Report of the intersessional open-ended contact group (ICG) to Review the Draft Comprehensive Environmental Evaluation prepared by New Zealand for ‘Scott Base Redevelopment’

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**Working Paper submitted by Spain**

Summary

An intersessional open-ended contact group (ICG) was established in accordance with the *Procedures for intersessional CEP consideration of draft CEEs* to consider the draft Comprehensive Environmental Evaluation (CEE) prepared by New Zealand for ‘Scott Base Redevelopment’.

ICG participants advised the CEP that the draft CEE conforms to the requirements of Article 3 of Annex I to the Protocol on Environmental Protection. The participants commented favourably on the proposed activity described in the draft CEE, regarding to the utilization of the previous location where Scott base sits, and the intensive utilization of renewable energy sources, as well as the up-to-date wastewater treatment technologies. The New Zealand proposed operation searches for an efficient process of decommissioning the old station and carrying the already built new buildings, saving time and reducing the carbon footprint of supporting vessels. On the basis of comments provided by participants, the ICG advises the CEP that the draft CEE is clear, well-structured and well presented. Moreover, the ICG agrees with the conclusion that the proposed activity would ‘lead to more than a minor or transitory impact on the environment’ supported by the information contained within the draft CEE. If New Zealand decides to proceed with the proposed activity, there are several aspects for which additional information or clarification would be beneficial in the required final CEE.

1. Background

On 12 February 2021 New Zealand notified the CEP Chair of the availability of the draft CEE for ‘Scott Base Redevelopment’. The draft CEE was prepared by Antarctica New Zealand. The full document, in English, was available for download from <https://www.antarcticanz.govt.nz/sbrceedraftfornotification.pdf> and via the CEP Workspace on the website of the Secretariat of the Antarctic Treaty: <https://www.ats.aq/devAS/EP/CEPWorkspace>.

In accordance with the *Procedures for intersessional consideration of Draft CEEs* (CEP XX Final Report, Appendix 3) the CEP Chair issued:

* CEP Circular 6 / CEP XXIII (12 February 2021), which:
* advised CEP contact points of the availability of the draft CEE;
* advised of the need to establish an open-ended intersessional contact group (ICG) to review the draft CEE;
* proposed that Spain’s CEP representative, Dr. Antonio Quesada, convene the ICG;
* proposed terms of reference for the ICG; and
* invited CEP Members to comment on the proposed convener and / or terms of reference.
* CEP Circular 7 / CEP XXIII (3 March 2021), which noted that no comments had been received on the proposed convener or terms of reference.

Terms of reference

The ICG addressed the four standard terms of reference outlined in the *Procedures for intersessional consideration of Draft CEEs*:

1. The extent to which the CEE conforms to the requirements of Article 3 of Annex I of the Environmental Protocol
2. Whether the CEE: i) has identified all the environmental impacts of the proposed activity; and ii) suggests appropriate methods of mitigating (reducing or avoiding) those impacts
3. Whether the conclusions of the draft CEE are adequately supported by the information contained within the document
4. The clarity, format and presentation of the draft CEE

Method of operation

All ICG correspondence was available to CEP Members and Observers via the CEP Discussion Forum. A link to the English language version of the full draft CEE was posted to the Discussion Forum, together with French, Spanish and Russian versions of the Non-Technical Summary and the *Guidelines for Environmental Impact Assessment in Antarctica* (the EIA Guidelines) adopted under ATCM Resolution 1 (2016).

ICG participants were reminded by the CEP Chair and ICG convener of the CEP’s agreement that the *Procedures for intersessional consideration of Draft CEEs* do not detract from the right of any Party to the Protocol to raise an issue on a draft CEE at meetings of the CEP or at an Antarctic Treaty Consultative Meeting (ATCM).

The ICG commenced with an opening message from the convener on 4 March 2021 and an initial comment period from that date until 2 April 2021. The convener circulated a draft ICG report for comment on 12 April 2021 and prepared a final report, addressing comments received, by the 30 April 2021 deadline for submission of Working Papers to CEP XXIII.

1. Summary of comments received from ICG participants

Comments were submitted to the ICG by nine CEP Members (Argentina, Australia, France, Germany, India, Italy, Norway, the United Kingdom and the United States) and one Observer (ASOC). The following sections summarise the main points raised by ICG participants, in accordance with the ICG terms of reference. The full submissions provided by participants are available in the CEP Discussion Forum. If New Zealand decides to proceed with the proposed activity, it should also have reference to the matters raised in those full submissions.

1. The extent to which the CEE conforms to the requirements of Article 3 of Annex I of the Environmental Protocol.

All ICG participants expressed the view that the draft CEE conforms to the requirements of Article 3 of Annex I of the Environmental Protocol, and one participant recommended a new CEE with the alternative in the case the non-permanent mooring location at Pram Point could not be prepared.

