



Letter of 30 October 1997 from the
Hong Kong Bird Watching Society

Annex A

香港觀鳥會

THE HONG KONG BIRD WATCHING SOCIETY

GPO BOX 12460, HONG KONG. 香港郵政總局信箱12460號

Please reply to:

C Y Lam,

House No. 1,

Hong Kong Observatory,

134A Nathan Road,

Kowloon.

(Fax: 2369 3606)

30 October 1997.

Professor Lam Kin-che,
Chairman,
EIA Subcommittee,
Advisory Council on the Environment,
Hong Kong.

Dear Professor Lam,

Main Drainage Channels for Fanling, Sheung Shui & Hinterland
Environmental Impact Assessment - Final Assessment Report

On behalf of the Hong Kong Bird Watching Society, I would like to voice our considerable concern regarding the proposals contained in the above Report, in particular the extremely limited and sketchy mitigation proposals for the loss of wildlife habitat, especially that for birds, in the Long Valley area.

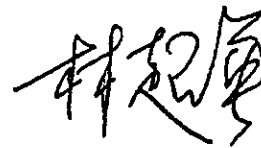
I should perhaps explain that whilst the Hong Kong Bird Watching Society is a voluntary body, it is the Hong Kong Representative of BirdLife International which is one of the principal international organizations concerned with bird protection. In addition, the Hong Kong Bird Watching Society is the main body concerned with monitoring bird status and distribution in the SAR. In the present instance, without wishing to detract from the work of the environmental consultants concerned with the preparation of the Report, you are invited to note that, in addition to Appendix 4, much of the core data contained in Appendix 3 Birds of Long Valley is derived from the Annual Reports and archives of the Bird Watching Society. Our members visit the site on a regular basis, spending an aggregate

of several hundred man-days there during the course of the year. Accordingly, I consider that we can speak with a certain amount of authority regarding the importance of the site for birds.

Our views and suggestions are spelt out in a discussion paper to follow shortly. We anticipate that the EIA Subcommittee will already have identified the major shortcomings of the Report and apologize in advance for stating the obvious. Nevertheless, we would be grateful if our voice could be added to a request for a substantive revision of the Report's contents and a significantly more comprehensive and positive set of proposals prior to any approval being given.

We would be happy to expand or provide more details on any of the points discussed and regret any inconvenience caused by the late arrival of this submission, but we did not have sight of the report until 24 October

Yours sincerely,



C Y Lam
Chairman

c.c. Professor P R Hills
Ms Lisa Hopkinson
Mr Otto Poon Lok-to, OBE
Mr D S M Melville
Dr Ng Cho-nam
Mr Pao Ping-wing, JP
Dr Ho Kin-chung
Mr Lin Chaan-ming
Mr Barrie Cook

**MAIN DRAINAGE CHANNELS FOR FANLING, SHEUNG SHUI & HINTERLAND
ENVIRONMENTAL IMPACT ASSESSMENT - FINAL ASSESSMENT REPORT**

**OBSERVATIONS BY THE HONG KONG BIRDWATCHING SOCIETY FOR
CONSIDERATION BY THE EIA SUBCOMMITTEE, ADVISORY COUNCIL ON
THE ENVIRONMENT**

BACKGROUND

Members of the Birdwatching Society visit Long Valley on a frequent basis to observe the birds of the area and are only too aware of the damage caused to the homes and fields of the farmers there as a consequence of flooding. We cannot, therefore, fail to support the humanitarian aims of the project.

However, whilst we acknowledge the necessity of the prevention of flood damage, we are concerned that the measures proposed fail to take proper account of the value of the habitat to be destroyed, especially to waterbirds, whilst the mitigation measures proposed are parsimonious, of doubtful ecological benefit, unimaginative in scope and far too limited in scale.

