



CITY OF CAPE TOWN
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**SPATIAL PLANNING AND ENVIRONMENT
ENVIRONMENTAL MANAGEMENT**

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Attention: Bianca Bleuler
Scientific Terrestrial Services
By email: bianca@sasenvgroup.co.za

Dear Bianca

RE: Draft Biodiversity Offset Report for Macassar WWTW expansion

The City of Cape Town Environmental Management Department's Biodiversity Management Branch (BMB) submit the following comments:

Report overview

1. Much of this report reads more like a mine closure method statement than a Biodiversity Offset Specialist's report. Unnecessary detail should be removed.
2. Why was the management requirements provided by the BMB ignored?
3. It is recommended that (after comments have been addressed and the report update) this report be independently assessed by a Biodiversity Offset Specialist with suitable local experience and track record.
4. Thereafter, the offset report should be assessed by the Provincial Biodiversity Offset Advisory Panel.

Candidate offset sites

5. Option 7 Paardevlei site: Why is long-term stewardship proposed for a state-owned site that will be incorporated into the Paardevlei Nature Reserve, which is to be proclaimed as a Section 23 Nature Reserve under the NEMPAA?
6. Why has the City Human Settlements Department not been engaged to establish availability of land at Paardevlei for Option 7, as previously recommended by the BMB?

Unsuitable candidate offset sites

7. Option 2 is already managed for biodiversity conservation by the BMB in the Macassar East Nature Reserve and is in process for proclamation under NEMPAA. Option 2 also serves as the established Macassar East Conservation Land Bank, providing biodiversity offsets for existing (mostly Human

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Settlements) developments. Double-dipping is not acceptable to meet the additionality requirement for a biodiversity offset. This option should not have been included.

8. Option 3 does not align to the Cape Town BioNet 2024, and includes land already lost to informal settlement several years ago. If this is to be retained, even as a non-preferred option, the boundary must be updated.
9. Option 4, the Swartklip site on Erf 75850, Khayelitsha, is owned by Airports Company South Africa SOC Ltd (ACSA) not Denel. Please correct this.
10. Furthermore, Option 4 has existing offsets for the Cape Town International Airport, and a proposed on-site conservation area to mitigate for the proposed mixed-use development on site. Swartklip should not have been included in the original candidate sites assessed, because it does not offer additionality.
11. Why did Option 4 score so poorly for habitat condition, when the majority of the site is CBA 1a (irreplaceable high / medium condition) on the Cape Town BioNet 2024?
12. For Option 5, the information provided on landownership and status is incorrect. Portion 1 of Farm 544 was included in the old Driftsands Nature Reserve. Note that Driftsands Nature Reserves was deproclaimed (abolished) on 21 November 2022. Please refer to the Western Cape Provincial Gazette Notice 8685.
13. Option 6, the Denel site, has repeated information from Option 5. A site cannot be both 12.7 km northwest and immediately east of the development footprint. Please correct this.
14. Please update the text and maps to reflect the Cape Town BioNet 2024, available on [City of Cape Town Map Viewer](#).

Additional Conservation Action

15. "As an Additional Conservation Action (ACA), rehabilitation efforts that focus on the Eerste River, located immediately east of the WWTW will take place. This area is degraded, as evidenced by the presence of invasive species such as *Cenchrus clandestinus* (formerly *Pennisetum clandestinum*) and *Acacia cyclops*, as well as areas of erosion. Targeted rehabilitation activities in this area would significantly benefit the ecosystem, particularly as the river flows into the estuary." This is a blurry line between terrestrial biodiversity offset and wetland offset, and may in fact be over-reaching for this biodiversity offset requirement. Why was this ACA not considered earlier in the mitigation hierarchy to decrease the residual impact?
16. It is unclear from the vague dot on the map provided whether this proposed ACA is in fact inside the Macassar East Nature Reserve, or on WWTW land.

Rehabilitation and Management Plan summary

17. This summary should be separated into the three options. Some of the measures proposed are not appropriate for all sites. For example, Cape Flats Dune Strandveld is not fire dependent, and depending on fire history may actually benefit from fire exclusion.
18. Where are the erosion control measure gabions proposed for?
19. Where is the flood risk modelling assessment for the proposed gabions and other erosion control measures?
20. Who will maintain these gabions?

Offset Conditions

21. "A formal Offset Agreement is in place between the CoCT's Wastewater Treatment Branch and the Biodiversity Management Branch." If this is "in place" and signed by both Directors, why is it not included in Appendix G?
22. "Offset Site Legal Security: The offset sites must be legally secured as conservation areas under appropriate legislative frameworks (e.g., the National Environmental Management: Protected Areas Act, 2003..." This contradicts the previous statements that the offset sites will enter into stewardship agreements.

