

Summary of Response to Feedback on Environmental Impact Assessment for Bukit Timah Turf City

I. Overview: Approach to planning, greenery and heritage

The Government takes a holistic and long-term approach to planning. This allows us to judiciously steward our limited land to achieve social, economic and environmental outcomes, and meet the aspirations and needs of current and future generations of Singaporeans. This includes meeting needs for housing, green spaces, workplaces, schools and recreational spaces.

When fully completed in around 20-30 years' time, Bukit Timah Turf City will comprise approximately 15,000 to 20,000 public and private homes, helping to meet strong housing demand, and Singaporeans' growing aspirations to live closer to their workplaces in the city. The upcoming Turf City MRT station on the Cross Island Line which will be completed in 2032 will complement the existing Sixth Avenue MRT Station on the Downtown Line to provide residents with seamless connectivity to other parts of our island.

The Government is committed to sensitively balancing our land use needs with retaining our most significant natural and heritage assets. This continues to be the case even as land pressures intensify, necessitating more trade-offs such as exploring more varied approaches to land use like rejuvenating existing developments and redeveloping brownfield sites.

In recognition of the ecological and heritage value of Bukit Timah Turf City, an Environmental Impact Assessment (EIA) and Heritage Impact Assessment (HIA) were carried out.

The EIA helped us better understand the topography, hydrology, flora and fauna of the area, allowing us to take a science-based approach towards greenery and wildlife management, informing our planning and development strategy. This process will help to improve how we co-exist with nature and wildlife, integrate greenery & biodiversity into our urban landscape, and mitigate environmental impact as far as possible.

The HIA (i) helped us better understand the historical, social and architectural significance of buildings and structures within the site, (ii) recommended significant buildings for retention and repurposing for other suitable uses, and (iii) recommended sensitive urban design strategies and heritage interpretation measures to recall the site's equestrian history. In studying which buildings and structures should be retained, we will also consider potential uses, competing land needs, interest of stakeholders such as current and future residents, the heritage community, wider public as well as national interest. As recommended by the HIA, we will require a range of mitigating measures and strategies to protect and recall our heritage, such as documentation or salvaging of artifacts and incorporation of heritage interpretation strategies into the new estate.

II. Site context and milestones

Sited within the Bukit Timah planning area north of Sixth Avenue MRT station, the 176ha Bukit Timah Turf City site has been zoned for residential use since 1998; in 1999, the Turf Club relocated to Kranji. Bukit Timah Turf City is planned to be redeveloped into a highly liveable, inclusive and endearing estate with approximately 15,000 to 20,000 public and private homes when fully

completed in around 20-30 years' time. The estate will be planned upfront to be car-lite, pedestrian-friendly, and well served by public transport, with good walking and cycling connections. With less need to rely on private transportation, the estate will also be planned with reduced parking provision to prioritise space for more greenery, amenities and community spaces.

