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For discussion
on 10 February 2000

LegCo Panel on Environmental Affairs

Study on the Ecological Value of Fish Ponds in the Deep Bay Area

Purpose

The purpose of this paper is to brief Panel Members on :

(a) the key findings and recommendations of the captioned Study ; and

(b) the revised "Town Planning Board Guidelines for Application for Developments within the Deep Bay Area" arising from the Study.

Background

2. The primary objective of the Study which was commissioned by the Planning Department was to establish the ecological value of the fish ponds in the Deep Bay Area to wildlife, especially waterbirds in relation to the eco-system of the area (Refer to Study Area in Fig. 1 of Annex 1). The findings were intended to serve as a basis for reviewing the planning and development control concept for the Deep Bay Area, including the relevant TPB Guidelines. The Study included, amongst other things, 12-month field investigations from April 1995 to April 1996 and assessments of the carrying capacity of the fish ponds and the impact of development on them. The Study was completed in

1997 and the revised TPB guidelines were promulgated in April 1999.

Key Findings of the Study

3. A copy of the Executive Summary of the Study is attached at Annex 1. Key findings are summarized as follows:-

(a) fish ponds contiguous to Deep Bay and Mai Po Marshes have intrinsic ecological value in terms of species richness and abundance. They provide food and roosting ground for a wide range of bird species on a seasonal pattern and form a particularly important habitat for herons/egrets;

(b) overall, the fish pond habitat supports at least half the number of waterbirds supported by the Mai Po Marshes Nature Reserve (MPNR) and one-tenth the number of the entire Deep Bay Area;

(c) the birds utilising the fish ponds are not intrinsically different from those utilising the MPNR, indicating that the fish ponds are an integral part of the Deep Bay ecosystem and should be treated as an ecological entity. The birds use different fish ponds at different times of the year making it difficult to justify removal of certain individual fish ponds;

(d) the most significant factors contributing to higher bird usage are larger area of ponds and increasing distances to human disturbance, e.g. open storage and industrial uses, local roads and dispersed

residential development; and

(e) development resulting in fish pond loss would reduce food source to birds and would thus lead to a reduction in bird usage of the ponds. Similarly, disturbance from human activities would also result in a reduction in bird usage.

Key Recommendations of the Study

4. The Study recommends the adoption of a precautionary approach to maintain no-net-loss of the existing fish pond principle. This implies no decline in ecological functions served by the ponds should occur. As fish ponds are wetlands and form part of the Deep Bay wetland ecosystem, alternative uses should also be wetlands providing similar ecological functions as the surrounding fish ponds. This is to allow for the replacement of fish ponds by other wetland habitats and to protect the wetland ecology from irreversible damage. Based on this principle, the Study recommends the following development control measures (Fig. 2 of Annex 1):

(a) all existing and contiguous fish ponds in the Study Area should be conserved and zoned as Wetland Conservation Area (WCA). Within the WCA, no development which involves filling of fish ponds should be permitted, unless it is an essential public infrastructural project. In such cases, wetland compensation of the lost fish ponds should be made;

(b) a 500m wide Wetland Buffer Area (WBA) along the boundary of the

WCA should be provided to protect the ecological integrity of the WCA. Within the WBA, all future development proposals should be supported by ecological impact assessments to prove that the development schemes would have no negative impact on the ecological value of the fish ponds; and

(c) three Target Areas at Lin Barn Tsuen, Wo Shang Wai, and Tai Sang Wai and part of Wing Kei Tsuen within the WBA comprising mainly filled fish ponds with open storage uses and/or container back-up uses are identified to be zoned for "Other Specified Uses (Comprehensive Development to include Wetland Restoration Area)" (OU(CDWRA)) to encourage the removal of such uses and to restore some of the lost wetland habitats. Residential/recreational developments may be allowed within these Target Areas but the developments would be required to include a wetland buffer along their boundaries contiguous with the WCA.

