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Report of the Twenty-first Meeting of the Committee for Environmental Protection (CEP XXI)

Buenos Aires, Argentina, 13-15 May 2018

- (1) Pursuant to Article 11 of the Protocol on Environmental Protection to the Antarctic Treaty, Representatives of the Parties to the Protocol (Argentina, Australia, Belarus, Belgium, Brazil, Bulgaria, Canada, Chile, China, the Czech Republic, Ecuador, Finland, France, Germany, India, Italy, Japan, Malaysia, Netherlands, New Zealand, Norway, Peru, Poland, Portugal, the Republic of Korea, Romania, the Russian Federation, South Africa, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom, the United States, Uruguay, and Venezuela) met in Buenos Aires, Argentina, from 13 to 15 May 2018, for the purpose of providing advice and formulating recommendations to the Parties in connection with the implementation of the Protocol.
- (2) In accordance with Rule 4 of the CEP Rules of Procedure, the meeting was also attended by representatives of the following Observers:
 - A Contracting Party to the Antarctic Treaty which is not a Party to the Protocol: Colombia;
 - the Scientific Committee on Antarctic Research (SCAR), the Scientific Committee for the Conservation of Antarctic Marine Living Resources (SC-CAMLR), and the Council of Managers of National Antarctic Programs (COMNAP); and
 - scientific, environmental and technical organisations: the Antarctic and Southern Ocean Coalition (ASOC), the International Association of Antarctica Tour Operators (IAATO), and the World Meteorological Organization (WMO).

Item 1: Opening of the Meeting

- (3) The CEP Chair, Ewan McIvor (Australia), opened the meeting on Sunday 13 May 2018 and thanked Argentina for organising and hosting the meeting in Buenos Aires.

- (4) The Chair highlighted that 2018 marked 20 years since the entry into force of the Protocol, and noted the increasingly important role played by the Committee in supporting the Parties' efforts to comprehensively protect the Antarctic environment.
- (5) On behalf of the Committee, the Chair welcomed Switzerland and Turkey as new Members, following their accession to the Protocol on 1 June 2017 and 27 October 2017, respectively. The Chair noted that the CEP now comprised 40 Members.
- (6) The Chair summarised the work undertaken during the intersessional period (*IP 67 Committee for Environmental Protection (CEP): summary of activities during the 2017/18 intersessional period*). He highlighted the significant progress made on actions arising from CEP XX and noted that, due to the abbreviated format of this meeting, some items had been deferred for further consideration at CEP XXII.

Item 2: Adoption of the Agenda

- (7) The Committee adopted the following agenda and confirmed the allocation of 30 Working Papers (WP), 40 Information Papers (IP), 3 Secretariat Papers (SP) and 4 Background Papers (BP) to the agenda items:
 1. Opening of the Meeting
 2. Adoption of the Agenda
 3. Draft Comprehensive Environmental Evaluations
 4. Management Plans
 5. Site Guidelines
 6. Inspection Reports
 7. Reports from Subsidiary Bodies and Intersessional Contact Groups
 8. Five-Year Work Plan
 9. Cooperation with Other Organisations
 10. General Matters
 11. Election of Officers
 12. Preparation for the Next Meeting

13. Adoption of the Report
14. Closing of the Meeting

Item 3: Draft Comprehensive Environmental Evaluations

- (8) China introduced WP 13 *The Draft Comprehensive Environmental Evaluation for the Proposed Construction and Operation of a New Chinese Research Station, Victoria Land, Antarctica*. The paper presented a non-technical summary of a new draft CEE, which had taken into consideration the comments and suggestions raised during the Committee's discussions of an earlier draft CEE at CEP XVIII (2014). China also referred to IP 23 rev. 1 *The Initial Responses to the Comments on the second Draft CEE for the construction and operation of the New Chinese Research Station, Victoria Land, Antarctica*, and IP 25 *The Updated Draft Comprehensive Environmental Evaluation for the construction and operation of the New Chinese Research Station, Victoria Land, Antarctica*.
- (9) In a presentation that gave an overview of the proposed construction and operation of the proposed new research station, China highlighted its plans to minimise vehicle use, employ low-emission technologies and renewable energy resources, limit the footprint of the station, strictly implement the Non-native Species Manual, recycle water, and develop a waste management plan. It also noted that the location for the proposed station had been moved two kilometres to the south of the preferred location identified in the 2014 draft CEE, to avoid any potential impact to the Adélie penguin colony, and that it planned to propose an ASPA to ensure the protection of the colony. Through the EIA process, China had concluded that the benefit derived from scientific research and monitoring activities and the opportunities for international collaboration with the support of the new Chinese Antarctic station would outweigh the more than minor and transitory impact of the construction and operation of the station on the Antarctic environment, and fully justified the proposed activity proceeding.
- (10) The United States introduced WP 28 *Report of the Intersessional Open-ended Contact Group Established to Consider the Draft CEE for the "Proposed Construction and Operation of a New Chinese Research Station, Victoria Land, Antarctica"*. The United States noted that participants had commented favourably on several aspects of the draft CEE, as detailed in the ICG report. The ICG felt that the CEE was generally clear, well-structured and

well-presented and generally conformed to the requirements of Article 3 of Annex I to the Protocol.

- (11) The United States reported that some ICG participants made suggestions to further strengthen the document by providing additional information on specific topics. It highlighted that several ICG participants recommended that the proponents address cumulative impacts resulting from the terrestrial as well as maritime activities of the German, Italian and Korean stations which were in close proximity to the proposed Chinese station. It noted that there were questions related to the assumption that some materials were pre-staged, and whether an Initial Environmental Evaluation (IEE) had been carried out in relation to the activities conducted prior to the projected first building season (2018-19). The ICG advised that the information contained in the draft CEE supported the proponent's conclusion that the construction and operation of the proposed new Chinese station was likely to have more than a minor or transitory impact on the environment. The ICG advised that, should China decide to proceed with the proposed activity, the final CEE could be strengthened through the inclusion of additional information and clarification on a number of aspects, as outlined in WP 28. The ICG encouraged China to consider the detailed comments provided by ICG participants as well as its summary in the ICG report.
- (12) The Committee thanked China both for preparing the draft CEE and for its comprehensive overview presentation during the meeting. The Committee welcomed the improvements made to the original draft CEE circulated in 2014, including its response to comments made by Members at that time. It also thanked China for providing further details regarding the proposed activity, and its initial responses to comments raised by the ICG. The Committee also thanked Polly Penhale from the United States for her excellent work as ICG convener, and expressed its general support for the findings and conclusions of the ICG.
- (13) China thanked the ICG participants for their work on reviewing the draft CEE and commended Polly Penhale from the United States for her excellent work in convening and coordinating the discussions. China noted that it had already responded to all of the suggestions put forward by the ICG one by one, through the information and update provided in IP 23 rev. 1 and IP 25. China recalled discussions during CEP XVII when the Committee had concluded that the draft CEE generally conformed to the Protocol and emphasised that since then it had improved the draft and had added new information.

- (14) Members welcomed China's initial responses to the comments raised in the ICG, and China's commitment to expanding the use of renewable energy and other measures to minimise the impact of the construction and operation of the proposed station, including moving the station further away from the Adélie penguin colony. Several Members with facilities and activities in Terra Nova Bay and the broader Ross Sea region expressed their willingness to collaborate with China on science and logistics, and also on the development of the proposed ASPA on Inexpressible Island.
- (15) Members also highlighted points that could be given further consideration during the preparation of the final CEE, should China decide to proceed with the proposed activity, including:
- consideration of the results of past and ongoing scientific activities conducted by other nations at Inexpressible Island and in the surrounding area;
 - further consideration of alternatives to construction of a new station, including the no-action alternative and sharing of existing facilities;
 - further consideration of non-native species risks;
 - consideration of cumulative impacts associated with the activities of multiple national programmes in Terra Nova Bay and the broader Ross Sea region;
 - further details to enhance the description of the initial environmental reference state, including details of microbial and terrestrial invertebrate communities; and
 - details regarding the environmental assessment of activities, related to the proposed new station, that had already been undertaken at Inexpressible Island.
- (16) In response to these comments, China advised that:
- it acknowledged that several stations in the area were contributing to important scientific research, and believed that the proposed new station would make a further significant contribution to Antarctic science, particularly in relation to climate change research and marine observing systems;
 - regarding concerns about potential cumulative impacts and non-native species risks, it would fully comply with the Protocol and take serious consideration of all relevant CEP/ATCM guidelines, with a view to improving the environmental protection measures in the final CEE; and

- it looked forward to enhancing international cooperation within the Antarctic community.
- (17) Noting and recognising the assessment made and the conclusion reached by the proponent on the need to establish a separate station in this area of the Ross Sea region in which there already are a number of other stations, Norway took the opportunity to reemphasise the core issue flagged in earlier and ongoing discussions in both the Committee and in the ATCM regarding the need and the desire for enhanced logistical cooperation and joint operations to increase efficiency and decrease environmental impacts. Norway encouraged Parties to continue to consider opportunities for such cooperation.
- (18) The Committee welcomed China's commitment to further consider in the final CEE the points raised by the ICG and comments expressed by Members during the meeting.

CEP advice to the ATCM on the draft Comprehensive Environmental Evaluation prepared by China for 'Proposed construction and operation of a New Chinese Research Station, Victoria Land, Antarctica'

- (19) The Committee discussed in detail the draft Comprehensive Environmental Evaluation (CEE) prepared by China for 'Proposed Construction and Operation of a New Chinese Research Station, Victoria Land, Antarctica' (WP 13). The Committee discussed the report by the United States of the ICG established to consider the draft CEE in accordance with the Procedures for Intersessional CEP Consideration of Draft CEEs (WP 28), and information provided by China in an initial response to the ICG comments (IP 23 rev. 1 and IP 25). The Committee also discussed additional information provided by China in response to issues raised during the meeting.
- (20) Having reviewed the draft CEE, the CEP advised the ATCM that:
- 1) The draft CEE generally conformed to the requirements of Article 3 of Annex I to the Protocol on Environmental Protection to the Antarctic Treaty.
 - 2) If China decided to proceed with the proposed activity, the final CEE could be strengthened through the inclusion of additional information and clarification on a number of aspects. In particular, the ATCM's attention was drawn to the suggestions that further details could be provided regarding:
 - i. Description, impacts, and mitigation of the full range of activities associated with the building of the station proper, including:

aircraft operations; the ice runway and associated facilities; construction of the proposed wharf; wind and solar power installations; scientific field installations and activities; sourcing and processing of local rock; marine noise; waste management; and fuel transport, handling, and storage;

- ii. Mitigation measures related to non-native species, fuel management and energy production, and potential disturbance and impact to both terrestrial and near-shore marine fauna and flora and nearby HSMs; and
 - iii. The potential for cumulative impacts of operational and scientific research activities in proximity to other national programmes.
- 3) China was encouraged to consider the detailed comments provided by ICG participants as well as the summary of the main issues summarised in the ICG report, and issues raised during CEP XXI as summarised in the final report.
 - 4) The information provided in the draft CEE supported the conclusion that the impacts of some activities within the project would have a more than minor or transitory impact, and that this level of EIA had been appropriate for this project.
 - 5) The draft CEE was well-written and logically organised, although some minor adjustments could strengthen the document even further.
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- (21) The United Kingdom introduced WP 19 *Draft Comprehensive Environmental Evaluation (CEE) for the Proposed Rothera Wharf Reconstruction and Coastal Stabilisation*, which presented a non-technical summary of a draft CEE carried out by the British Antarctic Survey in accordance with Annex I of the Protocol, and approved and endorsed by the United Kingdom Government. The United Kingdom explained that the reconstruction of the wharf at Rothera Station was part of broader station modernisation plans, and was required to accommodate the new icebreaker, the *RRS Sir David Attenborough*. The proposed coastal stabilisation was required to ensure the safety of operations at the station. The draft CEE described the various construction and support activities proposed over two seasons (2018-20) and included the local sourcing of rock from a temporary quarry within the existing station footprint. It was emphasised that mitigation of impacts of the construction would include measures to avoid the introduction of non-native species, and procedures to avoid pollution from spills and other disturbances to marine mammals. It was further noted that, in progressing

the plans for the wharf construction, less impact than originally expected was likely to occur, in particular due to the reduced requirements for blasting and coastal stabilisation. The draft CEE concluded that the significant science and operational advantage that would be gained from the reconstruction of the Rothera wharf justified the greater than minor or transitory impact expected from some of the proposed activities.

- (22) Norway introduced WP 23 *Report of the intersessional open-ended contact group established to consider the draft CEE for the “Rothera Wharf Reconstruction and Coastal Stabilisation”*. The ICG advised the CEP that the draft CEE largely and broadly conformed to the requirements of Article 3 of Annex I to the Protocol, and was thorough, systematic, clear, well structured, and well presented. Norway noted that ICG participants had commented favourably on several aspects of the draft CEE, as detailed in the ICG report. It noted minor adjustments could be considered to strengthen the document by including more details on *inter alia* further precautions to avoid non-native species risks; potential damage by icebergs; the effects of underwater noise on marine fauna; and the effect of the construction on sewerage works.
- (23) The ICG further concluded that the draft CEE had identified environmental impacts of the activity in a structured and transparent manner, and, where necessary, had suggested methods to mitigate impacts of the construction. The ICG nevertheless raised some issues that would benefit from additional attention, including: impacts of dust and the monitoring of the emperor penguin colony in ASPA 107. It advised that the information provided in the draft CEE supported the conclusion that the impacts of some activities within the project would have a greater than minor or transitory impact. The ICG suggested that, if the United Kingdom decided to proceed with the proposed activity, there were some aspects for which the inclusion of additional information or clarification could be provided in the final CEE to enhance its comprehensiveness, as outlined in WP 23.
- (24) The Committee thanked the United Kingdom for its very comprehensive and high-quality draft CEE, and for its informative presentation to the meeting, which had usefully highlighted further updates and details in response to comments made during the ICG. The Committee welcomed the United Kingdom’s continued refinement of the proposal to further reduce environmental impact of the proposed activities, as well as the United Kingdom’s initial responses to comments raised during the ICG on matters such as non-native species risks, water use, iceberg impacts, sewage treatment, cumulative impacts and clarity of maps/figures, as outlined in the presentation.

