

Summary of Response to Feedback on Environmental Impact Assessment for Bayshore

I. Overview: Approach to planning and greenery

The Government takes a holistic and long-term approach to planning to ensure that we judiciously steward Singapore's limited land resources, guide sustainable development, and to meet the changing aspirations and needs of Singaporeans, while achieving social, economic and environmental outcomes. In doing so, the government continues to carefully balance demand for land to meet a variety of land use needs, such as housing, green spaces, workplaces, schools and recreational spaces.

We are committed to stewarding and protecting our green spaces even as we develop to meet our land use needs. We continually explore alternative development options to meet the needs of our people, such as optimising housing densities in new developments while ensuring liveability, and redeveloping brownfield sites, which allow us to keep undeveloped areas untouched for longer. However, given our physical constraints, there will be some greenfield sites that we might have to develop. Any decision to proceed is made only after detailed studies of the trade-offs and alternatives, including the assessment of ecological and biodiversity value. In addition, if a proposed development is in or near an ecologically sensitive area, as part of the planning approval process, studies will be conducted to consider the relative significance of the site, weigh the trade-offs, and consider how the potential impact may be mitigated as much as possible, such that the new development may be sensitively integrated with its surroundings.

Currently, we continue to see high demand for public housing. The COVID pandemic has seriously impacted and delayed our BTO construction. As a result, many Singaporeans chose to apply for a BTO flat earlier when they saw that the waiting times got lengthened, adding to the demand. In addition, with larger cohorts of Singaporeans born in the late 1980s to 1990s reaching marriageable age, we saw a further spike in public housing demand. There has also been a shift in social norms where more young people want to move out to live on their own earlier. This trend may have also been accentuated by the pandemic, as many people worked from home and wanted more space of their own.

Hence a science-based approach is adopted, to balance the retention of nature areas and meeting Singaporeans' needs for housing, amenities and other infrastructure and development.

streams, the study did not include any hydrological studies. The purpose was to better understand the existing flora and fauna to assess the nature and extent of environmental impacts arising from agencies' development plans and guide these plans in a way that would mitigate the potential environmental impacts.

The key EIA findings are summarised below:

- i. The majority of the surveyed area (>76%) was categorised as vegetation types of lower conservation significance, namely scrubland (30%), reclaimed land vegetation (25.9%), and non-native secondary forest (20.8%) (see Fig. 2).

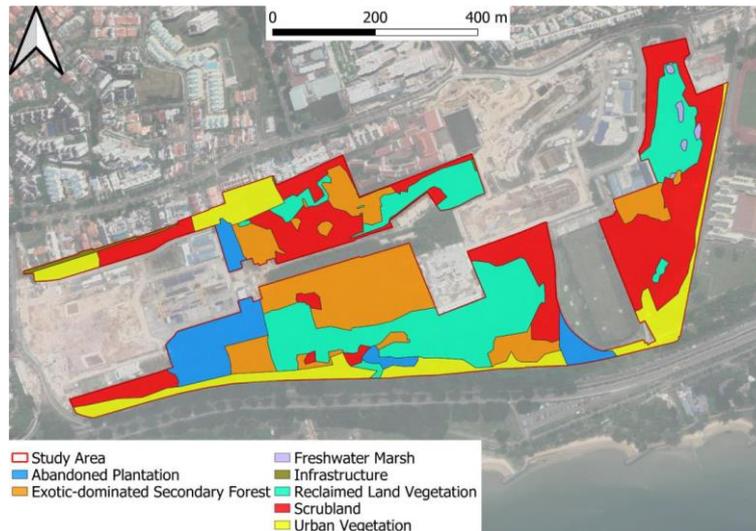


Figure 2. Habitat Distribution within Study Area

- ii. Of a total of 196 recorded flora species, 95 were native, and out of the native flora, 22 were considered threatened species, of which 16 were considered of local conservation significance as they were determined to be native species regenerated from wild populations, as opposed to the remaining 6 which were determined to originate from cultivated stock and/or are relics from past cultivations.
- iii. A total of 147 species of fauna were recorded within the study area, including 54 species of birds, 47 species of butterflies, 19 species of odonates (dragonflies and damselflies), 8 species of amphibians, 8 species of reptiles, 9 species of mammals and 2 freshwater fauna species. Only 6 out of the 147 were determined to be of local conservation significance, and all 6 were birds (Oriental Magpie-Robin, Blue-crowned Hanging Parrot, Changeable Hawk-Eagle, Red Junglefowl, Rusty-breasted Cuckoo and Red-legged Crane).
- iv. Overall, the conservation value of the habitats and biodiversity found within the study area appears to be minor to moderate within Singapore's context, given the low species richness, the low proportion of species of conservation significance, and the dominance of non-native species particularly in the non-native secondary forest.

III. Engagement with stakeholders

The agencies (HDB, LTA, URA and NParks) engaged various nature group representatives, who shared their views on how to refine the plans for the new housing estate to further minimise the potential impact to the environment.

