CLAISE BROOK CATCHMENT GROUP

Working to conserve and restore water quality and wildlife habitat in the Perth inner city catchments

Landcorp
Locked Bag 5
Perth Business Centre
Perth, WA, 6849

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SUBMISSION – PERTH WATERFRONT

On behalf of the Claise Brook Catchment Group I would like to make the following submission on the proposed development of the Perth water front at Mounts Bay.

CLAISE BROOK CATCHMENT GROUP

The Claise Brook Catchment Group is a community based environmental group working to improve water quality and habitat within Perth city and the inner city. Our group considers that it is vitally important that urban environments be designed and managed to reduce their environmental impact. We believe that incorporating natural features into an urban environment can have multiple benefits including habitat for wildlife and improved water quality through restoring natural water flows and the filtering effect of natural systems.

Our catchment group has recently completed surveys of all parks and reserves within the City of Perth, assessing the biodiversity values of the open spaces. We found that Perth city is blessed with its many parks, with the river foreshore and the Swan River being arguably the city's greatest natural asset. A significant benefit to protecting biodiversity in the city would be to improve the linkage along the foreshore from Kings Park to East Perth and Heirisson Island. We also note that traditionally Perth's foreshore was not developed, and consider this a point of difference with other urban waterfronts and something to be valued.

Importantly, the two existing sandy beaches, west of Barrack Square, and the adjacent grassed areas, are currently used by Black Swans. The Black Swan is emblematic of Western Australia, particularly of Perth city. Many organisations, schools, clubs and businesses founded in Perth, feature the Black Swan in their logo or emblem. That the Black Swan still frequents the city foreshore, although in reduced numbers, is something of value which should not be lost.

The location of the proposed development is on the Swan River which flows through the heart of Perth and is highly valued by both residents and visitors to Perth. The importance of the Swan River to the Perth community was recognised when it was declared Western Australia's first heritage icon in 2004.

RESPONSE TO DEVELOPMENT PROPOSAL

Bringing the city closer to the river and making the river more accessible to city residents, workers and visitors is laudable, but not if it is at the cost of degrading the river and foreshore environment. Instead, the development should be focussed on enhancing the experience of the waterfront environment.

This could be achieved by restoring a natural foreshore to the area with indigenous vegetation to control erosion and pedestrian access via boardwalks. Visitors will have a much more interesting experience if they can sit in a café overlooking the river and see black swans on a

beach, a cormorant sunning its wings, a large Pelican floating lazily, dolphins swimming by and closer to hand, honeyeaters busily feeding in small trees.

While any development on the foreshore hinders the possibility of improving a biodiversity linkage, a nodal development on the foreshore, would be preferable to development along the entire foreshore. Extending the proposed development along the foreshore to the Narrows Bridge will impact negatively on the value of the current length of protected open foreshore as well as views to and from Kings Park. We suggest that development on the river's edge should be limited in extent, and no greater than the section from Barrack Square to William Streets. Any development towards the Narrows Bridge should be setback at least 30m, and preferably 50m, from the river's edge, consistent with *Western Australian Planning Commission Development Control Policy 2.3 Public Open Space in Residential Areas (2002),* with revegetation works and bank stabilisation required to accommodate the impact of higher numbers of people inhabiting the area.

Elsewhere much of the city's foreshore is completely hard-walled, creating an environment hostile to wildlife. Incorporating natural areas, attractive to Black Swans, would be of far greater interest to visitors than features such as the boat moorings or bathing beach. The group, and we believe the general public, would be very concerned of any development that would remove habitat for the Black Swan on the river foreshore.

WATER QUALITY ISSUES

The site's location, on the Swan River, means that the treatment of stormwater, the choice of landscaping, design of road drainage and water management on public and private land has the potential to impact almost immediately on water quality within the Swan River. In addition the two small water bodies within the project area, and the larger lake on the western side of the Narrows Interchange, could be affected by the development of this area.

Available information indicates that water quality within Mounts Bay is poor, with some accumulation of heavy metals in the sediments and nutrient levels in Mounts Bay exceeding the Swan River Trust's water quality targets. This is exacerbated by the location of the Mounts Bay Main Drain outfall and poor flushing within the bay. Water quality is not suitable for water contact activities. The water quality within the Narrows Interchange lakes, two of which are within the project area, is generally poor with Health Warning signs having to be displayed advising that contact with water is not advised.

Our catchment group considers that improvements to water quality, within Mounts Bay, the Narrows Interchange lakes and the wider catchment are implicit and must be funded and integrated with any development of the foreshore. It is not acceptable to the public to develop an area, knowing that the poor water quality may result in Health Warning signs and banning of water contact activities, particularly when the proposal includes a bathing beach.

As much of the land within the lower Mounts Bay Catchment (below Lake Monger) is under the management of government agencies including the Department for Planning and Infrastructure, Main Roads and the Water Corporation, we urge an inter-agency approach to managing water movement through the area and improving water quality. While the larger catchment extends above Lake Monger, the upper catchment appears to only overflow to the lower Mounts Bay Main Drain in winter, when water quality is quite likely to be relatively good. It would appear that for much of the rest of the year, water of very poor quality either flows or is pumped through the lower catchment. The source of this water is not clear but may include groundwater.

