



BY E-MAIL ONLY

Planning Department
Cross-boundary Infrastructure & Development Section
16/F, North Point Government Offices,
333 Java Road, North Point, Hong Kong

Civil Engineering and Development Department
New Territories West Development Office
9/F, Sha Tin Government Offices,
1 Sheung Wo Che Road, Sha Tin, Hong Kong
(Email: enquiry@yuenlongsouth.gov.hk)

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Dear Sir/Madam,

**Green Power's Response to
Planning and Engineering Study for Housing Sites in Yuen Long South – Investigation,
Stage 3 Community Engagement Digest**

Introduction

1. Regarding the above-captioned consultation document (the Digest) focused at housing development in Yuen Long South, Green Power appreciates that the Administration has adopted many environmental-friendly guiding principles in preparing the Draft Recommended Outline Development Plan (RODP) which includes,
 - (a) optimizing the use of degraded brownfield land for housing and other uses,
 - (b) giving due consideration to the existing communities and local characters,
 - (c) providing sufficient infrastructure to cater for the future developments and improving the existing rural environment,
 - (d) preserving active agricultural land,
 - (e) creating a sustainable and livable neighbourhood,
 - (f) integrating with Yuen Long New Town and the surroundings.

2. In the past, the “conventional” new town development has missed opportunity to achieve sustainability in town planning context.
 - (a) Road-based development deteriorated the living quality with air and noise pollution, segregation of community, fragmentation and loss of habitats and associated flora and fauna.

- (b) The town planning and building design of build-up areas created adverse urban microclimate such as canyon effect and heat island effect that further worsened the air quality and increased energy consumption (due to air conditioning for cooling).
 - (c) Channelization of river courses led to degradation of their ecological and aesthetic values without improvement of water quality. The surface runoff and storm water from the urban area was heavily polluted but rarely received proper treatment.
 - (d) No strategic urban greening lead to isolated patches of green belts or open spaces that degraded their functions of modification of urban microclimate, leisure and recreation, beautifying landscape and sheltering wildlife.
 - (e) Pedestrianization and cycling were discouraged because of busy and heavy vehicular traffic, nuisance of exhausted gas and traffic noise, and safety concerns.
 - (f) New town developments and their associated works often encroached, damage or removed ecologically valuable areas
 - (g) Uncontrolled proliferation of incompatible land-uses and brownfields brought about on-site impacts such as land contamination and noise pollution, and off-site impacts such as river water pollution and illegal dumping.
 - (h) No comprehensive strategy to protect natural and cultural heritage sites, and their surrounding environment as a whole integrity.
3. The implementation of “conventional” new town developments also ignored the associated ex-situ environmental impacts, such as filling of agricultural lands, fishponds/wetlands, tree felling and clearance of vegetation, spreading of unplanned/incompatible land uses/brownfields and road access in the periphery of new town development. These adverse, irreversible and uncontrollable activities and land uses were triggered by the new town developments and may even happen at the planning stage.

Air Pollution

- 4. The air pollution issue has not been seriously addressed in the Digest which contradicts the guiding principle of “creating a sustainable and livable neighbourhood”. According to Environmental Protection Department (EPD)’s Air Pollution Index (API) data from 2000 to 2013, Yuen Long frequently breached the Air Quality Objectives and recorded second highest number of days, 103 days, with API of higher than 100 which imposes short term risks to human. (The highest is Tung Chung which records 213 days in the same period.)
- 5. When considering Air Quality Health Index (AQHI) data from 2014 to 2015, Yuen Long also recorded third highest number of days, 131 days, with AQHI of higher than 7 which imposes short term health risks to human. (The top and second highest is Tung Chung and Tuen Mun which records 135 and 134 days in the same period respectively.)
- 6. Ranges of hills are lying to the east, south and west of Shap Pat Heung, Yuen Long. Therefore,

the Potential Development Areas (PDAs) are vulnerable to air pollution as the geographical setting will retain the air pollutants in Shap Pat Heung area when dispersal conditions are unfavourable, for example, existence of low-level temperature inversion that traps air pollutants near to the ground.

7. The residents in Yuen Long district have been exposed under unhealthy air quality for over ten years. Therefore, “Green space network” and “breezeways’ proposed in the Planning Concept and Urban Design Framework in the Digest are essential to dispersal and filtration of air pollution, and lower the air temperature to suppress formation of ozone from nitrogen oxides emitted from vehicles.
8. Thus, segments of Yuen Long Nullah (Shan Pui River) in PDAs should not be decked for provision of polluting landuses such as roads. On the contrary, they should be retained and improved their ability to act as breeze corridors to disperse air pollutants and lower the temperature of the PDAs.

Transport

9. Unlike Yuen Long Town and Hung Shui Kiu, there is no inherited market place of any scale in PDAs. Therefore, the future residents in PDAs will commute to neighbouring town centres, i.e. Yuen Long, Hung Shui Kiu or Tin Shui Wai, for all sorts of daily activities including shopping, dining, entertainment, consulting professionals (e.g. doctors, lawyers), customer’s services (enquiries to utilities and suppliers, repair of products). This will generate huge transport needs to Yuen Long and Hung Shui Kiu, as well as large pressure to the government, community and commercial facilities and service providers.
10. Also, no mass transport system is planned for the future PDAs that the long-distance commutation need of future PDA residents has not be adequately addressed.
11. We are disappointed that environmentally friendly transport services (EFTS) has not been yet confirmed to be introduced to PDAs, and the internal and external transport connection of PDAs is highly depended on roads which will result in traffic congestion in Yuen Long Highway, Castle Peak Road and other roads in Yuen Long Town, and exacerbate the air pollution and noise nuisance to future residents in PDAs.
12. We regret that the Digest proposed to build a new road connecting PDAs to the West Rail Yuen Long Station. The widening of proposed new road section south of Yuen Long Highway will involve massive felling of mature trees. The new road will also overload the traffic capacity of Shap Pat Heung area.
13. The need to build a new Public Transport Interchange (PTI) south of MTR Yuen Long Station is

dubious because the former bus terminuses at Sun Yuen Long Centre and Fung Cheung Street Sport Centre are now underused and able to serve the same purpose of PTI.