- (25) The Committee also thanked Birgit Njåstad from Norway for convening the ICG, expressed its support for the ICG's conclusions and recommendations, and highlighted the very comprehensive nature and high quality of the draft CEE.
- (26) During the meeting Members raised points that could be given further consideration during the preparation of the final CEE, should the United Kingdom decide to proceed with the proposed activity, including:
- possible challenges with the proposed programme and timing of the construction activity due to the ice conditions in the area;
 - providing further details of the possible cumulative impacts of the proposed activities in light of the planned broader modernisation of Rothera Station;
 - giving further details of possible alternative mechanisms for station resupply, such as the use of smaller boats or helicopters; and
 - analysis of noise impacts on land of the proposed activities, taking into account the noise associated with existing activities undertaken at Rothera Station.
- (27) It was noted that the proposed pre- and post-activity environmental monitoring in ASPA 129 could be useful as a good model for the Committee's broader interests when considering approaches to the monitoring of natural values in ASPAs. Members also looked forward to learning more about the United Kingdom's experience with managing the underwater noise aspects of the activity, and the effectiveness of the mitigation measures outlined in the draft CEE.
- (28) The United Kingdom thanked Birgit Njåstad for convening the ICG, and also thanked the ICG participants for their comments. In response to further comments and questions raised by Members during the discussion, the United Kingdom advised that:
- it had thoroughly considered the possible challenges associated with ice conditions in the area when developing the construction programme/ timing for the project;
 - it recognised the need for environmental monitoring to support the CEE, and indicated that the proposed monitoring in nearby ASPA 129 would be relatively straightforward due to that Area's close proximity to the station;
 - it would need to further develop the broader plans for modernisation of Rothera before presenting an environmental assessment for those activities, but that an update would be included in the final CEE;

- its Antarctic programme logistics depended on ship-based resupply, but that it would include further description of alternatives in the final CEE;
 - it would be pleased to report back to the Committee on its experience regarding underwater noise aspects of the activity, and that it was aware of the need to consider an analysis of potential noise on land in conjunction with existing activities at Rothera; and
 - it would also be pleased to report back to the Committee on the effectiveness of the CEE, noting that it undertakes follow-up of all environmental impact assessments.
- (29) The Committee welcomed the United Kingdom's commitment to fully address in the final CEE the points raised by the ICG and in discussion during the meeting.

CEP advice to the ATCM on draft Comprehensive Environmental Evaluation prepared by United Kingdom for the 'Proposed Rothera Wharf Reconstruction and Coastal Stabilisation'

- (30) The Committee discussed in detail the draft Comprehensive Environmental Evaluation (CEE) prepared by the United Kingdom for 'Proposed Rothera Wharf Reconstruction and Coastal Stabilisation' (WP 19). The Committee discussed the report by Norway of the ICG established to consider the draft CEE in accordance with the Procedures for Intersessional CEP Consideration of Draft CEEs (WP 23). The Committee also discussed additional information provided by the United Kingdom in response to the ICG comments and issues raised during the meeting.
- (31) Having reviewed the draft CEE, the CEP advised the ATCM that:
- 1) The draft CEE largely and broadly conformed to the requirements of Article 3 of Annex I to the Protocol on Environmental Protection to the Antarctic Treaty.
 - 2) If the United Kingdom decided to proceed with the proposed activity, there were some aspects for which additional information or clarification could be provided in the final CEE to enhance its comprehensiveness, as outlined in this ICG report. In particular, and noting the considerable detail already provided on the impacts and mitigation associated with all aspects of the activity, the Committee's attention was drawn to the suggestions that some further consideration could be provided regarding:

- i. additional aspects regarding impacts and mitigation relating to underwater and land-based noise;
 - ii. additional aspects regarding impacts and mitigation relating to dust; and
 - iii. cumulative impact relating to potential future activity and increased future traffic in the area.
 - 3) The United Kingdom was furthermore encouraged to consider the detailed comments provided by ICG participants, as well as the summary of the main issues as put forward in the ICG report, and issues raised during CEP XXI as summarised in the final report.
 - 4) The information provided in the draft CEE supported the conclusion that the impacts of some activities within the project would have a greater than minor or transitory impact, and that this level of EIA had been appropriate for this project.
 - 5) The draft CEE was thorough, systematic, clear, well structured, and well presented, although some minor adjustments could be considered to strengthen the document even further.
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- (32) ASOC presented IP 62 *Follow-Up of Comprehensive Environmental Evaluations*. It recalled that Resolution 2 (1997) encouraged Members to anticipate and carry out follow-up for CEEs. ASOC also noted that CEE follow-up was implied in monitoring requirements under Annex V, EIA guidelines and in the inspection checklist for stations. ASOC highlighted that, in practice, there had been a very limited follow-up of CEEs and considered it timely to undertake this in order to identify and communicate the environmental performance of activities subject to CEE. It recalled a good example of a successful CEE follow-up in 2007 where, at the invitation of Antarctica New Zealand, an independent environmental audit was conducted by the British Antarctic Survey and the Australian Antarctic Division on the ANDRILL McMurdo Sound project. ASOC recommended that: those Members that had submitted final CEEs in the recent past submit reports in accordance with Resolution 2 (1997); CEE documents include follow-up plans; and observations on CEE follow-up be included in inspection reports where applicable.
- (33) Belarus supported ASOC's recommendations and emphasised that the EIA follow-up process should be continuous.

- (34) The Committee noted the following other Information Paper submitted under this agenda item:
- IP 15 rev. 1 *Notice of intention to prepare a Comprehensive Environmental Evaluation for redevelopment of Scott Base (New Zealand)*, which noted that New Zealand was considering the redevelopment of Scott Base, no earlier than the 2021/22 season. It noted that New Zealand intended to submit a draft CEE for the project in early 2020, using a sustainability assessment tool in the design and specification process. New Zealand welcomed discussion and input from other Members on such tools, and on the CEE process.
- (35) The following paper was also submitted under this agenda item:
- SP 9 *Annual list of Initial Environmental Evaluations (IEE) and Comprehensive Environmental Evaluations (CEE) prepared between 1 April 2017 and 31 March 2018 (ATS)*.

Item 4: Management Plans

i.) Revised Draft Management Plans which have not been reviewed by the Subsidiary Group on Management Plans

- (36) The Committee considered the following papers presenting revised management plans for Antarctic Specially Protected Areas (ASPAs). In each case the proponent(s) summarised the suggested changes to the existing management plan and recommended its approval by the Committee and referral to the ATCM for adoption.
- WP 4 *Revision of the Management Plan for Antarctic Specially Protected Area (ASPAs) No. 117 Avian Island, Marguerite Bay, Antarctic Peninsula (United Kingdom)*.
 - WP 5 *Revision of the Management Plan for Antarctic Specially Protected Area (ASPAs) No. 170, Marion Nunataks, Charcot Island, Antarctic Peninsula (United Kingdom)*.
 - WP 6 *Revision of the Management Plan for Antarctic Specially Protected Area (ASPAs) No. 108, Green Island, Berthelot Islands, Antarctic Peninsula (United Kingdom)*.
 - WP 7 *Revision of the Management Plan for Antarctic Specially Protected Area (ASPAs) No. 147, Ablation Valley and Ganymede Heights, Alexander Island (United Kingdom)*.

- WP 10 *Revised Management Plan for Antarctic Specially Protected Area (ASPAs) No. 172 Lower Taylor Glacier and Blood Falls, McMurdo Dry Valleys, Victoria Land* (United States).
 - WP 31 *Revision of the Management Plan for Antarctic Specially Protected Area (ASPAs) No. 132, Potter Peninsula* (Argentina).
- (37) With respect to WP 4 (ASPAs 117), WP 5 (ASPAs 170), WP 6 (ASPAs 108), and WP 7 (ASPAs 147) the United Kingdom noted that only minor changes to the existing management plan were proposed, and included minor updates to supplementary materials in the plans, additional information on Important Bird Areas, provisions for the operation of RPAS, and minor editorial amendments.
- (38) With respect to WP 10 (ASPAs 172), the United States noted that the changes to the existing management plan included minor textual changes, the change of a helicopter landing site due to rising lake levels, the addition of a prohibition of overflight below 100 metres of the area, and inclusion of additional advice for glacier access.
- (39) With respect to WP 31 (ASPAs 132), Argentina noted that the changes to the existing management plan included updated information on the natural values of the ASPAs, the inclusion of more scientific information regarding ecosystem monitoring, provisions for the operation of RPAS in the boundaries of the ASPAs, and waste management.
- (40) The Committee approved all of the revised management plans that had not been reviewed by the SGMP.

CEP advice to the ATCM on revised management plans for ASPAs

- (41) The Committee agreed to forward the following revised management plans to the ATCM for approval by means of a Measure:

#	Name
ASPAs 108	Green Island, Berthelot Islands, Antarctic Peninsula
ASPAs 117	Avian Island, Marguerite Bay, Antarctic Peninsula
ASPAs 132	Potter Peninsula, King George Island (Isla 25 de Mayo), South Shetland Islands
ASPAs 147	Ablation Valley and Ganymede Heights, Alexander Island
ASPAs 170	Marion Nunataks, Charcot Island, Antarctic Peninsula
ASPAs 172	Lower Taylor Glacier and Blood Falls, McMurdo Dry Valleys, Victoria Land

ii.) *Prior assessment of proposed new protected areas*

- (42) The Committee considered Working Papers relating to the prior assessment of proposed new protected areas, in accordance with the Guidelines: A prior assessment process for the designation of ASPAs and ASMAs.
- (43) The United Kingdom introduced WP 18 rev. 1 *Prior assessment of a proposed Antarctic Specially Protected Area within the Léonie Islands, Ryder Bay, Antarctic Peninsula*, submitted jointly with the Netherlands. The paper outlined the environmental, scientific, wilderness and aesthetic values of a proposed multi-site ASPA. It noted that the proposed ASPA would afford protection to 10% of the global population of south polar skuas, 1.9% of the global population of Antarctic shags, and rich areas of terrestrial vegetation. It would also protect important long-term and ongoing biological research, as well as provide a control area against which to compare human impacts at Rothera Station. The paper noted that the proposed area also had considerable wilderness and aesthetic values.
- (44) The Committee welcomed the comprehensive information presented in the paper, consistent with the purpose and provisions of the *Guidelines: A prior assessment process for the designation of ASPAs and ASMAs*. The Committee agreed that the values within the proposed ASPA merit special protection, and expressed its support for the development of a draft management plan for the area, led by the United Kingdom and the Netherlands.
- (45) Members raised several matters for further consideration by the proponents, including:
- the potential for disruption of scientific programmes that may arise from designating the area as an ASPA;
 - the potential impact of refuges in the area, and their use, on the intended purpose of the area as a control area against which to compare human impacts at Rothera Station; and
 - whether the designation of a new ASPA as a control area would result in a review of the status and continued utility of ASPA 129.
- (46) The Netherlands noted that its scientists were enthusiastic about the potential for the proposed ASPA to support research objectives, and the United Kingdom expected that the proposed ASPA would actually reduce risks to scientific activities. The Netherlands and the United Kingdom advised that they had held some discussions about the value of retaining ASPA 129, and would consider the matter further. The United Kingdom also clarified that

the proposed ASPA contained multiple sites, and refuges were not in a site that was being considered for inclusion as a control area.

- (47) The Committee encouraged interested Members and Observers to work with the United Kingdom and the Netherlands during the intersessional period in the development of a management plan for potential submission at CEP XXII, and noted that those discussions could also usefully give further consideration to issues raised during the meeting, as appropriate.
- (48) China introduced WP 30 *Prior assessment of a Proposed Antarctic Specially Protected Area (ASPA) on the Inexpressible Island*. The paper outlined the environmental, scientific and historic values of the proposed ASPA, noting that the area would be designated primarily to protect an Adélie penguin and south polar skua colony identified by BirdLife International as Antarctic Important Bird Area (IBA) 178 from increasing human activities, to protect Historic Site and Monument (HSM) 14 Ice Cave used by the British Antarctic Expedition team in 1912, and for long-term monitoring. The Adélie penguin colony on Inexpressible Island is the only one which has had a continuous occupation for the past ~7000 years based on the present knowledge. The preserved remains (bones, tissues and eggshells) in the frozen environment provide ideal material for evolution and climate or environmental change research. The south polar skua colony represents more than 1% of the global population of the species.
- (49) The Committee welcomed the comprehensive information presented in the paper, consistent with the purpose and provisions of the *Guidelines: A prior assessment process for the designation of ASPAs and ASMAs*. The Committee agreed that due to the combination of scientific, environmental and historic values present, and the increasing human activities, the area merited to be designated as an ASPA.
- (50) Members raised several matters for further consideration by the proponent, including:
- the availability of results of Italian research in the area;
 - the value of conducting further investigations on the distribution of the skua population;
 - the possible inclusion of the nearby stream and lake within the area boundary;
 - incorporation of additional research results obtained on-site during the most recent field season; and

- the consideration of alternatives to designating a visitor area within the proposed ASPA.
- (51) Italy expressed its interest in joining China as a co-proponent of the ASPA. Information on Italian scientific activities and peer-review literature had been recently condensed in a document that summarised all the research activities performed so far, which had been made publicly available in a repository facility along with all the papers at <https://cloud.cnr.it/owncloud/index.php/s/teEKRd0tQHNqlBe>.
- (52) Other Members expressed interest in contributing to the development of the management plan. IAATO, noting the area's historical significance, also offered to facilitate consultation with its member operators that had extensive experience of the area. The Committee encouraged interested Members and Observers to work with China during the intersessional period to develop a draft management plan for submission at CEP XXII.
- (53) The Committee noted that the comprehensive information provided in WP 18 rev. 1 and WP 30, and the resulting productive discussions during the meeting, demonstrated the value of the prior assessment process.
- (54) Norway noted that discussions regarding the further development of the protected area system that would take place at the planned workshop (WP 16) and ongoing discussions relating to IBAs in the context of the protected area system could have a bearing on the designation of new protected areas, and noted that it in a broader sense may be useful to consider the relevance of these overarching discussions.
- (55) ASOC welcomed WP 18 rev. 1 and WP 30, which presented solid evidence to support the creation of new ASPAs with clear scientific, environmental and wilderness values and that include representative examples of terrestrial ecosystems. ASOC hoped that the undertaking of the prior assessment process, which is a voluntary step, would facilitate the adoption of the proposed ASPAs. ASOC additionally suggested that the proposed Inexpressible Island ASPA could be increased in size to protect a site that was previously relatively pristine and now was experiencing an increase in infrastructure and human activities.
- (56) The Committee noted the following Information Paper submitted under this agenda item:
- IP 42 *Update on the proposed Antarctic Specially Protected Area (ASP) in the Western Sør Rondane Mountains* (Belgium). Following

discussions at CEP XX, the paper provided a synthesis of the scientific literature available and a map of the general area as a next step of the prior assessment for the proposed new ASPA in the Sør Rondane Mountains.

iii.) Other matters relating to management plans for protected areas

- (57) The United States introduced WP 2 *Review of the Management Plans for Antarctic Specially Protected Areas (ASPAs) No. 137 Northwest White Island, McMurdo Sound and No. 138 Linnaeus Terrace, Asgard Range, Victoria Land.*
- (58) The Committee noted the United States' advice that it had conducted a five-yearly review of the management plans for ASPA 137 and ASPA 138 in accordance with the requirements of Article 6.3 of Annex V to the Protocol, and had determined that these management plans did not require revision.
- (59) New Zealand introduced WP 15 *Review of Management Plan for ASPA No. 156, Lewis Bay, Mount Erebus, Ross Island.*
- (60) The Committee noted New Zealand's advice that it had conducted a five-yearly review of the management plan for ASPA 156, and had determined that the plan did not require revision.
- (61) The Committee noted a further Information Paper submitted under this agenda item:
 - IP 35 *Review of the Management Plans for Antarctic Specially Protected Areas (ASPAs) 135, 143 and 160 (Australia).* This paper presented the results of five-yearly reviews by Australia of the management plans for ASPA 135, ASPA 143 and ASPA 160, which had concluded that no revisions were required.