Due to the limited time available for comment we have been unable to review the engineering proposals in any detail; our comments are thus limited primarily to the adverse consequences of the proposals contained in the Report with only limited scope for the suggestion of alternatives. In general, we are most disappointed that the Consultants have presented their proposals in such a way that it is almost impossible to ascertain the extent to which other less damaging options were considered and we hope that the EIA Subcommittee will use their influence to review the options available in such instances.

Furthermore, we have restricted our comments to our areas of competence, primarily the bird community, and appreciate that we may have failed to acknowledge the importance of the area for other taxa.

HABITAT VALUE AND CRITICALLY THREATENED SPECIES

The Consultants have presented a clear and detailed assessment of the ecology of the area covered by the project and have usefully combined historical data and new survey results to describe the habitats and species present. Our concern, however, is that in a laudable attempt to be comprehensive, the survey fails to distinguish adequately between those habitats and species for which the area is of critical importance within the SAR and those which, whilst of interest, are represented elsewhere.

In the latter category, in particular, are the Ngam Pin Fish Ponds (para 3.3.10.2) and the Ho Sheung Heung Agricultural Lands (para 3.3.10.3). Whilst we note that a wide range of bird species was recorded, none of these could be said to be threatened within the SAR even were their habitat within the study area to be rendered totally unsuitable. In the case of the birds of the Ngam Pin Fish Ponds, the species recorded are present more consistently and in far higher numbers within the Deep Bay area proper; though we note that these ponds may be of importance for the local egret colonies.

The majority of species recorded in the Ho Sheung Heung Agricultural Lands are, with the exception of those dependant upon freshwater wetlands, common and widespread in the agricultural lands, woodland edge and urban fringe of the SAR. The Consultants have listed a number of species which they note are rare or declining; however, they have failed to note that most of these species are either naturally rare in the SAR (for reasons of world range or habitat preferences) or are rare for anthropogenic reasons operating elsewhere (for example hunting on their breeding grounds in China). In particular, the majority of species listed are forest specialists which do not breed in Hong Kong and for which the main range in Hong Kong (as passage migrants and winter visitors) is in the wooded central New Territories. Occasional records of such species in sub-optimal habitat such as the small woods in the study area are not surprising for mobile organisms such as birds, but the weight attached to these occurrences should be commensurate with their marginal status.

It is our concern that the undue regard paid to these species for which the study area is not particularly important has had two adverse consequences which are apparent later in the Report: an underestimation of the destructive nature of the proposals (because the limited loss of such habitats has been accorded too great a positive weight); and an inappropriate emphasis towards

woodland planting in the proposed mitigation measures (see below).

Whilst we agree with the emphasis accorded to the egret breeding population (para 3.3.10.1), we note that preservation of egrettries can only be accomplished if adequate feeding habitat remains within feeding range of the adult birds. In the present context it is particularly important to establish whether the Ngam Pin Fish Ponds, the rivers themselves, or other sites threatened by the project are of importance as feeding habitat for the breeding egrets or whether they are feeding primarily outside the study area, perhaps in Deep Bay.

Conversely, whilst the study rightly highlights the importance of Long Valley (Tsung Pak Long) for a range of wetland-dependant species, it perhaps does not distinguish as much as it might between those species which utilise a range of wetland types and those for which the pattern of perennial and seasonally-inundated freshwater wetlands, muddy and flooded fields and abandoned agricultural land represents the only or at least the preferred habitat in the SAR. If Table 3.9 (p38) is re-evaluated in this light a somewhat different picture emerges (species listed as wetland dependant in Table 3.9 only):

Species	Preferred habitat (in HK)	Importance of Long Valley
Asiatic Dowitcher	Deep Bay mudflats	Vagrant - insignificant
Baillon's Crake	Freshwater marshes	A major HK site but occurs elsewhere
Bluethroat	Freshwater wetland	The major HK site, smaller numbers widespread in Deep Bay
Banded Rail	Mangroves	Minor site only - main concentration in Deep Bay
Chestnut Bittern	Freshwater marshes	A major HK site - other main sites are Tin Shui Wai and Kam Tin - both threatened
Chestnut-cheeked Starling	Deep Bay	Not wetland dependant - HK is on the edge of this species migration route and numbers passing through the SAR are not significant

