



Stop the roads through Scarborough's sand dunes

## Environmental Fact Sheet Proposed Extension of MRA Boundary - Scarborough

**The land to the north and south of the MRA redevelopment zone is primarily Bush Forever.**

Bush Forever is the State Government's designation of urban bushland that is representative of specific plant communities that will be lost forever in our urbanised environment - unless they are strictly protected.

**It is a world class plan in Australia's only global biodiversity hotspot.** – Urban Bushland Council of WA<sup>1</sup>

The research and analysis for this plan required an intensive effort by the science community over a period of years, and resulted in State Planning Policy 2.8.<sup>2</sup> There are 26 different vegetation complexes found around Perth, and an example of each has been designated as Bush Forever.<sup>3</sup>

Bush Forever Site 310 lies to the south of Scarborough Beach, and Bush Forever Site 308 lies to the north (Trigg Bushland). Bush Forever Site 308 is also designated as a Bush Forever Reference Site.

**The MRA is planning roads without having done the necessary environmental studies.**

The only report conducted by the MRA is a Level 1 Flora and Vegetation Survey – **the lowest level of survey possible**. Although it passes itself off as a Level 2 Survey, it does not include plot based surveys and multivariate analysis. Environmental Protection Authority guidelines under the Environmental Protection Act 1986 stipulate that **any clearing greater than one hectare on the Swan Coastal Plain requires a Level 2 Survey** which is the highest, most detailed level of assessment, which includes a field survey and detailed plot based surveys.<sup>4</sup>

**The flora and fauna survey conducted by the MRA is superficial and flawed.**

There are several potential state-listed Priority Ecological Communities identified as occurring in both Bush Forever Site 308 and 310. There is also a possible outlier to a Threatened

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<sup>1</sup> <http://www.bushlandperth.org.au/bush-forever-overview>

<sup>2</sup> <https://www.planning.wa.gov.au/publications/1170.asp>

<sup>3</sup> <http://www.bushlandperth.org.au/bush-forever-overview>

<sup>4</sup> Guidance Statement 51 (EPA, 2004)

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Ecological Community. A Level 2 Survey completed properly, using a plot based survey and multivariate analysis, would have identified whether or not any of these were present within the project boundary. This was not done.

**There was no conservation significance assessment for vegetation.**

The report only looked at the conservation significance of plants – not plant communities, which are unique combinations of plants growing together. Other than describing ‘vegetation complexes’ – a term too broad to be used to assess conservation significance, especially on the Swan Coastal Plain – they ignored this important aspect and just concentrated on individual plants. The report should have detailed Floristic Community Types – which was glossed over, giving **no details of these critically important communities within the survey area.**

**Floristic Community Types in both Bush Forever Sites are Priority Ecological Communities.**

The report admits that some Floristic Community Types, which are a priority for protection, are present in Bush Forever Sites 308 and 310, but fails to identify which of these are present in the survey area:

- Coastal shrublands on shallow sands, southern Swan Coastal Plain (‘community type 29a’)
- Acacia shrublands on taller dunes, southern Swan Coastal Plain (‘community type 29b’)
- Northern Spearwood shrublands and woodlands (community type 24’)<sup>5</sup>

Only a detailed Level 2 Survey would give these answers - **which should have been the first step in the MRA’s planning process.**

**The report glosses over the presence of *Callitris preissii* – an indicator of a Threatened Ecological Community.**

Although the survey records the presence of *Callitris preissii* – **exactly in the area that the MRA wants to put a road** – they did not conduct the necessary work to determine whether it indicates a Threatened Ecological Community – the equivalent of a threatened species, but for a unique combination of plants growing together. **There is already a State-listed Threatened Ecological Community of this type nearby in Bush Forever Site 308.**<sup>6</sup>

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<sup>5</sup> See [https://www.dpaw.wa.gov.au/images/plants-animals/threatened-species/priority\\_ecological\\_community\\_list\\_june2016.pdf](https://www.dpaw.wa.gov.au/images/plants-animals/threatened-species/priority_ecological_community_list_june2016.pdf), items 20, 26 and 25.

<sup>6</sup> “Occurrence 48 (Trigg02) is the southern part of the Trigg Bushland that occurs north of Scarborough’s residential area. West Coast Highway partly borders the occurrence to the west and Elliot Road borders to the east. The whole occurrence is within Trigg Bushland and Adjacent Coastal Reserve, Trigg/Scarborough Bush

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The presence of these plants should have set the alarm bells ringing – especially they appear to be very old, and the area they are growing does not appear to have been disturbed.

