



# Historical Values and Site Context

## Appendix 1

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## 1.0 Aboriginal Heritage

The Town of Claremont acknowledges the Mooro people of the Whadjuk Noongar as the traditional custodians of the country around Lake Claremont. This includes, but is not limited to, the Bodney, Bropho, Colbung, Corunna, Garlett, Hume, Jacobs, Warrell and Wilkes family groups. Consultation with these families secured Section 18 approval to carry out the works under the 2010 and 2016 Lake Claremont Management Plans.

Lake Claremont was an important campsite and hunting ground that provided a range of plants and animals for food for the Whadjuk Noongar. Having occupied the south-west of Western Australia for at least 50 000 years, Noongar people maintained a camp at the southern end of Lake Claremont until the 1930s and then north of the lake until forcefully evicted around 1950 (Haynes, Lantzke and Lantzke 1998; Bolton and Gregory 1999; Dortch 2005). Listed as an Aboriginal Site under the *Aboriginal Heritage Act 2021* (WA), artefacts have been recorded in the proximity of Kott Terrace and Stirling Road (Department of Planning, Lands, and Heritage, 2022).

### Recommendations

- Continue to consult with Aboriginal traditional owners and elders
- Complete due diligence and seek required Regulation 7 & 10, and Section 18 approvals through the Department of Planning, Lands and Heritage and the Whadjuk Aboriginal Corporation in accordance with the Aboriginal Heritage Act 1972 (WA).

## 2.0 Post European Settlement Heritage

Based on the writings of Haynes, Lantzke and Lantzke (1998), Bolton and Gregory (1999), the North Metro Conservation Group (2007) and Fisher Research (2010), key information relating to the post colonization history of Lake Claremont includes:

- The first European reference to Lake Claremont is by Willem De Vlamingh's landing party lead by Gerrit Colaert in early January 1697. Landing near Swanbourne and walking past Lake Claremont on the way to Freshwater Bay.
- The first recorded reference to the wetland after European settlement is a letter written by Mr John Butler to the Surveyor General John Septimus Roe on the 15 November 1831 to request a grant of 10 acres of land on east side of the lagoon for his son, William Burton Butler.
  - While no hard evidence has been found to support the proposition, it has been suggested that the Butlers carried out farming activities at the site without an official grant and that this use gave rise to the lake's early name of 'Butler's Swamp'.

- In 1851, 3.8 ha grants of land were given to 18 Pensioner Guards who had escorted the first convicts transported to Western Australia on the Scindian in 1850.
- The Perth to Guildford railway line opened in 1881 with Butler's Swamp siding constructed on the west side of Stirling Road, which led to the lake becoming a popular picnic destination.
- At the start of last century, the popularity of the site as a picnic spot declined as market gardens became increasingly common.
- Extensive flooding occurred across the Perth region between the 1930s and 1950s as groundwater levels rose due to a combination of clearing of native vegetation and commercial felling of tall trees, numerous years with higher-than-normal rainfall and increased runoff from rapidly urbanising settlements.
- Butler's Swamp became permanently flooded and the size of the waterbody doubled at this time.
- The rising water level meant the market gardens were no longer viable, Stirling Road became impassable, and the nature of the vegetation changed as the permanently inundated Paperbarks that had covered the wetland died away, although the dead trunks of some remain standing at the southern end of the lake.
- Mosquito and midge proliferated in this modified wetland ecosystem.
- The algae blooms that proliferated in the eutrophic waterbody combined with the rotting carcasses of diseased and shot birds made the lake stink and generated public support to 'beautify' the area.
- The beautification plan, which included the provision for an Olympic pool, football oval, soft ball field, soccer and hockey pitches, a pavilion, boats for hire, tearooms, amphitheatre, large areas reserved for picnic grounds and natural bush, was agreed and in 1954 and TOC began purchasing and swapping land to gain title to the lake.
- TOC exchanged 3.5 acres of land belonging to Scotch College at Cresswell Oval for 4.5 acres which was partly under water, with the latter subsequently being reclaimed by the College reducing the area of the Lake and resulting in the current shape of the water body.
- Butler's Swamp was renamed Lake Claremont in 1955, despite opposition from the Royal WA Historical Society.
- Costs for the project began to spiral, so a drive-in theatre replaced the amphitheatre, Council scaled back or scrapped proposed recreational infrastructure and between 1964 and 1970 the lake became a landfill site.