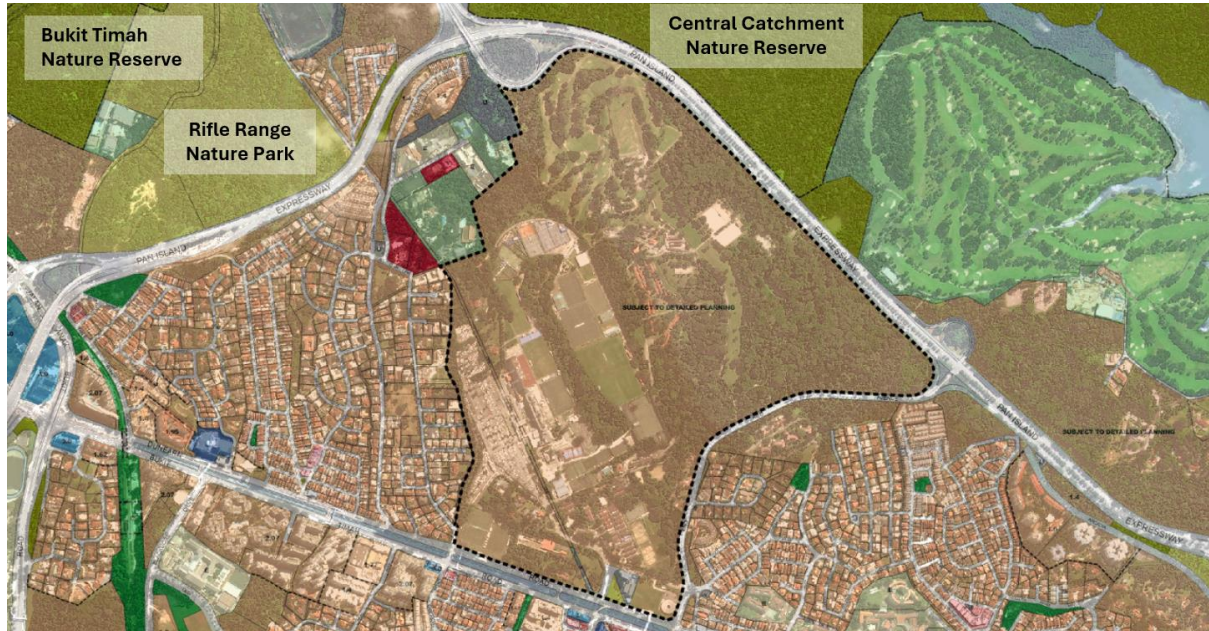


Fig. 1. Satellite Image of Bukit Timah Turf City, overlaid with Master Plan 2019

Given the scale and context of the site, in 2021, URA engaged consultants to conduct an Environmental Impact Assessment (EIA) and a Heritage Impact Assessment (HIA) to comprehensively study the site and guide the development of plans that balance future housing needs while safeguarding the most significant biodiversity and heritage assets. The purpose was to better understand the existing topography, hydrology, flora, fauna, and heritage assets, to assess the extent of environmental and heritage impacts arising from development plans and guide these plans in a way that would best mitigate the potential impacts. Nature and heritage groups were also consulted throughout the course of the studies.

The full EIA report can be found [here](#). The key findings of the report are summarised below:

- i. While the study area is largely non-vegetated and/or occupied by urban vegetation, approximately 10% (16.7 ha) of the study area comprises native-dominated secondary forest, which contains high biodiversity.
- ii. The EIA recorded 177 plant species and 25 animal species of conservation significance including the globally-threatened Straw-headed bulbul and Sunda pangolin. Many of these species were found in two forested areas - Eng Neo Avenue Forest and Bukit Tinggi.
- iii. Eng Neo Avenue Forest recorded the highest number of fauna species, likely due to it being the largest continuous forest, while Bukit Tinggi contained the largest continuous patch of native forest, which was also the most diverse and concentrated with nationally threatened plants.
- iv. Given this, the EIA identified recommended areas of conservation (RAC) (Fig. 2), which included the retention of the two forested areas as well as other smaller patches, and the

establishment of a 100m wide lushly planted connection between the forests at Eng Neo Avenue and Bukit Tinggi.

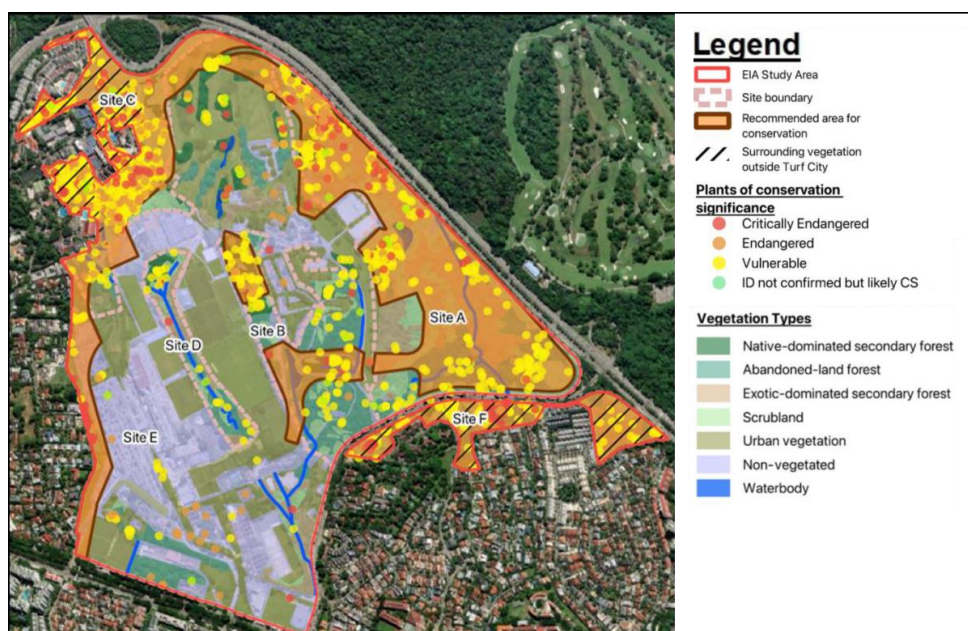


Fig. 2. Recommended Areas of Conservation (shaded in orange)

