would be conducted approximately six months prior to the commencement of effluent discharge and the second would be done approximately one year after discharge has commenced. If there is any indication of an increase in heavy metal deposits, these tests will continue at least annually and more frequently if thought advisable.

C. T.D.S. & B.O.D.

These tests will be taken daily when the disposal plant is manned by the plant operator and will be checked monthly by the Ministry of Environment, as required.

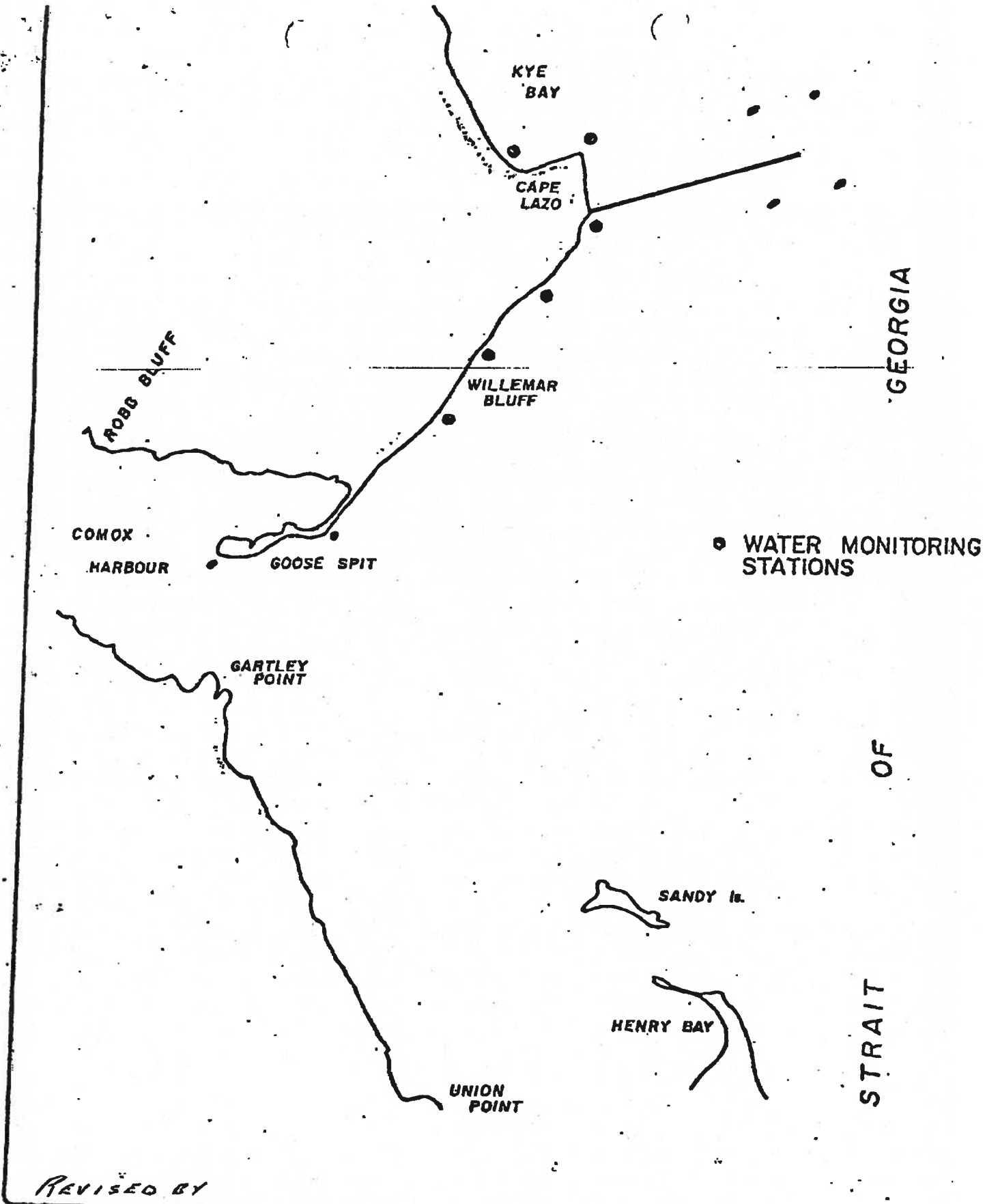
D. Benthic Fauna

Shellstock samples shall be taken from two locations on each side of the outfall alignment once each winter and once each summer, one year before discharge of effluent commences and one year afterwards. Shellstock may be clams or oysters but species should not be mixed between individual samples. These samples will be selected by the Federal Environmental Protection Service and analyzed in their lab or a competent commercial lab.

E. Sludge Build-Up

The Environmental Protection Service will undertake a visual inspection of the diffuser area approximately one year after the commencement of effluent discharge. Special consideration will be given to the possible build-up of sludge in the area of the diffuser and any effect the discharge may have on the benthic flora in the diffuser area.

An annual report shall be made to the Waste Management Branch commencing one year after the commencement of discharge of effluent.



