



NOTICE OF INTENT TO ISSUE OPERATIONAL CERTIFICATE  
ME-18363 UNDER THE PROVISIONS OF THE  
*ENVIRONMENTAL MANAGEMENT ACT*

Take notice that the Director intends, a minimum of 30 days after the date of this publication, to issue Operational Certificate ME-18363 to the Dockside Green Community Association for the existing Dockside Green Development located at Victoria British Columbia. The terms of the draft operational certificate are consistent with the Capital Regional District's approved Liquid Waste Management Plan and establish the minimum operating requirements for the facility.

A copy of the draft operational certificate may be viewed at the Dockside Green Community Association office located at Suite 101 - 1117 Wharf Street, Victoria, British Columbia, and at the Capital Regional District office at 625 Fisgard Street, Victoria, British Columbia during normal business hours.

Any comments regarding the draft operational certificate must be sent to the Regional Manager, Environmental Protection, Ministry of Environment, 2080A Labieux Road, Nanaimo, BC V9T 6J9, within 30 days of the date of this publication. A copy of any comments should also be sent to the Dockside Green Community Association.

Dated at Nanaimo, British Columbia on July 11, 2007

**Operational Certificate  
ME-18363**

*Under the Provisions of the Environmental Management Act*

**Dockside Green Community Association  
1300 – 777 Dunsmuir Street  
Vancouver, British Columbia  
V7Y 1K2**

is authorized to discharge reclaimed water to: the ground from a landscape drip irrigation system; a piping system for toilet flushing; an industrial process water supply system; a landscape impoundment; and reclaimed water and stormwater runoff from the landscape impoundment to Victoria Harbour located at Victoria, British Columbia, subject to the conditions listed below. Contravention of any of these conditions is a violation of the *Environmental Management Act* and may result in prosecution.

**1. AUTHORIZED DISCHARGES**

1.1. This section applies to the discharge of reclaimed water from a sewage treatment facility. The site reference number for this discharge is ???????.

1.1.1 The maximum authorized rate of discharge from the sewage treatment facility is 380 m<sup>3</sup>/d.

1.1.2 The authorized discharge period is 365 days per year.

1.1.3 The characteristics of the discharge from the sewage treatment facility to the landscape impoundment shall not exceed:

pH	- 6 to 9 pH Units
Total Suspended Solids	- 5 mg/L
Turbidity – 24 hour average	- 2 NTU
- maximum	- 5 NTU
5-day Carbonaceous	
Biochemical Oxygen Demand	- 10 mg/L
Total Nitrogen (as N)	- 10 mg/L

Date issued:  
Date amended:  
(most recent)

Ammonia Nitrogen (as N)	- 1 mg/L
Total Phosphorus (as P)	- 1 mg/L
Fecal Coliform – median of last 7 samples	- 2.2 CFU /100 mL
- maximum	- 14 CFU/100 mL

- 1.1.4 The characteristics of the discharge from the sewage treatment facility to the toilet flushing system, landscape and balcony planter drip irrigation system, and the industrial process water supply shall not exceed:

pH	- 6 to 9 pH Units
Total Suspended Solids	- 5 mg/L
Turbidity – 24 hour average	- 2 NTU
- maximum	- 5 NTU
5-day Carbonaceous Biochemical Oxygen Demand	- 10 mg/L
Total Nitrogen (as N)	- 10 mg/L
Ammonia Nitrogen (as N)	- 1 mg/L
Total Phosphorus (as P)	- 1 mg/L
Fecal Coliform – median of last 7 samples	- 2.2 CFU /100 mL
- maximum	- 14 CFU/100 mL
Total Chlorine Residual	- not less than 0.5 mg/L

- 1.1.5 The authorized works are sewage collection works, emergency bypass and overflow works to the City of Victoria sanitary sewer system, a tertiary sewage treatment plant with inlet screening, screenings handling facilities, flow equalisation, ultra-filtration membrane bio-reactor with an anoxic section for nitrogen removal, chemical addition for phosphorus removal, ultra violet disinfection facilities, chlorination facilities, sludge dewatering facilities, sludge handling facilities, odour control facilities, standby power generation facilities, reclaimed water emergency storage, pumping facilities, redundancy equipment, a diffuser and dissipation berm on the Victoria Harbour shoreline, a reclaimed water distribution system, backflow prevention devices on the potable water supply line to each building in the development, an engineered landscape impoundment, and related appurtenances approximately located as shown on Site Plan A.

