

## Stakeholder consultation on the draft regional environmental management plan for the Area of the northern Mid-Atlantic Ridge with a focus on polymetallic sulphide deposits

Please use the review template below when providing comments. Line and page numbers have been provided in the draft REMP. Please use these as a reference as illustrated in the table below.

### USA COMMENTS

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<b>General Comments</b>		
<p>When preparing the general comments, stakeholders are invited to consider the following:</p> <ol style="list-style-type: none"> <li>1) The structure and layout of the draft REMP.</li> <li>2) The level of detail of the draft REMP, while avoiding being too prescriptive.</li> <li>3) The goals and objectives in the draft REMP in providing for long-term, effective protection of the marine environment in the Area of the northern Mid-Atlantic Ridge.</li> <li>4) The management measures and their ability to achieve the goals and objectives in the draft REMP.</li> </ol>		
<p>Overall, we suggest that the document would be improved by providing additional clarity and consistency regarding the obligations, roles and responsibilities of Contractors, Sponsoring States, and the ISA LTC and Council. For instance, the document uses “will” in some places and “should” or “are encouraged” in others. Additional clarity regarding obligations, roles, and responsibilities would be especially helpful with regard to Contractor obligations for SINP management and monitoring of cumulative impacts, where the importance of management measures is particularly high. Finally, we suggest that it may be helpful to better define the relationship between the REMP, the mining regulations and mining contracts, as the mining regulations and mining contracts explicitly bind Contractors to certain standards and impose certain obligations on Sponsoring States.</p>		
<p>While the delineation of regional-level versus contract-level operational objectives, etc. is helpful, there is no accompanying explanation as to how activities at the contract level will feed into the activities at the regional level to both ensure harmonization and avoid duplication.</p>		
<b>Specific Comments</b>		
Page	Line	Comment
5	76	<p>Recommend adding “and approaches” to this section title to better represent the list included (i.e., precautionary approach and ecosystem approach).</p> <p style="text-align: center;"><b>Guiding principles and approaches</b></p>
6	99	<p>For goal 12.e) “Ensure environmental sustainability and functionality during and after exploitation activities,” suggest adding information and guidance on how to “ensure” this outcome, including definitions and criteria for determining “sustainability and functionality.”</p>
6	117-22	<p>Recommend using a more nuanced method for identifying the geographic scope of the REMP than a simple 100k buffer, for example identifying the point where the MAR slope drops below a specific threshold value, a bathymetric change between the ridge peak and the adjacent abyssal plain,</p>

		or a reduction in morphological change (e.g., transition to uniformly low rugosity).
9	206-15	Recommend adding as the first goal in this list: “ <b>Acquire sufficient environmental data and information on the northern MAR to ensure achievability of subsequent goals.</b> ” There is not enough information on the ecosystems and populations of various species of the diverse habitats within the northern MAR to achieve the goals listed. It would be helpful to establish the minimum amount and type of information needed to achieve these goals as a first step, and then employ the operational objectives to acquire it. In addition, it would be helpful to detail who will acquire the data, where the data will be housed, and who will have access to the data—we recommend that the datasets be publicly available.
9-10	217-46	This section would benefit from clarifying which entity or entities the LTC envisions is responsible for each objective (e.g, contractor, ISA, LTC, scientific community more broadly), in particular given the scale of the REMP (i.e., the entire region vs. a single contract area).
10	233-35	Editorial only:  h) Compile, analyze and synthesize data and information, in collaboration with <b>different</b> contractors and the scientific community regarding the benthic and pelagic ecosystems as well as <b>an</b> -food web and energy pathways....
10	251-52	Suggest striking “active” and replacing “megafauna” with “biological.” Above, authors acknowledge that inactive vent sites support different communities/have different recovery potential, which makes this specification odd alongside the emphasis on “representative” habitats earlier. There may be a scenario where an inactive site is considered representative of the region and warrants some avoidance of impacts. Further, by specifying “active” and “megafauna” the REMP may be inadvertently and prematurely setting an environmental threshold.  a) Avoid harmful environmental impacts on <b>active</b> -vent sites with significant <b>megafauna—biological</b> communities, including loss of vent communities in areas around a potential mine site.
10	253-255	Suggest that the language in B.28.b) be rephrased to “avoid” harmful impacts, in order to provide actionable guidance on how sustainability should be ensured.  Additionally, suggest adding “ecosystem” before “sustainability” to clarify the objective.  Finally, suggest using “coral and/or sponge habitat” here rather than “coral gardens and sponge aggregations” to avoid use of the term “coral gardens,” a term whose usage can be problematic due to the wide range of possible definitions (which could therefore lead to the exclusion of habitat that is important but does not meet a particular version of the definition for “garden” in use).  b) <b>Avoid</b> <del>Ensure that sustainability is not compromised due to</del> harmful environmental impacts on vulnerable/sensitive habitats and communities, including coral <b>and/or sponge habitat gardens and sponge aggregations</b> in the contract area and surrounding areas <b>in order to ensure that ecosystem sustainability is not compromised;</b>

