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(ACE 33/95)
for discussion

PWP Item No. 433CL
Yung Shue Wan Development
Engineering Works, Phase I

Introduction

1. This paper presents the proposed engineering works Phase I, at Yung Shue Wan (YSW). A presentation will be made by the project proponent, the Territory Development Department (TDD), Planning Department (Plan D) and Environmental Protection Department (EPD) in response to an alternative proposal put forward by some representatives of YSW residents.

Background

2. In order to meet the increasing demand of small house developments and basic infrastructural facilities from the local residents of YSW, the layout plan of the area has been prepared and approved by the Development Progress Committee in April 1993 to recommend the provision of basic infrastructure including footpaths, emergency vehicle access, public sewers and stormwater drains within existing and planned developments and to provide land by reclamation for essential government/institution and community (G/IC) facilities and for commercial, residential and rural industrial developments. The project will be implemented in two phases. A plan showing the phasing of works is at Annex A.

3. The proposed works form Phase I of the overall YSW Development project. The purpose is to provide land by reclamation for the essential facilities including a refuse transfer station, sewerage treatment works, loading/unloading areas, parking area for village vehicles, a site designated for industrial (rural workshop) purpose, and a dangerous goods store in order to cope with the rapid development of YSW. In order to enhance the landscape quality of the reclamation area, landscape works will be incorporated into the Phase I works where appropriate for screening purpose and environmental enhancement.

4. According to the final report of the 'Outlying Islands Refuse Transfer Facilities (OIRTS) - Stage I Study' endorsed by the OIRTS Steering Group in February 1994, there is a need to construct refuse transfer stations in seven locations in the Islands District to meet local demands and YSW is one of the chosen sites. Environmental Protection Department (EPD) has programmed to commission the refuse transfer station in mid 1997. In order to match this programme, it is necessary to commence the site formation works for the refuse transfer station and an associated access road as early as possible.

5. The proposed engineering works, Phase I comprise :

- (a) construction of a 410 metre seawall and reclamation of about 1.1 hectares of foreshore and sea-bed;
- (b) construction of a new road linking Yung Shue Wan Main Street and the reclamation area;
- (c) construction of the associated drainage works and other ancillary works;
- (d) improvement to existing public pier; and
- (e) landscape works.

Objections

6. Subsequent to the gazetting of the Phase I works in August 1994 under the Roads (Works, Use and Compensation) Ordinance and Foreshore and Seabed (Reclamations) Ordinance, a number of objections were received. Some objectors put forward a plan proposed by a group of Lamma residents as an alternative to Government's proposal. In January 1995, a public briefing was held with the objectors at YSW to discuss their concerns. Formal replies from the Government were sent to the objectors in early March 1995. In mid March 1995, a further proposal in the form of a report was submitted by a group called "A Better Living Environment" (ABLE). A meeting with the ABLE group was held on 26 May 1995 to discuss the report.

ABLE Report

7. The underlying theme of the ABLE report is that the facilities being proposed by Government are unsuitable for the long-term requirements of Lamma and Government's stated intentions regarding the environment and sustainable development have not been fully addressed. The report referred to a Government publication "A Green Challenge for the Community" on the second review of the 1989 white paper on pollution in Hong Kong, in which the principles for environmental protection were listed. The objectors claimed that the Government's proposed development only incorporated a few of these principles. The main points in the report are summarised as follows :

- (a) The Phase I reclamation works will remove a large section of attractive natural shoreline which is part of a Countryside Conservation Area (CCA).
- (b) The proposed development centralizes waste and refuse management, and will have implications for the environment throughout the village area. The policy of waste management by "Reduce, Reuse and Recycle" was not reflected in the proposed development. In addition, transporting large volumes of domestic refuse to landfill is expensive and energy consuming.
- (c) The decision to replace the septic tanks with a centralised treatment plant has been taken without an in-depth analysis of the present situation, the current problems and the likely future requirements of the settlement. The report opined that septic tanks could work very effectively and the principles of "sustainable development" should be met by an approach involving reducing waste water production, solving specific problems at a small-scale and localized level with simple and low cost treatment methods.

8. Government's comments on the report are as follows :

(a) General Comments

The report contains utopian ideas which would not solve the immediate sanitary and environmental problems in YSW. Translating the ideas into practice involves civic education to the residents and legislation procedures which could be a long term process. The main planning objective for YSW is to provide a cleaner and compatible environment within a timeframe of three to five years. In fact, Government's plan has received strong support from the local community including District Board and Area Committee members.