- 1.1.6 The authorized works must be completed and in operation before discharge commences.

- 1.1.7 The location of the facilities from which the discharge originates is Lot 1, Plan VIP82315, District Lot 119, Esquimalt District.

- 1.1.8 The location of the discharge through the diffuser and dissipation berm at Victoria Harbour is described as Lots 5 and 6, Plan VIP53097, District Lot 119, Esquimalt District.

## 2. **GENERAL REQUIREMENTS**

### 2.1. **Maintenance of Works and Emergency Procedures**

Dockside Green Community Association shall inspect the authorised works regularly and maintain them in good working order. In the event of an emergency or condition beyond the control of Dockside Green Community Association which prevents effective operation of the approved method of pollution control, Dockside Green Community Association shall notify the Regional Environmental Protection Manager and the Chief Medical Health Officer, Vancouver Island Health Authority immediately and take appropriate remedial action.

### 2.2. **Bypasses**

The sewage treatment facility shall have provision to be bypassed manually or overflow automatically to the City of Victoria sanitary sewer system. Treated sewage that does not meet the characteristics of discharge stipulated in Sections 1.1.3 and 1.1.4 above shall immediately be diverted back to the influent end of the sewage treatment plant for additional treatment or to the City of Victoria sanitary sewer system until such time as the standards are met. The discharger shall record each occasion of diversion to the City of Victoria sanitary sewer system, including the date, duration, and volume of the diverted effluent.

The discharge of reclaimed water which has bypassed the authorised treatment works is prohibited except to the City of Victoria sewer system or unless the approval of the Regional Environmental Protection Manager is obtained and confirmed in writing. During start-up, the reclaimed water shall be discharged to the City of Victoria sewer until stable operation is achieved for a period of one month.

### 2.3. **Process Modifications**

The Regional Environmental Protection Manager shall be notified prior to implementing changes to any process that may adversely affect the quality and/or quantity of the discharge.

### 2.4. **Plans - New Works**

Plans and specifications of the works authorized in Section 1.1.5 shall be certified

by a qualified professional licensed to practice in the Province of British Columbia, and shall be made available to the Regional Environmental Protection Manager for inspection at any time. A qualified professional must certify that the works have been constructed in accordance with the plans before discharge commences.

2.5. **Facility Classification and Operator Certification**

Dockside Green Community Association shall have the works authorized by this operational certificate classified (and the classification shall be maintained) by the Environmental Operators Certification Program Society (Society). The works shall be operated and maintained by persons certified within and according to the program provided by the Society. Certification must be completed to the satisfaction of the Director. In addition, the Regional Environmental Protection Manager shall be notified of the classification level of the facility and certification levels of the operators, and changes of operators and/or operator certification levels within 30 days of any change.

Alternatively, the works authorized by this operational certificate shall be operated and maintained by persons who Dockside Green Community Association can demonstrate to the satisfaction of the Director, are qualified in the safe and proper operation of the facility for the protection of the environment.

2.6. **Screenings and Sludge Management**

Screenings and sludge generated by the sewage treatment facility shall be managed in a manner approved by the Regional Environmental Protection Manager and in accordance with the sludge management strategies developed in the approved Capital Regional District Core Area Liquid Waste Management Plan.

2.7. **Posting of Diffuser and Dissipation Berm**

A sign shall be erected along the shoreline at the dissipation berm above high water mark. The sign shall identify the nature of the works. The wording and size of the sign shall be acceptable to the Director.

2.8. **Diffuser Inspection**

Dockside Green Community Association shall have a visual inspection of the diffuser carried out once each year by an independent qualified professional to ensure it is in good working condition. An inspection report shall be submitted to the Regional Environmental Protection Manager within 30 days after the inspection date.

