



Department of Water and Environmental Regulation
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20th July 2020

Dear Sir/Madam

Submission on Clearing Permit Application 8947/1 for 2.89ha

Proponent: DevelopmentWA

The site is within the City of Joondalup located west of Ocean Reef Drive, Ocean Reef, WA

The Urban Bushland Council WA Inc. (UBC) submits that DWER rejects and refuses the clearing permit application above as it is part of the extensive Ocean Reef Marina (ORM) development that will have very significant impacts on the natural environment. This 2.89 ha clearing permit application is a small part of the **30ha of significant bushland** that is proposed to be cleared, and therefore should be assessed for cumulative impacts in this broader context rather than the 2.89 ha applied for now, particularly in light of the decision that no environmental assessment was required for the terrestrial portion of the development. Formal environmental impact assessment by the EPA as a PER should have been carried out.

Community Values for coastal landscapes

Natural coastal landscapes are highly valued and cherished by the community. This highly contentious Ocean Reef Marina project has been in the planning stages for nearly 30 years without rigorous environmental assessment. There has been a lack of **avoidance** of environmental impacts, and a lack of application of the **precautionary principle**. There has been a complete disregard and rejection of **community values** for this irreplaceable coastal landscape.

It was only in 2018 with the preparation of a Coastal Hazard, Risks Management and Adaption Plan (CHRMAP) for the City of Joondalup's entire coastline that those coastal values were sought and considered. The City of Joondalup's 2018 [community values](#) survey showed how important this coastal landscape is for recreation and enjoyment.

At no stage was the community asked if it approved of the destruction that would be caused from this development. Those that are aware are doing so now.

Boating Facilities

Hillary's boat harbour is located only 8.8kms south with excess boat storage available (Dec 2019) The proposed marina will have exactly the same number of boat ramps. The business case for more boat pens and a huge new marina is not apparent.

Community Volunteer Bushcare Groups

There are at least 150 community volunteer bushcare groups helping to protect our unique Perth bushland. The City of Joondalup has a number of bushcare groups which were formed when community folk noticed degradation creep in and escalate with human use, causing a significant loss to our local unique biodiversity. They volunteer their time to help regenerate this bushland which is wide and long enough to continue as a home to a diversity of native fauna and flora. The more they discover, the more passionate they are to save it. [These volunteers](#) are devastated and

angry that these unique plant assemblages are proposed to be destroyed for yet another marina as well as commercial and residential development.

Loss of Identity

The northern suburbs coastline of Perth from City Beach to Ocean Reef has already seen considerable development over the last 40 years resulting in a loss of natural character and sense of identity.

Our world recognised biodiversity hotspot is identified for conservation priority because it is under threat.

Any development proposal should routinely consider the visual landscape, its social values, and especially a coastal landscape. This coastal landscape is why people have chosen to live here.

A stretch of limestone cliffs and supporting dune ecosystem was supposed to be secured as Bush Forever 325 in an A class conservation reserve, together with Marmion Marine Park. This is a 'Kings Park' of the northern suburbs and must be conserved for the many recreational and environmental values it provides.



Tourism and Economy

The Department of Local Government, Sport and Cultural Industries [framework](#) for outdoor recreation in Western Australia, 2019, came about from a community perceptions survey.

Outdoor recreation, nature-based tourism, and adventure recreation make a huge contribution to the health, wealth, wellbeing and happiness of individuals and communities in Western Australia. They also contribute greatly to the State's economy.

The 10km coastal strip between Burns Beach and Hillarys is **one of the few relatively intact coastal landscapes** in the Perth metro area that could be termed 'wilderness'. It was for this reason and for its biodiversity conservation values that in 2000, almost all of it was designated Bush Forever site 325.

This Ocean Reef Marina development is contrary to the WA Government's outdoor recreation strategy. On these grounds alone no further clearing should be permitted.

State Government Transport strategy

The Ocean Reef Marina development is vehicle dependent and contrary to the State Government's strategy of urban development near public transport nodes.