- An island bird sanctuary (Estuary Island) created in the lake and areas were planted with exotic trees and shrubs.
- A golf course was constructed amid concern about restricted access to the banks of the lake and its surroundings and about the potential for negative impacts on native flora and fauna habitat.
- In July 1973, the newsletter of the WA Naturalist Club reported that an excursion to Lake Claremont was almost cancelled due to the limited amount of aquatic and bird life and the parlous state of the wetland ecosystem.
- The Department of Conservation and Environment of Western Australia prepared the System 6 Report in 1983, giving recognition to the environmental and ecological values of the lake and encouraging the development of a management plan.
- Three working parties, including a Council of Elders, were appointed in 1985 to investigate and report on various aspects of the lake in the lead up to the preparation of the first management plan.
- Claremont Council initiated the Lake Claremont project in 1987, which resulted in the Lake Claremont Research Report prepared by Lantzke, Gabriel and Haynes and highlighted the hypereutrophic status of the waterbody.
- Council convened a committee of interested community members, a local councillor as chair and representatives from the Environmental Protection Authority and the Water Authority in 1991 and Haynes and Lantzke prepared the 1992 management plan.
- The first conservation and environmentally focused management plan was implemented between 1992 and 1998, when it was revised by Haynes, Lantzke and Lantzke (1998) to produce the second environmental management plan.
- After almost ten years of operation the second plan was reviewed in by the North Metro Conservation Group (2007) and the 2010 Lake Claremont Management Plan was endorsed, again with a strong conservation and environmental focus.
- After a close referendum count, Council made a resolution to close the long nine-hole golf course in the northern and eastern portion of the area in June 2009, a nine-hole Par 3 course continues to operate in the southeastern corner of the area.
- The Lake Claremont Parkland: Concept Plan, which was also finalised in 2010, outlined existing and proposed nature, recreational and sporting spaces and identified the recreational infrastructure necessary for the enjoyment of broadest range of community members.

- A working party of Councillors was convened in May 2015 to survey the community and identify projects that would further enhance the recreational aspects of Lake Claremont complimented the development of this plan.
- In February 2016, Council approved the upgrade of the Par 3 golf course, this will involve reticulation replacement and green, tee and fairway upgrades to improve the presentation and reduce maintenance demands on site.
- Major revegetation developments within the bushland sites at the lake were completed in 2020 after the completion of the Alfred Road planting sites.

Significant restoration and enhancement works have been completed at Lake Claremont in the quarter of a century since the first management plan was endorsed. These works include:

- Modified drainage with oil traps, side traps and swales.
- Significantly improved water quality and an absence of algal blooms when the lake fills in winter.
- Removal and control of invasive weeds from the lakebed and the remnant Banksia and Eucalypt woodlands on the western side of the Lake.
- Installation of duck, parrot, and micro bat breeding boxes.
- Creation of a much-used natural play-space playground at Stirling Road Park.
- Upgrading of the exercise facilities.
- Improved turf quality across recreation spaces and open access dog off-leash exercise areas.
- Provision of family barbeque and picnic areas.
- Replanting of the riparian buffer around the lake and woodland in the western and northern portion with local native plants.
- Installation of a cycle and pedestrian path network to facilitate community access
- Storage shed located near mulch pile is shared between the Town and volunteer group, Friends of Lake Claremont, for Lake Claremont related events and equipment storage.
- Three viewing corridors were created to provide a clear view of the waterbody.
- Installation of Jean and Ted Tock bench along the eastern buffer adjacent to the golf course.
- Installation of Lapsley Road and Stirling Road nature-based playgrounds.
- BBQ's are located at Stirling Road Park, Jean and John Mulder Park and Two at Lapsley Road Nature Playground