The full HIA report can be found [here](#). The key findings of the report are summarised below:

- i. The HIA attributed the heritage significance of Bukit Timah Turf City to its 66 years of history as one of Southeast Asia's top racecourses and its association with the growth of horse racing in Singapore.
- ii. Several buildings and structures were identified as significant such as the North and South Grandstands, the Secretary and Assistant Secretary's Bungalow, the historic racetracks, Bukit Timah Saddle Club Clubhouse, and the stables, based on a combination of historical, social, aesthetic, architectural and contextual values.
- iii. Overall, the HIA assessed that the proposed redevelopment plans can retain the heritage significance of the site and recall the horse racing history in Bukit Timah and Singapore while allowing the land to be developed to meet future housing needs.
- iv. In addition, the key heritage strategies and retained buildings will positively impact the site's heritage significance and the impact of the redevelopment can be mitigated by sensitive urban design, restoration and adaptive reuse of retained buildings, implementation of heritage interpretation strategies and development of a conservation management plan to guide future development.

III. Engagement with stakeholders

URA carried out several engagements with nature and heritage groups over the course of the EIA and the HIA. These sessions provided opportunities for the various parties to come together to share their perspectives, reach a common understanding on Singapore's land use needs and challenges, and co-create solutions to address greenery and heritage considerations, even in the early stages of planning.

As a result of the engagements with these stakeholders, key ecological and heritage measures could be incorporated into the plans. This also spurred collaborations such as the deep dive study on improving connectivity for colugos within the site, as well as the initiative to collect oral history from former workers and residents as part of heritage documentation.

The EIA and HIA reports were also published online for public feedback from 23 May 2024 to 20 June 2024. A total of 22 and 3 feedback responses were collected on the EIA and HIA reports respectively via URA's feedback channels.

IV. Feedback received

We value the feedback from our partners and members of the public and have reviewed all the suggestions.

EIA & HIA

Some have voiced concerns on the general loss of greenery, the importance in providing ecological connectivity to the adjacent nature areas (i.e. Central Catchment Nature Reserve (CCNR), Bukit Timah Nature Reserve (BTNR), Rifle Range Nature Park (RRNP)), as well as the impact of high-density development on the surroundings. Specific suggestions included:

- Connectivity measures between the site, CCNR and RRNP, including wildlife bridges, culvert connections, wildlife corridors, and elevated roads and buildings for ground-level connectivity
- Larger buffer zones between developments and the retained forested areas
- Exclusion from the development area a cluster of flora specimens of conservation significance near Eng Neo Avenue Forest
- Conservation of freshwater habitats and streams
- Incorporation of sustainability measures such as urban and vertical greenery, and wildlife-friendly building design
- Provision of a fully funded wildlife rescue team

There were queries regarding the assessment methodology for EIA, specifically as to how “low” to “high” ecological value, and “minor” to “major” impact were determined. In terms of impact, the magnitude of impact was determined through the Risk-based Impact Assessment Matrix (RIAM), which is one of the well-established quantitative frameworks that EIA consultants typically adopt to assess a development's impact on the environment. Ecological value was also determined based on comprehensive criteria that made use of objective indicators (e.g. number of species, conservation significance, percentage area overlapped with worksite etc.). Reference was made to several published biodiversity value accounting guides¹ in the development of these

¹ Crosher I, Gold S, Heaver M, Heydon M, Moore L, Panks S, Scott S, Stone D & White N (2019) The Biodiversity Metric 2.0: auditing and accounting for biodiversity value. User guide (Beta version, July 2019). Natural England.

criteria. More details can be found in Chapter 6.4 (Assessment Criteria), 7.4 (Assessing Ecological Value), and 7.9 (Prediction and Evaluation of Biodiversity Impacts).

There was also a suggestion to commemorate the original racetrack extent via markings to indicate the original path of the track.

General Feedback

Some feedback providers have expressed their support for developing new housing in the area, including public housing, to meet continued demand, and provided suggestions on the facilities that they would like to see in the future developments.