Our comments under the Clearing Principles are as follows

Clearing Principles: Native vegetation should not be cleared if:

- (a) it comprises a high level of biological diversity**

Between 2015 and 2018, entomologist, David Knowles conducted surveys of macro invertebrates between South Ocean Reef and Iluka for local friends groups. Together they increased the known number of insects there to 538 species and reptiles to 14 species. This is a very high level of species richness. New species continue to be found. The priority 4 Graceful Sun Moth (GSM) is present there among the coastal *Lomandra*. Ocean Reef bushland has a high density of *Lomandra maritima*. The proposed loss of significant habitat here from clearing could place the GSM back on the *critically endangered* list. David Knowles' surveys show species numbers constitute a very high level of species diversity which is well above those recorded in ORM commissioned surveys. Professor Kingsley Dixon when visiting the ORM development site commented on the *large diversity of plant species like none other on the coast*.

Dr Marjorie Apthorpe who volunteered in Joondalup bushland for years has recorded 139 plant species here. This is considerably more (50) than the NAMs and Mattiske Consulting surveys. There are species in the bushland at Ocean Reef that may not be rare but have been lost to most of Perth urban bushland because of fragmentation and clearing.

Australia's Biodiversity Conservation Strategy 2010-2030, Commonwealth Government

document states that '*Biodiversity is under threat worldwide. Many scientists consider that the Earth has now entered a global biodiversity extinction crisis (UNEP 2007). That is, they believe that many of the species alive today are under threat of rapid extinction*'. One of the ten five-year strategies is number 4: '*By 2015, achieve a national increase of 600,000 km² of native vegetation managed primarily for biodiversity conservation across terrestrial, aquatic and marine environments.*'

As an agency working under the bilateral agreement, the granting of this clearing permit by DWER is contrary to this strategy.

Therefore the clearing proposal is seriously at variance to Principle (a) and on these grounds alone should be refused.

(b) it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia

The Ocean Reef Marina development site is where the vegetation is widest in the west-east direction. Significantly, there is no other coastal vegetation like this or as wide as this in the Perth metro that does not have a major road traversing it. This was deliberately retained as a large node as small shy bush birds and animals are found here because they need an undisturbed area to inhabit. Wrens in particular need these larger areas. There will be a 30ha reduction of significant habitat which is essential for their existence and thus their population will decline significantly. The larger the undisturbed area, the greater the biodiversity. Further:

Fragmentation of Ecological Corridor

Presently there is 6 km of ecological corridor between Burns Beach and Mullaloo which is continuous except for some narrow paths that still allow crossing and essential movement by small animals.

The White Winged Fairy Wren is a shy extraordinarily beautiful bird that is still found in Bush Forever 325. The Ocean Reef Marina development will make it impossible for small birds, quendas, bobtail and other reptiles to cross the seven lanes to the 1000+ residences, boat and commercial facilities.

This will cause catastrophic loss and fragmentation of significant fauna habitat and ecological corridors:

- 1) The **quenda** found at the Ocean Reef site are a priority 3 species.
- 2) **Priority 4, Graceful Sun Moth**

- has recently had its status revised from critically endangered to priority 4. But the clearing of 30ha of graceful sun moth habitat will likely lead to it being relisted as critically endangered.
- The assessment noted that although the habitat plant *Lomandra maritima* exists at the NPO, there is- **no record** of the graceful sun moth there.
- Although the assessment noted that *L maritima* will be **considered** in the rehabilitation work, however it is difficult to source and will take years to provide enough habitat for the total development clearing loss.
- How will it be assessed that there is a return of sufficient *Lomandra* before remediation with this plant ceases?

3) Carnaby's Cockatoo foraging habitat loss

- The endangered Carnaby's Cockatoo uses Bush Forever 325 for foraging. We have observed ~ 200 of Carnaby's Cockatoos at the site. If the offset at Carabooda is deemed sufficient for these birds why did 200 fly into the [Ocean Reef bushland](#) to forage on Saturday 11th July 2020?
- It has been determined that the NPO can 'compensate' for the loss of foraging area for the Carnaby's cockatoo. This is nonsense. The offset already exists and therefore clearing will be a net loss. Loss of habitat is contrary to the approved Recovery Plan for Carnaby's Cockatoo. Also, the area is 'critical habitat' being close to a roosting site. The assessment for CPS8787-1 states:

'that Banksia sessilis will be avoided where possible, and that a priority in the rehabilitation works in adjacent areas will be to incorporate this species where it naturally occurs. There is a confirmed breeding site for Carnaby's cockatoo 3.8 kilometres from the application area and a confirmed night roosting site 4.5 kilometres from the application area. Based on the proximity of this area to breeding and night roosting sites and its location within the Swan Coastal Plain, an important foraging area, the application contains significant foraging habitat. Part of the NPO includes the rehabilitation of areas adjacent to the development area. The incorporation of planting suitable foraging species is essential so as to not reduce the foraging capacity of the local area for these populations.