**Without proper scientific survey, it cannot be determined if these plants are part of an 'outlier' to the main community,** deserving of the highest protection by law.

### **Report results are skewed to present a negative view of the dunes.**

The report claims that the site is heavily modified – combining high quality Bush Forever areas with disturbed foredunes at Scarborough Beach – yet large areas are mapped as being in Very Good condition – a whopping 57.3% Very Good, and 26.5% Good, meaning that in fact **83.8% of the dunes are in Very Good or Good condition.**

**Coastal areas in Very Good condition are rare in the central metropolitan areas,** as they are very vulnerable to degradation. The truth is that only 16.2% of the dunes are classified as Degraded.

Because the dunes were not surveyed in detail, it is probable that much of the land is in even better condition than described in the Level 1 Survey. Bush Forever surveys conducted in the coastal part of Bush Forever Site 308, just north of the MRA proposed extension, have been rated as Pristine.

As much of the area in the proposed extensions is protected from foot traffic, it is entirely possible that **pockets of dune bushland are still in Excellent or even Pristine condition.**

Don't be fooled by statements that the dunes are 'scrappy' or 'weed infested.' Foredunes are naturally sparsely vegetated. This is the natural condition for this type of dune, and it can be rated as high quality even if it doesn't appeal to our human bias for dense vegetation. It is just another type of dune, with its own ecosystems – and its own type of beauty.

### **The public is being misinformed about the dunes.**

**The MRA has characterised the dunes as 'rabbit infested' – when in fact only 1 rabbit warren was found.**<sup>7</sup> They also said that the 'vegetation in this area is largely degraded' – which even their own poor quality report shows to be completely incorrect. **The MRA appears to be conducting a misinformation campaign,** skewing 'facts' or even going further, by making statements that are completely unsupported by the facts.

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Forever site which also contains the priority 3 community 'Acacia shrublands on taller dunes (community type 29b as described in Gibson et al. 1994). The site is managed by the City of Stirling for conservation." See [https://www.dpaw.wa.gov.au/images/plants-animals/threatened-species/threatened\\_ecological\\_communities\\_endorsed\\_by\\_the\\_minister\\_for\\_the\\_environment\\_june\\_2015.pdf](https://www.dpaw.wa.gov.au/images/plants-animals/threatened-species/threatened_ecological_communities_endorsed_by_the_minister_for_the_environment_june_2015.pdf)  
<sup>7</sup> [Channel 9 News](#) 23 June 2016; Natural Area Flora and Vegetation Survey, p44.

**The MRA has underestimated the amount of Bush Forever land that would be impacted.**

Maps provided by the MRA have highlighted the amount of Bush Forever land that they believe would be impacted – although **they have asked for much more Bush Forever land** than they say they will need.<sup>8</sup> Why do they want extra land if it is not needed? How do they believe that a road can be constructed that only impacts one side of the road – not the other, even though according to Project Director Ian Mckee there will be no retaining walls, but rather wide sand beds that would stretch out on that side of the road.<sup>9</sup>

**The MRA is claiming land that has not been surveyed or studied – not even by their low quality Level 1 Survey.**

The land surveyed by the Level 1 Survey comprises a **whopping 23.7% of the coastal strip** portion of Bush Forever site 308 – a massive cut to our coastal bushland.<sup>10</sup> The MRA maps appear to have narrowed their claim, yet have extended it to the north – well outside of the survey area of the Level 1 Survey. That means that **the MRA is trying to extend their boundary to an area that has not been surveyed** at all.<sup>11</sup>

**Landforms and the topography are hardly mentioned.**

Although the MRA recognises 'dunes,' it doesn't seem to recognise *types* of dunes – and neither do their consultants.

Bush Forever Site 308 is renowned for its progression of dunes from the edge of the Indian Ocean to very tall dunes with Tuart, Banksia, Marri and Jarrah forest. There are many different types of dunes, starting from the foredunes, through secondary chaot dunes ridges, terminating in an unusual pair of nested parabolic dunes.<sup>12</sup> This unusual assemblage was created by a cusped foreshore and offshore winds which directed sands inland.