REVISED BY

CLIENT/PROJECT REGIONAL DISTRICT OF
COMOX-STRATHCONA. REGIONAL
SEWERAGE SYSTEM

ASSOCIATED
ENGINEERING
SERVICES LTD

SUBJECT

MONITORING STATIONS

APPROVED *B. Sharp*
DATE JULY 1981

SCALE N.T.S

DWG No



Province of
British Columbia

Ministry of
Environment

Waste Management Branch
810 Blanshard Street
Victoria
British Columbia
V8V 1X5
Phone: 387-1161

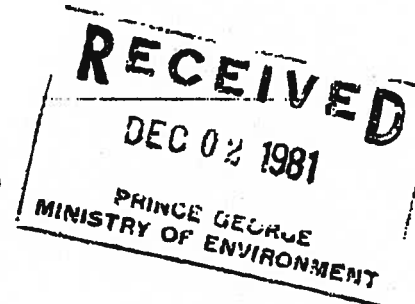
KE

9/11

YOUR FILE
OUR FILE PE-5856

November 23, 1981

Mr. C. V. Fleming, P. Eng.,
Director of Engineering,
Comox-Strathcona Regional District,
4795 Headquarters Road,
Courtenay, B.C.
V9N 5W3



Dear Sir:

Re: Environmental Monitoring. Pollution
Control Permit PE-5856
Regional District of Comox-Strathcona

We have reviewed the monitoring proposal contained in your letter of September 6th.

~~The monitoring stations as depicted on AESL Sketch V41E-002 for water quality are satisfactory.~~ One fecal coliform sample is to be secured from each sampling location one foot below the surface on four successive days quarterly for one year before discharge commences and one year afterward.

Shellstock samples should be taken from at least one and preferably two locations on each side of the outfall alignment on one occasion each for summer and winter one year before and one year after discharge commences. Shellstock may be either oysters or clams but species should not be mixed between individual samples. EPS would be the ideal sampling agency since they are appropriately equipped. Otherwise a knowledgeable commercial lab should be employed.

The remaining items B, C and E would give a satisfactory overview of plant performance and environmental effects and we would encourage you to proceed with this work.

Yours very truly,

(BARDAL:ny) Coastal Unit

cc: G.E. Oldham
Vancouver Island Region

H. P. Klassen, P. Eng.
Assistant Director of Pollution Control

NOTICE OF AN AMENDMENT TO PERMIT NO. PE-5856
ISSUED UNDER THE PROVISIONS OF THE WASTE MANAGEMENT ACT,
S.B.C. 1982, c.41, IN THE NAME OF:
THE REGIONAL DISTRICT OF COMOX-STRATHCONA _____

Take notice that amendment to Permit No. PE-5856 for a municipal sewage discharge located at Comox has been issued. The amendment consists of a change of address from 4795 Headquarters Road, Courtenay V9N 5W3 to P.O. Box 3370, Courtenay, British Columbia V9N 5N5 and the addition of an outfall inspection requirement.

A copy of the amended Permit may be viewed at Waste Management Ministry of Environment, 2569 Kenworth Road, Nanaimo, B.C. during normal business hours.

Dated at Nanaimo this 23rd day of July 1985.



G.E. Oldham, P.Eng.
Regional Waste Manager.

~~HLF~~
file

FILE NOTE

Date: May 21, 1985

File: PE-5856

Re: Amendment of PE-5856

May 17, 1985: Met with Craig Flemming, Director of Engineering, Regional District of Comox-Strathcona. To note:

1. No objections to our adding an outfall inspection clause (once/5 years) to the Permit. The Regional District or EPS do it as a matter of course anyway. Agreed.
2. The receiving environment monitoring program required in the Permit (November 10/80 directive, amended August 17/81) as outlined in letter dated November 30/81 (Flemming to Klassen) has been completed. Regional District of Comox -Strathcona is awaiting results of sediment/shellfish analyses which were carried out by EPS earlier this year, after which the pre and post discharge results will be collated. Advised we would leave the monitoring program requirement in the permit, noting that the results of the program outlined in the November 30/81 letter are to be tabulated and interpreted and submitted in a report by December 31/85. Agreed.



J. O. Finnie
Head, Municipal Section
Waste Management

JOF/ekd

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The OIT certificate shall be valid for fifteen (15) months from the date of issue. Prior to the expiry date of the OIT certificate, but not sooner than twelve (12) months from the date when the OIT commenced facility operation, the OIT shall successfully complete a Class I certification examination in order to continue to operate at the facility.

Chief Operator: Level II or higher

If the facility is classified by the BCWWOCPS at Level II or higher, the Permittee shall designate at least one operator to be the "Chief Operator" of the facility by December 1, 1996. The "Chief Operator" shall be certified at a Class II level, at a minimum.

After December 1, 1996, no person shall have "Direct Responsible Charge", as defined by the BCWWOCPS, of a municipal wastewater treatment facility classified at Level II or higher unless they possess a valid operator's certificate not more than one level below the classification level of the facility.

Chief Operator: Level III and IV

If the facility is classified by the BCWWOCPS at Level III, the Permittee shall designate a "Chief Operator", certified at a Class III level by December 1, 1998.

If the facility is classified by the BCWWOCPS at Level IV, the Permittee shall designate a "Chief Operator", certified at a Class IV level by December 1, 1998.

All other terms and conditions of Permit No. PE-5856 remain in full force and effect. If you have any questions regarding this amendment please contact John Finnie at 751-3183.

Yours truly,

Original Signed By

R.J. Driedger
Deputy Director of Waste Management

cc: Ted Oldham
BCWWOCPS