The EIS report was also published online for public feedback from 1 Nov 2022 to 29 Nov 2022. In total, 93 responses were received via HDB's feedback channels.

IV. Feedback received

We value the feedback from our partners and members of the public and have considered every suggestion that has been submitted.

Many have requested to retain the greenery at Bayshore and requested for other sites to be developed instead. Others expressed support for new housing developments in the area but hoped to see a balance between development needs and greenery. In addition, we have also received some feedback on the road network, the design for the developments in the area, and to capture the history of the area in future developments to shape a sense of identity. HDB will study them with the agencies and consultants during the detailed design of the developments.

We also received some comments on the more technical aspects of the EIA, such as on the EIA scope, Latin names of species and conservation status of species adopted, and methodology of impact assessment conducted.

During our engagement session with them, nature group representatives also made recommendations on the direction of staged site clearance, for HDB to study the feasibility of retaining some existing trees, as well as to ensure that in addition to other animals recommended by the Consultants, the common tree shrews are also relocated to suitable habitats if found during the directional staged site clearance.

V. Responses to feedback

The Government adopt a holistic approach towards land use planning and in balancing nature conservation and development needs. We are also mindful of the need to develop housing areas sensitively to mitigate potential environmental impacts, while meeting the strong demand for public housing. For example, HDB is also developing housing in brownfield sites such as the Keppel Golf Club and former school sites.

The land at Bayshore was reclaimed for residential purposes in the 1990s. Over the years, we recognise that vegetation, and its attendant biodiversity, has emerged on site. The EIA findings show that the vegetation and biodiversity at Bayshore is of lower conservation significance.

Taking into consideration the EIA findings and the feedback received, we have updated the EIA report to ensure that we strike a good balance between development and conservation within the area. Agencies will adopt the following key measures for the new housing estate:

- A) Bringing residents closer to nature:** Bayshore will have a new central park with recreational features and sensitive landscaping, a linear park with views of the former seawalls and sea pavilion, as well as green spaces within each housing precinct. These spaces will form a network of green spaces throughout the estate, serving as recreational areas for residents, while providing conducive habitats for flora and fauna to thrive. A possible connection to East Coast Park will also be studied to provide direct access to the larger green areas along the coast. As existing platform levels need to be raised to meet minimum flood protection standards, it will be challenging to retain the existing trees on site. Where possible, HDB will study retaining some of the existing trees at localised areas.
- B) Landscaping to attract biodiversity:** Transplanting of conservation-significant plants will be carried out where needed and replanted within the new parks and green spaces, where possible, to restore and support the biodiversity within the site. For example, keystone fruiting plants and butterfly host plants will be replanted. In addition, the new parks and green spaces within Bayshore will also be designed with water-sensitive urban design features, which could include naturalised drains, bioswales and riparian plants to increase habitat availability for aquatic fauna.



Figure 3: Conceptual Plan for Bayshore

- C) Biophilic design of future developments:** Agencies will also be establishing urban design strategies to sensitively respond to its surrounding context, balance the urban density and provide a good quality living environment for our residents. Guided by the Biophilic Town Framework which aims to better integrate nature and the urban environment, greenery would be woven throughout the developments in Bayshore. In the design of the HDB developments, HDB will also consider landscaping including a minimum 25% of total site area as catchment area to be treated by water sensitive urban design features, which could be in the form of rain gardens or bioswales.

D) Management of human-wildlife interactions: HDB, URA and LTA are working closely with NParks to explore measures to create an environment where residents in Bayshore can co-exist with nature. Before the commencement of physical works on site, HDB will also be sending notices to residents living nearby and Temasek Secondary School, to inform them of the upcoming works and the mitigation measures that will be adopted to minimise inconveniences arising from the construction works, as well as to educate residents on the proper response to human wildlife encounters.

E) Implementation of Environmental Monitoring and Management Plan (EMMP): Specialist EMMP services will be engaged to develop an EMMP to mitigate and manage any potential environmental impact arising from development works, and closely monitor the works throughout the construction phase. During the construction stage, vegetation will be cleared directionally to passively shepherd wildlife out of the active work zones. Based on their survey findings and inputs from nature groups representatives, the consultant has recommended a list of target species group for translocation to suitable habitats if encountered during staged vegetation clearance. If other species not within the target species group are encountered, they will also be translocated at the advice of NParks. Finally, active wildlife trapping and translocation will be carried out at the final sections of each staged vegetation clearance phase for target macrofauna that remain within the site. Similarly, if non-targeted species are encountered in the final section, they will also be translocated at the advice of NParks.

Agencies will continue to review our land use needs, to ensure that we judiciously steward Singapore's scarce land resources and carry out developments in a sustainable manner, while balancing social, environmental, and economic considerations. As land use plans are not static, we will regularly review our plans to ensure they remain relevant and trigger the development or launch sites only after careful consideration of the various options and engagement with stakeholders.