

Drainage Services Department

Ngong Ping Sewage Treatment Works and Sewerage - Effluent Export Pipeline from Ngong Ping Sewage Treatment Plant to Tung Wan

Project Profile

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Attachment :

Environmental Assessment Report for Tung Wan Option
Risk Assessment for Ngong Ping Effluent Pipeline in the Proximity to Shek Pik Reservoir

1 BASIC INFORMATION

1.1 Project Title

Ngong Ping Sewage Treatment Works and Sewerage - Effluent export pipeline from the Ngong Ping Sewage Treatment Plant to Tung Wan.

1.2 Nature of the Project

The proposed effluent export pipeline from the Ngong Ping Sewage Treatment Plant (NPSTP) to Tung Wan forms part of the project entitled, “Ngong Ping Sewage Treatment Works and Sewerage”. The overall objective of the Ngong Ping Sewage Treatment Works and Sewerage (NPSTWS) is to provide sewage infrastructure to serve the entire Ngong Ping area on Lantau Island to meet the demands of both the existing and future developments in the catchment. The key elements of the original scheme of the NPSTWS are:

- i) Construction of a sewage collection system at Ngong Ping;
- ii) Construction of a sewage treatment plant (STP) to provide biological and tertiary treatment with disinfection;
- iii) Provision of sludge treatment and disposal facilities;
- iv) Construction of an effluent export pipeline and a pumping station to convey the treated effluent from the STP to Tai O for discharge.

The EIA study for the original scheme was endorsed by the Advisory Council on Environment on 21 October 2002 and the EIA report was approved by the Director of the Environmental Protection on 12 November 2002. (EIAO Register No.: AEIAR-065/2002)

Apart from the discharge point at Tai O, the possibility of conveying the effluent to Tung Wan for disposal has been raised by some members of the Islands District Council, the Tai O Rural Committee and Tai O residents. This alternative option has been identified in the EIA for the original scheme as a second choice compared to the current selected Tai O route. This Project Profile is for the proposed effluent export pipeline from NPSTP to Tung Wan.

1.3 Name of the Project Proponent

Chief Engineer, Consultants Management Division, Drainage Services Department.

1.4 Location and Scale of the Project

The alignment of the effluent export pipeline to Tung Wan is shown in Drawing No. 23400/EN/82 contained in the attached environmental assessment report for Tung Wan option. The effluent export pipeline starts from the Ngong Ping STP and runs under the carriageways of Ngong Ping Road and Sham Wat Road. At the junction of Sham Wat Road and Keung Shan Road, the effluent export pipeline will turn to the south of Keung Shan Road towards Shek Pik Reservoir Road. The whole section of Keung Shan Road is within the water gathering ground. The effluent export pipeline will be attached to the existing jetty at Tung Wan to convey the effluent to the end of the jetty for discharge into the sea.

1.5 Types of Designated Project Involved

Based on the definition as listed in Schedule 2 of the EIA Ordinance, the effluent export pipeline lies within the boundary of the South Lantau Country Park and is thus a designated project under Category Q.1.

1.6 Name and Telephone Number of Contact Persons

Name: Mr. K W MAK

Post: Senior Engineer/Consultants Management

Tel: 2594 7255

2 OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME

2.1 Project Implementation

The effluent export pipeline to Tung Wan will be constructed together with the Ngong Ping STP and the trunk sewers under one single contract. The implementation of these works simultaneously will ensure a close co-ordination among the works packages which are required to serve the cable car project and the new public toilets at Ngong Ping. The construction works will take place between the third quarter of 2003 and August 2005.

2.2 Interactions with Other Projects

The Tung Chung-Ngong Ping cable car project is scheduled for commissioning in August 2005. Hence, the construction of Ngong Ping Sewage Treatment Works and Sewerage project will be in progress at the same time as construction of the cable car terminal.

The cumulative impacts on traffic and the environment and the availability of suitable construction works areas have been considered previously and have been found acceptable. (EIAO Register No.: AEIAR-065/2002)

3 POSSIBLE IMPACT ON THE ENVIRONMENT

3.1 Outline Process Involved

The effluent export pipeline will operate by gravity. A flow monitoring chamber, for detection of possible leakage of effluent, is proposed to be located at the northwest corner within the existing compound of the Shek Pik Prison. The size of the chamber would be approximately 3.5m x 6.5m.

3.2 Possible Environmental Impacts During Construction and Operation of the Effluent Export Pipeline to Tung Wan

Detailed description of the environmental impacts or issues that may arise during the construction and operation of the effluent export pipeline to Tung Wan is given in the attached environmental assessment report for Tung Wan option.

A section of the effluent export pipeline will be in close proximity to the Shek Pik Reservoir (within 100m of the safety buffer zone of the Reservoir). A detailed assessment of the risk of pipe leakage/bursting on the water quality of the Shek Pik Reservoir is given in the attached risk assessment report.

4 MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

Detailed description of the existing and planned sensitive receivers and sensitive parts of the natural environment which might be affected by the proposed effluent export pipeline to Tung Wan is given in the attached environmental assessment report for Tung Wan option.

5 ENVIRONMENTAL PROTECTION MEASURES TO BE INCORPORATED INTO THE DESIGN AND ANY FURTHER ENVIRONMENTAL IMPLICATIONS

Detailed description of the measures to minimise the environmental impacts arising from the construction and operation of the proposed effluent export pipeline to Tung Wan is given in the attached environmental assessment report for Tung Wan option.

Detailed description of the measures to minimise the risk of pipe leakage/bursting for the section of the pipeline lying within the safety buffer zone of the Shek Pik Reservoir is given in the attached risk assessment report.

6 USE OF PREVIOUSLY APPROVED EIA REPORT

An EIA entitled "Ngong Ping Sewage Treatment Works and Sewerage" has been carried out for the original scheme (i.e. effluent export pipeline to Tai O) of the project. The EIA report was approved without condition by the Director of Environmental Protection on 12 November 2002 (Register No.: AEIAR-065/2002). Some of the findings of the approved EIA report are relevant to the subject proposal. The measures recommended in the approved EIA report, where applicable, will be adopted for the proposed effluent export pipeline to Tung Wan. Details are given in the attached environmental assessment report for Tung Wan.