2.9. **Odour Control**

Should objectionable odours, attributable to the operation of the sewage treatment facility, occur beyond the property boundary, as determined by the Regional Environmental Protection Manager, measures or additional works will be required to reduce odour to acceptable levels.

Dockside Green Community Association shall meet annually for three years, and thereafter as deemed necessary, with representatives of the neighbourhood to consider any odour related issues associated with the treatment facility, to assess the effectiveness of the odour control facilities at the plant and to discuss and establish appropriate remediation strategies, if necessary.

2.10. **Storage and Standby Power Facilities**

Dockside Green Community Association shall provide facilities to ensure that untreated effluent is not discharged to the environment from the sewage treatment works during power outages or plant shut downs. Influent equalization storage shall be provided to retain flows for typical interruptions. In the event of prolonged power outages or plant shut downs influent will overflow to the City of Victoria sanitary sewer system as specified in Section 2.2.

Dockside Green Community Association shall provide auxiliary power facilities to maintain critical process operations including influent screening, equalization tank aeration, reclaimed water emergency storage tank aeration, reclaimed water pumping, residual chlorination, odour control and process monitoring in the event of power outages or plant shut downs.

During power outages, ultra filtration membrane permeate extraction facilities and ultra violet disinfection facilities will be temporarily shut down and partially treated sewage will not be released to the reclaimed water emergency storage tank.

2.11. **Effluent Upgrading**

Based on receiving environment monitoring data and/or other information obtained in connection with this discharge, Dockside Green Community Association may be required to provide additional treatment facilities.

2.12. **Operating Plan**

Dockside Green Community Association shall develop an operating plan, to be prepared by a qualified professional, which provides for the proper operation and maintenance of sewage conveyance, treatment, disposal and reclaimed water use facilities including the monitoring details, emergency procedures, and staff

education and certification. The plan shall be certified by the qualified professional that it is adequate for the works being installed and the proposed reclaimed water uses. The plan shall be submitted to the Regional Environmental Protection Manager for review 30 days before construction of the sewage facility.

### 2.13. **Reclaimed Water Use**

Reclaimed water facilities for toilet flushing, the landscape impoundment, irrigation and the industrial water supply system shall be designed and operated in accordance with the Municipal Sewage Regulation Appendix 3 to Schedule 7 "Health And Safety Criteria For Use Of Reclaimed Water" and the "Code of Practice for the Use of Reclaimed Water"

Dockside Green Community Association shall take measures to restrict users in the development from carrying out on-site plumbing. Plumbing alterations to the reclaimed water and potable water supply works in the development shall only be carried out by a certified plumber(s).

Dockside Green Community Association shall develop reclaimed water user information and communications material related to the use of reclaimed water, and submit the information and communication material to the Regional Environmental Protection Manager and the Chief Medical Health Officer, Vancouver Island Health Authority 30 days before construction of the sewage facility.

Copies of the information and communications material shall be provided immediately to new users and to all users once every year.

## 3. **MONITORING AND REPORTING REQUIREMENTS**

### 3.1. **Discharge Monitoring**

#### 3.1.1 **Flow Measurement**

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

- The total reclaimed water volume discharged from the sewage treatment plant;
- The total reclaimed water discharged from the sewage treatment plant to the industrial water supply system; and
- The total combined reclaimed water and storm water discharged from the diffuser to Victoria Harbour.

3.1.2 **Sampling and Analysis**

**Discharge from Sewage Treatment Plant**

Dockside Green Community Association shall install a suitable sampling facility and obtain a sample of the discharge from the sewage treatment plant in accordance with the following schedule from the date of discharge commencement:

Parameter	Frequency			Type
	First 6 Months	Second 6 Months	After 1 Year	
pH		continuous for all		on-line
Total Suspended Solids		continuous for all		on-line
Turbidity				
- pre-UV disinfection		continuous for all		on-line
- pumped discharge for toilet flushing		continuous for all		on-line
BOD <sub>5</sub>		weekly for all		8-hr composite
Ammonia Nitrogen	weekly	monthly	quarterly	8-hr composite
Nitrite	weekly	monthly	quarterly	8-hr composite
Nitrate	weekly	monthly	quarterly	8-hr composite
Total Kjeldahl Nitrogen	weekly	monthly	quarterly	8-hr composite
Orthophosphate	weekly	monthly	quarterly	8-hr composite
Total Phosphorus	weekly	monthly	quarterly	8-hr composite
Fecal Coliform		daily	for all	grab