Participants commented favourably on the proposed activity, considering that rebuilding the station at the same location would represent an environmental benefit vs. searching a new location or refurbishing the old inefficient station. Most participants provided positive comments on the relevant renewable energy utilization, together with more energetically efficient buildings and a newest generation wastewater treatment plant. Both, building the new station and decommissioning the previous one are considered for most participants an efficient process, with relatively low environmental impacts considering the magnitude of the process.

Participants identified several aspects for which additional information or clarification should be provided in a final CEE, if the proponent decides to proceed with the proposed activity. The following sections describe points raised by several participants.

Description of the proposed activity (Annex I, Article 3.2(a))

Participants noted that the draft CEE presented a useful overview of the construction and operation of the redevelopment of the station (Section 2), some of them considered the description as excellent. Some participants suggested a better quality in the figures to allow a better interpretation. Some participants suggested that further details might be provided to ensure the CEE adequately describes the project and the actions, including further information on the following matters.

* Measures to reduce energy consumption and measures to reduce emissions of air pollutants, e. g. the diesel generators in more detail
* Materials for the construction, painting and its resistance to erosion as well as the possibility of producing microplastics
* Fuel spill prevention and response, several questions were raised regarding this topic on the potential spills from the tanks and the potential affection to the drinking water inlet, and the risks derived from the transportation from McMurdo Station by road
* More information is requested regarding the distribution of fuel from the tanks to the buildings and about an alarm system in case of spill, as well as a contingency plan.
* An emergency plan for the potential high risk of hazards during the construction phase
* Regarding the potential impact of larger population at the station with a wastewater treatment plant that does not precludes other contaminants (e.g., pharmaceuticals, POPs, microplastics, etc) finishing in McMurdo Sound.
* The explosive storage and blasting activity. Some participants recommend more information regarding the chemical pollution and the associated emissions and effects caused by the blasting.
* During the piles construction, where the buildings will sit on, sand will be used, but information regarding the origin of that sand and the biosecurity of that material is requested.
* Comprehensive documentation of all asbestos exposures already identified and investigated.
* The identification of the contaminated soils by hydrocarbons, heavy metals and old dumping sites may be useful to avoid mixing.
* Remediation plans for heavy metal polluted soils
* The impact of climate change on the buildings design and construction materials
* The impacts on the new design of the road to McMurdo Station
* Details on the new wind turbines, regarding installation, transportation and hauling

Possible alternatives to the activity (Annex I, Article 3.2(a))

Participants noted that the draft CEE addressed several alternatives to the proposed activity (Section 3), and the chosen one seemed to be the most appropriate, although some details for the election process might be better explained.

Description of the initial environmental reference state (Annex I, Article 3.2(b))

Participants noted that the initial environmental reference was well described (Section 5) and several indicated the extensive research done in the area, providing an extensive reference state. However, some participants suggested that other elements would enrich the final CEE, including the following matters.

* Comprehensive information about Snow, Ice and Water, preferably in a separate new chapter.
* Since one of the relevant impacts would be the dust produced in the earthworks some participants suggest that a reference state of Air should be considered as a separate section.
* One participant wonders if Cape Evans is a good reference site for comparison, since no vegetation has been described there.
* Some participants recommend better description of the marine/coastal species wider in time and space. Some others comment on the necessity of a better understanding on the Weddell seal population hauling in the area

Description of the methods used to forecast the impacts of the proposed activity (Annex I, Article 3.2(c))

Participants commented that the prediction of impacts (Section 6) is relevant, solid and complete, following national legislation and also the most strict regulation searching for the “Green Star Antarctica New Zealand Custom Tool”

Estimation of the likely direct impacts, indirect, cumulative and unavoidable impacts of the proposed activity, and effects on the conduct of scientific research and other existing uses and values (Annex I, Article 3.2(d)(e)(f)(h)(i))

See ToR#2(i).

Identification of gaps in knowledge and uncertainties (Annex I, Article 3.2(j))

Participants noted that the draft CEE provides a complete list of gaps in knowledge and uncertainties (Section 8). They suggested that this section may include also the uncertainties derived from the simultaneous reconstruction of the USA’s McMurdo Station only 3 km far. Also, an uncertainty would be the degree of participation of the construction company in the CEE. Some participants also consider that the lack of knowledge in the environmental baseline of area where the new road will be constructed is a relevant gap in the knowledge.

Non-technical summary (Annex I, Article 3.2(k))

Participants noted that the Non-Technical Summary (NTS) provides a clear and helpful summary of the information presented in the main body of the CEE. It was noted, however, that the NTS could be expanded to also include some figures presenting the project.