CEP advice to the ATCM on the five-yearly review of management plans for ASPAs

- (62) The Committee agreed to advise the ATCM that five-yearly reviews of the management plans for the following ASPAs had been conducted in accordance with Article 6.3 of Annex V to the Protocol, and that the existing management plans remain in force with the next reviews to be initiated in 2023:
 - ASPA 137 North-West White Island, McMurdo Sound
 - ASPA 138 Linnaeus Terrace, Asgard Range, Victoria Land
 - ASPA 156 Lewis Bay, Mount Erebus, Ross Island
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- (63) Chile introduced WP 11 *Status of Antarctic Specially Protected Area No. 144, Chile Bay (Discovery Bay), Greenwich Island*. This paper reported on an analysis of the status of ASPA 144 based on the *Checklist to assist in the inspection of Antarctic Specially Protected Areas* adopted in Resolution 4 (2008) and the *Guidelines for implementation of the Framework for Protected Areas* adopted in Resolution 1 (2000). Additionally, Chile presented supporting information in IP 9 *Analysis of the current status of the Antarctic Specially Protected Area No. 144, Chile Bay (Discovery Bay), Greenwich Island*. Chile reported that it had determined that the original designation of the ASPA as a control area for the study of Port Foster, Deception Island, was no longer valid and that due to the low level of activity in the area the values for which the Area was originally designated were no longer threatened. Chile noted that the area had not been subject to significant human activity and recommended that the Committee evaluate the continuing need for protection of the area as an ASPA.
- (64) The Committee thanked Chile for presenting the results of its comprehensive and systematic evaluation of the status of ASPA 144. The Committee noted the conclusions drawn by Chile as a result of that evaluation and acknowledged that the information presented gave good cause to reconsider continuing the status of Chile Bay (Discovery Bay) as an ASPA. The Committee recalled its earlier agreement on the importance of the Antarctic protected area system being dynamic and also of the importance of being rigorous in the consideration of proposals to delist ASPAs. The Committee also recalled that it had previously welcomed an offer by Norway to lead the development of guidance / criteria for delisting ASPAs.
- (65) Norway advised that it was continuing to work on the guidance / criteria, and intended to bring forward a proposal for consideration at CEP XXII. The Committee agreed that it would be appropriate to reconsider the possible delisting of ASPA 144 in light of such guidance.
- (66) Members also noted that it would be appropriate to consider the possible continuing value of the ASPA for other research conducted in nearby area, and possible alternatives to delisting such as revising the objectives for the Area.
- (67) ASOC expressed its view that delisting of ASPAs should not be taken lightly. ASOC further noted that the fact that an area had been documented in the past and protected for a long time was in itself a value that merited consideration of extended protection.

- (68) The Committee welcomed Chile's willingness to keep the proposal under consideration, and noted that it would be appropriate for the SGMP's consideration of the management plan to be placed on hold, pending further discussions and decisions on the possible de-designation of the Area.
- (69) The Committee noted the following Information Paper submitted under this agenda item:
- IP 8 *Progress in the revision process of the Management Plan for Antarctic Specially Protected Area No. 133, Harmony Point, Nelson Island, South Shetland Islands* (Argentina, Chile). This paper reported on a preliminary evaluation that had determined that the management plan for ASPA 133 required major changes, including an adjustment to the Area boundary. The co-authors noted that the next steps would be: further exchanges with scientific personnel working on projects on-site; field work for the assessment of current environmental values and for the collection of further information on boundaries; and the redrafting of maps and submission of a joint Working Paper once the revised plan was drafted.

Item 5: Site Guidelines

- (70) The United Kingdom introduced WP 32 *Review of Site Guidelines for Visitors*, jointly submitted with Argentina, and in conjunction with ASOC and IAATO. The paper described work conducted during the 2017/18 season to review a number of sites either with established Site Guidelines for visitors or currently receiving regular visitation in order to draft new guidelines if deemed appropriate. The co-authors also raised a number of broader issues related to visitor Site Guidelines. The United Kingdom noted that the paper contained several general observations and recommendations arising from the site visits, and drew the Committee's attention to: the importance of regularly reviewing Site Guidelines and the need for more Site Guidelines; the suggestion that precautionary revisions of Site Guidelines could be based on relevant information, and not necessarily require formal on-site reviews; the suggestion to keep a visual record of photographs of sites to aid in the ongoing monitoring of changes; and the potential usefulness of developing a checklist to aid future reviews.
- (71) The Committee thanked the co-authors for their work during the previous season to visit several sites in order to inform reviews of existing Site Guidelines and to consider the possible need for new Site Guidelines. Regarding the recommendations presented in WP32, the Committee noted

the importance of regular reviews of existing Site Guidelines including, when appropriate, on the basis of relevant information and without the need for formal on-ground site visits. The Committee also noted that any resulting proposed changes to Site Guidelines would be considered and agreed by the CEP and ATCM in accordance with accepted practice.

- (72) The Committee expressed support for further work in relation to other points raised in WP 32, including: the development of a formal checklist to aid the future review of Site Guidelines, noting that such a checklist could also be utilised by researchers active at such sites; and development of an online repository of pictures from sites with Site Guidelines to aid in ongoing monitoring and formal site review.
- (73) The Committee welcomed IAATO's willingness to collaborate on these initiatives, and its commitment to continuing to gather and report information on site visits by its operators.
- (74) The Russian Federation expressed concerns about regulating the number and size of vessels that could visit certain sites.
- (75) In response to a query raised in WP 32, SCAR advised that it was not aware of evidence that a six-hour break, or curfew period, would be beneficial, or otherwise, for wildlife at visited sites, and encouraged further research on this matter.
- (76) The Committee agreed to forward the revised Site Guidelines for Half Moon Island, presented in WP 32, to the ATCM for adoption.
- (77) The United Kingdom introduced WP 33 *Proposed Amendment for Antarctic Treaty Site Guidelines for Visitors to Pendulum Cove, Telefon Bay and Whalers Bay, Deception Island*, jointly submitted with Argentina, Chile, Norway, Spain and the United States, and in conjunction with ASOC and IAATO. Following a site visit and review by representatives of the United Kingdom, Argentina, IAATO and ASOC, as described in WP 32, the Deception Island Management Group suggested revisions to the Site Guidelines for visitors to the three sites on the interior of the island: Pendulum Cove, Telefon Bay and Whalers Bay. The United Kingdom noted that all three sites required some revision, and highlighted that the co-authors had proposed changes to restrict the maximum number of vessels visiting each site to two per day, restrictions in approaches to various old structures, and alternative routes to avoid fauna.

- (78) A concern was raised regarding the proposed reductions in vessel numbers. The co-authors of the paper highlighted some of the background to the proposal, noting that any limitations should be based on numbers of visitors going ashore, it had represented a precautionary approach that took into consideration the potential cumulative impacts of both tourist and national Antarctic programme personnel visits to these highly visited sites, as well as the special circumstances of Deception Island as an active volcano.
- (79) Following modifications made during the meeting to the maximum number and size of ships per day (which was altered to three ships per day, two of which carried no more than 500 passengers, and one of which had no more than 200 passengers), the Committee agreed to forward the revised Site Guidelines for Pendulum Cove, Telefon Bay and Whalers Bay, Deception Island to the ATCM for adoption. It was noted that the Deception Island Management Group would keep this issue under consideration.
- (80) Argentina introduced WP 34 *Review of Guidelines for Visitor Sites in the Antarctic Peninsula: Revised Guidelines for Paulet Island*, jointly submitted with the United Kingdom, Norway and Sweden, ASOC and IAATO. The co-authors proposed revised Site Guidelines for visitors for Paulet Island, following a site visit and review by representatives of the United Kingdom, Argentina, IAATO and ASOC, as described in WP 32. It reported that the most significant changes stemmed from the increased number and dispersal of the penguins on the island, which had made landing and walking around the island difficult, especially when penguins were fledging.
- (81) The Committee agreed to forward the revised Site Guidelines for Paulet Island to the ATCM for adoption.
- (82) The United Kingdom introduced WP 35 *Review of Guidelines for Visitor Sites in the Antarctic Peninsula: New and Amended Guidelines*, jointly submitted with Argentina, and in conjunction with ASOC and IAATO. The paper suggested revisions to the existing Site Guidelines for two sites: Brown Bluff and Devil Island. It also proposed new Site Guidelines for three sites: Astrolabe Island, Georges Point, and Portal Point. The United Kingdom noted that the revisions were necessary due to fauna, increases in visitor numbers to an area seldom visited before, and additional restrictions in approaches to snow petrel sites.
- (83) The Committee agreed to forward the new Site Guidelines for Astrolabe Island, Georges Point, and Portal Point, and the revised Site Guidelines for Brown Bluff and Devil Island, to the ATCM for adoption.

CEP advice to the ATCM on new and revised Site Guidelines

- (84) The Committee agreed to forward the following new and revised Site Guidelines to the ATCM for adoption:
- Astrolabe Island (new)
 - Brown Bluff
 - Devil Island
 - Georges Point, Rongé Island (new)
 - Half Moon Island
 - Paulet Island
 - Pendulum Cove
 - Portal Point (new)
 - Telefon Bay
 - Whalers Bay
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- (85) ASOC presented IP 61 *Anticipated growth of Antarctic tourism: Effects on existing regulation*. It noted the growing demand for Antarctic tourism, including from newer markets, and that a global increase of polar ship capacity would drive significant tourism growth in coming years. ASOC considered this growth could have an effect on resilience and effectiveness of the Antarctic tourism regulation system in the future. ASOC suggested that Parties pursue timely, proactive and precautionary approaches to address tourism growth, which included the following steps: 1) review the current Antarctic tourism regulation system to ensure adequate resilience and effectiveness in the future, including the adoption and/or review of Site Guidelines; 2) improve impact assessment and monitoring, particularly in respect of cumulative impacts; and 3) expand the network of ASPAs and ASMAs.
- (86) The Committee expressed general support for the recommendations in IP 61 and encouraged Members to consider these matters further and bring forward related proposals for consideration at future meetings.
- (87) IAATO presented IP 72 *Report on IAATO Operator Use of Antarctic Peninsula Landing Sites and ATCM Visitor Site Guidelines, 2017-18 Season*. This paper presented data collected by IAATO from IAATO Operator Post Visit Report Forms for the 2017-18 season. No non-IAATO visits were included in this analysis. The total number of passengers from ships making landings in the Antarctic Peninsula in 2017-18 (41,517) had surpassed the

previous 2016-17 landing total (of 33,580). This was due in part to vessels being operated with higher passenger capacity, with all vessels benefiting from the current world economic strength and operating at near-full passenger capacity for the whole season. Pre-season and in-season co-ordination between IAATO field staff remained very effective utilising the IAATO Ship Scheduler, which manages visits following the Site Guidelines. Therefore, all operations remained well within individual Site Guideline visitation capacities with all of the most-visited sites covered by site-specific management plans, either through ATCM Visitor Site Guidelines or national programme management.

- (88) The Committee welcomed IAATO's continuing commitment to collect and report information on IAATO operator landing site and Site Guidelines use, and thanked IAATO for the details provided in the paper which were relevant to the Committee's ongoing consideration of matters relating to the environmental management of Antarctic tourism. Several Members noted that the information presented in the paper raised interesting questions, including with regard to the increase in land-based activities and approaches to the management of sites regularly receiving high numbers of visitors.
- (89) The Committee agreed that it would be appropriate to consider actions it could take to understand better and address the environmental implications of increasing numbers of tourists visiting landing sites. The Committee recalled that the *2012 CEP Tourism Study: Tourism and Non-Governmental Activities in the Antarctic, Environmental Aspects and Impacts* had identified recommendations relevant to the discussion. It also noted that SCAR and IAATO were continuing to develop a systematic approach to conservation planning for tourism on the Peninsula, and that Members were encouraged to contribute.
- (90) The Committee noted the following other Information Paper submitted under this agenda item:
- *IP 54 Recovery Status of Moss Communities Near the Trails of Barrientos Island (Aitcho Islands)* (Ecuador, Spain). This paper reported on the current situation on Barrientos Island, where the island's trails were closed for the last six years to foster the recovery of moss communities damaged by trampling. Noting recovery on the coastal trail, and no significant changes to the central trail, the co-authors recommended continued long term follow-up of the recolonisation process.