Species	Preferred Habitat (in HK)	Importance of Long Valley
Dusky Thrush	Freshwater wetland/pasture	An important site but HK is at the extreme southern edge of this species winter range - does not occur in some winters
Eastern Marsh Harrier	Reedbeds/mangroves/mudflats	Largely restricted to Deep Bay - occasional birds pass over Long Valley but not suitable feeding habitat
Grey-headed Bunting	Grassland/abandoned or fallow cropland	Not wetland dependant but Long Valley one of the three most regular sites (others are Luk Keng and Sha Lo Tung)
Grey-headed Lapwing	Freshwater wetland /damp grassland	One of two regular sites in the SAR. Kam Tin is more important for this species
Japanese [Yellow] Bunting	Grass bunds/fishpond edges/wasteland	An irregular passage migrant, Long Valley is perhaps the most important site away from Deep Bay
Lanceolated Warbler	Grassland/reedbeds/shrubland	Not wetland dependant - concentration of records at Long Valley an artefact of observer coverage
Lapwing	Damp grassland	Along with Kam Tin, one of the two most regular sites in the SAR but HK is at the extreme south of the winter range
Little Whimbrel	Dry short grassland	Vagrant record - insignificant
Painted Snipe	Freshwater wetland	One of only two regular breeding and winter sites in HK - other is Kam Tin
Pheasant-tailed Jacana	Freshwater wetland	Former HK breeding bird became extinct when Fairview Park built on breeding site. Long Valley is most regular site for (few) passage migrants
Ruddy Crake	Freshwater wetland/ reedbeds	Most records from Deep Bay - HK status unclear
Schrenck's Bittern	Freshwater wetland	Scarce passage migrant through HK, Long Valley is most regular site but occurs widely and will utilise very small marshes
Watercock	Freshwater wetland	Apparently bred regularly in HK prior to construction of Fairview Park. One HK breeding record in 1990s (Luk Keng) but Long Valley is most regular passage site
Bright-capped Cisticola	Upland grassland	Vagrant to Long Valley - not significant

It is clear from the foregoing that in terms of the ornithological diversity of the SAR, the primary importance of Long Valley is for those species which are dependant on freshwater wetlands. In particular, it is one of only two breeding sites for Painted Snipe (the other being Kam Tin which is also under extreme threat), and a major site for three species which have been lost as breeding birds to Hong Kong through habitat destruction: Chestnut Bittern, Pheasant-tailed Jacana and Watercock.

We note that para. 3.3.10.5 acknowledges that the loss of the suitable habitat at Kam Tin and Long Valley will "almost certainly" result in the loss of Painted Snipe as a breeding species from Hong Kong - we do not, however, think that this point is given sufficient weight and would emphasise the context - Long Valley is also the favoured site for three other freshwater species which have become extinct as breeding species in Hong Kong due to development in recent years. This fact must be taken into account when mitigation measures are proposed.

MITIGATION MEASURES

Habitat Mitigation Within Engineered Channels (3.5.2)