10	256	<p>Suggest replacing “important” with a less subjective qualifier (e.g., keystone), and clarifying how this qualifier would be determined.</p> <p>b) Minimize harmful environmental impacts on <b>important [keystone]</b> species for the maintenance of ecosystem functioning and integrity; and</p>
10	258	Suggest using a more scientifically-precise term here than “ecologically important.”
10	263-265	<p>Suggest rephrasing as shown below, as it is unclear why implementation of spatial management measures might “interfere” with implementation of baseline studies and monitoring programmes.</p> <p>It will be particularly important to ensure that the implementation of spatial management measures <del>does not interfere</del> <b>is coordinated</b> with the implementation of environmental baseline studies and monitoring programmes by contractors.</p>
11	272-75	<p>An explanation as to why the REMP does not include ABMTs identified through the application of network criteria would be helpful. (These were explicitly recommended in the ISA Evora workshop and are considered best practices for Area-Based Management Tool implementation.)</p> <p>Additionally, regarding the statement on expert discussion, we request clarification on the timing of such a discussion in relation to the beginning of approvals for exploitation.</p>
11, 11-12	285-87, 309-12	Clarifying the difference between APEIs, SINPs, and AINPs here would be helpful. Suggest distinguishing between the measures for AINPs and for the APEIs established in the CCZ REMP. This would allow for consistency between the REMPs and clarify how different categories of protected areas should be considered in implementing the exploitation regulations.
11	297	Some clarity on what an integrated system of AINPs would be helpful.
11	308	Regarding II.B. Sites in need of protection (SINPs), suggest considering additional sites and communities in addition to those listed. Currently, the SINPs all appear to be limited to Active Hydrothermal sites, however the Evora Workshop specifically recommended including some inactive sulfide sites as well as hard and soft sediment communities containing aggregations of vulnerable marine ecosystem indicator species. See also <u>Van Dover (2019)</u> .
11	309-312	<p>Suggest removing “serious” in the section below, as Article 145 does not include the phrase “serious harmful effects.” The threshold of “serious harm” as defined in the draft exploitation regulations, or “serious harm to the marine environment” as defined in the exploration regulations, both describe a “significant adverse change.” Identification of SINPs should be focused on managing activities which may cause “harmful” effects on vulnerable marine ecosystems.</p> <p>37. SINPs are fine-scale sites, where vulnerable marine ecosystems have been identified. They are described on an individual basis, using the scientific criteria provided in Annex 4. Identification of such sites is intended with a view to managing activities that would have <b>serious</b> harmful effects on vulnerable marine ecosystems.</p>
12, 13	313, 360	It would be helpful to note how many active vent sites are identified in total at this stage to give a sense of proportion of the identified 11 SINPs and 12 Sites in Need of Precaution to the total identified.