Item 6: Inspection Reports

- (91) Norway introduced WP 26 *Summary of findings and reflections on trends from the Inspections undertaken by Norway under Article VII of the Antarctic Treaty and Article 14 of the Environmental Protocol*. The inspections were carried out from 9-17 February 2018 on seven installations—four scientific research stations (Halley VI, Neumayer III, SANAE IV, and Princess Elisabeth Antarctica), one field station/logistical support base/e-base (SANAP summer station) and two installations that provide support functions to national Antarctic programmes (Novo Airbase and Airfield, and Perseus Runway). Norway noted that the inspection team maintained a focus on an overarching, rather than detailed, level during the inspection and that Inspection Checklist A had been used as guidance in preparing for and conducting the inspections. It highlighted that overall the inspection team was impressed by the high standards and level of environmental commitment at the stations.
- (92) Norway reported that as far as the inspection team could discern permits and authorisations were in place for all installations. Norway observed that the framework, provisions and principles of the Protocol had had an overall positive impact on the conduct of national Antarctic programme operations. Although noting differences among stations, the inspection team observed a general desire to implement cleaner, innovative and more efficient technologies. It also noted an ongoing shift towards more complex technological systems that, to a larger degree than before, could be operated remotely, which could in turn have positive implications for the environment. In that respect Norway noted the need for a continued focus on exchanging information and best practices between national programs, operators and personnel at Antarctic stations.
- (93) Based on observations, Norway reflected on the current understanding that many of support installations, such as airfield camps are considered non-permanent or semi-permanent. Realizing that such infrastructure often can be removed, as can also research stations, they nevertheless are seemingly long term present and should potentially be treated as such according to the provisions of the Environment Protocol. Norway suggested that Parties continue to consider the use and understanding of the terms non-permanent, semi-permanent and permanent in light of the EIA provisions and requirements of the Environment Protocol.
- (94) South Africa thanked Norway for its inspection of SANAE IV and the SANAP summer station, and welcomed the recommendations in the report.

In responding to one of the concerns raised in the report regarding skewing funding efforts towards infrastructure rather than science, South Africa clarified that it had actually expanded its scientific research scope, and had an established peer review process to allocate and review research grants.

- (95) Belgium warmly thanked Norway for its inspection report of Princess Elisabeth Antarctic Research Station, and welcomed the comments made by the inspection team relating especially to energy production and consumption. Belgium noted that there were a few aspects to improve and that it would take into account the inspection report's recommendations. It also reported on a new system of permitting adopted by the Federal Parliament in July 2017, a few weeks before the start of the field season, and explained under which conditions a permit should now be requested from the Belgium national authority.
- (96) The United Kingdom also thanked Norway for its report, and noted that Halley VI station was happy to host the inspection team. The United Kingdom expressed interest in the general feedback and comments made by Norway, particularly in relation to the use and understanding of the terms non-permanent, semi-permanent and permanent. It also noted that although there were no plans in place to install renewables in Halley VI, it was implementing plans to increase efficiency and achieve the same scientific results with considerably less fuel.
- (97) The Russian Federation thanked Norway for the inspection of two of its facilities (Novo Airbase-Airfield and Perseus Runway), and commented on some observations in the inspection report. It indicated that in its opinion there was no need for a CEE in respect of the infrastructure mentioned, since this was only a seasonal, and not a year-round, activity. An alternative approach to the seasonal infrastructure would require a review of the existing IEE/CEE practice. The Russian Federation expressed its readiness to provide further considerations and explanations on the inspection report.
- (98) ASOC thanked Norway for providing an inspection report, and noted that it was encouraging that Norway concluded that the Protocol has had an overall positive impact on station operations. However, ASOC also noted that the report mentioned that not all stations had achieved the same level of international coordination and participation with global observation programmes, and that there had been an increase in runways and the number of flights. With respect to the latter, ASOC encouraged the CEP to consider the possible impacts of this increased activity in future discussions on air activities.

- (99) Norway thanked inspected Parties for the openness and friendliness with which they were received.
- (100) The Committee thanked Norway for the high quality report on the inspections undertaken during the previous season. It was also noted that the inspections constituted a valuable contribution recognising that they imply a logistic and budget effort for the Parties. The Committee welcomed the generally positive findings of the inspection team regarding environmental matters, including: the presence of suitable permits and authorisations, the positive impact of the Environment Protocol on good practices at the stations, and the increase in the use of renewable energy on stations. Regarding the latter point, the Committee noted COMNAP's advice that the use of renewable energy by national Antarctic programmes was increasing, and that COMNAP would be holding a discussion on reducing fossil fuel use at its upcoming annual general meeting. The Committee also noted the suggestion made by the inspection team regarding considering the use of the terms non-permanent, semi-permanent and permanent, and considered that this was an issue the Committee could return to at a future meeting.
- (101) The following papers were also submitted under this item:
- BP 1 *Follow-up to the Recommendations of the Inspections at the Eco-Nelson Facility (Czech Republic)*.
 - BP 23 *Follow-up to the Recommendations of the Inspection at the Johann Gregor Mendel Czech Antarctic Station (Czech Republic)*.

Item 7: Reports from Subsidiary Bodies and Intersessional Contact Groups

- (102) The convener of the Subsidiary Group on Management Plans (SGMP), Patricia Ortúzar (Argentina) introduced WP 9 *Subsidiary Group on Management Plans Report of activities during the intersessional period 2017-2018* on behalf of the SGMP. In accordance with terms of reference #1 to #3, the Group had been prepared to consider the following five draft Antarctic Specially Protected Area (ASPAs) management plans referred by the CEP for intersessional review:
- ASPA 125: Fildes Peninsula, King George Island (25 de Mayo) (Chile).
 - ASPA 144: Chile Bay (Discovery Bay), Greenwich Island, South Shetland Islands (Chile).
 - ASPA 145: Port Foster, Deception Island, South Shetland Islands (Chile).
 - ASPA 146: South Bay, Doumer Island, Palmer Archipelago (Chile).

- ASPA 150: Ardley Island, Maxwell Bay, King George Island (25 de Mayo) (Chile).
- (103) The SGMP advised the CEP that the five management plans were still under review by the proponent and the Group would provide advice once the revised versions were available.
- (104) In accordance with terms of reference #4 and #5, the Group had not received any new requests for advice from Parties regarding the five-yearly review of management plans, and had agreed to postpone the task of revising the *Guidance for assessing an area for a potential Antarctic Specially Managed Area designation*.
- (105) The Committee thanked the SGMP for its advice and encouraged further Members to consider participating in the Group. Uruguay expressed its intention to actively participate in the work of the SGMP. The Committee also welcomed Chile’s advice that it was continuing to work on the review of the five ASPA management plans mentioned in the SGMP report, and that it hoped to have them ready for review later in the year. Chile also referred to WP 11 and IP 9 which outlined its work to review the status of ASPA 144.
- (106) The Committee adopted the following SGMP work plan for 2018/19:

Terms of Reference	Suggested tasks
ToR 1 to 3	Review draft management plans referred by CEP for intersessional review and provide advice to proponents
ToR 4 and 5	Work with relevant Parties to ensure progress on review of management plans overdue for five-yearly review
	Consider further improvements to the <i>Guidance for assessing an area for a potential Antarctic Specially Managed Area designation</i>
	Review and update SGMP work plan
Working Papers	Prepare report for CEP XXII against SGMP ToR 1 to 3

- (107) Norway and the United Kingdom jointly introduced WP 20 *Report of the intersessional contact group established to develop guidance material for conservation approaches for the management of Antarctic heritage objects*. The paper outlined the work of the open-ended intersessional contact group (ICG) established at CEP XIX (2016), and which continued at CEP XX (2017), to develop guidance for conservation approaches for the management of Antarctic heritage objects.
- (108) Norway and the United Kingdom proposed that the Committee: consider and adopt the attached *Guidelines for the Assessment and Management of Heritage in Antarctica* which had been developed by the ICG; adopt

a revised version of the *Guide to the Presentation of Working Papers containing Proposals for ASPAs, ASMAs or HSMs*; and consider the need for future discussion of overarching issues related to heritage management in Antarctica that were raised during the ICG.

- (109) The Committee thanked Norway and the United Kingdom for leading the ICG, and acknowledged the contributions of other Members and Observers that participated. The Committee noted that the ICG had involved rich and challenging discussions on complex but important issues for the CEP and for the broader community. There was broad recognition of the value of the proposed guidelines, both for those making an initial assessment of a heritage site or object and for the CEP in evaluating submissions and proposals for new HSMs. Noting that 2020 marked the 200th anniversary of the first sighting of Antarctica, Members also acknowledged that HSMs offered an important means through which to educate visitors and the general public about Antarctic history and science.
- (110) ASOC considered that the draft guidelines offered useful ways to streamline the process of designating historic sites in the context of other obligations in the Protocol, and noted positively that the issue of environmental protection had run through this discussion. ASOC considered that the use of EIA under Article 8(3) of the Protocol applied to a number of instances when an object was transitioning from its original use or status to that of a historic or heritage artefact.
- (111) Following modifications suggested during the meeting, including changes in definitions and references to legal issues related to ex situ conservation, the Committee endorsed the *Guidelines for the assessment and management of Heritage in Antarctica*. The Committee also agreed to recommend that the ATCM revise the *Guide to the Presentation of Working Papers containing Proposals for ASPAs, ASMAs or HSMs* to update *Template B: Cover Sheet for a Working Paper on a Historic Site or Monument*, as presented in WP 20.
- (112) The Committee recalled its decision at CEP XVIII that future proposals for designation of new HSMs should be put on hold until further guidelines on the assessment and management of heritage were in place, and its related decision at CEP XIX to defer consideration of two HSM proposals. It agreed that if the proponents wished to bring forward those proposals, or that if there were new proposals, it would be appropriate that they be considered and presented in light of the new guidelines and the revised Template B.
- (113) The Committee agreed that the ICG had identified several overarching issues that warranted further consideration. In particular, it agreed there

would be value in giving further consideration to: the format of the HSM list; legal issues associated with ownership and potential removal for *ex situ* conservation, noting that this may require guidance from the ATCM; involvement of heritage expertise when assessing options for heritage management; and the possible need for EIA documentation as part of new HSM proposals. The CEP encouraged interested Members to work on these issues and to bring forward further papers for the Committee's consideration.

CEP advice to the ATCM on Guidelines for the assessment and management of Heritage in Antarctica

- (114) The Committee endorsed the *Guidelines for the assessment and management of Heritage in Antarctica* and agreed to forward to the ATCM for adoption a draft Resolution encouraging the use of the guidelines.
- (115) The Committee also endorsed a revision to the *Guide to the presentation of Working Papers containing proposals for Antarctic Specially Protected Areas, Antarctic Specially Managed Areas or Historic Sites and Monuments*, to reflect the *Guidelines for the assessment and management of Heritage in Antarctica*, which provide guidance with regard to required information for the purpose of HSM listings, and agreed to forward to the ATCM for approval a draft Resolution on updating the Guide.
- (116) The Committee recalled its advice to ATCM XXXVIII that future proposals for new designations of HSM should be put on hold until further guidance had been established regarding assessment and management of Antarctic heritage. The Committee agreed to advise the ATCM that, with the adoption of the *Guidelines for the assessment and management of Heritage in Antarctica*, proposals for new designations of HSM could again proceed as appropriate.
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- (117) Germany introduced WP 29 *Report of the CEP Intersessional Contact Group to develop Guidelines on the Environmental Aspects of the use of Un-manned Aerial Vehicles (UAVs) / Remotely Piloted Aircraft Systems (RPAS) in Antarctica*. In accordance with the ICG terms of reference agreed at CEP XX (2017), the paper presented the report of the ICG convened by Germany, including an updated literature review, a summary of national operator experience in use of RPAS, draft *Environmental Guidelines for Operation of Remotely Piloted Aircraft Systems (RPAS) in Antarctica*, and a draft Resolution for consideration by the CEP.
- (118) Germany informed the Committee that at the conclusion of the ICG's work there were several items still open for discussion in relation to the draft

guidelines, including: whether to specify wildlife separation distances in the guidelines; whether to retain a reference list in the guidelines; the extent to which guidance on operational matters should be incorporated in the guidelines; and whether the guidelines should apply to all RPAS activities or be restricted only to professional uses.

- (119) The Committee thanked Germany for leading the ICG and commended all participants for contributing to this valuable and complex discussion. Following modifications made during the meeting, including to remove references to separation distances from wildlife, the CEP endorsed the *Environmental guidelines for the operation of Remotely Piloted Aircraft Systems (RPAS) in Antarctica*.
- (120) The Committee encouraged support for further research into the environmental impacts and benefits of RPAS, especially with respect to impacts on wildlife. It noted the importance of reviewing and revising the guidelines, as appropriate, to reflect the current state of scientific knowledge of the environmental impacts and benefits of RPAS. The Committee agreed that it would be useful to have a central source of related information and welcomed the offer by COMNAP and SCAR to compile peer-reviewed literature and provide a summary that could be used to inform content to be included in the Antarctic Environments Portal. The Committee noted that the literature review presented in WP 29 would also be very useful in this regard.
- (121) The Committee noted that the question of the circumstances under which recreational uses of RPAS should or should not be allowed had not been resolved during the ICG, and that it would be appropriate to keep under consideration the outcomes of any relevant RPAS-related discussion in the ATCM.

CEP advice to the ATCM on Environmental guidelines for the operation of Remotely Piloted Aircraft Systems (RPAS) in Antarctica

- (122) The Committee endorsed the *Environmental guidelines for the operation of Remotely Piloted Aircraft Systems (RPAS) in Antarctica* and agreed to forward to the ATCM for approval a draft Resolution encouraging the use and further development of the guidelines.
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- (123) The Committee noted the following Information Papers submitted under this agenda item:
- IP 36 *Intersessional Contact Group on Review of the Antarctic Cleanup Manual: Progress report* (Australia) reported on the progress made by the ICG during the last year. Noting the limited time available

and reduced agenda of CEP XXI, the ICG would finalise its work through the 2018-19 intersessional period and provide its report and any recommendations to CEP XXII. All CEP Members and Observers were invited to participate.