Offset calculations

23. The premise that Atlantis Sand Fynbos offers a trading-up scenario is invalid, because there is only 44.4% of Cape Flats Dune Strandveld remaining (Cape Town BioNet 2024), not 56% as used in these calculations.
24. Why is a 30:1 ratio discussed? It does not apply to Cape Flats Dune Strandveld since this vegetation type is not Critically Endangered and there is more than 30% remaining.

Institutional arrangements

25. The following year's budget allocation cannot depend solely on completion of an audit. This runs the risk of not allocating budget appropriately or on time if the audit is delayed or not completed annually.
26. In Figure 20, who makes up the Environmental Advisory Committee for this proposed development's offset site(s)?
27. A stewardship agreement is not the preferred option to secure the proposed offset sites. Rather, they should be proclaimed as Section 23 Nature Reserves in perpetuity under the National Environmental Management Protected Areas Act 2003.
28. It may not be appropriate to delay the Authority's decision until all of the criteria for the offset site(s) are fulfilled. Rather, these criteria and activities should be made conditions of approval in the record of decision.

Proponent

29. "The Proponent may opt to enter into a stewardship or partnership programme..." This is not an acceptable option for a biodiversity offset. A reactive Stewardship agreement or proclamation is required. Securing the site in perpetuity should be made a condition of authorisation. It is not up to the proponent to decide.
30. "The Proponent will be responsible for the appointment of an Implementing agent to monitor and audit the rehabilitation requirements as well as the Contractor performance;" This suggests only an oversight role for the implementing agent, rather than a management authority role with reserve supervisor, field rangers, people and conservation officers, etc. Why is the implementing agent not appointed to manage the offset sites? If the implementing agent is not the management authority for the offset sites, who will manage them on the ground daily?
31. "Should ownership of the property change, the role and responsibility for compliance with this Implementation Plan as well as long-term maintenance must also be transferred." Which property does this refers to?

Implementing Agent

32. The implementing agent cannot be held responsible for auditing itself. Please clarify this role.
33. The list of mandated activities for the implementing agent reads as if their role is to act as an ECO rather than a nature reserve management authority. This lack of understanding of on-the-ground management requirements must be corrected.

Audit

34. Why is the competent authority not involved in the audit?
35. How often should an audit be conducted? When is the first audit due? Is this a once-off or repeated activity? More details are required.

Table 7 Key principles

36. Permits to collect seed and propagate plant material in the Western Cape are obtained from CapeNature, not DEADP/DFFE.
37. "All stakeholders that will be affected by the rehabilitation measures will be identified and involved in the rehabilitation planning throughout the project lifecycle (as required)." This is beyond the scope of a biodiversity offset requirement, is far too broad, and may unduly delay necessary rehabilitation efforts. The BMB does not support this clause and recommends its removal.
38. "Rehabilitation planning will be informed and accordingly adjusted based on stakeholder views, cultures and/or customs, possible uses and needs of the landscape." This is beyond the scope of a biodiversity offset requirement, opens opportunity for unrealistic and potentially unachievable

stakeholder expectations, and may unduly delay necessary rehabilitation efforts. The BMB does not support this clause and recommends its removal.

39. The open-ended nature of statements pertaining to stakeholder engagement will place unfair (and possibly un-funded) burden on the implementing agent.
40. Requirement for stakeholder engagement in any management activity within the offset site(s) must be substantiated by reference to the relevant clause(s) in the National Biodiversity Offset Guideline 2023; otherwise, this entire section should be omitted.
41. There are no Grassland conservation targets for Cape Town. The grassland biome does not occur naturally in Cape Town. All references to "grassland" must be replaced with "strandveld" or "fynbos and renosterveld" (according to the relevant offset site).
42. Stack burning of alien invasive brush is not considered best ecological practice in the Fynbos Biome. Stack burning often causes soil damage, associated loss of soil fauna, and facilitates secondary invasion. Stack burning should only be considered if there is risk to infrastructure or high risk of arson.
43. If mulch is the only option for erosion control, it should be chipped on site from indigenous plant material only, to avoid introducing further invasive species. This indigenous plant material could be obtained from firebreak maintenance brush-cut material. No foreign material should be brought into a conservation area or nature reserve.
44. No livestock grazing will be permitted in any of the biodiversity offset areas.
45. There is no requirement for a "grazing plan" in the fynbos biome, since the dominant ecosystem driver is not (or no longer) large mammal herbivory. Please remove all reference to grazing and grazing plan.