The level of detail presented in the Report and the time available for comment does not allow for a detailed response. It may be the case that the solutions proposed are, indeed, the optimum achievable but we are surprised that no better solution for the treatment of the intertidal areas has been suggested than concrete or stone pitching. Furthermore, the grasscrete or fabric reinforced grass linings are of only minor value for wetland birds as compared with standard concrete linings. The extent to which this benefit might be realised will depend critically on the planting and management regime of the grasscrete or fabric reinforced sides. Whilst this requires further study, it is suggested that the most appropriate approach would be to permit the development of "rank" grass and other herbaceous or shrubby vegetation. This would allow utilisation by passerines which favour such habitats (in effect mimicking fishpond bunds) including Pallas's Grasshopper Warbler (*Locustella certhiola*), Oriental Reed Warbler (*Acrocephalus orientalis*), Black-browed Reed Warbler (*A. bistrigiceps*), Chinese Bush Warbler (*Cettia diphone*), buntings (*Emberiza* spp), Bluethroat (*Luscinia svecica*) and Siberian Rubythroat (*L. calliope*) as well as certain rarer species which favour such habitat including Manchurian Reed Warbler (*A. tangorum*) and Middendorff's Grasshopper Warbler (*L. ochotensis*) (see para 3.3.10.4).

Further to this, we strongly disagree with the suggestion (para. 3.5.3.2) that the outside embankments of the channels should be wooded. The introduction of a strip of woodland in this location will reduce the value of the embankments for passerine birds which favour wetland edges such as those described above, will inhibit the use of the channels by larger waterbirds such as Ardeids and, especially, Scolopacids, and will merely serve to provide habitat for a range of common and widespread species which favour marginal woodlands, agricultural edge and the urban fringe. We also question whether any real consideration has been given to the mix of tree and shrub species which it is realistic to expect would be established in such a location. Far from providing a belt of semi-natural woodland, it is likely that the conditions would dictate the use of a narrow range of tree species, some exotic, of little wildlife value. It would be far better to permit the colonisation of the outside bunds by a mix of herbaceous and shrubby vegetation as described above and to (at most) restrict tree planting to areas where such planting is contiguous with existing woodland.

Abandoned Stream Meander Management (3.5.4)

As a first, and over-riding, concern we are astonished that the retention of meanders, which are to be cut out of the river system for engineering reasons, is the only substantive measure proposed to ameliorate the adverse impact of the scheme on the wetland ecosystem (see below). Having said this, we are further concerned that there is a wealth of indicative detail (e.g. planting mixes) but no convincing expansion of the way in which the hydrological regime of these areas might be maintained. The example of a "Type 1" meander (the first meander on the River Beas from the Castle Peak Road end) which is described on page 77 is discussed in very general terms and, frankly, does not inspire confidence that the Consultants have modelled the hydrological regime proposed - whilst the other "Type 1" meanders are dismissed in a few lines (pages 85-87).

We cannot comment adequately unless detailed proposals are put forward for each of these "Type 1" meanders: such proposals should contain (at the very least) a detailed statement of finished levels and hydrological regime as well as a coherent argument demonstrating the value of the habitats proposed. As is discussed further below, we would suggest that the meander management should be "goal-orientated" aimed at providing appropriate conditions for defined target species (we acknowledge, of course, that these would not always be birds).

As a general point, however, we are again strongly opposed to the emphasis on "riparian" woodland planting within and around the meanders. We seriously question whether the Consultants have a clear concept of what constitutes riparian woodland in lowland, subtropical, South China. With a very few exceptions, the species proposed in Woodland Mix 2 are a bizarre combination of species readily obtainable from nurseries, species which typically occur on dry hillsides and species which, by virtue of a wide habitat tolerance, will flourish in (but do not require) wet conditions. Whilst we consider that in most cases woodland planting is totally inappropriate in any case, we would suggest, at the very least, that the Consultants be required to provide evidence to show that they are basing their proposals on a community structure which exists within the bio-geographic sub-region.

Related to the foregoing, the management proposals for Type 2 and 3 meanders, which in both cases appear to involve blanket woodland coverage are likely to be of so little ecological benefit that they should properly be "charged" as an amenity cost and not as environmental mitigation measures.