**Discharge from the Diffuser into Victoria Harbour**

Dockside Green Limited Partnership shall install a suitable sampling facility and obtain a sample of the discharge from the diffuser to Victoria Harbour. Samples shall be collected on 5 separate sampling dates over a 30 day period, every January and August each year from the date of discharge commencement. The grab samples shall be analyzed for the following parameters

- Fecal Coliform;
- Enterococci;
- Ammonia Nitrogen (as N);
- pH;
- Temperature;
- Salinity.

Proper care is to be taken in sampling, storing and transporting the samples to adequately control temperature and avoid contamination, breakage, etc.

Should any of the parameters listed above exceed the *British Columbia Water Quality Guidelines (Criteria) 2006 Edition* at the diffuser, a receiving environment monitoring program shall be undertaken as described in Section 3.2.

### 3.2. **Receiving Environment Monitoring**

Subject to Section 3.1.2 above, Dockside Green Community Association may be required to carry out a receiving environment monitoring program. The main objectives of the monitoring program are to:

- a) Assess the impact if any on the adjacent harbour water near the diffuser discharge;
- b) Identify components of the marine environment that may be potentially affected by the discharge, and
- c) Establish the need and scope for a long-term monitoring program for the discharge.

Unless otherwise required by the director, the monitoring program shall consist of the following: 3 sampling sites will be established around the diffuser site, on a radius of approximately 10 – 30 metres, as suitable. Samples shall be collected at or just below the surface, on 5 separate sampling dates over a 30 day period, every January and August. The grab samples shall be analyzed for the following parameters:

Fecal Coliform;  
Enterococci;  
Ammonia Nitrogen (as N);  
pH;  
Temperature;  
Salinity.

### 3.3. **Sampling and Analytical Procedures**

Sampling and flow measurements shall be carried out in accordance with the procedures described in the most recent edition of the "British Columbia Field Sampling Manual for Continuous Monitoring and the Collection of Air, Air-Emission, Water, Wastewater, Soil, Sediment, and Biological Samples", or by suitable alternative procedures as authorized by the Director

Analyses are to be carried out in accordance with procedures described in the most recent edition of the "British Columbia Laboratory Methods Manual for the Analysis of Water, Wastewater, Sediment, Biological Materials and Discrete

Ambient Air”, or by suitable alternative procedures as authorized by the Director.