- Installation of fences - along Alfred Road and Davies Road dog exercise area, around the volunteer shed and mulch pile, and around the Alfred Road planting sites.
- Brenton See mural installation at the volunteer shed as part of the art trail.
- Installation of 'Together' sculpture at Jean and Ted Tocock bench.
- Removal of eleven mature Tamarisk trees at volunteer shed and Alfred Road woodland sites
- Bird and bat box installation.
- Major path repairs.
- Introduction of *Isoodon obesulus* (Southern Brown Bandicoot) in collaboration with the Department of Biodiversity, Conservation and Attractions (DBCA) and Friends of Lake Claremont.

### 3.0 Legal Requirements

Several Commonwealth, State and Local Government statutory and policy requirements that regulate the management of the Lake Claremont and surrounds are summarized in Table 1.

Commonwealth		
<i>Environment Protection and Biodiversity Conservation Act 1999</i>	<ul style="list-style-type: none"> <li>- Threatened species guidelines and information sheets</li> <li>- Migratory birds' information</li> </ul>	<ul style="list-style-type: none"> <li>- Matters of national environmental significance: presence of the Carnaby's Cockatoo (<i>Calyptorhynchus latirostris</i>) and the Forest Red-tailed Black Cockatoo (<i>Calyptorhynchus banksia naso</i>)</li> <li>- Protection of migratory birds the subject of international agreements</li> </ul>
Western Australia		
<i>Aboriginal Heritage Act 2021</i>	Permitting requirements, including Section 10 and Section 18 permits	<ul style="list-style-type: none"> <li>- Protection of Aboriginal heritage values</li> <li>- Actions when a heritage site is disturbed</li> </ul>
<i>Biosecurity and Agriculture Management Act 2007</i>	<ul style="list-style-type: none"> <li>- Declared Plant Control Handbook</li> <li>- Western Australian Organism List</li> </ul>	<ul style="list-style-type: none"> <li>- Control of declared flora (weeds) and fauna organisms</li> <li>- Off label permit use of herbicides</li> </ul>
<i>Bushfires Act 1954</i>		Reducing the dangers associated with bush fires, along with their prevention, control and extinguishment

<i>Cat Act 2011</i>	Implemented at a local level through the enacting of a local law	Responsibilities of local cat owners and the ability of council to trap and remove roaming cats
<i>Conservation and Land Management Act 1984</i>	Wetlands Conservation Policy for Western Australia	Primary wetland conservation policy for WA
<i>Contaminated Sites Act 2003</i>	Contaminated sites guideline series produced by the Department of Environment Regulation	May apply if acid sulphate soils are disturbed and contamination occurs
<i>Dog Act 1976</i>	Creates statutory responsibilities for dog owners to register and control their dog(s), implemented at a local level through the enacting of local laws and/or policies	Dog owners' responsibilities relating to dog registration, control, walking on-leash and exercising off-leash the removal of faecal matter
<i>Environment Protection Act 1986</i>	<ul style="list-style-type: none"> <li>- Designated Conservation Category Wetlands</li> <li>- Clearing of Native Vegetation regulations and associated guidance documents</li> <li>- EPA Position Statement No. 4 Environmental Protection of Wetlands (relevant to EIA processes)</li> </ul>	<ul style="list-style-type: none"> <li>- Prevention of environmental harm</li> <li>- Protection of wetlands listed in the Geomorphic Wetlands Swan Coastal Plain dataset, including a number of requirements relating to their filling, effluent disposal and drainage management proposed changes require formal environmental impact assessment</li> <li>- Requirements to be adhered if clearing of native vegetation is planned</li> <li>- Water quality within the lake from a human health perspective, such as presence of nuisance organisms</li> <li>- Creation of healthy design elements that contribute to healthy active living</li> </ul>
<i>Health Act 1911</i>		<ul style="list-style-type: none"> <li>- Water quality within the lake from a human health perspective, such as presence of nuisance organisms</li> <li>- Creation of healthy design elements that contribute to healthy active living</li> </ul>
<i>Litter Act 1979</i>	Keep Australia Beautiful Fact Sheet: Dog Poo	Requirement to pick up and appropriately dispose of dog faecal matter
<i>Local Government Act 1995</i>		Local Government responsibilities: Duty of care and safety