Residual Impacts and Strategic Ecological Gains (3.6)

We can state, quite unequivocally, that if the proposals as presented are implemented there will be *no* strategic ecological gains to birds and we seriously doubt whether such gains will accrue to other taxa. At best some marginal habitat will be created for species such as Ardeids and Scolopacids which will partially compensate for habitat loss. However, as discussed above, none of these species are dependant upon the habitats which will be lost. Contrary to the Consultants' statement, we find no evidence to suggest that the proposed management regime for the meanders "will allow some species to re-establish in the general area". Due to the brief time available for our examination of the Report we may have missed the section where the Consultants list these species and we would be grateful for clarification on this point.

In contrast, the implementation of the proposals appears to do nothing to safeguard the Painted Snipe (which, despite its English name, is not a Scolopacid) from extinction in the SAR (and may, indeed, encourage this process due to over-emphasis on tree planting); nor do the proposals grasp the opportunity presented to recover some of the species diversity which has been lost and make a positive contribution to the ecological diversity of the SAR.

As a corollary, we disagree with the Consultant's recommendation not to pursue a species-specific approach to mitigation and find the argument that such an approach "is not sustainable for a range of taxa that, potentially, could reuse the area" as disingenuous at best. We would suggest that the Consultants are perhaps aware that the proposals are lacking in positive steps which could demonstrably protect the existing community and they are attempting to play-down this deficiency by postulating hypothetical gains.

Finally, we consider that the deferral of consideration of the residual impacts until the conclusion of a proposed study of wetland loss is an abrogation of responsibility, unless the entire drainage study project is placed on hold until this study has been undertaken. The latter approach may, indeed, be the best solution but, if this is not possible, it is imperative to ensure that there is a continuity of habitat protection for freshwater wetland species in the interim. If not, the loss of the freshwater wetland dependant species such as Painted Snipe will already have occurred before the study is undertaken and it will be necessary to plan for the re-establishment of lost species rather than the more straightforward task of managing those that remain.

ALTERNATIVE PROPOSALS

As explained above, time constraints and a lack of access to background data have not allowed us to consider and evaluate a range of alternative options. We also appreciate that the variety of ecological conditions, hydrological regimes and ownership/land use constraints dictate that a blanket approach to mitigative measures is inappropriate. Accordingly, we have restricted ourselves to general points which, we hope, will provide a worthwhile input to debate. We would, however, be happy to expand upon these should circumstances allow and the Subcommittee considers our input useful.

Strategic Approach

We have already explained that we consider that the Consultants have not given overall ecological diversity and the need to avoid species' extinction within the SAR sufficient weight. We recommend that a top-down approach should be followed which highlights those species such as Painted Snipe which are to a great extent dependant upon the study area for their continued survival in the SAR and that management proposals should be geared accordingly, specifically to ensure a sufficient area of temporary and permanently flooded freshwater wetland. General mitigation measures, which are of limited wildlife value such as the tree planting proposals should be given a much lower priority.

Permanent and Seasonal Freshwater Wetlands

The mitigation measures manifestly fail to ensure the retention of sufficient areas of these habitats. It will be necessary to be much more pro-active in identifying areas which are appropriate to be created as permanent freshwater wetlands and this cannot be achieved without acknowledging the need for land-take specifically for this purpose. In this context it

should be appreciated that a small number of larger wildlife sites is likely to be more appropriate than the large number of small residual areas which the present study proposes. Larger areas are likely to support a wider range of species, and especially some of those which are critically threatened, but also offer much greater opportunities for co-ordinated management. As a secondary point resource utilisation for fewer, larger sites is likely to be more efficient. Inevitably such an approach will involve land-exchange, but we do not see why this is not feasible within the context of this project. The identification of such areas should be pursued as a matter of top priority. As well as protecting existing breeding species it should be possible for such areas to provide suitable habitat for the return to Hong Kong of Pheasant-tailed Jacana as a breeding bird.