Table 8 Objectives and Control Measures

46. Much of the detail in this report is inappropriate and unnecessary in an offset report. For example, the detail on how to assign management units and what software to use to map habitat condition. Where the offset specialist has over-stepped the boundaries of their role, this should be removed from the offset report and not be made condition of environmental authorisation.
47. Most of the "hardworks and softworks" intervention measures listed are inappropriate for use in a nature reserve.
48. BMB will not permit the use of alien plants such as "Vetiver grass hedges" inside BMB-managed conservation areas or nature reserves.

Table 10 On-site execution

49. 'Walkdowns' to mark SCC and 'Search and Rescue' from the proposed WWTW expansion site do not constitute biodiversity offset actions. Why are these included?

50. "Should the Contractor and/or the implementing agent not have the expertise to identify and mark the AIPs, it is the responsibility of the Contractor to appoint a suitably qualified botanist to assist." There should not be a situation in which the implementing agent lacks the expertise to identify alien invasive plants. Unnecessary sub-contracting out to specialists should be avoided to contain management costs.
51. Many of the execution measures proposed involve human-made infrastructure. This should only be considered as a last resort, with preference for natural interventions.
52. Planting in spring is too late in the fynbos biome's winter rainfall region. Reseeding should take place at the onset of the rainy season (late autumn) and planting should occur early enough in the rainy season (i.e. early winter) to facilitate unaided establishment.
53. Planting in early winter should eliminate the need to irrigate planted material.
54. "Annual burning of wetland areas should be avoided. Late winter or early spring burns (July - September) should be considered every 2 - 3 years; and". The fire management recommendations are highly inappropriate for the fynbos biome. No annual burning will be permitted for any of the proposed sites. No burning (except possibly for brush piles) may take place in July-September in Cape Town, as this is outside of the natural fire season. Planned ecological burns should only take place in late summer, from February to early April, but not after the first good rains. A fire return period of 2-3 years in the fynbos biome is too short to allow long-lived species to set sufficient seed to persist. This will lead to altered community composition and native species loss; and goes against the management objective of biodiversity conservation in these offset sites.
55. "Rangeland condition" is inappropriate in the fynbos biome context, and must not be the focus for management interventions.

Table 11 Rehabilitation principles

56. Engineers, horticulturalists and landscape architects should not be decision-makers for rehabilitation or restoration in the proposed biodiversity offset sites.
57. All reference to "stakeholder engagement" should be removed from all activities related to rehabilitation and restoration. This is beyond the requirements of the NEMPAA and associated Regulations for the Proper Administration of Nature Reserves 2012.
58. Guidance for management activities should come from national and provincial legislation, not from online book summaries.
59. The primary goal of biodiversity conservation is not for an "aesthetically pleasing" landscape. This and similar narrative must be removed to avoid unrealistic, subjective expectations.
60. "... getting a good grass cover..." is not the first goal of restoration in the fynbos biome. Re-vegetation may only be with site-specific locally-indigenous species. Grasses should not be the dominant or pioneer species in any of the preferred offset sites.

Rehabilitation recommendations

61. Initial reseedling and phased replanting does not constitute "passive management". Reseeding and planting is considered active restoration. Passive restoration would only involve alien clearing and fire management.

Table 12 Rehabilitation activities and recommended rehabilitation measures

62. Why is this table written like a method statement for construction, rather than the requirements for a biodiversity offset?
63. Why are such stringent "construction phase" measures are needed if rehabilitation in the proposed biodiversity offset sites is minimal?
64. There should not be any reference to "pre-construction state" anywhere in this offset report. This "copy-paste" shows lack of engagement on and understanding of the sites concerned.
65. What "adverse soil conditions" are present in the proposed offset sites? Unsubstantiated statements such as this must be corrected or removed.
66. The recommendation that "Preferred species should have larger biomass and prolific root system" fails to account for the nature of the vegetation types present in these proposed offset sites. Restoring appropriate structure and function for the plant community is more important in the fynbos biome.
67. Under no circumstance will reseedling with "Mayford Biomosome Fynbos mixture" or any other commercially available premix be permitted anywhere in any of the proposed offset sites. This is an irresponsible recommendation for protected area restoration.
68. What "site prior to clearance" is referred to for seed collection? No clearance is to take place inside any of the proposed offset sites.
69. The list of "species selection" includes species that are not appropriate (e.g. *Aristida diffusa* and *Cynodon dactylon*) and suggests a lack of understanding of the dynamics of the vegetation types to be conserved. This list must be edited and then approved by the BMB.

Alien and Invasive Plant Species Clearing

70. "Follow-up control should be done on a minimum of two to three follow-ups per growing season, especially within the first year of control" is unrealistic and unlikely achievable.
71. "It is important to note that AIP control must be conducted from the outer sections inwards to contain the existing AIP and prevent the further spread of AIP species." This is not necessarily the best strategy, because it may depend on the state of invasion of neighbouring properties, density of invasion, fire history, terrain, resource availability for restoration post-clearing, and other variables. Please leave expert decision-making to the management authority.