But clearing of this area will reduce habitat and there will therefore be a net loss.

- The proposed rehabilitation of bushland nearby with *B. sessilis* will take many years. A rehabilitation plan which has not been received, should plan to plant at least 10 times the area cleared to compensate for the growing time to provide the food source necessary.

- 4) **The [Black Striped snake](#)** (*Neelaps calonotos*) a Priority 3 species was found in Bush Forever 325 dunes further south but in the same ecological corridor this month when volunteers were disturbing the dunes for planting.



Therefore the clearing proposal is very seriously at variance to Principle (b), and on these grounds alone should be refused.

(c) it includes, or is necessary for the continued existence of, rare flora

Vegetation surveys conducted since 2000 by Natural Area Management Systems (NAMS) and Mattiske Consulting Pty Ltd, reveal the presence of rare flora species, but also alarmingly have missed several key species and failed to recognise vegetation assemblages. Mattiske cites **14 threatened and priority species** have potential to occur in the development area. This is a very high number of threatened species.

NAMS 2009 survey listed 88 local native species, which is a significant number in the development area. Local volunteers have added another 50 to this list.

The Keigherys' 1992 survey of this coastal area to be included in Bushplan and hence Bush Forever 325, determined the significant factors:

Representation of ecological communities, Rarity, Maintaining ecological processes or natural systems, General criteria for the protection of wetland, streamline and estuarine fringing vegetation and coastal vegetation, contiguous north south linkages.

Other notes from the Keighery's survey were:

- *Plantago exilis* found under the *M cardiophylla* heath is rare in the Perth Metropolitan Region (PMR).
- vegetated areas south of Burns Beach are **the best remaining example of a 'limestone ridge forming cliffs' in the north-west corridor of the PMR** (Semeniuk, V&C Research Group 1991)

Cultural Values:

It is also of concern that the obvious community of *Nitraria billardierei* on the southern end of the development area is missing from the Mattiske report. This plant is adapted to the severe hot salty cliff and dune conditions. It is rare in the PMR. This is a species of considerable Noongar significance as is the Quandong, Acacia, Rhagodia berries, native blueberry, Dianella, Leucopogon and Actrotrioche for bush tucker. The importance of the site to Aboriginal people cannot be underestimated.

The UBC therefore strongly recommends that a vegetation survey for species and habitat of Aboriginal significance is carried out before any further consideration is given to this clearing permit application

Marianthus paralius - **Declared Rare Flora** – Extant, is however acknowledged in the Mattiske report which states (Page 13. Our bold for emphasis)

*“This almost prostrate, woody shrub eventually becomes scandent growing on low, limestone cliffs by the coast in white sand, producing red flowers from September to November. There are six records of this taxon in the database of the Western Australian Herbarium (DPaW 2013a). Two of these records occur within 3.5km of the survey area. **It is possible this species will occur within the survey area.**”* This means it is highly likely that this species is present in the development area to be cleared.

Under the provisions of the **critically endangered** *Marianthus paralius* there is a Recovery Management Plan [link](#) as written in 2013 by DBCA (formerly DEC). How will this Recovery Plan work with nearly 30 hectares of its vegetation complex lost? The proposed clearing is overtly inconsistent with the Recovery Plan.

The UBC expresses EXTREME CONCERN that neither DWER, nor City of Joondalup, nor associated parties in the Ocean Reef Marina development project, have attempted to conduct a rigorous flora survey within the footprint area for *Marianthus paralius*.

The Mattiske flora survey did not record several known locally important or rare species, so it is likely that even more species of significance may be present. For example:

- Yanchep Rose- southern most record, one of only 2 known sites in City of Joondalup
- Coastal hop bush- *Dodonea aptera* only known occurrence in City of Joondalup
- *Leptomeria preissiana*
- *Salicornia quiqueflora* along cliff tops Supergroup 2 Seasonal hypersaline wetland (within CPS 8947)

We strongly recommend that DWER rejects the clearing permit until such appropriate rigorous flora surveys have taken place when in flower with an objective to find those plants surveyed in 1992.

Three Priority 3 Ecological Communities (P3 PECs) were inferred by Mattiske (2013) to occur within the development area being:

- SCP 24: 'Northern Spearwood shrublands and woodlands'
- SCP 29a: 'Coastal shrublands over shallow sands, southern Swan Coastal Plain'
- SCP 29b: 'Acacia shrublands on taller dunes, southern Swan Coastal Plain'.