The dilemma of creating seasonally-flooded wetlands when the overall objective of the project is to prevent seasonal flooding is not an insoluble one - it merely requires a degree of commitment and imagination. One obvious alternative would be to provide a substantially wider area within the embanked zone than is required for the maximum water load. This larger area would then form a marsh zone which would be flooded at times of high water levels but which would remain in a semi-natural condition and could form an ideal breeding site for Painted Snipe and possibly Watercock. One of the most important wetland reserves in the UK, the Ouse Washes, is based on just such a seasonally flooded area between permanent flood control embankments so management expertise for such a system is available. Doubtless, the Consultants would be able to find similar, or perhaps better options given direction and encouragement.

West Rail and the Long Term Future of the Area

We are, of course, aware that the area in question is under threat from the West Rail project, though we find no reference to this in the Report. We understand that the rail proposals are not finalised (or they would, presumably, have been referred to). This situation poses both a problem and an opportunity. It would be most unfortunate to create valuable wetland areas only for these to be destroyed in a few years, conversely it should be possible to utilise the mechanism of the present project as a means of identifying and defining core wildlife areas which would be avoided by ancillary rail developments (proximity to rail lines is not, in itself a major problem). Accordingly, we suggest that some liaison with the West Rail project development team is an essential priority.

EIA for Main Drainage Channels for Fanling, Sheung Shui & Hinterland
ACE-EIA Sub-committee

Ref: The letter from Hong Kong Bird Watching Society dated 30 October 1997

In responding to the comments by the Hong Kong Bird Watching Society (HKBWS), we would like to firstly highlight two key points:

- 1) The proposed river channel alignment does not advance physically into the Long Valley area to any appreciable degree and does not cause any significant direct habitat loss for the birds using this area. After implementation of the project, Long Valley will continue to include freshwater wetlands. Therefore, there will be no significant impact to the bird populations at Long Valley.
- 2) In designing our mitigation measures, we have adopted the approach of restoring or creating an ecosystem which supports a diversity of species natural to this area. We do not aim to favour any specific target species.

The details of the comments by the HKBWS can be summarised into 5 categories. These categories represent major areas of misunderstanding between the concerns of the Society and the objective of this EIA. We have outlined our response to those areas rather than address each specific detail as the comments and our responses occur at a fundamental rather than specific level.

- 1) Scope and approach of the ecological assessment within this EIA.

The Brief for this EIA requires that the project be evaluated with regard to all ecological issues. The broadness of the Brief is intended to ensure that all parts of the ecosystem relevant to the project are assessed. The objective of the ecological assessment was, therefore, to cover the full ecosystem in as much detail as possible and that this EIA has succeeded in this regard seems to be supported by the Society themselves who state that "The consultants have presented a clear and detailed assessment of the ecology of the area....."(para 5). The Society's comments focus solely on the ecology of a few selected bird species, whereas the EIA's mandate is to consider the whole ecosystem.

- 2) Scale and importance of the impact on the bird populations in Long Valley

As stated in the report the most important impact of the project on Territorial (SAR) ecology will be direct loss of the affected river channel and adjacent lowland habitat (Section 3.4.1.1). This is the major ecological impact of the project and as a consequence, this impact attracts the most concern for mitigation.

The project does not advance physically into the Long Valley area to any appreciable degree (after changes made to the alignment and design) and does not, therefore, cause significant direct habitat loss for the birds using this area. The para in 3.3.10.5 that discusses the impact of the loss of Kam Tin and Long Valley is a statement highlighting the dominance of these areas for the Painted Snipe. It is not intended to convey the impression that this project is causing significant loss of this habitat in either valley as this is simply not the case.

While there will be changes in the flooding regime in that the area will no longer be flooded at an 'unnatural' frequency by over-embankment water, we have pointed out quite clearly that this does NOT mean that there will be no 'wet' areas of land on the floodplain *that are seasonally inundated* as a result of the project. Long Valley will continue to include seasonal freshwater

wetlands as a function of poldering and more permanent wet areas as a byproduct of ongoing agricultural activity. We consider that this combination will not result in significant adverse impacts to the bird populations at Long Valley.