*Planning Act 2005*

Planning Policies:

- State Planning Policy 2 - Environment and Natural Resources Policy
- State Planning Policy 2.8 – Bushland Policy for the Perth Metropolitan Region Planning Guidelines
- Better Urban Water Management
- Acid Sulphate Soils Bush Forever Documents

Zoning/land purpose:

- Protection of natural values through appropriate planning
- Bush Forever listing and protection
- Protection of water resources and prevention of impacts to surface and groundwater
- Prevention of contamination during development activities from ASS

*Wildlife Conservation Act 1950*

Town of Claremont information relating to wildlife

- Protection of native flora and fauna
- Presence of declared rare fauna species
- Presence of priority 4 listed flora species

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Local Government

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Lake Claremont Management Plan

Ongoing management of Lake Claremont

Dogs in Public Places LV133

Designation of dog exercise areas where dogs must be kept on a leash  
Requirement for owners/handlers to be in control of dogs at all times

Town of Claremont Local Planning Scheme No 3

- Various state planning guidelines
- Town of Claremont planning information

- Zoning of Lake Claremont under metropolitan region scheme as 'Parks and Recreation'
- Protection of Bush Forever sites from clearing or other development

Town of Claremont Sustainability information

- Earthcarers
- Climate Smart
- Waterwise gardens; use of native plants
- FertiliseWISE
- Use of bore and scheme water
- Grey water use
- Compost and mulch
- Dieback
- Worm farming

#### **4.0 Tenure and Zoning**

Lake Claremont is owned in fee simple by the Town of Claremont. It comprises parts of Perthshire AW Lots 1, 2, 5, 6, 7, 8, 58, 60, 101, 150, 900, 901, Reserves 49882, 27367, 29430, 4228, 9249, 22142 and Crown land lots 1063, 1366, 2563 and 06223 (Figure 7.2). The Aquatic Centre, McKenzie Bush, Stirling Road Reserve and a small lot located southeast of Mulder Park are located on a Crown A-Class Reserve vested in the Town of Claremont.

With the exception of Ballaruk Bushland (Figure 7.5) and The Cedus Park, the Lake Claremont and surrounds are zoned Parks and Recreation in the Metropolitan Region Scheme (Town of Claremont 2010c).

Ballaruk Bushland is zoned Urban in the Metropolitan Region Scheme (MRS) and as Residential under the Town of Claremont Town Planning Scheme No. 3 (Town of Claremont 2017). As this section contains high quality remnant bushland, Natural Area recommended that the zoning is changed on the MRS and Town Planning Scheme to Parks and Recreation.

The Cedus Park is zoned Educational under the Town Planning Scheme No.3 on the southern portion of the land, and a Parks and Recreation Reserve under the MRS for the remainder.

The majority of the land surrounding Lake Claremont has residential zoning: Lots in Claremont south of the lake and Swanbourne to the west zoned with a density of R20; Davies Road is zoned R30 density and the high-density Northeast Precinct development around Claremont Oval. Scotch College to the southwest of the lake is zoned Education. Light industrial land is present within the area bounded by Motteram Avenue and Graylands Road. Claremont Oval is located to the east of Davies Road and carries a Parks and Recreation (Restricted) zoning under the MRS.

Located at the corner of Alfred Road and Montgomery Avenue in the City of Nedlands, the Mt Claremont Oval Reserve is immediately adjacent to Lake Claremont. This A-Class Reserve has approximately 2.2 hectares of nature space and 1.6 hectares of sport space.