The loss of these uncommon PECs is totally unacceptable when our changing climate indicates we need to keep and protect our biodiversity. Clearing of any TECs and PECs is unacceptable.

Therefore the clearing proposal is seriously at variance to Principle (c).

(e) it is significant as a remnant of native vegetation in an area that has been extensively cleared

This clearing permit is part of a cumulative 30 ha area to be cleared and must be considered in this context.

The NPO for Bush Forever site 325 excision, August 2019, demonstrates how the local region has been over cleared as '*like for like*' was not available in the Perth Metropolitan Region (PMR). Rather existing Tuart forest in Carabooda has been chosen as the offset for coastal heath and coastal limestone vegetation.

Industry best practice guidelines for offsets are clear on the like-for-like principle. This means vegetation types identified at Ocean Reef are SCP24, SCP29a and SCP29b.

This demonstrates a clear failure to abide by the offsets system and rings alarm bells over what would be the decimation and annihilation of vegetation assemblages at Ocean Reef that are **irreplaceable**.

The 26ha excision of Bush Forever 325 was to make way for the Ocean Reef Marina and associated development.

Bush Forever was identified for the purpose of retaining at least 10% of each vegetation complex. With the excision of 26ha from Bush Forever 325 for the ORM development and clearing of the surrounding vegetation and inability to secure an offset with Quindalup Dune vegetation complex, the amount of this vegetation remaining in secure tenure within the Metropolitan Region Scheme area:

- Quindalup vegetation type has 4.6% protected for conservation (IUCN 1 – IV)
- Cottesloe Central and South has 6.12% protected for conservation (IUCN 1-IV)

- 1) Current percentage remaining within lands Protected (IUCN I-IV) for Conservation (%) 2018 does not consider the existing clearing permit. There are 4 clearing permits current for this local coastal vegetation type.

Secure tenure of remaining Quindalup dune vegetation complex will be further reduced by CPS 8947-1 application requesting to extend further into the remaining Bush Forever 325

site. This is a breach of the conditions of the permit set by NWMJDAP that the seawall must stay within the development footprint.

- 2) UBC disputes that DWER uses the statistics of the whole Swan Coastal Plain to evaluate over clearing rather than the Metropolitan Region Scheme area, northern coastal areas.

UBC expresses deep concern and objection to the offsets procedure for the Ocean Reef Marina development. We strongly object to the statement in the clearing application that the area has already been offset. The offset does not justify the clearing and net loss.

Therefore the clearing proposal is seriously at variance to Principle (e) as the area is already extensively cleared.

Principle f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland

- *Ocean Reef bushland and remaining Bushforever 325 is part of a regionally significant fragmented bushland/wetland linkage. The adjacent bushland to the east; part of Greenways 4, 1, 10 (Tingay, Alan & Associates 1998a)*
- The **seasonal hypersaline wetland** Greg and Bronwen Keighery surveyed in 1992 still exists on the cliffs of the CPS 8947-1 site.
- The series of wetlands leading to the coast and the underground waterways were the making of the rainbow serpent, the Waugal, as it moved through the land. The uniqueness of Ocean Reef with its shore accessible reef to gather shellfish, crabs, fish and sea lettuce surrounded by a biodiverse, highly nutritional orchard. This site is a significant remnant of Aboriginal culture which has been largely destroyed by our urban sprawl. Signage is needed here to tell this story.

Therefore the clearing proposal is seriously at variance to Principle (f).

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

The clearing of 26ha of vegetation will cause appreciable land degradation from:

- 1) **sand blowing** into surrounding bushland and smothering plants
- 2) **weed infestation**

The clearing of vegetation and increased public pressure on the dune will provide a greater opportunity for weeds to invade though seed distribution and reduction in the competitive pressures of native species. Increased cleared area will provide suitable habitat for weed seed germination and plant establishment. Unless managed correctly, invasive weeds will thrive, posing a risk to surrounding vegetation. Environmental weeds are plants that establish themselves in natural ecosystems and modify natural processes, resulting in the decline of the communities they invade (Department of Conservation and Land Management 1999). Impacts on ecosystem function by environmental weeds include:

- resource competition, as weeds often outcompete native species
- prevention of seedling recruitment of native species
- alteration to geomorphological processes, such as increased erosion
- changes to soil nutrient status
- alteration of fire regime, usually through susceptibility to increased fire frequency
- changes to the abundance of indigenous fauna due to less diverse habitat
- loss of genetic diversity

- loss of species diversity
- changes to the structure of vegetation communities, often by the removal of the shrub layer or native ground covers. City of Joondalup [Reference](#)

3) Climate change impacts of clearing of bushland has not been considered and the remaining buffering amount of vegetation needs to be conserved.