- IP 43 *COMNAP Antarctic Remotely Piloted Aircraft Systems (RPAS) Operator's Handbook* (COMNAP). This paper presented the current edition of the handbook, prepared by the COMNAP RPA Working Group, that included guidance on environmental aspects of RPAS deployment, taking into consideration ATCM XL - WP 20 *State of Knowledge of Wildlife Responses to Remotely Piloted Aircraft Systems (RPAS)* (SCAR), the views of the CEP Members that participated in the initial rounds of the CEP RPAS ICG, and first-hand experiences of the national Antarctic programmes in the Antarctic. The paper noted that COMNAP continues to recognise the risks and benefits (including cost-effectiveness and fuel savings) of RPA operations, and that there are many examples of the benefits of these technologies as science support instruments, monitoring, data-collection and operations and logistics tools. The handbook remained open and available through the COMNAP website.
- IP 46 *Report from the Subsidiary Group on Climate Change Response (SGCCR)* (Norway). This paper reported on the work of the SGCCR during the intersessional period. The SGCCR had initiated discussions on operating mechanisms for the group. One of the SGCCR's first steps would be to develop a more user-friendly format for the Climate Change Response Work Program (CCRWP).

Item 8: Five-Year Work Plan

- (124) SCAR introduced WP 1 *SCAR's Environmental Code of Conduct for Terrestrial Scientific Field Research in Antarctica*. SCAR recalled the Committee's discussion of the Code of Conduct at CEP XX (2017), and reported on further consultations made during the intersessional period, including those with COMNAP, and the resulting revisions.
- (125) The Committee recognised the broad and extensive consultation undertaken in the review and revision of the non-mandatory Code of Conduct, and agreed to encourage the dissemination and use of the Code of Conduct when planning and undertaking terrestrial scientific research in Antarctica.

CEP advice to the ATCM on SCAR's Environmental Code of Conduct for Terrestrial Scientific Field Research in Antarctica

- (126) The Committee endorsed *SCAR's Environmental Code of Conduct for Terrestrial Scientific Field Research in Antarctica*, and agreed to forward to the ATCM for approval a draft Resolution on encouraging its dissemination and use.
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- (127) Australia introduced WP 16 *Proposal for a joint SCAR/CEP workshop on further developing the Antarctic protected area system* jointly prepared with Argentina, Belgium, Chile, China, the Czech Republic, France, Germany, Japan, New Zealand, Norway, the Russian Federation, SCAR, the United Kingdom, and the United States. To address actions in the Five-year Work Plan and the Climate Change Response Work Programme (CCRWP), the co-authors proposed that the CEP support the convening of a joint SCAR/CEP workshop on further developing the Antarctic protected area system. The paper presented a proposed workshop outline. The proponents recommended that the Committee agree to this proposal, adopt terms of reference for the workshop, and support the establishment of a joint SCAR/CEP steering committee to consult with CEP Members and workshop participants to finalise and communicate the workshop arrangements.
- (128) The Committee strongly supported the proposal to convene a joint SCAR/CEP workshop on further developing the Antarctic protected area system, consistent with actions identified in the CEP Five-year Work Plan and the CCRWP, and supported the following workshop terms of reference as outlined in WP 16:
- Review the current status of the Antarctic protected area system.
 - Identify information and resources relevant to designating ASPAs within a systematic environmental-geographic framework.
 - Identify actions that could be taken to support the further development of the Antarctic protected area system.
 - Prepare a report for consideration by the CEP.
- (129) The Committee warmly welcomed the offer by the Czech Republic to host the workshop in Prague on the Thursday and Friday, in the end of June 2019, prior to the commencement of CEP XXII.
- (130) The Committee agreed that it would be appropriate to establish a steering committee comprising representatives from the CEP, SCAR and the host country to consult with CEP Members and workshop participants to finalise

and communicate the workshop arrangements, and agreed that SCAR, the Czech Republic, Australia and the United Kingdom would serve on the steering committee. The Committee agreed that the steering committee could consult with CEP Members and relevant SCAR contacts on practical details, including to identify an appropriate recommended maximum number of workshop participants based on the venue, once identified. The Committee agreed that participation in the workshop would be open to representatives of CEP Members and Observers, and representatives and experts from relevant SCAR bodies and invited external experts.

- (131) The Committee noted that the steering committee could also give further consideration to related issues raised by Members during the meeting regarding specific matters that could be discussed during the workshop, when further developing the detailed plans and agenda for the workshop in consultation with CEP Members and Observers and relevant contacts within SCAR. Such issues included: the possible designation of Important Bird Areas (IBAs) as ASPAs; taking tourism growth into consideration in the expansion of the protected area system; processes for review and delisting of areas; and the relevance of considering risk in assessing the potential for new ASPAs.
- (132) The Committee looked forward to further consultation between the steering committee and CEP Members and Observers, and to considering the outcomes of the workshop at CEP XXII.
- (133) The CEP Chair introduced WP 17 *Supporting the work of the Committee for Environmental Protection (CEP): A paper by the CEP Chair*, which followed on from discussions at CEP XX, and sought to facilitate further discussion about ways to ensure the CEP could remain well placed to support Parties' efforts to comprehensively protect the Antarctic environment. The CEP Chair invited Members to: review the attached list of CEP science needs and options for its presentation, communication and review; and consider options presented for obtaining and managing CEP funding.
- (134) The Committee thanked the Chair for preparing the paper. It noted the value of having a consolidated list of science knowledge and information needs identified by the Committee, including as a useful communications tool for its engagement with the ATCM and other stakeholders. The Committee agreed to incorporate the science needs presented in Attachment A to WP 17 into the CEP Five-year Work Plan. It noted that the science needs would then be available via the ATS public website, and agreed that it would also be beneficial to communicate the CEP science needs directly to relevant

groups, and to consider alternative formats that may be more accessible to the relevant target audience. For those science needs that were relevant to matters identified in the CCRWP, the Committee noted that the SGCCR could play an important communication role.

- (135) The Committee agreed to bring the CEP science needs to the attention of the ATCM in accordance with Article 12(k) of the Environment Protocol, including to inform ongoing discussions under the ATCM Multi-Year Strategic Work Plan on strategic science priorities. It encouraged Members, SCAR and other organisations involved in research and monitoring in the Antarctic region to draw on the CEP science needs to help promote and support science to better understand and address the environmental challenges facing Antarctica. The Committee welcomed SCAR's advice that the list of CEP science needs would be helpful for SCAR in its consideration of new scientific research programmes. It also noted SCAR's interest to work with Members to incorporate the CEP's science, knowledge and information needs into its new research programmes. The Committee agreed that it was important to regularly review and revise the CEP science needs, as appropriate, during annual CEP meetings.
- (136) The Committee recognised that modest funding could assist it to undertake priority work to develop advice and recommendations to the ATCM. The Committee noted that it did not anticipate that there would be a large number of requests for funding, and recognised the previous and ongoing generous support of Members and Observers to assist the work of the CEP. The Committee expressed support for the possible process for considering proposals for CEP funding, as outlined in Attachment C to WP 17, noting that such a process would assist to ensure that any proposals were structured and targeted towards supporting agreed priorities. Members expressed the view that appropriate sources of CEP funding might include any surplus from Parties' annual contributions to the Secretariat of the Antarctic Treaty or voluntary contributions by Parties.
- (137) China also noted that using funding for online forums or internet meetings was preferable to intersessional workshops or meetings to make it easier for all interested parties to contribute and improve the efficiency of communication, and that the possible uses for funds needed more discussion.
- (138) The Committee agreed to seek advice from the ATCM on possible opportunities for obtaining funding.

CEP advice to the ATCM on supporting the work of the CEP

- (139) In accordance with Article 12 (k) of the Environment Protocol, and noting the ATCM Multi-Year Strategic Work Plan priority relating to strategic science priorities, the Committee agreed to advise the ATCM that it had incorporated a list of CEP science needs into the CEP Five-year Work Plan, and that it had agreed to regularly review and revise these science needs as appropriate.
- (140) The Committee also recognised that modest funding could assist it to undertake priority work to develop high quality and timely advice and recommendations in line with its functions under Article 12 of the Environment Protocol, and that it had agreed to seek advice from the ATCM on possible opportunities for obtaining such funding. In this regard, the Committee had noted that WP 17 presented a possible process for consideration of funding proposals that could assist to ensure that any funding proposals were structured and targeted to agreed priorities.
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- (141) The Committee noted the following papers submitted under this agenda item:
- IP 28 *Anthropogenic Noise in the Southern Ocean: an Update* (SCAR). This paper reported progress in the 2017-18 intersessional period on the SCAR review of anthropogenic noise in the Southern Ocean for the CEP. A comprehensive literature review had been completed, an expert panel convened and consulted, and input from a variety of sources considered. These inputs had been combined in a draft Background Paper that would continue to be revised and refined until final submission to ATCM XLII - CEP XXII in 2019.
 - IP 50 *Joint monitoring activities during 2017/18 summer season to manage non-native flies in King George Island, South Shetland Islands* (Uruguay, Republic of Korea, Poland, Russian Federation). This paper reported on coordinated actions by countries operating on King George Island to monitor and manage the presence of the non-native fly *Trichocera maculipennis* on the island.
- (142) The Committee revised and updated its Five-year Work Plan (Appendix 1). The major changes comprised updates to reflect actions agreed during the Meeting, including those relating to: incorporation of the CEP science knowledge and information needs; the outcomes of discussions on matters related to Site Guidelines; the joint SCAR/CEP workshop on further developing the Antarctic protected area system; and management of Antarctic heritage.

(143) Noting that, due to the abbreviated format of the meeting, some items identified in the Five-year Work Plan for consideration at CEP XXI had been deferred, the Committee welcomed the following updates:

- Bulgaria informed the Committee that, during the 2017-18 intersessional work of the ATCM ICG on Education and Outreach, various activities were carried out relevant to the work of the CEP. These included a webinar organized by the Association of Polar Early Career Scientists and the European Polar Board on the Antarctic Treaty and Environmental Protection. The webinar was presented by Dr Yves Frenot, who gave a presentation on the Antarctic Treaty and Environment Protocol. Other activities highlighted in the ATCM Forum included Polar Weeks and Antarctica Day 2017, in which IAATO shared its new app named “Polar Guide: Antarctica”. Bulgaria also reported that the ATCM ICG on Education and Outreach would continue its work in the next intersessional period.
- The Netherlands informed the Committee that it planned to convene an informal workshop to undertake a stocktake of tourism priorities, in collaboration with the United Kingdom and IAATO.

Item 9: Cooperation with Other Organisations

(144) The Committee welcomed the following Information Papers submitted by Observers participating in the meeting in accordance with Rule 4(b) of the CEP Rules of Procedure:

- *IP 11 Annual Report for 2017/18 of the Council of Managers of National Antarctic Programs (COMNAP) (COMNAP)*. This paper noted that 2018 was the 30th anniversary of COMNAP, and reported that Kazuyuki Shiraishi of Japan’s National Institute of Polar Research completed his three-year term as COMNAP Chair and Kelly Falkner of the US Antarctic Program was elected to a three-year term as Chair. It noted that its Remotely Piloted Aircraft (RPA) Working Group continued to share first-hand knowledge of Antarctic air activity and to develop the COMNAP Antarctic RPAS Operator’s Handbook based on peer-reviewed scientific knowledge. The paper further noted that the 2018 COMNAP annual General Meeting and Symposium would include an environmental session on identifying sources of plastics in the Antarctic environment, fossil fuel use/reduction and further understanding of cumulative impacts.

- IP 33 *Update on activities of the Southern Ocean Observing System (SOOS) (SCAR)*. This paper summarised key activities of SOOS (www.soos.aq), highlighted future efforts and identified challenges facing SOOS in the coming year. It noted that SOOS is a joint initiative of SCAR and the Scientific Committee on Oceanic Research (SCOR) aimed at facilitating the collection and delivery of observations on dynamics and change of the Southern Ocean through cost-effective observing and data delivery systems.
 - IP 66 *Report by the SC-CAMLR Observer to CEP (CCAMLR)*. CCAMLR noted that the Scientific Committee had made significant progress with a number of work programmes previously reported as of interest to the CEP. In particular, in 2017 it had recommended to the Commission a Climate Change Response Work Program, and that the loss of a 5800 km² section of floating ice from the Larsen C Ice Shelf should be recognised by designation of a 10-year Special Area for scientific study in the area. It had also approved a Research and Monitoring Program for the Ross Sea MPA.
- (145) On behalf of the Committee, the Chair thanked COMNAP, SCAR and SC-CAMLR for the collaboration and contributions to the work of the CEP, and congratulated SCAR on its 60th anniversary and COMNAP on its 30th anniversary. COMNAP advised the Committee that it had recently welcomed the national Antarctic programmes of Switzerland and Turkey to Observer status membership.
- (146) WMO presented IP 47 *WMO Annual Report 2017-2018* and IP 48 *The Southern Hemisphere Special Observing Period of the Year of Polar Prediction*. WMO reported that its activities related to Antarctica during the last year included the Global Cryosphere Watch, the Year of Polar Prediction (YOPP), and progress on the development of the concept of an Antarctic Polar Regional Climate Centre. WMO noted that it would be inviting a CEP representative to a scoping workshop on an Antarctic Polar Regional Climate Centre (PRCC) Network, provisionally planned for May 2019, to ensure that the needs of the CEP are taken into account. With respect to IP 48, WMO provided an update on activities carried out in the context of the YOPP, including a special Observing Period planned for November 2018 to February 2019. It encouraged Members to get involved in the YOPP and to read more about the initiative at: <http://www.polarprediction.net/yopp-activities/getting-involved-with-yopp/>. With reference to IP 44, WMO noted that it would jointly launch with SCAR a WMO-SCAR Fellowship Program for early career scientists.