LANDSCAPING CHOICES AFFECT WATER QUALITY

Landscaping throughout the area is an important component of the infrastructure contributing to amenity, aesthetics and creating a 'sense of place' within the area. Inappropriate landscaping can have significant environmental impacts, particularly on water quality. A significant source of nutrients in urban catchments is related to the widespread use of exotic vegetation in streets and public landscaping, particularly deciduous vegetation. Deciduous plants drop all of their leaves over a short period and decompose quickly, resulting in an

excessive release of nutrients into water bodies. Street trees are of particular concern since most of their foliage will end up being washed into the stormwater drainage system.

The site's location on the Swan River, adjacent to the Narrows Interchange parklands and Kings Park, 400 hectares of primarily natural bushland, gives particular importance to the choice of species for landscaping.

We suggest that a 'Western Australian' theme in the landscaping will give the area a unique 'sense of place'. We consider that choosing Western Australian trees of different sizes will allow shade to be provided at street scale and avenues to be formed through the area. Lower landscaping in garden beds and planter boxes featuring the wide variety of unique Western Australian flowering plants would add real visual interest for interstate and overseas visitors.

Using primarily Western Australian species will visually link the area to the natural bushland of nearby Kings Park, while also having significant benefits for the health of the Swan River due to lower water and fertiliser requirements. Local Western Australian species, from the Swan Coastal Plain, particularly the species found along the estuary and offshore islands, will also be more able to withstand the likely impacts of climate changes such as storm surges and occasional flooding with saline river water.

RECOMMENDATIONS:

1. A whole of government commitment be made to improve water quality within the broader Mounts Bay catchment, with agencies including Main Roads, the Department for Planning and Infrastructure, the Water Corporation working in partnership with the advice and assistance of the Swan River Trust and Department of Water. Together these agencies will commit to:

    a. Setting targets for water quality improvement to the Swan River and lakes within the Mounts Bay Catchment below Lake Monger;

    b. Funding a coordinated monitoring program for the drainage system to determine the nutrient and pollutant content of the various flows;

    c. Facilitate ongoing improvements to land and water management practices in the Mounts Bay Main Drain (MBMD) catchment and better connect management to data;

    d. Investigate possibilities for the treatment of MBMD water quality within the system;

    e. Retrofit measures to remove pollutants from freeway drainage prior to discharge into river and maximise infiltration into drainage swales;

    f. Commit adequate resources to improving water quality within the lower Mounts Bay Catchment including the Hamilton and Narrows Interchanges and the Mounts Bay Foreshore, noting that supporting funding may be available through various programs.

2. Within the project area, design public and private spaces according to Water Sensitive Urban Design principles, complying with best practices for Water Sensitive Urban Design as detailed in the Department of Water *Stormwater Manual* including but not limited to:

    a. Set an Environmental Objective '*Water Sensitive Urban Design (WSUD) will ensure that there is no environmental impact on the Swan River from the foreshore development area"*

    b. Drainage from hard surfaces including roads, footpaths and surface parking be directed to drainage swales to maximise infiltration;

    c. Incorporate semi-landscaped hardstand areas for parking and overflow parking spaces.

3. Develop a ‘Western Australian’ theme in the landscaping to give the area a unique ‘sense of place’. Develop policies to ensure the theme is maintained in the public and the private domain.

4. Development on the river’s edge should be limited in extent, and no greater than the section from Barrack to William Streets. West of William St, development should be setback from the river’s edge at least 30m, preferably 50m, consistent with *Western Australian Planning Commission Development Control Policy 2.3 Public Open Space in Residential Areas (2002).*

5. Redesign the Waterfront foreshore to retain areas of sandy beach with adjacent natural areas, where buildings have been setback from the river’s edge, suitable for Black Swans. Design the natural areas to perform multiple functions including wildlife habitat, drainage swale and surface water filtering. Replace the proposed bathing beach and boat mooring with areas suitable for wildlife, particularly focusing on the requirements of the Black Swan (noting that water quality within Mounts Bay is not suitable for water contact activities).

6. Rather than using hard walling to edge the river, restore a sloping bank to the river’s edge, planted with indigenous vegetation to control erosion while also providing habitat and visual interest. Preferably retain the existing *Melaleuca cuticularis* trees. Provide pedestrian access with a boardwalk along and above the vegetated foreshore. Aim for a continuous natural foreshore and boardwalk from William St to the Narrows Bridge.

7. Develop policies to require a high standard of landscaping for all developments. A landscape plan is to be submitted with all development applications demonstrating waterwise landscaping in accordance with the landscaping theme of the project area. Accompanying the landscape plan will be a maintenance plan demonstrating that no fertilisers or organic matter (lawn clippings, mulch) will impact on surface or groundwater quality such as through washing into stormwater drains.

8. Aim for a high standard of water conservation in both the public and private domain within the project area to reduce scheme water consumption and facilitate reuse of stormwater. Any greywater reuse systems must be designed to ensure they do not impact negatively on ground or surface water quality.

9. Ensure that the proposed circular pool is designed to prevent algal blooms, botulism or other problems which may occur with the semi-enclosing of poor quality water. Consider making the proposed ‘swan island’ an island with habitat values, particularly for Black Swans, which may have the additional benefit of encouraging swans to use the circular pool.

We consider that the recommendations above will achieve the creation of a uniquely Western Australian waterfront environment in this important location.

Thankyou for the opportunity to comment. We are happy to discuss our concerns and explain these recommendations in more detail.

Regards

Sally Lake
Coordinator