Table 13 Objectives and control measures for AIP clearing

72. The Table 13 Mechanical Control section should be deleted, as it is not best practice methods for the fynbos biome.
73. The Western Cape is a winter rainfall region, so in summer, soils are dry and stack burning is not recommended or permitted. This must be corrected.
74. No firewood will be "chopped and supplied to the surrounding local communities" by the City of Cape Town.
75. Please correct the "growing season" throughout the document. Cape Town is not in a summer rainfall area, and it is not best practice to install irrigation in a protected area.
76. "Follow-ups must be done for a minimum of three (3) times a year during the growing season (September – April) for the first three (3) years and thereafter a minimum period of four (4) years on an annual basis to ensure that new AIP and/or encroacher species infestation does not occur within the rehabilitated areas." This should be adjusted to local best practice.

Revegetation activities

77. Few, if any, tree species naturally occur in the three vegetation types in these proposed offset sites. Blanket statements such as "Planting of trees..." should be removed.
78. "Shared dominant species are the exception and can be translocated across vegetation types." Please remove this irresponsible statement. No species from the Macassar WWTW development footprint or surrounding strandveld may be translocated to offset option 8, as this is far beyond a genetically acceptable geographical distance to move plants.
79. "Acquire the knowledge of a veld management expert to advise on management strategies to reach a healthy and diverse vegetation community." If the BMB is the implementing agent for the offset sites, then remove this statement since there is sufficient in-house expertise.

Table 15 Fire management plans

80. "Firebreaks should be established throughout the site". Note that this is not necessary according to the National Veld and Forest Fire Act 1998, as this legislation only requires a landowner to implement measures to prevent the spread of fire onto a neighbouring landowner's property. As such, only perimeter firebreaks are required. Internal firebreaks cut annually would only be required to protect infrastructure. Internal firebreaks needed for ecological burning operations can be prepared ahead of the burn and need not be cut annually.
81. Due to budget cuts, Working on Fire labour is unlikely to be available for firebreak maintenance.

Wildlife management

82. Please confirm whether eland is currently resident on option 8, as much of the area is unfenced.

Table 16 wildlife management plans

83. The proposed wildlife management plan(s) must not be aimed at "supporting optimal savanna health and biodiversity". Change "savannah" to "fynbos".
84. A stand-alone "Grazing Management Plan" is not appropriate in the fynbos biome, as this runs the risk of promoting an unnatural dominance of grasses.
85. Game camp management: the management priority in protected areas in Cape Town is not large mammal conservation. Focussing attention on rotational grazing and game camp management will be at the expense of biodiversity conservation.

Erosion control

86. Figure 25 photographs must be dated and the locations shown on a map to contextualise and validate the so-called 'erosion' at Macassar. In Cape Flats Dune Strandveld, dune slacks and coastal foredunes are naturally dynamic systems where bare soil is part of the cycle and does not necessarily imply erosion. Annuals and ephemerals often naturally dominate these areas, and hence for parts of the year bare soil does not equate with a lack of native species diversity.
87. "Soil contouring and terracing" is not best practice in strandveld, fynbos or renosterveld. This recommendation should be removed. If anything, the goal of restoration should be to counter the detrimental impacts from past ploughing in fynbos and renosterveld.
88. What evidence is there of "eroded gullies" in the Cape Flats Dune Strandveld sites? This is not visible in the Figure 25 photographs provided.
89. No foreign material (straw or other organic material) may be brought in to the proposed offset areas for use as mulch.

Table 17 Monitoring actions

90. To avoid unnecessary reporting burden, it is recommended that reporting align to financial year-end processes, rather than weekly, monthly, quarterly or "during the growing season" as variously stipulated in this table.
91. Monitoring should follow the Standard Operating Procedures already adopted by the proposed implementing agent, not as randomly outlined in this report.

Offset Strategy Budget

92. Where is this proposed budget?
93. The line items on the budget for each offset site must be detailed in this report so that decision-makers and commenting authorities can confirm that the budget adequately covers all aspects of effective management for a protected area.

Offset conditions and considerations

94. Remove the BMB from the commitments detailed in this paragraph. BMB is not the proponent and cannot be held liable to carry the costs of the proposed WWTW expansion development.

Appendix D: Offset site selection criteria

95. Table D1 must be replaced with criteria that are applicable to Cape Town, not to "Limpopo Ridge Bushveld and Musina Mopane Bushveld".
96. Criteria used should align with the National Biodiversity Offset Guideline 2023, not the draft National Wetland Offset Guideline 2014.

The City of Cape Town Biodiversity Management Branch looks forward to further engagement.

Yours sincerely,
Dr Charmaine Oxtoby