Nomination of CEP Representatives to other organisations

(147) The Committee nominated:

- Ms Patricia Ortúzar (Argentina) to represent the CEP at the 30th COMNAP Annual General Meeting, to be held in Garmisch, Germany, from 11 to 13 June 2018, and also welcomed the kind offer by Dr Antonio Quesada Del Corral (Spain) to assist as appropriate;
- Ms Birgit Njåstad (Norway) to represent the CEP at the 35th SCAR Delegates Meeting, to be held in Davos, Switzerland, from 24 to 26 June 2018; and
- Dr Polly Penhale (United States) to represent the CEP at the 37th meeting of SC-CAMLR, to be held in Hobart, Australia, from 22 to 26 October 2018.

Item 10: General Matters

(148) The Russian Federation introduced WP 3 *Consideration of Current Climate Changes in the Antarctic Treaty System*. Recalling that Parties submitted documents on climate change to both the ATCM and the CEP, the Russian Federation proposed that, in order to avoid duplication of discussions, papers submitted to the ATCM should address the role of Antarctica in global climate changes, while papers to the CEP should refer to the influence of global climate changes on the Antarctic environment and on matters relating to local anthropogenic influence on the environment of the region.

(149) SCAR drew the Committee's attention to the conclusions of the IPCC Fifth Assessment Report, and specifically to the conclusion that warming in the climate system is unequivocal and that the human influence on the climate system is clear. SCAR also noted the rapid growth of scientific knowledge about the role of Antarctica in the climate system, the extent to which the Antarctic system is changing and impacts on Antarctic ecology. SCAR further reported that it would continue to contribute advice about those matters on an annual basis, both to the CEP, and, in keeping with Article 10.2 of the Protocol, to the ATCM.

(150) WMO supported the conclusion of WP 3 that the brevity and sparse distribution of observational records pose significant challenges to understanding climatic trends in the Antarctic region. However, it noted that many of the instrumental records do go back more than 100 years, with significant data from the IGY (1957/58) and the advent of satellite

data from the 1970s. WMO explained that by combining information from instrumental, satellite, palaeoclimate and reanalysis data, along with climate model simulations, serious scientific conclusions could be drawn. WMO drew the Committee's attention to the significant strengthening of the westerly winds associated with changes in the Southern Annular Mode and a marked warming since the mid-20th century on the Antarctic Peninsula. It highlighted that regional warming had an impact on the terrestrial biota and had played a part in the retreat of 90% of the glaciers around the Peninsula. It further noted that these scientific conclusions had been published in numerous papers in highly rated journals and that as scientists continue to analyse the data WMO, like SCAR, would continue to highlight important updates both to the CEP and the ATCM, as appropriate.

- (151) In responding, the Russian Federation noted that while sharing of the views of WMO and SCAR it emphasised that the task of the paper was to optimize operations related to paper submissions and avoid overloading the agenda.
- (152) The Committee thanked the Russian Federation for providing the paper and recognised that matters related to climate change implications for the environment were clearly relevant to the work of the CEP, including the ongoing work of the Subsidiary Group on Climate Change Response. The Committee agreed with the sentiment expressed by the Russian Federation of seeking to avoid duplication of discussions by the ATCM and CEP by seeking to ensure that papers are directed to the appropriate body. However, it was noted that it was challenging in some instances to identify a clear distinction, and that some matters may be relevant to both bodies.
- (153) The Committee welcomed the commitment from SCAR and WMO to continue to bring forward relevant scientific advice to inform the Committee's discussions.
- (154) New Zealand introduced WP 12 *Harmonisation of Marine Protection Initiatives across the Antarctic Treaty System (ATS)*, prepared jointly with Belgium, Chile, France, Germany, Netherlands and the United States. The paper recommended that the CEP establish an ICG to support harmonisation of marine protection initiatives across the Antarctic Treaty System. The ICG would be tasked with identifying options, within its mandate, to contribute to the Ross Sea Region Marine Protected Area (RSRMPA) as well as capturing related broader issues raised.
- (155) Noting the ATCM's request to the CEP in Resolution 5 (2017) and the action in the CEP Five-year Work Plan, many Members strongly supported

the proposal to establish an ICG on harmonisation of marine protection initiatives across the Antarctic Treaty System.

- (156) Some Members raised generic issues, including the independent procedure and role of the ATCM from CCAMLR, the nature of MPAs as a tool to achieve CCAMLR objectives and principles, and the differences between conservation and protection. With respect to Resolution 5 (2017), some Members suggested that the proposed ICG should only be established after a Research and Monitoring Plan for the Ross Sea Region MPA is adopted by CCAMLR according to its Conservation Measures.
- (157) The Representative from SC-CAMLR informed the Committee that the Research and Monitoring Plan for the RSRMPA, having been developed at the Ross Sea region MPA Research and Monitoring Plan Workshop in Rome (2017), had been adopted by SC-CAMLR, but noted it had yet to be adopted by CCAMLR. The Representative from SC-CAMLR also informed the Committee that a CCAMLR Workshop on Spatial Management was going to occur in July 2018 in Cambridge. The workshop would consider the scope and potential mechanisms for future cooperation and collaboration with other scientific programmes (e.g. SCAR, SOOS and ICED), in terms of the provision of data relating to the development of spatial management and MPA research and monitoring.
- (158) ASOC thanked the co-sponsors of WP 12 for a useful and timely paper and expressed strong support for efforts to harmonise the work of CCAMLR on MPAs with the work of the ATCM and CEP. ASOC noted that IP 58 *ASOC update on Marine Protected Areas in the Southern Ocean 2017-2018* provided an update on discussions on MPAs that had taken place at the CCAMLR XXXVI meeting in October 2017. In that paper ASOC recommended, *inter alia*, that the ATCM and CEP work to harmonise ASPAs and ASMAs with CCAMLR MPAs, starting with the Ross Sea. ASOC noted that there were several proposals for CCAMLR MPAs at various stages in the design and discussion processes, all of which are located in the Antarctic Treaty Area. ASOC expressed its hope that the proposed ICG would be the first step towards creating a process in which the ATCM, CEP and CCAMLR and its advisory bodies could work together to create effective protection for the Antarctic environment.
- (159) The Committee recalled:
- Resolution 5 (2017), which invited “the Committee on Environmental Protection to consider any appropriate actions within the Antarctic Treaty Consultative Meeting’s competence to contribute to the

achievement of the specific objectives set forth in CCAMLR Conservation Measure 91-05, particularly in the designation and implementation of Antarctic Specially Protected Areas and Antarctic Specially Managed Areas in the Ross Sea region and the management of relevant human activities”; and

- the action in the CEP Five-year Work Plan “to consider connectivity between land and ocean, and complementary measures that could be undertaken by Parties with respect to MPAs”.
- (160) New Zealand offered to lead informal intersessional work on these matters over the next intersessional period and report back at CEP XXII, and encouraged interested Members to participate.
- (161) China introduced WP 14 *Report of the Informal Discussion for the intersessional period of 2017/18 on the draft Code of Conduct for the Exploration and Research in Dome A Area in Antarctica*. The paper presented a report on informal intersessional discussions led by China with interested Members on developing a draft Code of Conduct for the Exploration and Research in Dome A in Antarctica. China thanked the four Members who took part in the informal intersessional discussion regarding the Code of Conduct. In noting that it was seeking to establish two more telescopes at Kunlun Station to study extra-terrestrial activities, China emphasised that such scientific endeavours needed protection from disturbance by other activities. Comparisons were drawn between the prospective telescopes at Kunlun and the United States Green Bank Telescope, which has a large exclusion area. China emphasised that it welcomed and promoted international scientific collaboration within the Dome A and Kunlun Station areas, and advised that it planned to make further changes to the draft Code of Conduct based on suggestions to be provided by Members. China encouraged interested Members and Observers to contribute to the draft and share their thoughts on how to improve the Code of Conduct.
- (162) The United Kingdom introduced WP 21 *Notification of pre-1958 historic remains: Wreck of Sir Ernest Shackleton’s vessel Endurance*. While the location of the *Endurance* was unknown, the United Kingdom reported that it was aware of an upcoming non-governmental expedition to locate the wreck and it wished to confirm the protection status of the vessel in the event that the wreck was found. The United Kingdom sought the Committee’s agreement that, in the event that it was located, protection of the vessel would commence in accordance with Resolution 5 (2001). The United Kingdom also informed the Committee of its intention to seek formal Historic Site and Monument

status for the wreck of the vessel, and noted that it would be a unique historical site, as it would be the first one to be completely marine in nature.

- (163) Norway highlighted the historical relevance of Shackleton's expedition and noted the importance of developing an appropriate protection mechanism. It recalled that the designation of Roald Amundsen's tent, which had not been located, as an HSM could be considered a precedent for this case.
- (164) In response to a question raised, the United Kingdom explained that the plan was for the expedition to locate the wreck and take photographs, but under no circumstance to touch the wreck or remove any artefacts. It stressed that when issuing the permit the United Kingdom's competent authority would make it very clear that no authorisation would be granted to interfere with the wreck in any way.
- (165) The Committee thanked the United Kingdom for providing notice of the possible discovery of the site of the wreck of Sir Ernest Shackleton's vessel *Endurance*, consistent with provisions of Resolution 5 (2001). The Committee agreed that should the exact location of the wreck be identified, both the wreck and all its associated artefacts would be afforded interim protection under the terms of Resolution 5 (2001). The Committee noted the United Kingdom's intention to submit a proposal to a future meeting to list the vessel as a HSM.
- (166) ASOC presented IP 49 *Emperor Penguin Population Variability in a Region Subject to Climate Warming*, jointly prepared with the United Kingdom. This paper presented preliminary findings of a collaborative study between the British Antarctic Survey and ASOC member WWF. The study attempted to estimate the population size of the 16 known emperor penguin colonies situated between 0 to 90°W (covering the Antarctic Peninsula and the Weddell Sea) using high resolution satellite imagery taken between 2009-2016. The initial results demonstrated that colonies in this sector ranged from about 650 to over 15,000 pairs, with an average colony size of less than 5,000 pairs. Results also demonstrated that all colonies were highly variable from year to year, and that there were no common inter-annual patterns of change across all sites, suggesting that a longer dataset at a circum-Antarctic scale would be beneficial to determine more accurate population trends. ASOC and the United Kingdom suggested that these results could be used to inform precautionary protection of emperor penguins, including those places where refugia from climate change were most likely to exist, for example, in the high-latitude Weddell Sea.
- (167) ASOC presented IP 60 *Enacting the Climate Change Work Response Programme under a Changing Antarctic Environment*. ASOC focussed on five

core recommendations: investing in robust monitoring of the Antarctic region, investing in ecological monitoring, developing precautionary or rapid-response management plans, establishing protected areas as climate reference areas, and implementing specific, measurable, achievable, realistic, and time-bound (SMART) monitoring and evaluation in response plans. ASOC had linked the recommendations to specific items that could be included in the CCRWP and had provided an annotated CCRWP for reference. ASOC stressed that climate change was impacting Antarctica and that the CEP and ATCM needed to move away from simply reviewing information on climate change towards making management decisions such as establishing new protected areas and making commitments to fill gaps in monitoring.

- (168) The Committee welcomed IP 49 and IP 60 and noted the relevance of these papers to its work. In particular, the Committee observed that IP 60 presented information that would be useful for the SGCCR's work to support implementation of the CCRWP. China thanked ASOC for the Information Paper and suggested that the information used for the SGCCR be validated by scientific data. The SGCCR convener highlighted that the SGCCR was open to all interested Members and Observers.
- (169) New Zealand observed that the study presented in IP 49 would be useful in updating the climate change and emperor penguin Information Summary in the Antarctic Environments Portal.
- (170) Argentina observed that there are other important criteria to specially protect determined areas or values, including the consideration of the pressure of human activities.
- (171) In response to a question, ASOC clarified that climate reference areas represented areas set aside in which human activities were limited with the aim of allowing scientists to distinguish between the effects of climate change and human activities. It noted the importance of these reference areas in regions that were rapidly changing like the Antarctic Peninsula.
- (172) Colombia informed the Committee that, in January 2018, the President of the Republic of Colombia approved the ratification of the Environment Protocol. It noted that the ratification was undergoing Constitutional Control, and that it anticipated completing the ratification process in the next year. Colombia thanked the six countries who supported Colombia in the environmental aspects of its recent expedition and reaffirmed that it would continue to collaborate with the CEP and its intersessional groups.

- (173) The Committee thanked Colombia for reporting that it was in the process of ratifying the Environment Protocol and looked forward to welcoming Colombia as a CEP Member.
- (174) The Committee noted the following Information Papers submitted under this agenda item:
- IP 3 *Antarctic Environments Portal: Progress Report* (New Zealand, SCAR). This paper reported on the development of the Antarctic Environments Portal including an attached update to the Portal's Content Management Plan. The proponents encouraged Members to provide feedback on the Content Management Plan and to nominate a representative to fill a vacancy on the Portal Editorial Group.
 - IP 5 *Environmental Monitoring of the Reconstruction Work of the Brazilian Antarctic Station (2017/2018)* (Brazil). This paper provided an update on the environmental monitoring activities carried out by Brazil during the reconstruction of the Comandante Ferraz Antarctic Station over the last summer season.
 - IP 10 *New Data on Seawater Temperature in South Bay, Doumer Island* (Chile). This paper provided the results of the first annual, continuous, high-resolution temperature record for ASPA 146, South Bay, Doumer Island.
 - IP 12 *Preliminary Survey for the International Exploration Programme of Subglacial Lakes in Southern Victoria Land, Antarctica* (Republic of Korea). The paper outlined the Republic of Korea's preparations for the future exploration of subglacial lakes upstream of David Glacier in Southern Victoria Land, East Antarctica. It also noted that baseline data for the preparation of a CEE would be obtained until the 2019/20 season at the latest.
 - IP 17 *Towards Application of Atmospheric Deposition Modeling for Quantitative Assessment of Cumulative Impacts on Soils* (Belarus). This paper drew attention to the application of atmospheric deposition modeling within a quantitative assessment of the cumulative impacts on soils within the framework of the CEE. In particular, this assessment could be applied during construction and operation of facilities in the Antarctic using this modeling as an important part of cumulative impact assessment. The paper reported on Belarus' particulate deposition modelling of stationary sources emissions from the Belarusian Antarctic Station on Mount Vechernyaya, and was presented as a demonstration of the application of this concept.

