Review of the Management Plan for Antarctic Specially Protected Area (ASPA) No. 159 Cape Adare, Borchgrevink Coast

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Working Paper submitted by New Zealand

Summary

In accordance with the Article 6.3 of Annex V to the Protocol on Environmental Protection to the Antarctic Treaty, New Zealand has conducted a review of the Management Plan for ASPA 159: Cape Adare, Borchgrevink Coast. The review was carried out concurrently with other ASPAs in the Ross Sea that are designated for their historic values.

The review was conducted with reference to Annex V of the Protocol and the *Revised* *Guide to the Preparation of Management Plans for Antarctic Specially Protected Areas* appended to Resolution 2 (2011).

Stakeholder including Parties active in the Ross Sea region, Antarctic heritage professionals at the Antarctic Heritage Trust, and IAATO were consulted on the revisions.

The revisions are minor and outlined in the cover sheet and text below.

Recommendations

1. The attached revised Management Plan for ASPA No. 159 Cape Adare, Borchgrevink Coast is recommended for consideration by the Committee for Environmental Protection and adoption by the ATCM.
2. On adoption of the revised Management Plan for ASPA No. 159 Cape Adare by the ATCM, it is recommended that the new coordinates determined for HSM No. 22 Borchgrevink’s and Scott’s Northern Party huts (71° 18' 26.2" S 170° 11' 28.3" E) and for HSM No. 23 Hanson’s Grave (71° 18' 04"S 170° 13' 51"E) replace those currently cited in the list of Historic Sites and Monuments maintained by the Antarctic Treaty Secretariat.

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| **ASPA No. 159 Cape Adare, Borchgrevink Coast** | |
| **1. Is a new ASPA proposed?** | No |
| **2. Is a new ASMA proposed?** | No |
| **3. Does the proposal relate to an existing ASPA or ASMA?** | Yes |
| *First designation:* | Measure 1 (1998) |
| *First adoption of management plan:* | Adopted at first designation. |
| *Any revisions to management plan:* | Measure 2 (2005), Measure 11 (2010), Measure 14 (2015). |
| *Current management plan:* | Measure 14 (2015). |
| *Any extensions of expiry dates of management plan:* | N/A |
| *Renamed and renumbered by Decision 1 (2002) as:* | N/A |
| *Other relevant measures:* | Recommendation VII-9 (1972), Decision 1 (2002), Resolution 2 (2011). |
| **4. If the proposal contains a revision of an existing management plan, please indicate the types of amendment:** | |
| *(i) major or minor?* | Minor. |
| *(ii) any changes to the boundaries or co-ordinates?* | Corrections to boundary coordinates, although the shape and configuration of the boundary remains similar. |
| *(iii) any changes to the maps? If yes, are the changes in the captions only or also in the graphics?* | Yes. New maps have been prepared. |
| *(iv) any change to the description of the area that is relevant to identifying its location or its boundaries?* | No. |
| *(v) any changes that affect any other ASPA, ASMA or HSM within this area or adjacent to it? In particular, please explain any merger with, incorporation of or abolition of any existing area or site.* | Yes. New coordinates have been determined for HSM No. 22 and HSM No. 23. |
| *(vi) Other - brief summary of other types of changes, indicating the paragraphs of the management plan in which these are located.* | See below for summary of changes. |
| **5. If a new ASPA or ASMA is proposed, does it contain any marine area?** | N/A |
| **6. If yes, does the proposal require the prior approval of CCAMLR in accordance with Decision 9 (2005)?** | N/A |
| **7. If yes, has the prior approval of CCAMLR been obtained?** | N/A |
| *If yes, please list the CCAMLR Final Report and Paragraph No.* | N/A |
| **8. If the proposal relates to an ASPA, what is the primary reason for designation (*i.e.*, which part under Article 3.2 of Annex V)?** | Annex V, Article 3.2 (h) Sites or monuments of recognised historic value. |
| **9. Have you identified the main Environmental Domain represented by the ASPA/ASMA (Resolution 3 (2008))?** | Environment U – North Victoria Land geologic |
| **10. Have you identified the main Antarctic Conservation Biogeographic Region represented by the ASPA/ASMA (Resolution 3 (2017))?** | Region 8 – North Victoria Land |
| **11) Have you identified any Antarctic Important Bird Areas represented by the ASPA/ASMA (Resolution 5 (2015))?** | Yes - IBA No. 165 is considered the whole of the Ridley Beach and the lower western slopes of the Cape Adare promontory. The ASPA is designated for the historic values not the IBA and is only a portion of the IBA area. |