V. Response to feedback

As land pressures intensify, optimising Singapore's limited land is crucial to meet the needs of current and future generations of Singaporeans. During our conversations with Singaporeans as part of the Long-Term Plan Review and Forward Singapore, many shared that they would like to live closer to their workplaces in the city and be nearer to amenities. We envisage Bukit Timah Turf City to be an inclusive and highly accessible estate, with amenities to serve the community in the area, and a good quality living environment. By introducing both public and private homes in Turf City, this would allow more Singaporeans to live closer to the city centre.

In planning the development of the area, we are mindful of the need to develop sensitively, and mitigate potential environmental and heritage impact. Taking into consideration the findings from the EIA and HIA, as well as feedback received from our many stakeholders and members of the public, we have adopted several strategies and measures to address them:

- A. Safeguarding ecological connectivity to the surrounding green areas:** Agencies will continue to review the ecological connectivity from Bukit Timah Turf City to the surrounding areas as plans for these areas are being studied.
- B. Providing larger buffer zones next to existing green areas:** Where development is adjacent to existing green areas in Bukit Timah Turf City, agencies will study the possibility of providing a buffer zone between built area and existing greenery. This buffer zone can provide a transition zone between urban areas and green areas and could include pedestrian connections and/or recreational trails.
- C. Transplanting and relocation of flora of conservation significance within development area:** Where possible, agencies will take efforts to transplant and relocate flora of conservation significance (CS) away from development areas. For the cluster near Eng Neo Avenue Forest, agencies have assessed that the plants in this cluster mainly comprise young saplings of CS species. Cuttings and suitable saplings will be taken or transplanted out for propagation elsewhere prior to development.
- D. Sensitively integrating development with existing freshwater habitats and streams:** Agencies intend to respect the existing hydrology and retain existing waterbodies where possible. Mitigating measures will be put in place to minimize the impact that development will have on water quality within these waterbodies.

- E. Biophilic design of future developments:** Agencies are studying all recommendations and suggestions to reduce the impact of buildings through innovative building design strategies. Greenery will feature prominently in the developments in Bukit Timah Turf City, and careful thought will be given to introducing guidelines and requirements to mitigate the environmental impact. Some examples include designing bird-safe building facades to reduce bird strikes, encouraging native planting palettes where appropriate to reduce the risk of invasive species entering adjacent forests, and having lush and native landscaping to attract birds and butterflies.
- F. Managing human-wildlife interactions:** URA is working closely with agencies to consider how public education, community stewardship, wildlife population ecology and management initiatives can be applied to Bukit Timah Turf City, to create an environment where residents can co-exist with nature. If wildlife is encountered, the public can also contact the National Parks Board via their 24-hour Animal Response Helpline at 1800-476-1600, for wildlife requiring rescue or in cases of human-wildlife conflict.
- G. Implementing Environmental Monitoring and Management Plan (EMMP):** Developers will be required to engage a specialist EMMP consultant to develop a detailed EMMP to mitigate and manage any potential environmental impact throughout the construction phase.
- H. Commemorating the heritage of the site:**
- i) A total of 27 buildings and structures, located in five different clusters and representing different facets of the former Turf Club's history, will be studied for retention and repurposing to new uses that serve future and existing communities. An example is the North Grandstand, an iconic building that housed thousands of spectators and is a notable example of Modernist architecture completed in the 1980s.
 - ii) A new central open space in front of the Grandstands, which is about twice the size of the Padang, will pay homage to the site's sporting heritage. Referencing the geometry of the historic racetracks, the new oval is envisaged as the centrepiece of Bukit Timah Turf City. It is intended for sports and recreational uses and will be surrounded by civic and community amenities to serve existing and future residents of this area.
 - iii) To further recognise the history of the former Turf Club, agencies will continue to actively document the heritage of the site and explore ways to tell the story of the racecourse, such as through storyboards and heritage trails.
 - iv) Four distinctive neighbourhoods have been proposed, each featuring new public spaces integrated with existing landscape and heritage buildings to reflect their unique characters while promoting community bonding. For example, the Racecourse neighbourhood will be anchored around the iconic Grandstands and new oval that references the historical racetracks. Residents can look forward to a variety of recreational spaces and sports facilities within a five-minute walk to the upcoming Cross Island Line MRT Station. The Saddle Club Knolls neighbourhood, on the other hand, will be defined by undulating terrain and surrounding forests. Here, the former Bukit Timah Saddle Club and Fairway Quarters could be repurposed to new uses and serve as gathering spaces for the community.
 - v) URA will continue to study ways to commemorate the historical extent of the racetracks within the future development, including commemorating the original racetrack extent via markings.

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 develop sites only after careful consideration of the various studies, options and engagement with stakeholders.