#### **5.0 Land Use within Lake Claremont and its Parklands**

Major land uses within and immediately adjacent to the Lake Claremont and surrounds include:

- public recreational space with barbeques, turf areas, playgrounds, walking trails, and cycling infrastructure (10.0 hectares);
- off-leash dog recreational space (2.3 hectares);
- the par-3 golf course (4.8 hectares);
- Cresswell Oval sport space for cricket in summer and hockey in winter (2.5 hectares);
- tennis courts at the corner of Davies Road and Shenton Road (1.9 hectares);

- Claremont Aquatic Centre (1.8 hectares);
- Scotch College sport fields (11.5 hectares);
- wetland nature space (20.7 hectares) of Lake Claremont and its riparian buffer;
- bushland nature space (11.8 hectares) north & west of Lake Claremont, including Ballaruk Bush; and
- bushland nature space at Mackenzie Bushland (1 hectare).

The Department of Sports and Recreation (DSR) classification for public open space recognises the blended use of nature, recreation and sport spaces, such as recreational off-leash dog walking on Mount Claremont Oval and bushland and wetland nature spaces used for recreational bird watching or photography. While recognising the multifunctional nature of public open space, the breakup of land use is 22.5 hectares of dedicated sport space with recreational value, 12.3 hectares of recreation space with nature value and 33.5 hectares of nature space with recreational value. Applying the DRS framework means there is an approximately even split between the area with a primarily environmental focus (33.5 hectares) and the area which has a primarily recreation and/or sport focus (34.8 hectares).

Negative impacts associated with the land uses detailed above have been limited through:

- installation of paths and fencing to improve quality of bushland
- the Town of Claremont discontinuing use of phosphate-based fertilisers and general use of fertilisers kept to a minimum; and
- the installation and maintenance of nutrient stripping basins and infiltration pits in areas of stormwater inflow.

**Recommendation**

- Continue to only use Glyphosate in fenced (non public accessed) areas and seek further reductions of chemical use via hand weeding where possible
- Continue to keep fertiliser use to a minimum
- Continue to maintain nutrient stripping basins. For example, removal of built up sand after winter storm season
- Continue to receive nutrient and irrigation report data from Scotch College at Lake Claremont Advisory Committee meetings
- Continue to educate the Town's residents on the preferred use of low phosphate fertilisers and weeds of concern to be aware of in their private gardens.

## 6.0 Land Use in Lake Claremont Catchment

Land uses within the broader Lake Claremont catchment with the potential to influence the ecological and environmental values of the lake, particularly through the inflow of nutrients via groundwater and stormwater runoff and over abstraction from the superficial aquifer, these include:

- Claremont Oval for Australian rules football (2.5 hectares of sport space);
- Mount Claremont Oval Reserve (3.8 hectares of nature and sport spaces);
- Maclagan Reserve (0.8 hectares of recreation space);
- Mount Claremont Primary School;
- Cottesloe Golf Course;
- Graylands Road Light Industry Precinct;
- the Royal Agricultural Society showgrounds;
- the Brockway Road landfill site (closed approximately 20 years ago);
- the Subiaco Waste Water Treatment Plant;
- roads and verges; and
- private residence.

The level of impact associated with these land uses will continue to be monitored through the ongoing comprehensive water quality monitoring program that is currently in place, further discussion of water quality appears in Appendix 2.

### Recommendation

- Continue annual water quality monitoring program at Lake Claremont via contractors undertaking sampling and reporting four times per year from 5 locations, including a macroinvertebrate sample and two sediment samples.
- Parameters to be tested are Dissolved oxygen, temperature, electrical conductivity, pH, total phosphorus, filterable reactive phosphorus, total nitrogen, nitrogen as ammonium/ammonia, total oxidised nitrogen, total metals (Al, As, Cd, Co, Cr, Cu, Fe, Mn, Hg, Ni, Pb, Se, Zn), turbidity, and total water hardness.
- Share findings of the above monitoring and reporting with Lake Claremont Advisory Committee.

## 7.0 References

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