1. ASPA No. 157 Backdoor Bay, Cape Royds, Ross Island (Historic Site and Monument (HSM) No. 15) is designated to protect the historic hut and associated artefacts from the British Antarctic *Nimrod* Expedition of 1907-09 led by Sir Ernest Shackleton. The site is of exceptional historical importance and interest, and strict measures are set out in the ASPA management plan to ensure protection is comprehensive and effective, including conditions for regulating access.
2. The Management Plan was last updated in 2015, and in accordance with Annex V Article 6.3 New Zealand has undertaken a review of the Management Plan review for consideration in 2021. New Zealand has carried out the review concurrently with other ASPAs in the Ross Sea that are designated for their historic values. This helped to ensure policy consistency across all of the ASPA plans for historic sites in the Ross Sea.
3. Updates were made taking into account recent information on the status of the values and features within the Area, changes made in other ASPA management plans recently adopted, and the latest agreements by the Antarctic Treaty Parties.
4. A process of stakeholder consultation on the revisions involving Parties active in the Ross Sea region, Antarctic heritage professionals at the Antarctic Heritage Trust, and IAATO was undertaken over a period of more than six months.
5. Extensive editorial improvements to the structure, organisation and clarity of the text have been made, in particular through:
   1. the addition of an Introduction;
   2. clarification of Aims and Objectives (Section 2);
   3. elaboration of Management Activities in more detail (Section 3);
   4. improvements in maps (Section 5), more detail on which are provided below.
   5. restructuring the Description of the Area (Section 6);
   6. elimination of duplicative text in the sections relating to Access to the Area (Section 6(ii) and Section 7(ii)), and the addition of important policy detail on access to Section 7(ii);
   7. clarifications about structures within and near the Areas (Section 6(iii));
   8. focus of information on other protected areas in proximity that are relevant to the historic values of the site (Section 6(iv));
   9. edits to General Permit Conditions (Section 7(i)) so these are consistent with wording used in other recent ASPA plans;
   10. provision of more specific detail on the conditions of access to the Area, including on pedestrian, vehicle, small boat and aircraft access, and for use of Remotely Piloted Aircraft Systems (RPAS) within the Area (Section 7(ii));
   11. improvement in the clarity of limits to the numbers of people that are permitted within the ASPA at any given time (Section 7(ii));
   12. reorganisation of the Code of Conduct (Section 7(iii)) and clarifying that it is mandatory so that items of greater importance appear earlier in the list, the potential for fire in the historic huts being of greatest concern. Use of selfie sticks inside huts has recently emerged of concern because of their potential to knock delicate artefacts within a confined space, and this item has been added to the Code;
   13. strengthening provisions on the import of materials and organisms into the ASPAs, consistent with provisions made in other ASPAs and in the CEP Non-native Species Manual (2019) (Section 7(vi));
   14. clarification when materials for heritage purposes may be introduced into the Area (Section 7 (vii));
   15. clarification of the conditions under which materials may be removed, in particular those that pose a threat to the *historic* values of the site, and that where items may be removed for conservation purposes their return is the preferred outcome unless they are at risk of being damaged or destroyed (Section 7(viii));
   16. clarification of measures necessary to meet the aims of the Management Plan (Section 7(x)), in particular that people responsible for managing site visits must be trained to be capable of fulfilling their roles and that they must actively monitor activities and take actions to correct any behaviour that is not in compliance with the Management Plan;
   17. addition of a brief list of supporting documentation and a list of boundary coordinates (Section 8).
6. New maps were developed for ASPA No. 159 Cape Adare. Map 1 is based on the SCAR Antarctic Digital Database (v7.1, 2019), while Map 2 is based on newly acquired spatial data. The previous Cape Adare management plan site map contained positional errors of up to ~200 m, and consequently all coordinates in the management plan were in error by this magnitude. As a result these coordinates were incompatible with modern GPS.
7. The new Map 2 for Cape Adare was developed in collaboration with the Korea Polar Research Institute (KOPRI) and the United States Antarctic Program. KOPRI acquired Remotely Piloted Aircraft Systems (RPAS) imagery over Cape Adare in January 2020 as part of their on-going research programme on the Ross Sea ecosystem, and prepared a new high resolution digital orthophotograph for the site. Absolute spatial accuracy was approximate (~20 – 30 m) because ground control points could not be acquired during this mission. Therefore, to improve geopositional accuracy, in collaboration with the United States a spatial adjustment was applied to the orthophoto to match its position to a new WorldView 3 satellite image of the site (0.3 m resolution), which was orthorectified by the Polar Geospatial Center, University of Minnesota (image copyright Digital Globe 2019).
8. Map 2 has an estimated spatial accuracy of approximately +/- 5 m, which is comparable to handheld GPS. The new map has been used to determine revised coordinates for the boundaries of the protected area at Cape Adare, although the overall size and shape of the boundary remains similar. This allows visitors to use the new map and management plan with handheld GPS in the field to locate the ASPA boundaries with reasonable accuracy. The boundaries have sufficient buffers to allow for residual inaccuracies in the geopositioning and to ensure protection around the historic features is maintained.
9. Through the work undertaken to improve the maps for ASPA No. 159 Cape Adare, the revised coordinates for HSM No. 22 are 71° 18' 27.5"S 170° 11' 29"E (centred on Borchgrevink’s living hut), and these should be used to update the list of HSMs maintained by the Antarctic Treaty Secretariat.
10. The currently listed coordinate for nearby and closely associated Hanson’s Grave (HSM No. 23) (71° 17'S 170° 13'E) was also found to be in substantial error, and places the HSM several kilometres north of Cape Adare in the ocean. While this site lies beyond the extent of the new orthophoto prepared by KOPRI, a new GPS position acquired by Prof. C. Carey (University of Waikato) for HSM No. 23 is 71° 18' 04"S 170° 13' 51"E. This position should be used to update the list of HSMs maintained by the Antarctic Treaty Secretariat.
11. Revisions to the management plan attached to this Working Paper have been extensive, and have involved detailed review and discussions by stakeholders, and in particular among national programmes operating in the region, with the Antarctic Heritage Trust and IAATO. While important improvements have been made to the maps and coordinates, New Zealand has classified the revisions as ‘minor’ because matters of critical policy substance, such as the values protected by the site, the policies on numbers of visitors allowed, activities that are allowed, the conditions of access, and the boundary configuration have not changed.