- IP 22 *Supporting the Regional-Scale Analysis of Antarctica: A Tool to Enable Broader-Scale Environmental Management* (New Zealand). This paper provided an update on New Zealand's work to develop a tool to support the assessment of environmental impacts of Antarctic activities. New Zealand encouraged Members to participate in the development of the tool and to attend a workshop to showcase it at the POLAR2018 conference.
- IP 24 *Accession of Turkey to the Protocol on Environmental Protection to the Antarctic Treaty* (Turkey). This paper reported on Turkey's accession to the Environment Protocol and the next steps towards its ratification.
- IP 27 *Implementation of Nature Protection Measures During The Xth Belarusian Antarctic Expedition 2017-2018* (Belarus). The paper reported on the continued removal of historical waste from Vechernyaya Mountain on Enderby Land, East Antarctica by the Belarusian Antarctic Expedition in close cooperation with the Russian Antarctic Expedition. The paper also noted Belarus' plans to start the procedure of ratifying Annex VI to the Environment Protocol in 2019.
- IP 30 *Hull Damage of the Russian M/V Ivan Papanin in Quilty Bay, Larsemann Hills, East Antarctica* (India, Russian Federation). This paper reported on an accident near Bharati Station that damaged the hull of the *M/V Ivan Papanin*. It noted that 38 people were evacuated from the ship (excluding 28 crew members) as well as crucial cargo and helicopters, with the assistance of the Russian Programme. The South African Antarctic programme also offered their assistance during the incident. Although damage to the hull was severe, there were no injuries to crew/expedition members and no oil spillage. After temporary repairs, the ship left Prydz Bay on 7 March and safely reached Cape Town on 21 March 2018.
- IP 31 *Non-native Species Response Protocol: An Update* (United Kingdom, Argentina, Spain). This paper reported on informal discussions initiated to improve the Non-native Species Response Protocol and encouraged Members to participate informally in the ongoing development of the Response Protocol during the intersessional period.
- IP 34 *Fatal Accident During Convoy Operation at Indian Barrier, Maitri Station, East Antarctica* (India). This paper reported that a student participating in the XXXVII Indian Scientific Expedition to Antarctica (ISEA) had passed away following a vehicle accident on 26 March 2018.

- IP 45 *The Initial Environmental Evaluation for the Construction of a New Garage for the Inland Traverse Vehicles in Zhongshan Station, Larsemann Hills, East Antarctica* (China). It noted that the IEE was conducted by Tongji University in accordance with Annex I of the Environment Protocol and the Guidelines for EIA in Resolution 1 (2016), and that construction started during the 2017/18 season and would be finished in the next season.
- IP 52 *On Permit for Implementing Activity of the Russian Antarctic Expedition in 2018-2022* (Russian Federation). This paper reported on the internal procedures conducted by the Russian Federation to renew the permit granted to the Arctic and Antarctic Research Institute (AARI) to conduct operations of the Russian Antarctic Expedition.
- IP 59 *The Polar Code and Marine Mammal Avoidance Planning in the International Maritime Organization* (ASOC). This paper drew attention to requirements in the Polar Code for voyage planning in relation to marine mammal avoidance. ASOC proposed that the CEP and ATCM consider the implementation of the Polar Code provisions on voyage planning. It requested Parties consider how to make progress on the implementation of the provisions of the Polar Code and how to make relevant data on marine mammal densities and seasonal migration routes available to mariners.
- IP 64 *Progress on the Development of a Preliminary Proposal for the Establishment of a Marine Protected Area (MPA) West of the Antarctic Peninsula and South of the Scotia Arc* (Argentina, Chile). The paper reported on the latest developments in the designation of a MPA in CCAMLR's Domain 1. The co-authors encouraged more Members to become part of the designation process and follow debates regarding the development of the Domain 1 MPA.
- IP 67 *Committee for Environmental Protection (CEP): Summary of Activities During the 2017/18 Intersessional Period* (Australia). This paper presented a summary by the CEP Chair of intersessional activities since CEP XX.

(175) The following papers were also submitted under this agenda item:

- BP 11 *Visit to Chilean Antarctic Station Prof. Julio Escudero by Turkey* (Turkey).
- BP 34 *Brazil/Australia Remediation Workshop* (Australia, Brazil).

Item 11: Election of Officers

- (176) The Committee elected Patricia Ortúzar from Argentina for a second two-year term as Vice-Chair. The Committee thanked Patricia for her many valued contributions as Vice-Chair, and congratulated her on her re-appointment to the role.
- (177) The Committee elected Birgit Njåstad from Norway as Chair for a two-year term and congratulated her on her appointment to the role.
- (178) Noting Birgit Njåstad's election as CEP Chair would result in a vacancy for the convenor of the SGCCR, the Committee agreed to appoint CEP Vice-Chair, Kevin Hughes from the United Kingdom as SGCCR convenor. The Committee thanked Birgit Njåstad for her work in leading the SGCCR in its first year.
- (179) The Committee warmly thanked and congratulated Ewan McIvor from Australia for his excellent work and significant contributions throughout his four-year term as Chair.

Item 12: Preparation for the Next Meeting

- (180) The Committee adopted the Preliminary Agenda for CEP XXII (Appendix 2).

Item 13: Adoption of the Report

- (181) The Committee adopted its Report.

Item 14: Closing of the Meeting

- (182) The Chair closed the Meeting on Tuesday 15th May 2018.

Appendix 1

CEP Five-Year Work Plan 2018

Issue / Environmental Pressure: Introduction of non-native species	
Priority: 1	
Actions:	
<ol style="list-style-type: none"> 1. Continue developing practical guidelines & resources for all Antarctic operators. 2. Implement related actions identified in the Climate Change Response Work Programme. 3. Consider the spatially explicit, activity-differentiated risk assessments to mitigate the risks posed by terrestrial non-native species. 4. Develop a surveillance strategy for areas at high risk of non-native species establishment. 5. Give additional attention to the risks posed by intra-Antarctic transfer of propagules. 	
Intersessional period 2018/19	<ul style="list-style-type: none"> • Initiate work to develop a non-native species response strategy, including appropriate responses to diseases of wildlife • To help the Committee in assessing the effectiveness of the Manual, request a report from COMNAP on the implementation of quarantine and biosecurity measures by its members • United Kingdom to lead discussion with interested Members and Observers, on the further development of a non-mandatory non-native species response protocol
CEP XXII 2019	<ul style="list-style-type: none"> • Discuss the intersessional work concerning the development of a response strategy for inclusion in the Non-native Species Manual, and the implementation of quarantine and biosecurity measures by COMNAP members. Review IMO report on biofouling guidelines • Consider report on intersessional discussion on non-native species response protocol and its inclusion in the Non-native Species Manual. • SCAR to present information on existing mechanism to assist with the identification of non-native species
Intersessional period 2019/20	<ul style="list-style-type: none"> • Ask SCAR to compile a list of available biodiversity information sources and databases to help Parties establish which native species are present at Antarctic sites and thereby assist with identifying the scale and scope of current and future introductions • Develop generally applicable monitoring guidelines. More detailed or site-specific monitoring may be required for particular locations • Request a report from Parties and Observers on the application of biosecurity guidelines by their members
CEP XXIII 2020	<ul style="list-style-type: none"> • Discuss the intersessional work concerning the development of monitoring guidelines for inclusion in the NNS Manual. • Consider the reports from Parties and Observers on the application of biosecurity guidelines by their members
Intersessional period 2020/21	<ul style="list-style-type: none"> • Initiate work to assess the risk of marine non-native species introductions
CEP XXIV 2021	<ul style="list-style-type: none"> • Discuss the intersessional work concerning the risks of marine non-native species

Intersessional period 2021/22	<ul style="list-style-type: none"> Develop specific guidelines to reduce non-native species release with wastewater discharge Review the progress and contents of the CEP Non-native Species Manual
CEP XXV 2022	<ul style="list-style-type: none"> CEP to consider if intersessional work is required to review/update the Non-native Species Manual
Intersessional period 2022/23	<ul style="list-style-type: none"> As appropriate, intersessional work to review the Non-native Species Manual
CEP XXVI 2023	<ul style="list-style-type: none"> CEP to consider report of ICG, if established, and consider adoption of revised Non-native Species Manual by the ATCM through a resolution

Science knowledge and information needs:

- Identify terrestrial and marine regions and habitats at risk of introduction
- Identify native species at risk of relocation and vectors and pathways for intra-continental transfer
- Synthesise knowledge of Antarctic biodiversity, biogeography and bioregionalisation and undertake baseline studies to establish which native species are present
- Identify pathways for the introduction of marine species (including risks associated with wastewater discharge)
- Assess risks and pathways for introduction of microorganisms that might impact on existing microbial communities
- Monitor for non-native species in the terrestrial and marine environments (including microbial activity near sewage treatment plant discharges)
- Identify techniques to rapidly respond to non-native species introductions
- Identify pathways for introduction of non-native species without any direct human intervention

Issue / Environmental Pressure: Tourism and NGO activities

Priority: 1

Actions:

- Provide advice to ATCM as requested.
- Advance recommendations from ship-borne tourism ATME.

Intersessional period 2018/19	<ul style="list-style-type: none"> Further develop methodology for site sensitivity assessment and to consider trigger levels (recommendations 3 and 7 of the CEP Tourism Study)
CEP XXII 2019	<ul style="list-style-type: none"> Discuss the recommendations from the CEP Tourism Study, and other relevant recommendations, and determine priority actions and next steps to be put forward
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/21	
CEP XXIV 2021	
Intersessional period 2021/22	
CEP XXV 2022	
Intersessional period 2022/23	
CEP XXVI 2023	

Science knowledge and information needs:

- Consistent and dedicated monitoring of tourism impacts
- Monitor visitor sites covered by Site Guidelines

Issue / Environmental Pressure: Climate Change Implications for the Environment	
Priority: 1	
Actions:	
<ol style="list-style-type: none"> 1. Consider implications of climate change for management of Antarctic environment. 2. Implement the Climate Change Response Work Programme. 	
Intersessional period 2018/19	<ul style="list-style-type: none"> • Subsidiary group conducts work in accordance with agreed work plan
CEP XXII 2019	<ul style="list-style-type: none"> • Standing agenda item • Consider advice on how WMO activities map to CCRWP • Consider subsidiary group report • SCAR provides update to the Antarctic Climate Change and the Environment (ACCE) report, with input as appropriate from WMO, the Integrating Climate and Ecosystem Dynamics in the Southern Ocean (ICED) programme and SOOS
Intersessional period 2019/20	<ul style="list-style-type: none"> • Subsidiary group conducts work in accordance with agreed work plan
CEP XXIII 2020	<ul style="list-style-type: none"> • Standing agenda item • Consider subsidiary group report • SCAR provides update to ACCE report, with input as appropriate from WMO, ICED and SOOS • Consider review of subsidiary group • Review implementation of actions arising from 2016 joint CEP/ SC-CAMLR workshop • Plan for five-yearly joint SC-CAMLR/CEP workshop during 2021/22 intersessional period
Intersessional period 2020/21	
CEP XXIV 2021	<ul style="list-style-type: none"> • Finalise plans for joint SC-CAMLR/CEP workshop during 2021/22 intersessional period
Intersessional period 2021/22	<ul style="list-style-type: none"> • Regular five-yearly joint SC-CAMLR CEP workshop
CEP XXV 2022	
Intersessional period 2022/23	
CEP XXVI 2023	
Science knowledge and information needs:	
<ul style="list-style-type: none"> • Improve understanding of current and future change to the terrestrial (including aquatic) biotic and abiotic environment due to climate change • Long-term monitoring of change to the terrestrial (including aquatic) biotic and abiotic environment due to climate change • Continue to develop biogeographic tools to provide a sound basis for informing Antarctic area protection and management at regional and continental scales in light of climate change, including identifying the need to set aside reference areas for future research and identifying areas resilient to climate change • Identify and prioritise Antarctic biogeographic regions most vulnerable to climate change • Understand and predict near-shore marine changes and impacts of the change • Long-term monitoring of change to the near-shore marine biotic and abiotic environment due to climate change • Assessment on impact of ocean acidification to marine biota and ecosystems • Understand population status, trends, vulnerability and distribution of key Antarctic species • Understand habitat status, trends, vulnerability and distribution • Southern Ocean observations and modelling to understand climate change • Identify areas that may be resilient to climate change • Monitor emperor penguin colonies, including using remote sensing and complementary techniques, to identify trends in populations and potential climate change <i>refugia</i> 	

Issue / Environmental Pressure: Processing new and revised protected / managed area management plans	
Priority: 1	
Actions:	
<ol style="list-style-type: none"> 1. Refine the process for reviewing new and revised management plans. 2. Update existing guidelines. 3. Develop guidelines to ASMA's preparation. 	
Intersessional period 2018/19	<ul style="list-style-type: none"> • SGMP conducts work as per agreed work plan • Norway and interested Members prepare paper on guidance for delisting ASPAs
CEP XXII 2019	<ul style="list-style-type: none"> • Consider SGMP report • Consider paper by Norway and interested Members on guidance for delisting ASPAs
Intersessional period 2019/20	<ul style="list-style-type: none"> • SGMP conducts work as per agreed work plan
CEP XXIII 2020	<ul style="list-style-type: none"> • Consider SGMP report
Intersessional period 2020/21	<ul style="list-style-type: none"> • SGMP conducts work as per agreed work plan
CEP XXIV 2021	<ul style="list-style-type: none"> • Consider SGMP report
Intersessional period 2021/22	<ul style="list-style-type: none"> • SGMP conducts work as per agreed work plan
CEP XXV 2022	<ul style="list-style-type: none"> • Consider SGMP report
Intersessional period 2022/23	<ul style="list-style-type: none"> • SGMP conducts work as per agreed work plan
CEP XXVI 2023	<ul style="list-style-type: none"> • Consider SGMP report
Science knowledge and information needs:	
<ul style="list-style-type: none"> • Monitoring to assess the status of values at ASPA 107 Emperor Island • Use remote sensing techniques to monitor changes in vegetation within ASPAs • Long-term monitoring of biological values in ASPAs 	