According to the adopted YSW Layout Plan prepared by Planning Department, only a small portion of the foreshore will be affected by the Phase I project. The affected shoreline does not form any part of the CCA. The proposed reclamation also has not encroached onto the CCA zone. The loss of the natural shoreline measuring about 200 metres could be mitigated by the use of 'ecological friendly' design, for example, the adoption of pitched stone seawalls to facilitate the rehabilitation of marine life.

(b) Waste Management System

The proposed refuse transfer station at YSW is in line with the territory-wide strategy promulgated in the 'Waste Disposal Plan for Hong Kong' which was approved by the Governor-in-Council in 1989. The strategy has been designed to ensure the environmentally-acceptable disposal of waste in the most cost-effective manner available.

Disposal of waste through a refuse transfer station and waste management by "Reduce, Reuse and Recycle" are not mutually exclusive. A refuse transfer station offers opportunities for both reception of pre-sorted recyclable materials and further recycling at the station. Nevertheless, there is a limit to the extent of waste recovery that can be achieved. The limit depends on such factors as the participation rate of the public in waste separation, cost-effectiveness of recycling activities, space/land constraints and availability of markets for recycled products. Recycling activities will not eliminate all the waste generated and a significant amount of waste will still remain for disposal.

There are at present environmental problems with refuse and construction waste disposal at YSW which require immediate attention. It is, therefore, necessary to secure in the first place the long-term refuse transfer facilities and to subsequently develop a waste reduction plan with the ultimate aim to conserve valuable landfill space.

If the Objector's proposal were really implemented, it would be necessary to set up in YSW a composting plant, waste sorting plants, various recycling/baling plants for metal, glass, plastic, paper, wood etc., unloading facility for the recycled products, a construction debris crushing plant and a concrete batching plant. In addition some refuse still has to be disposed of and a refuse transfer station must be provided. Although the objectors said these would be small scale plants, the cumulative effect of these plants on the environment would be very substantial. It is also very doubtful if these small scale plants are financially viable.

(c) Sewage Treatment and Disposal Scheme

Yung Shue Wan is currently unsewered. According to the findings of the Outlying Islands Sewerage Master Plan Study, which was an eighteen months' study, most of the village houses are served by septic tanks and usually only toilet waste is connected to the septic tanks. Sullage, restaurant wastewater and domestic grey water are discharged to the sea via surface channels, thus polluting the marine environment.

Also it was found that due to lack of maintenance, high development density, poor ground conditions, high groundwater table, or a combination of these factors, the existing septic tank and soakaway systems are not working properly and they are potential sources of pollution.

The existing standard of living within the village is such that most houses have direct access to water supply and have flush toilets and washing machines. Approaches based on reducing wastewater production would help to reduce the quantity of wastewater generated, but not to an extent that would eliminate the need of sewerage system and sewage treatment plant. Nevertheless wastewater reduction should be supported as this could reduce the quantity of the sewage resulting in smaller size of sewers and sewage treatment plant.

The sewage treatment plant proposed by the government is a biological plant which will provide secondary level of treatment. Typically this type of plant could remove 80 to 90% of the pollutant. The effluent will be discharged via a short outfall to achieve further dispersion. This will represent a substantial improvement to the marine environment.

In the ABLE report they proposed to replace or upgrade the sub-standard septic tank and soakaway systems by small-scale localised treatment systems to rectify the current problems. However, due to the lack of suitable land and sufficient area for the on-site systems, these so called small-scale localised treatment systems are not practicable.

ENVIRONMENTAL IMPLICATIONS

9. The Director of Environmental Protection Department completed an Environmental Review of the Phase I reclamation project in December 1993, and concluded that no EIA was required for the YSW Phase I reclamation works subject to fill materials being transported by sea and control of site run-off, dust and noise impacts during construction to within established standards/guidelines through implementation of mitigation measures in the contract. EIAs for the refuse transfer station and sewage treatment plant, will be carried out separately. The Phase II reclamation will also be subject to environmental impact assessment in due course.

PUBLIC CONSULTATION

10. The Islands District Board and the Lamma Area Committee were consulted on 25 April 1994 and 25 May 1994. The Board and the Committee endorsed the proposed works. In addition, three public briefings were held on 18 June 1994, 25 June 1994 and 21 January 1995 to consult and explain to the locals on the proposed works. Many villagers supported the government proposal and pressed for early implementation as the provision of the basic infrastructural facilities will improve the general environment of the area.

Advice Sought

11. Members' view are sought on the proposed engineering works, Phase I at Yung Shue Wan.