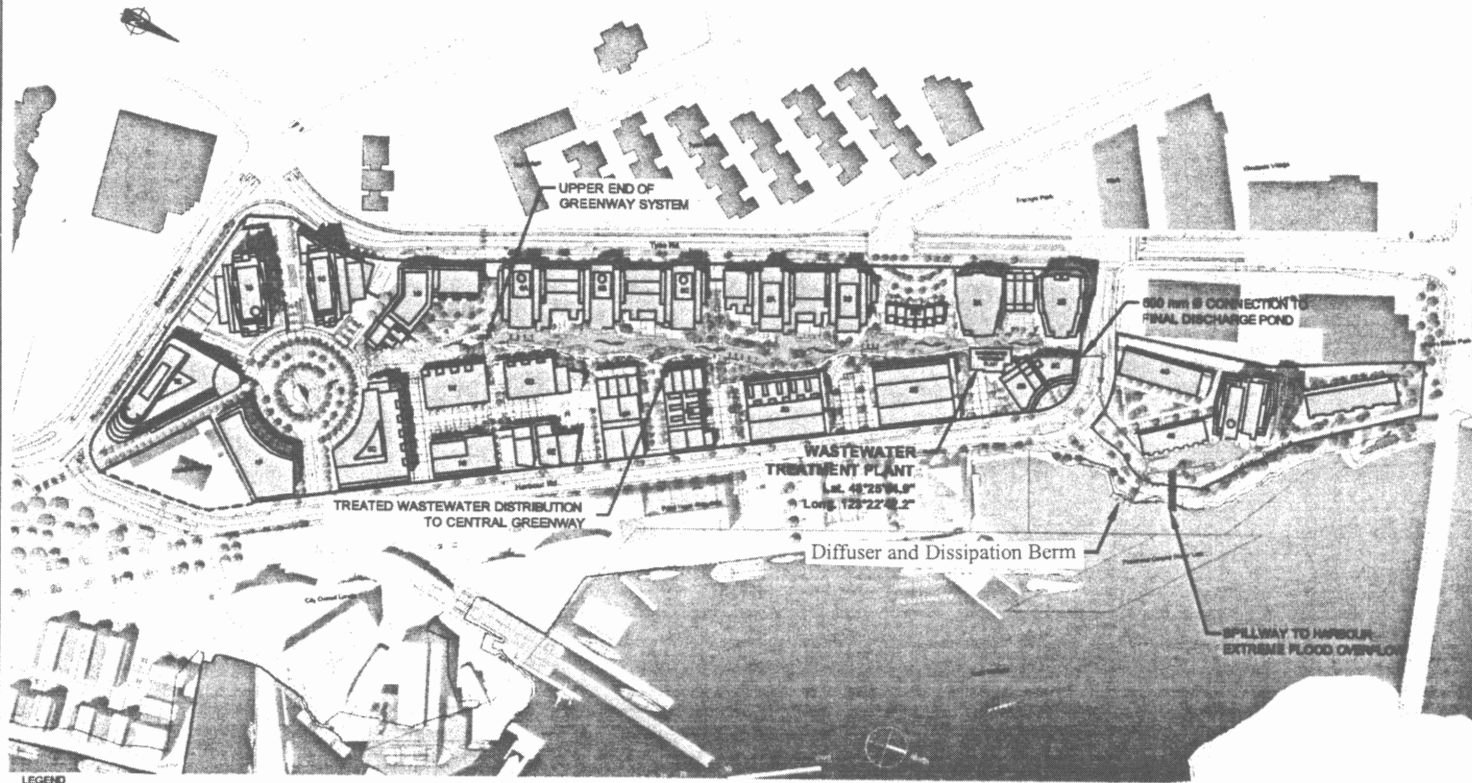
A copy of the above manual may be purchased from Queen’s Printer Publications Centre, P. O. Box 9452, Stn. Prov. Gov’t. Victoria, British Columbia, V8W 9V7 (1-800-663-6105 or (250) 387-6409). A copy of the manual is also available for inspection at all Environmental Protection offices.

### 3.4. Reporting

Maintain data of analyses and flow measurements for inspection and every three months submit the discharge data and any records of diversion to the City of Victoria sewer system, suitably tabulated, to the Regional Environmental Protection Manager and the Vancouver Island Health Authority Land Use Consultant for the previous quarter. All reports shall be submitted within 30 days of the end of the quarter. Quarterly reports should identify any data which exceed the allowable limits as well as describe corrective action (to be) taken to remedy the cause of the exceedence(s).

An annual report shall be submitted to the Regional Environmental Protection Manager which includes a summary and interpretation, including an evaluation of trends over time, by an independent qualified professional of the discharge and receiving environment monitoring results for the previous year. The report shall be submitted within 90 days of the end of each year. Based on the results of this monitoring program, Dockside Green Community Association monitoring requirements may be extended or altered by the Director.

### Site Plan A



LEGEND

- DOCKSIDE GREEN SEWERAGE AREA
- POTENTIAL FUTURE ADDITION TO DOCKSIDE GREEN SEWERAGE AREA
- BUILDINGS USING RECLAIMED WATER FOR TOILET FLUSHING, ROOFTOP, PLANTER AND LANDSCAPE IRRIGATION
- LANDSCAPE IMPONDMENT (GREENWAY) USING RECLAIMED WATER



Scale: 1:2,000

OPERATIONAL CERTIFICATE:  
ME-18363  
Date:

(Office Use Only)

R. Alexander  
for Director, Environmental Management Act  
Vancouver Island Region