Issue / Environmental Pressure: Operation of the CEP and Strategic Planning	
Priority: 1	
Actions:	
<ol style="list-style-type: none"> 1. Keep the five-year work plan up to date based on changing circumstances and ATCM requirements. 2. Identify opportunities for improving the effectiveness of the CEP. 3. Consider long-term objectives for Antarctica (50-100 years time). 4. Consider opportunities for enhancing the working relationship between the CEP and the ATCM. 	
Intersessional period 2018/19	
CEP XXII 2019	
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/21	
CEP XXIV 2021	
Intersessional period 2021/22	
CEP XXV 2022	
Intersessional period 2022/23	
CEP XXVI 2023	

Issue / Environmental Pressure: Repair or Remediation of Environmental Damage	
Priority: 2	
Actions:	
<ol style="list-style-type: none"> 1. Respond to further request from the ATCM related to repair and remediation, as appropriate. 2. Monitor progress on the establishment of Antarctic-wide inventory of sites of past activity. 3. Consider guidelines for repair and remediation. 4. Members develop practical guidelines and supporting resources for inclusion in the Clean-up Manual. 5. Continue developing bioremediation and repair practices for inclusion in the Clean-up Manual. 	
Intersessional period 2018/19	• Continue ICG to review the Clean-up Manual
CEP XXII 2019	• Consider ICG report on review of the Clean-up Manual
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/21	
CEP XXIV 2021	
Intersessional period 2021/22	
CEP XXV 2022	
Intersessional period 2022/23	
CEP XXVI 2023	
Science knowledge and information needs:	
<ul style="list-style-type: none"> • Research to inform the establishment of appropriate environmental quality targets for the repair or remediation of environmental damage in Antarctica • Techniques to prevent mobilisation of contaminants such as melt water diversion and containment barriers • Techniques for <i>in situ</i> and <i>ex situ</i> remediation of sites contaminated by fuel spills or other hazardous substances 	

Issue / Environmental Pressure: Monitoring and state of the environment reporting	
Priority: 2	
Actions:	
<ol style="list-style-type: none"> 1. Identify key environmental indicators and tools. 2. Establish a process for reporting to the ATCM. 3. SCAR to support information to COMNAP and CEP. 	
Intersessional period 2018/19	
CEP XXII 2019	• Consider SCAR's <i>Code of Conduct for the Use of Animals for Scientific Purposes in Antarctica</i>
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/21	
CEP XXIV 2021	• Consider monitoring report by UK on ASPA 107
Intersessional period 2021/22	
CEP XXV 2022	
Intersessional period 2022/23	
CEP XXVI 2023	

Science knowledge and information needs:

- Long-term monitoring of change to the terrestrial (including aquatic) biotic and abiotic environment due to climate change
- Long-term monitoring of change to the near-shore marine biotic and abiotic environment due to climate change
- Monitor bird populations to inform future management actions
- Use remote sensing techniques to monitor changes in vegetation within ASPAs and more widely
- Monitor emperor penguin colonies, using remote sensing and complementary techniques, to identify potential climate change *refugia*
- Long-term monitoring of biological values in ASPAs
- Long-term monitoring to verify or detect environmental impacts associated with human activities
- Long-term monitoring and sustained observations of environmental change
- Consistent and dedicated monitoring of tourism impacts
- Systematic and regular monitoring of visitor sites covered by Site Guidelines
- Long-term monitoring of biological indicators at sites visited by tourists

Issue / Environmental Pressure: Marine spatial protection and management

Priority: 2

Actions:

1. Cooperation between the CEP and SC-CAMLR on common interest issues.
2. Cooperate with CCAMLR on Southern Ocean bioregionalisation and other common interests and agreed principles.
3. Identify and apply processes for spatial marine protection.
4. Consider connectivity between land and ocean, and complementary actions that could be taken by Parties with respect to MPAs.

Intersessional period 2018/19	<ul style="list-style-type: none"> • Informal discussions led by New Zealand on matters relating to Resolution 5 (2017)
CEP XXII 2019	<ul style="list-style-type: none"> • Consider outcomes from informal discussions
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/21	
CEP XXIV 2021	
Intersessional period 2021/22	
CEP XXV 2022	
Intersessional period 2022/23	
CEP XXVI 2023	

Issue / Environmental Pressure: Site specific guidelines for tourist-visited sites

Priority: 2

Actions:

1. Periodically review the list of sites subject to Site Guidelines and consider whether development of guidelines should be need for additional sites.
2. Regular review of all existing Site Guidelines to ensure that they are accurate and up to date, this includes precautionary updates where appropriate.
3. Provide advice to ATCM as required.
4. Review the format of the Site Guidelines.

Intersessional period 2018/19	<ul style="list-style-type: none"> • Development of a Site Guideline review checklist • Development of a repository of pictures to aid in the regular review of Site Guidelines
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CEP XXII 2019	<ul style="list-style-type: none"> • Standing agenda item; Parties to report on their reviews of Site Guidelines • Consider a checklist to aid in the conducting of on the ground Site Guideline reviews
Intersessional period 2019/20	
CEP XXIII 2020	<ul style="list-style-type: none"> • Standing agenda item; Parties to report on their reviews of Site Guidelines
Intersessional period 2020/21	
CEP XXIV 2021	<ul style="list-style-type: none"> • Standing agenda item; Parties to report on their reviews of Site Guidelines
Intersessional period 2021/22	
CEP XXV 2022	
Intersessional period 2022/23	
CEP XXVI 2023	
Science knowledge and information needs:	
<ul style="list-style-type: none"> • Long-term monitoring to assess the status and recovery of vegetation at Barrientos Island • Systematic and regular monitoring of visitor sites covered by Site Guidelines 	

Issue / Environmental Pressure: Overview of the protected areas system	
Priority: 2	
Actions:	
<ol style="list-style-type: none"> 1. Apply the Environmental Domains Analysis (EDA) and Antarctic Conservation Biogeographic Regions (ACBR) to enhance the protected areas system. 2. Maintain and develop Protected Area database. 3. Assess the extent to which Antarctic IBAs are or should be represented within the series of ASPAs. 	
Intersessional period 2018/19	<ul style="list-style-type: none"> • Plan for joint SCAR/CEP workshop on further developing the Antarctic protected area system to be held immediately prior to CEP XXII • United Kingdom to lead discussion with interested Members and Observers, on Antarctic Specially Protected Areas and Important Bird Areas
CEP XXII 2019	<ul style="list-style-type: none"> • Consider outcomes from joint SCAR/CEP workshop on further developing the Antarctic protected area system • Provide a report to the ATCM on the status of the Antarctic Protected Areas network • Consider report of intersessional work on Antarctic Specially Protected Areas and Important Bird Areas
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/21	
CEP XXIV 2021	
Intersessional period 2021/22	
CEP XXV 2022	
Intersessional period 2022/23	
CEP XXVI 2023	

Science knowledge and information needs:

- Continue to develop biogeographic tools to provide a sound basis for informing Antarctic area protection and management at regional and continental scales in light of climate change, including identifying the need to set aside reference areas for future research and identifying areas resilient to climate change
- Use remote sensing techniques to monitor changes in vegetation within ASPAs and more widely, to inform the further development of the Antarctic protected areas system

Issue / Environmental Pressure: Outreach and education

Priority: 2

Actions:

1. Review current examples and identify opportunities for greater education and outreach.
2. Encourage Members to exchange information regarding their experiences in this area.
3. Establish a strategy and guidelines for exchanging information between Members on Education and Outreach for long term perspective.

Intersessional period 2018/19	
CEP XXII 2019	<ul style="list-style-type: none"> • Bulgaria to draw to the Committee's attention any outcomes from the ICG on Education and Outreach of direct relevance to the work of the CEP
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/21	
CEP XXIV 2021	
Intersessional period 2021/22	
CEP XXV 2022	
Intersessional period 2022/23	
CEP XXVI 2023	

Issue / Environmental Pressure: Implementing and improving the EIA provisions of Annex I

Priority: 2

Actions:

1. Refine the process for considering CEEs and advising the ATCM accordingly.
2. Develop guidelines for assessing cumulative impacts.
3. Review EIA guidelines and consider wider policy and other issues.
4. Consider application of strategic environmental assessment in Antarctica.

Intersessional period 2018/19	<ul style="list-style-type: none"> • Establish ICG to review draft CEEs as required • Members and Observers work to progress and coordinate information that will assist development of guidance on identifying and assessing cumulative impacts • Consider potential changes required to EIA database to improve its utility
CEP XXII 2019	<ul style="list-style-type: none"> • Discuss changes to the EIA database with a view to giving proposals to the Secretariat • Consideration of ICG reports on draft CEE, as required
Intersessional period 2019/20	<ul style="list-style-type: none"> • Establish ICG to review draft CEEs as required • Members and Observers work to progress and coordinate information that will assist development of guidance on identifying and assessing cumulative impacts
CEP XXIII 2020	<ul style="list-style-type: none"> • Consideration of ICG reports on draft CEE, as required

Intersessional period 2020/21	<ul style="list-style-type: none"> Establish ICG to review draft CEEs as required Members and Observers work to progress and coordinate information that will assist development of guidance on identifying and assessing cumulative impacts
CEP XXIV 2021	<ul style="list-style-type: none"> Ask SCAR to provide guidance on how to do an environmental baseline condition survey, and consider their advice in due course Consideration of ICG reports on draft CEE, as required
Intersessional period 2021/22	<ul style="list-style-type: none"> Establish ICG to review draft CEEs as required Members and Observers work to progress and coordinate information that will assist development of guidance on identifying and assessing cumulative impacts
CEP XXV 2022	<ul style="list-style-type: none"> Encourage parties to provide feedback on the utility of the revised set of <i>Guidelines for Environmental Impact Assessment in Antarctica</i> in the preparation of EIAs Consideration of the options for preparing guidance on identifying and assessing cumulative impacts Consideration of ICG reports on draft CEE, as required
Intersessional period 2022/23	<ul style="list-style-type: none"> Establish ICG to review draft CEEs as required
CEP XXVI 2023	<ul style="list-style-type: none"> Consideration of ICG reports on draft CEE, as required

Issue / Environmental Pressure: Designation and management of Historic Sites and Monuments
Priority: 2
Actions:

1. Maintain the list and consider new proposals as they arise.
2. Consider strategic issues as necessary, including issues relating to designation of HSM versus clean-up provisions of the Protocol.
3. Review the presentation of the HSM list with the aim to improve information availability.

Intersessional period 2018/19	<ul style="list-style-type: none"> Argentina and the United States to lead work to examine the format of the list of Historic Sites and Monuments
CEP XXII 2019	<ul style="list-style-type: none"> Review a proposed new format for the list of Historic Sites and Monuments
Intersessional period 2019/20	<ul style="list-style-type: none"> Work to consider how the CEP can better bring conservation management plans into its wider tools to protect Antarctic heritage
CEP XXIII 2020	<ul style="list-style-type: none"> Review proposals relating to how conservation management plans can contribute to the management of HSMs
Intersessional period 2020/21	<ul style="list-style-type: none"> Consider how environmental impact assessments can form a part of Historic Site and Monument assessment
CEP XXIV 2021	<ul style="list-style-type: none"> Review proposals relating to EIAs and the HSM listing process
Intersessional period 2021/22	
CEP XXV 2022	
Intersessional period 2022/23	
CEP XXVI 2023	

Issue / Environmental Pressure: Biodiversity knowledge	
Priority: 3	
Actions:	
1. Maintain awareness of threats to existing biodiversity.	
2. CEP to consider further scientific advice on wildlife disturbance.	
Intersessional period 2018/19	
CEP XXII 2019	• Discussion of SCAR update on underwater noise
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/21	
CEP XXIV 2021	
Intersessional period 2021/22	
CEP XXV 2022	
Intersessional period 2022/23	
CEP XXVI 2023	
Science knowledge and information needs:	
<ul style="list-style-type: none"> • Research on the environmental impacts of remotely piloted aircraft systems (RPAS), particularly on wildlife responses including: <ul style="list-style-type: none"> - a range of species including flying seabirds and seals; - both behavioural and physiological responses; - demographic effects, including breeding numbers and breeding success; - ambient environmental conditions, for example, wind and noise; - the effects of RPAS of different sizes and specifications; - the contribution of RPAS noise to wildlife disturbance; - comparisons with control sites and human disturbance; and - habituation effects. • Collection and submission of further spatially explicit biodiversity data • Research on the impacts of underwater noise on Antarctic marine mammals • Synthesis of available knowledge on the biogeography, bioregionalisation and endemism within Antarctica • Site-specific, timing-specific and species-specific studies to understand the impacts arising from interactions between human activities and wildlife and support evidence-based guidelines to avoid disturbance • Inventory of Mt Erebus ice caves and microbial communities • Regular population counts and research to understand the status and trends in the southern giant petrel population 	

Issue / Environmental Pressure: Protection of outstanding geological values	
Priority: 3	
Actions:	
1. Consider further mechanisms for protection of outstanding geological values.	
Intersessional period 2018/19	
CEP XXII 2019	• Consider advice from SCAR
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/21	
CEP XXIV 2021	
Intersessional period 2021/22	
CEP XXV 2022	
Intersessional period 2022/23	
CEP XXVI 2023	

Appendix 2

Preliminary Agenda for CEP XXII (2019)

1. Opening of the Meeting
2. Adoption of the Agenda
3. Strategic Discussions on the Future Work of the CEP
4. Operation of the CEP
5. Cooperation with other Organisations
6. Repair and Remediation of Environment Damage
7. Climate Change Implications for the Environment
 - a. Strategic Approach
 - b. Implementation and Review of the Climate Change Response Work Programme
8. Environmental Impact Assessment (EIA)
 - a. Draft Comprehensive Environmental Evaluations
 - b. Other EIA Matters
9. Area Protection and Management Plans
 - a. Management Plans
 - b. Historic Sites and Monuments
 - c. Site Guidelines
 - d. Marine Spatial Protection and Management
 - e. Other Annex V Matters
10. Conservation of Antarctic Flora and Fauna
 - a. Quarantine and Non-native Species
 - b. Specially Protected Species
 - c. Other Annex II Matters
11. Environmental Monitoring and Reporting
12. Inspection Reports
13. General Matters
14. Election of Officers
15. Preparation for the Next Meeting
16. Adoption of the Report
17. Closing of the Meeting