2 SITE ASPECTS

2.3 EMISSIONS FROM THE SITE

2.3.3 WATER POLLUTION DURING CONSTRUCTION

EXCLUSIONS
None

OBJECTIVE
Ensure the proper management of construction site discharges.

CREDITS ATTAINABLE
1

PRE-REQUISITES
Observance and compliance with the Water Pollution Control Ordinance and its subsidiary regulation.

CREDIT REQUIREMENT
1 credit for undertaking measures to reduce water pollution during construction as outlined in ProPECC PN 1/94.

ASSESSMENT
Where demolition is included as part of the works it shall be included in the assessment.

The Client shall submit confirmation in the form of a report from suitably qualified person that the works have been carried out without violation of the Water Pollution Control Ordinance and no conviction or complaint about air pollution from the site has been upheld by the Environmental Protection Department.

The Client shall present evidence in the form of specifications and contract documents detailing the requirements to undertake measures to reduce water pollution during construction, as laid down in ProPECC PN 1/94 [1].

The Client’s representative on site shall be responsible for monitoring and reporting the execution of the instructions. The Client shall confirm in writing that the works were conducted in accordance with the recommendations given in ProPECC PN 1/94 as appropriate to the particular circumstances of the site.

BACKGROUND
Construction activity can pose a major pollution threat to the environment if discharges from construction sites are not properly handled. Such discharges are subject to control under the Water Pollution Control Ordinance [2]. The major types of discharges have been identified as follows:

- muddy underground water and bentonite slurries from excavation work and/or bore piling activities;
- run-off from site watering and wheel washing effluent as a result of adopting dust control measures;
- domestic sewage generated from canteen and toilet facilities on site; and
- contaminated surface run-off during wet weather.

Construction site wastewater contains mainly silt, sand and gravel. Indiscriminate discharge of untreated or partially treated wastewater will have a major impact on the receiving water bodies. Common pollution threats include:

- siltation in drainage pipes which may lead to blockage and eventually flooding risks;
- visual nuisance and hazard to the aquatic life e.g. fish gills blocked.

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up causing suffocation to death;
• increase in turbidity of the receiving water which may adversely affect the ecosystem.

Prior to making a discharge, the responsible person for the discharge should submit an application to EPD for a discharge licence. Under the Water Pollution Control Ordinance, it is an offence to discharge polluting matter in a water control zone without a valid license, or to discharge effluent in breach of the terms and conditions specified in the discharge license granted by the Authority. The contractor has the responsibility to ensure compliance with all legislative control requirements. Apart from obtaining a valid discharge license before the commencement of any discharge, the contractor must take all necessary steps to comply with the terms and conditions of the license. This requires due consideration be given at the planning stage of a construction project. Attention should be paid to the wastewater characteristics, minimize the quantity of pollution loads (both in terms of flow and concentration), plan and install proper site drainage to intercept stormwater run-off from outside the side and collect silt carrying site run-off to silt removal facilities; design and construct appropriate wastewater treatment facilities, provide the necessary training to the site personnel as well as constant on-site supervision and monitoring of the environmental performance. All wastewater treatment facilities should be well maintained to achieve the desired performance.

ProPECC PN 1/94 provides guidance on good practice for dealing with discharges from construction sites. A Guide, published by the Hong Kong Construction Association (HKCA) [3], aims to enhance the environmental awareness of the construction industry and to provide steps and practical solutions to identify and mitigate environmental problems which are often encountered on construction sites.