3) Purpose and design of the mitigation measures

As stated above, the primary ecological impact of the project is the loss of existing riverine system, which is not the part of the ecosystem used by species like the Painted Snipe. The mitigation measures that have been put in place for this major impact include:

- re-alignment of the channel to avoid habitat loss as much as possible
- replacement of the weirs
- ecologically friendly channel lining as far as is practically possible (the engineering and ecological rationale is provided in Section 3.5.2)
- meander conservation and habitat restoration

The HKBWS has taken exception to the design of the meander management areas as well as to the tree planting in general.

The goal of these meanders has been outlined in section 3.5.4 of the report and details of planting including marsh plant species are provided in Figures 3.12-3.17. First and foremost the abandoned meanders provide natural river sections with natural bottom, slope and bank habitats (Section 3.6). Secondly, because they are being converted in some cases to low-lying marshy areas, they will also provide freshwater marsh habitat for the birds currently dependent on the Long Valley floodplain system. This latter is a plus feature and cannot be logically interpreted as a negative contribution of the project to the birds in Long Valley.

The major goal is to restore riverine habitat that would have existed in the natural system, prior to human impact, as far as is practicable. We do not hold that focusing on a species-specific approach to mitigation is appropriate or likely to provide the greatest ecological benefit for the parts of the ecosystem that will suffer the most impact.

The meanders can promote biodiversity related to natural riverine conditions within a system already much disturbed by man and we see this as a significant contribution to impact mitigation. The meanders and the planted corridor along the embankment have been designed as far as is practicable so that they will provide a complex mosaic of habitat to promote species diversity for taxa that naturally utilise riverine parts of the ecosystem. This approach, as we have shown above, is scientifically defensible and in terms of mitigation for the primary impacts of the project, these designs are logical.

Attributing undue importance to specific species of Long Valley birds implies that they are most affected by this project. The report states quite clearly that this is not the case; there is minimal direct habitat loss and the area will stay seasonally wet. We expect that birds will use the marshy habitat created by the meanders, since it is this type of marshy habitat they range on within the agricultural lands (Section 3.3.10.5).

We do, however, understand the concerns voiced by the Society over tree planting and we will alter this planting regime to allow more space for wetland habitat. This can be easily achieved in the detailed design stage.

4) Importance of the AFD study to the impact mitigation for this project

The reason the AFD study was quoted in the report is because this vehicle is the appropriate one to consider cumulative impacts from a range of projects on wetlands; this can be done within a territory-wide context. *The AFD study is not at all a pre-requisite to the proper mitigation of ecological impacts for this project; these mitigations have been proposed.*

Whilst other projects may, in the future, directly impinge on the area and cause primary significant impacts to the Painted Snipe population, this project is not one of them. Focusing on populations of species that are not primarily or directly impacted by the project produces a bias out of proportion to the assessment of the significant ecological impacts that will occur as a result of this project. These primary impacts have been mitigated as far as practicable within the limits of the project.

Specific projects such as West Rail cannot be assessed within this EIA as they are not official projects at this stage. This is precisely why we have identified the AFD study as a study that will assess cumulative effects of projects on wetland areas in Hong Kong.

5) Alternative proposals

While we agree that a wider channel with a marsh berm could have been an alternative approach to the channel design for this project, our investigations into this and other alternative concepts as outlined in section 1.3 and 2.2 of the report shows why measures such as this could not be practically implemented.

The adoption of a concept such as the marsh berm, would result in a channel so wide to satisfy the flood control requirements that the area of land take (not land exchange) would be extensive, prohibitive and not commensurate with the balance of ecological impact. Removing significant tracts of lowland agricultural habitat which currently support populations such as the Painted Snipe and replacing them with areas of marshy berm within the channel to provide habitat for those same species is counter-productive, as we do not foresee the disappearance of these seasonally wet lowland areas as a result of the project.