The dunes immediately to the north and south of Scarborough Beach are unusual in that they have formed outside of the cusped system, and do not have foredunes, but instead shore parallel dunes that form a sequence of sea cliff sand ridge, linear depression, second sand

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<sup>8</sup> <https://beachnotbitumen.com/maps/>

<sup>9</sup> Pers. Com. Nina McLaren 2016

<sup>10</sup> Natural Area Flora and Vegetation Survey, p9

<sup>11</sup> <https://beachnotbitumen.com/maps/> ; Natural Area Flora and Vegetation Survey, p8

<sup>12</sup> <http://www.triggbushland.org.au/landscape.htm>

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ridge, second depression, and a third sand ridge – all displaying 'chaot' features. This sequence is not common on the central and southern coastal plains.<sup>13</sup>

**"...the sand ridge belt of the Scarborough Beach and Trigg Island area is evaluated as State-wide significance because of the occurrence of a linear belt of the ridge-and-depression system outside a system of a cusped foreland, and the occurrence of chaots as the smaller-scale landforms comprising the ridges and the depressions."**  
– V & C Research Group

Instead, the MRA's Level 1 Survey characterizes all of the dunes as 'modified' when in fact that is only certain to apply to the Scarborough foredunes, *not the dunes to the north and south of Scarborough Beach*.

**These Bush Forever sites are a living museum of geomorphology – the way that landforms are created by the elements – and have been rated as having State-wide significance.**

**"Landforms have numerous and varied environmental values which can include being a foundation for particular ecosystems, being sites of special scientific interest related to geology and geomorphology, and representing examples of important physical landscape processes."** – Environmental Protection Agency<sup>14</sup>

### **Birds, reptiles and other fauna hardly rate a mention.**

Because it is a Level 1 Survey, there is no real data on the birds, reptiles or any fauna in the dunes. All of the information is taken from other documents – it is a 'desktop' survey, with hardly any time spent in the bushland. All of the sightings that are noted are accidental occurrences during the scant two days set aside by the report writers to actually visit the dunes. No pit traps or scientific methods were used to determine the type and number of fauna species.

Yet the report writers feel confident to assert that no further surveys are warranted 'due to modifications on the site' – once again, **a statement that applies only to the foredunes, not the Bush Forever dunes to the north and south**. By lumping all of the dunes together, the report incorrectly characterizes all of the dunes as disturbed, something they cannot know based on a superficial Level 1 Survey.

<sup>13</sup> Semeniuk, V, Assessment of the coastal dunes between Scarborough Beach and Trigg Island, Nov 2016  
<https://beachnotbitumen.com/ask-the-experts/>

<sup>14</sup> <http://edit.epa.wa.gov.au/EPADocLib/EPB%2023%20Landforms%20July%202015.pdf>

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### Rainbow bee eaters, peregrine falcons and other birds.

**Rainbow bee eaters and peregrine falcons are regularly seen in Bush Forever Site 308.** Both of these species are protected under the Wildlife Conservation Act 1950. The Rainbow Bee Eater is listed as IA and protected as a migratory species while the Peregrine Falcon is listed as OS needing special protection.

The Bold Park Bird Banding Group band birds in Bold Park, some of which have been recovered as far north as Guilderton.

**"It is likely the birds use the coastal dune system as a bush corridor to enable them to make their way from Bold Park to Trigg Bushland, then further northwards. The removal or interruption of this green corridor will likely have an impact the movement of birds from Bold Park to Trigg Bushland"** – Bold Park Bird Banding Group<sup>15</sup>

Bird Life WA and the Perth Biodiversity Project have identified 14 significant bird species in Bush Forever Site 308. Moreover, **9 of these significant species have been found west of the West Coast Highway.** These are all species that are protected under conservation acts or international Treaties and those known to be declining or extinct on the Swan Coastal Plain.<sup>16</sup>

### Reptiles need a home, too.

Bush Forever Site 308 is well known as being particularly rich in reptile species. This is in no small part because the dunes are in their natural state, and not fragmented. Since 1994 research scientists have been regularly surveying the dunes of Bush Forever Site 308 and regularly encounter species not commonly seen in urban bushland. The area is very rich in reptile fauna.<sup>17</sup>

As noted in the Level 1 Survey, the MRA is seeking to take a large chunk of the coastal strip – perhaps as much as a quarter. This will have a significant impact on reptiles, particularly as this area includes very high quality dunes that are densely vegetated and protected by the steep topography from human incursion. **To bulldoze these dunes without even conducting a proper Level 2 Survey** is simply irresponsible.

### Beach Not Bitumen

21 November 2016

<sup>15</sup> Pers. com., Bold Park Bird Banding Group, 31 October 2016

<sup>16</sup> <http://pbp.walga.asn.au/Publications/BirdSurveys/BirdSurveysinSelectedPerthMetropolitanReservesRound3SurveyReport.aspx>

<sup>17</sup> <http://www.triggbushland.org.au/wildlife.htm>