Identification of mitigation measures, including monitoring programs (Annex I, Article 3.2(g))

See ToR#2(ii).

1. Whether the CEE:

i) has identified all the environmental impacts of the proposed activity;

Participants noted that the proponents identified extensively the impacts derived from the project. Participants also suggested that further information and assessment would be required for other environmental impacts, including:

* Information about the chemical pollution derived from the explosive utilization.
* Cumulative impacts derived from the simultaneous reconstruction of McMurdo Station.
* Impacts to the Weddell seals hauling in the area
* Impacts on the birds derived from the wind turbines and blade strikes
* terrestrial and nearshore marine environment associated with the generation of dust and sediment generated during the construction and operation of the proposed station (e.g. earthworks, vehicle use).

ii) suggests appropriate methods of mitigating (reducing or avoiding) those impacts

Participants observed that the draft CEE identified measures to mitigate a range of impacts associated with the construction and operation of the station (Section 6). However, they suggested that in some cases a more comprehensive description of planned mitigation measures would be beneficial. Participants gave particular emphasis to the need to elaborate mitigation measures for the following matters.

* On the mitigation of effects on science, not only on long term projects, but also on current science. Some parties were wondering about the electric noise of the wind turbines and transforming station on the instruments sited on Arrival Hights ASPA#122. Similar worries were expressed regarding the geomagnetic station sited at the same location.
* Some participants consider that mitigation measures related in the Draft CEE are the Standard Operation Procedures for New Zealand but perhaps could not be 100% appliable for Antarctica.
* Some participants wondered about the mitigation measures about the wastewater production during the works with extended population and an obsolete WWTP.
* Mitigation of asbestos polluted soils were worrisome for several participants, with opposing comments regarding evacuation of contaminated soils, encapsulation or other approaches.
* Steps to prevent, and take action in response to bird strikes on the wind turbines.
* Mitigation of underwater noise during the non-permanent wharf construction as well as during the transport and maneuvering of vessels including the ice-breaker has been identified as needed.

Participants welcomed the stated intention to develop a monitoring program (Section 7), and suggested that other aspects should be monitored, including:

* Whales behaviour in reference to the works
* Bird strikes by wind turbines
* Explosive blasting impacts physical and chemical
* New road effects

1. Whether the conclusions of the draft CEE are adequately supported by the information contained within the document.

Participants considered that a CEE was the appropriate level of EIA for the proposed activities.

Participants felt that the overall conclusion that the proposed activities would ‘lead to more than a minor or transitory impact on the environment’ (Section 9) was adequately supported by the information contained within the draft CEE.

1. The clarity, format and presentation of the draft CEE.

Participants commented that the draft CEE is generally clear, well-structured, and well presented. Some participants recommended a better resolution in the figures and more explanatory legends on them.

Some participants also suggested to include the renewable energy project as a part of the general redevelopment and not as a separated section.

1. Conclusions

Having reviewed the draft CEE prepared by New Zealand for the ‘Scott Base Redevelopment’ in accordance with the *Procedures for intersessional CEP consideration of draft CEEs*, the ICG advises the CEP that:

1. The draft CEE conforms to the requirements of Article 3 of Annex I to the Protocol on Environmental Protection to the Antarctic Treaty.
2. If New Zealand decides to proceed with the proposed activity, there are several aspects for which additional information or clarification should be provided in the required final CEE. These matters are outlined in detail in the submissions made by participants, and are summarised in this ICG report. In particular, the Committee’s attention is drawn to the suggestions that further details should be provided regarding:

* the description of the proposed activity, particularly in reference to the construction materials, and origin of sand as well as the explosives chemical characteristics.
* the initial environmental reference state, including areas not included as Crater Hill and the new road trajectory.
* potential environmental impacts, including for aspects of the proposed activity not addressed or sufficiently well described, particularly those impacts produced by dust during the earthworks and road transit, operation of wind turbines, potential pollution of not eliminated chemicals from the wastewater treatment plant, and the potential introduction of non-native species with the building materials.
* cumulative impacts that might arise in light of simultaneous reconstruction of the USA’s McMurdo Station in the proximities of Scott Base.
* mitigation measures, including for impacts not addressed or sufficiently well described, particularly those measures related to fuel management risks (transport from McMurdo Station, distribution pipes, potential effects of spills on the drinking water inlet).

1. The conclusion that the impacts of redeveloping Scott Base would ‘lead to more than a minor or transitory impact on the environment’ is adequately supported by the information provided in the draft CEE.
2. The draft CEE is clear, well structured, and well presented, although a better resolution of maps and figures is recommended.