

Project Profile for Designated Project

Drainage Improvements in Northern New Territories – Package C

1. PROJECT INFORMATION

Project Title

- 1.1 The project title is “Drainage Improvements in Northern New Territories – Package C” (hereafter referred to as the Project).

Purpose and Nature of Project

- 1.2 The purpose of the Project is to alleviate flooding problems and to facilitate future development in Lung Yeuk Tau, Man Uk Pin, Ta Kwu Ling, Ping Che and Lin Ma Hang areas by improving the secondary and local stormwater drainage systems in accordance with the recommendation of the 55CD “Drainage Master Plan Study in the Northern New Territories” (DMP Study).

Name of Project Proponent

- 1.3 The Project Proponent is the Drainage Services Department (DSD).

Location and Scale of Project

- 1.4 The Project comprises the construction of about 8 km of drainage channels and associated works to improve the secondary and local drainage systems in the Lung Yeuk Tau, Kwan Tei, Ko Po, Hung Leng, Loi Tung, Man Uk Pin, Ta Kwu Ling, Ping Che and Lin Ma Hang areas. The proposed location and scale of the drainage improvement works identified to be designated project is shown in Drawing no. 2-1E and Table 1.1 below.

Table 1.1 Scale of Proposed Drainage Works

Proposed Drainage Channel Ref. No.	Location	Detail of Proposed Channel	
		Approx. Length (m)	Average Base Width (m)
MUP03	Drainage channel in Man Uk Pin area	120	2
MUP04 A	Drainage channel in Man Uk Pin area	400	4
MUP04 B	Drainage channel in Man Uk Pin area	180	1
MUP05	Drainage channel in Man Uk Pin area	1000	8
LYT04	Drainage channel in Lung Yeuk Tau area	400	3
LMH01	Drainage channel at Lin Ma Hang	250	3

Number and Types of Designated Project to be Covered by this Project Profile

- 1.5 In accordance with Schedule 2 Part I, Item I.1 – Waterways & Drainage Works of the Environmental Impact Assessment Ordinance (EIAO), the following components of the proposed drainage improvements works in the Indus and Ganges drainage basins are classified as a designated project:
- ? Drainage channels in Man Uk Pin area (MUP03 to MUP05) within 300m of “Conservation Area” landuse zoning;
 - ? Drainage channel in Lung Yeuk Tau area (LYT04) within 300m of site of cultural heritage; and
 - ? Drainage channel at Lin Ma Hang (LMH01) within 300m of a site of specific scientific interest (SSSI).

Name and Telephone Number of Contact Person

- 1.6 All queries regarding the Project can be addressed to:

Mr. Dr. K. C. LUK
2685 6431
Maunsell Consultants Asia Limited

2. OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME

Responsibilities of Parties

- 2.1 DSD is the Project Proponent with overall responsibility for the planning, design, construction and operation of the Project. The Project Proponent will commission an Engineering Consultant to undertake the engineering design work, and an Environmental Consultant to conduct an Environmental Impact Assessment (EIA) Study. The Project will be implemented by Contractor(s) to be appointed by the Project Proponent at the subsequent stage.

Project Time Table

- 2.2 According to the latest programme, the key dates of NNT Package C are as follows:

Date	Activity
Sep 2002	Award of Consultancy
July 2005	Finalizing of Design
Dec 2005	Commence construction
Dec 2009	Complete construction

Interactions with Other Projects

- 2.3 There are no other projects likely to interact with this proposed Project.

3. POSSIBLE IMPACTS ON THE ENVIRONMENT

General

- 3.1 A Preliminary Environmental Review (PER) has been undertaken for the DMP Study to assess the potential environmental impacts of the proposed drainage improvement works. The PER includes the assessment of potential impacts on air quality, noise, water quality, ecology, cultural heritage and solid waste management during the construction and operation phases of the proposed drainage channels in the Indus and Ganges drainage basins. The identified environmental issues associated with the drainage improvement works for channels MUP03-MUP05, LYT04 and LMH01 which are designated projects and require detailed assessment are summarized in Table 3.1.

Table 3.1 Identified Detailed Assessment Studies

Drainage Channel Ref. No.	Recommended Detailed Assessment
MUP03 to MUP05	Ecological assessment
LMH01	Ecological assessment
LYT04	Heritage Impact Assessment

Construction Phase

Ecology

MUP03 to MUP05

- 3.2 There are designated conservation areas in the vicinity of the proposed channels in Man Uk Pin area (MUP03 – MUP05). The proposed drainage channels MUP03, MUP04 and MUP05 are located within a distance of 300m from the boundary of the conservation area. These proposed drainage channels will be aligned across existing agricultural lands. In addition, the proposed secondary drainage channel MUP05 will involve channelization of sections of the upper reaches of the River Indus. This will pose an inevitable loss of the existing habitats and associated vegetation within the construction areas. In order to evaluate the potential ecological impacts arising from these drainage improvement works, a detailed ecological assessment would be required.