14. As Yuen Long Town has already overcrowded in terms of pedestrians and traffic, The PDAs should be well planned to blend with Hung Shui Kui New Development Area and Tin Shui Wai to facilitate the daily needs of future residents of PDAs. However, such planning intention is not prioritized in the Digest.
15. We welcome a comprehensive pedestrian and cycling network proposed in PDAs. However, these networks should be well linked to Tin Shui Wai, Hung Shui Kui NDA and Yuen Long.

Preservation Natural Streams

16. The PDAs in Yuen Long South are close to a number of ecological sensitive receivers including the streams of potential ecological value near Shan Ha Tsuen and Ecological Important Stream (EIS) at Yeung Ka Tsuen. There are also several natural streams in the area where endangered endemic crab species are found.
17. We appreciate that the Digest recommends preserving those streams with high ecological value and providing buffer areas. However, the courses and banks of those streams are mostly only zoned as “Green Belt” and no further proactive preserving measures are proposed to avoid vandalism such as flytipping and wastewater discharge.
18. Feasible, enforceable and effective measures should be in place before any massive environmental vandalism takes place in these streams with high ecological value. Also, any environmental and ecological impacts on these streams and the wildlife during the construction and operational phase should be avoided.
19. The existing streams or channels should be preserved as breeze corridors to relief urban heat island effect of future development.

Revitalising Nullah

20. As the PDAs are located in the Yuen Long Nullah (Shan Pui River) catchment and cover parts of the open nullahs which are engineered channels. We welcome that the Administration proposes to revitalise the segments of Yuen Long (West) Nullah (Shan Pui River), Tin Tsuen Channel within PDAs.
21. We opine that the revitalization should not only improve the landscape but also enhance the ecological functions of these water channels.
22. If Yuen Long Nullah (Shan Pui River) can be restored within the PDAs, it will be able to serve

many environmental benefits (e.g. provides habitats to wildlife, relieves the heat island effect, provides amenity to the public, etc.) and improve living quality of residents.

Creating New Watercourse, Flood Retention Facilities and Reedbed

23. We appreciate that the Administration incorporate novel land uses in PDAs by creating new watercourse, flood retention facilities and reedbed.
24. With these land use zones, the ground surfaces of PDAs should maintain high water permeability by keeping high proportion of soil surface and vegetation in order to lower the flood risk and pollution loading of surface runoff.
25. The public spaces or green areas with vegetation and water conservation features can also serve to the purposes of reducing the heat stress, providing community enjoyment and enhancing ecology.
26. Moreover, these land uses should be well zoned and designed to adapt to more frequent extreme precipitation events under the climate change.

Water Quality

27. Water quality index of Yuen Long Nullah was ranked “Very Bad” to “Bad” at most of the time from 1992 to 2014 (Station YL1, *River Water Quality in Hong Kong 2014*, EPD) that cause odour nuisance, visual impact and hygiene problem.
28. We welcome a sewage treatment works (STW) of tertiary level is proposed and the reuse of treated effluent for non-potable purposes. This STW should be able to treat the sewage generated from residential areas and livestock farms, and the polluted surface runoff discharging into Yuen Long Nullah (Shan Pui River) in the PDAs currently and in future to improve the river quality. The reuse of treated effluent can also reduce the carbon and water footprint of future Yuen Long South development. This also can act as one of measures to fulfill zero-discharge requirement of Deep Bay Area.
29. In view that water channels in PDAs being encroached by proposed polluting land uses (e.g. livestock farms, commercial nodes, residential areas), stormwater drains of further development should not be connected to Yuen Long Nullah (Shan Pui River), especially natural streams which provides irrigation water for the farmlands, to avoid water pollution and impacts on river ecology and crop farming.
30. Plan for collection of the polluted stormwater and surface runoff from those polluting landuses should be proposed as part of work of revitalizing nullah.

Brownfields Land

31. According to the Digest of Stage 1 Community Engagement published in April 2013, open storage yard, workshop and warehouse occupied 93 ha in PDAs. In this Digest, only 10 ha of land are reserved for storage and uses. Thus, while optimising the use of brownfield land in PDAs for housing and other uses, the economic operations in the PDAs will very likely move to the nearby rural areas and countryside in the Northwest New Territories. Virtually, development of Yuen Long South will trigger the spreading of brownfield.
32. Therefore, measures to prevent unfavourable and uncontrollable land uses that used to operate in PDAs such as car-repairing workshops, scrap yards, open storages, car parks from proliferating to nearby areas, e.g. Shan Ha Tsuen and Shap Pat Heung, should be taken in this early stage.
33. The proposed multi-storage industrial compounds or other land-efficient means to consolidate the land resources should be available for accommodating economic operations that needs to be relocated before the development of PDAs.
34. We agree that the active agricultural land must be preserved in PDAs to promote local produces, buffer the development, relieve urban heat island effect, maintain permeability of ground surface and preserve ecology. More importantly, these agricultural lands must be protected from converting into brownfield.

Flooding

35. The flooding risk of villages near to the PDAs should be assessed to avoid flooding of these villages. Drainage system, for both stormwater and sewage, of the whole PDAs should be well planned taking into account of our concerns mentioned above.

Thank you very much for your kind attention.

Yours faithfully,



CHENG Luk-ki

Division Head, Scientific Research and Conservation