12	340	In 41.a), which states that “Contractors report the discovery of new vulnerable or sensitive ecosystems,” we request clarification on who makes the determination that an area contains a “new vulnerable or sensitive ecosystem.” Would this be the Contractor, or independent experts engaged by the ISA to review contractor survey results?
12	345	Replace “review by” with “forwarding to” to clarify that the LTC is not a superior scientific body reviewing the credibility of the science, but rather an ISA entity that will consider the science in the context of ISA processes.  b) In addition to contractors’ exploration activities, new vulnerable or sensitive ecosystems can also be discovered by scientific communities, which can be communicated to the ISA secretariat for <del>review by</del> forwarding to the LTC;
12	346	Suggest adding “and recommend” after “consider” here, as it seems most appropriate for the LTC to recommend further steps to the ISA Council. Note that this is in line with the recommendation for 41(b) above.  c) The LTC can consider <del>and</del> recommend if further discussion or appropriate actions would be needed, based on the information received; and
12	350	Suggest clarifying who will describe and assess the ecosystems against the criteria for the SINPs and who will make any recommendations.
12-13	351-375	In Part II.C., Request that sites other than active hydrothermal sites be given further attention in this section. While this section does mention habitats other than active hydrothermal sites, and the Annex includes results of habitat suitability models from octocorals from Yeesson et al. (2012), we suggest that the section would benefit from further elaboration on these other habitat types.
13	364	Providing additional specifics in this paragraph would be useful. For example, assigning a buffer area around S/A Precaution areas (e.g., 10km surrounding S/A Precaution, or a buffer equal to the longest chord of the S/A Precaution polygon), providing mandatory reporting or resolution timelines (e.g., provide updated list of S/A Precaution areas within 6-months of discovery, determine S/A vs. SINP status within 24 months).
13	368	Increased survey efforts to validate inferred active vents should be required to the extent possible in an REMP. Suggest replacing “encouraged” with “required” or “are encouraged” with “should.”  In the case of inferred active vents, contractors [ <del>are required encouraged</del> to][ <del>should</del> ] apply increased survey efforts to validate the existence of active vents.
13	374	Suggest that C.45. require that contractors survey S/A Precaution, to inform assessment of their status:  46. Contractors planning to undertake exploitation activities in the S/A Precaution <del>are required to should</del> apply a precautionary approach <del>and undertake site surveying to support assessment of site/area until their status are assessed.</del>
13	380-98	Responsibilities in this section should be assigned to e.g., contractors, ISA, LTC, for clarity.
13	388-89	Suggest replacing “appropriate” with “relevant” or otherwise clarifying who determines whether or not an expert is appropriate.  ...can draw on existing frameworks and strategies and benefit from engaging with <del>relevant appropriate</del> experts.

13-15	399-447	Cumulative impacts should also be assessed at the contract area scale, as it is not only the cumulative impacts of multiple mining operations that will be assessed but also the cumulative impact of mining in a given area (large or small) on top of e.g., climate change, fishing, shipping, submarine cable laying in that same area.
14	405-409	For B.49.b) and B.49.c), the paragraphs state that contractors will monitor vulnerable habitats and faunal communities likely to be impacted by their activities. Suggest that these paragraphs include reporting and mitigation requirements, including timelines for those activities, if there is evidence of impact.  Additionally, for habits “in the vicinity outside (...) contract areas” and “surrounding areas likely to be impacted,” suggest that the distances/scales of the vicinity/areas to be monitored by contractors be elaborated upon.  Finally, in c), “Key” species needs elaboration for clarification and/or a proposed definition.
14	415-17	Suggest adding text on updating thresholds based on best available science.
15	447	For B.49.q), Recommend that thresholds for consideration of significant faunal communities be consistent across contractors, and be developed prior to the start of mining at a site. This would bring this section in line with other parts of section B. that address thresholds, including g) on Applying thresholds for the impacts of mining plumes, and l) on Applying thresholds for noise at the seabed and in riser pipe pumps, among others.  Additionally, “Significant faunal communities” needs elaboration for clarification and/or a proposed definition.  q) <del>Apply</del> <b>Develop</b> thresholds for categorization of significant faunal communities.
15	469-70	Suggest adding text about temporal variability in addition to spatial variability for this topic.
16	493	Suggest that in part II.(a), “environmental baselines” from habitat mapping and modeling needs elaboration for requirements (e.g., resolution requirements on bathymetry, image or video footage, etc.).
17	568-72	At least to start, suggest reviewing every two or three years, and updating or re-endorsing Paragraphs 48, 49, and 50 on monitoring and associated mitigations and thresholds at those intervals to incorporate scientific and technological developments in the field.
30	605	Recommend verifying that Yesson 2012 is the most recent habitat suitability modeling output available for this area.
32	620+	Suggest including biological diversity, biological productivity, and naturalness at the SINP scale as well, given the unique communities hosted by some hydrothermal vents.