LMH01

- 3.3 The streams in Lin Ma Hang were reported to support a rich and diversified fish fauna. AFCD have advised that the University of Hong Kong has recently submitted a proposal for designating the streams in Lin Ma Hang as a SSSI. Hence, a detailed ecological assessment is required to evaluate the potential impacts associated with the construction of the proposed drainage channel LMH01.

- 3.4 The Lin Ma Hang Lead Mines SSSI, located approximately 600m from the proposed drainage channel at Lin Ma Hang, is one of the most important bat colonies in Hong Kong. Due to the small scale of construction activities for LMH01 and the considerable separation distance, significant impacts on the SSSI from construction noise and dust are not anticipated. With the implementation of on-site mitigation measures for noise and dust impacts on the village receivers, construction nuisance on the SSSI would be minimized. It is recommended that these findings be confirmed in the detailed ecological assessment of the construction of LMH01.

Heritage Impact Assessment

- 3.5 The proposed secondary drainage channel LYT04 in Lung Yeuk Tau area is located in the vicinity of the Ma Wat Wai and Lo Wai villages which contain historical buildings. The entrance tower of Ma Wat Wai is a declared monument, and the entrance tower and enclosing walls of Lo Wai are a declared monument. The proposed drainage channel is located outside the villages and therefore the construction works for the drainage channels will not result in any direct impacts to these cultural heritage sites. To minimize any potential adverse impact on these cultural heritage sites as a result of the construction works, a detailed Heritage Impact Assessment (HIA) is required to identify and evaluate the potential impacts and develop appropriate mitigation measures, as necessary.

Operation Phase

- 3.6 It is not expected that the operation of the proposed secondary and local drainage channels would pose any adverse environmental impacts. During normal maintenance, desilting will be required to remove any silt, grit or rubbish deposited within the drainage channel. It is recommended that desilting of the drainage channel be carried out during the dry season whenever possible in order to minimize potential impacts on water quality from sediment suspension.

4. MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

- 4.1 The landuse of the areas within the Indus Basin are designated under the statutory OZPs. The surrounding landuses to the proposed drainage channels MUP03-MUP05 and LYT04 are comprised of agricultural land, village, government institution/community, green belt, residential, comprehensive development area, other specified uses, industrial and conservation area. The surrounding areas to these channels are currently rural in nature and mainly comprise agricultural and village houses.
- 4.2 The proposed alignment of drainage channel LMH01, located within the Frontier Closed Border Area, is through agricultural land towards Lin Ma Hang Road at the downstream end. The surrounding land uses to this proposed channel consist of green belt, other specified uses (NENT Landfill), village and agricultural land.

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

-
- 5.1 To alleviate potential ecological impacts associated with the proposed drainage improvement works, the following mitigation measures are recommended to be implemented on site:
- ? Regular checking should be undertaken to ensure that the work site boundaries are not exceeded and that no damage occurs to surrounding areas.
 - ? Open fires should be prohibited and prevented within the work site boundary during construction.
 - ? Implementation of mitigation measures specified in ProPECC PN 1/94 to control site runoff and drainage at the work site during construction.
 - ? Implementation of noise control measures at the construction site to reduce impacts of construction noise to wildlife habitats adjacent to works areas.
 - ? Implementation of dust control measures at the construction site to minimize dust nuisance to adjacent wildlife habitats during construction activities.
- 5.2 Specific mitigation requirements to alleviate potential ecological impacts will be developed at the detailed design stage, based on findings of the detailed ecological impact assessment. Measures to be examined shall include the adoption of environmental friendly design features in the channel design as far as possible, such as use of grasscrete or reinforced grass channel lining, planting of riparian vegetation along channel embankments, abandoned meander management to provide wetland habitats, use of natural bottom lining, provision of shallow ponds and aquatic planting bays at the base of the channels.
- 5.3 Specific mitigation requirements to minimize any potential cultural heritage impacts associated with the proposed drainage improvement works for LTY04 will also be developed at the detailed design stage, based on the findings of the HIA.

6. USE OF PREVIOUSLY APPROVED EIA REPORTS

- 6.1 No previous EIA report has been approved or submitted for the subject Project.