All vegetation will continue to be affected by a drying climate, more heatwaves, higher temperatures, stronger winds, more severe storms. Vegetation moderates the climate. With the large amount of surrounding vegetation removed the remaining vegetation will be less resilient to the climate change impacts now and in future.

Therefore the clearing proposal is seriously at variance to Principle (g).

h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area

- **Ocean Reef bushland and remaining Bush Forever 325** is part of a regionally significant fragmented bushland/wetland linkage. The adjacent bushland to the east; part of Greenways 4, 1, 10 (Tingay, Alan & Associates 1998a)

The environmental impact of clearing on surrounding environmental values are:

- **The loss of ecological connectivity north- south and east-west for fauna and for flora pollination will be highly significant.**
- reduced capacity to moderate the climate
- reduced resilience to severe weather events.
- competition for habitat by fauna
- drying of exposed vegetation edges in a drying, heating climate will cause plant deaths.
- Fauna are now in balance in numbers for the land size. Fauna forced into a smaller area will cause competition for habitat with colonies becoming weak and all fauna could be lost.
- Quandong depend on insect pollination. If any Quandong are not cleared their future will be at risk from reduced pollinators.
- **CP 8947-1 is requesting permission to clear 0.17ha of Bush Forever 325** for road batter. Given the large area available there is no need to encroach. This must not be permitted. **This clearing request is outside the development footprint and a breach of the conditions set by NWM JDAP for the seawall.**

Therefore the clearing proposals are at variance to Principle (h)

Climate Change

Coastal erosion will continue to reduce coastal vegetation. It is imperative that sufficient land is set aside for recreation rather than building walls to protect development for the benefits it provides to society:

- passive recreation and enjoyment of nature,
- prescription for good mental health,
- clean air,
- moderation of climate
- connection to nature and more

In a time when Australia has just released twice the annual Greenhouse Gas emissions with wildfires, this is no time to be clearing healthy bushland.

CONCLUSION

Under the Clearing Principles, the proposed clearing is at variance or seriously at variance to Principles (a), (b), (c), (e), (f), (g) (h). Therefore the proposals should be refused.

The UBC believes that any proposal at variance to even one Clearing Principle should not be granted a Clearing Permit.

- Quoting precedent (Section 2.7 of Supporting document) is irrelevant. Every project should be treated individually.
- Use of extra offset at Carabooda should not be allowed to justify the request to clear more of Bush Forever 325.
- The offset proposal of remediating degraded land has not worked here and therefore is not applicable. It is degraded because of the failure of previous promises of rehabilitation for built infrastructure which have never been enforced and made accountable.
- The supporting document talks of natural recruitment. Where a large tract of bushland was accidentally cleared at Ocean Reef BF 325, for a fire access track, the only recruitment has been weeds and *Acacia rostellifera*. Although promised, there is no evidence of rehabilitation attempts. This clearing has degraded the surrounding area by weed infestation and the harsh exposed baking sand conditions has caused surrounding vegetation to fail to thrive.
- 50% of the seed collected so far for bushland rehabilitation is *Acacia rostellifera*. This is a pioneer species with lignotubers that will take over surrounding bushland and is not recommended for use in biodiverse bushland. It takes 55 years for this species to senesce and let light in for other species to grow (Rottnest Island study).
- We are in the middle of an extinction crisis, including the threats and results of climate change. We therefore strongly recommend you reject the clearing permits and preserve this natural vegetated coastline for the local community which clearly expressed this wish and for all visitors now and the future.
- The previous two clearing permits dismissed the variances to 5 clearing principles because the City of Joondalup bought land at Ocean Reef in 1979 for development. **This is not an environmental ground for justifying future clearing of native vegetation.** City of Joondalup should have abandoned plans for development in 2000 when the coastal dunes and cliff top communities were identified as Bush Forever. An 'A' class Marine Park next to Bush Forever is an obvious site for protection rather than its destruction.
- The Bush Forever 325 original boundary should be reinstated in its entirety.