Consideration of Planning and Development Control in the Deep Bay Area

5. The Administration has thoroughly examined the planning implications of the Study recommendations in relation to other relevant factors, including local aspiration and the fact that there is insufficient understanding of the possible contributions that wetland management and enhancement practices can bring to the ecological functions of the wetland in the area. It was considered necessary to strike a balance between development and conservation while maintaining the principle of "no-net-loss of wetland function". It has decided to recommend a modified approach to serve as a basis for planning and

development control in the Deep Bay Area:

(a) to designate all contiguous fish ponds as "Conservation Area (CA)" on relevant Outline Zoning Plans (OZPs) to expressly reflect the planning intention, except the fish ponds in the village settlements of San Tin, Mai Po Lo Wai and Shan Pui, and the fish ponds north of Shan Pui Village. The reason for such exclusion is to make provision for Small House development in these areas to meet the housing demand of indigenous villagers;

(b) to adopt the 500m-wide WBA but with its boundary rationalised to follow existing major roads and physical features;

(c) to rezone the 3 Target Areas as recommended in the Study in order to provide incentives for redevelopment and hence removal of the nuisance uses and restoration of some of the degraded wetland;

(d) to adopt an approach to allow limited private development on a small portion of wetland in exchange for an enhancement scheme and/or a better management of the remaining wetland within the development site, as an alternative to the "CA" zoning, upon satisfactory demonstration on the feasibility, in terms of "no-net-loss" of wetland function, of the development proposals; and

(e) to revise the TPB Guidelines for Application for Development within the Deep Bay Area.

The Revised TPB Guidelines

6. Based on the above modified approach, the TPB revised the Guidelines for Application for Developments within Deep Bay Area (a copy at Annex 2) in April 1999. The revised Guidelines adopt the re-defined WCA and WBA boundaries (Fig. A of Annex 2) to replace the Buffer Zone 1 and Buffer Zone 2 boundaries in the original Guidelines (see Fig. 1 of Annex 1). Key elements of the Guidelines include:-

(a) only uses related to wetland conservation, environmental education and essential public infrastructural projects needed for public purpose would be considered within the WCA, subject to ecological impact assessment and wetland compensation as necessary;

(b) where there are strong justifications and positive measures to enhance the ecological functions of the existing wetland, an approach to allow limited low-density residential/recreational development at the landward fringe of the WCA may be considered subject to ecological impact assessment with an acceptable and feasible wetland enhancement and management scheme resulting in no-net-loss in the wetland function. This approach should include a mechanism to ensure that the long-term management of the wetland could be practically implemented and monitored. This type of proposal would only be dealt with through the process of consideration of objections to outline zoning plans or request for a rezoning of the subject area;

(c) new development/redevelopment within the WBA would need to be

supported by ecological impact assessment to demonstrate that there would be no off-site disturbance impact on the WCA. However, temporary uses and certain uses which are of minor scale or special nature or to satisfy traditional development needs e.g. New Territories Exempted Houses for indigenous Small House development, are exempted from the requirement of ecological impact assessment. Such uses are listed in Appendix A of the Annex 2;

(d) applications for new open storage or container back-up uses including workshops within the WBA would not be supported, in particular, if they involve filling of contiguous ponds. However, if they do not involve pond filling and are located in areas close to the Lok Ma Chau crossing, they may be sympathetically considered on a case by case basis; and

(e) applications for residential/recreational development which could remove the existing open storage or container back-up uses on degraded areas and/or restore lost wetland within the WBA may be given sympathetic consideration.

Conclusion

7. Members are invited to note the findings and recommendations of the subject Study, in particular the revised Guidelines for Application for Developments within Deep Bay Area at Annex 2.

Attachment

Annex 1 - Executive Summary of the Study on the Ecological Value of Fish Ponds in the Deep Bay Area

Annex 2 - Revised TPB Guidelines for Application for Developments within the Deep Bay Area (TPB PG-No. 12B)

Planning Department
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