Boegoebaai Port, SEZ and Namakwa Region SEA

Working Group Meeting 3 Key Notes & Actions

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Date: 24 April 2025	**Time:** 09:00 – 12:15	**Platform:** Microsoft Teams

Attendees: **Appendix A**

Purpose: Lead Authors to present Work Package 1 (WP1) draft findings and/or progress updates. This session aims to introduce the Working GroupWG to the draft findings before reports are shared for formal review.

Agenda:

1. Welcome and Meeting Objectives
2. SEA Approach
3. Approach to Public Participation
   - ❖ Participation in the SEA
   - ❖ Broader Participation
4. Questions/Discussion
5. Specialist Presentations – WP1 Draft Findings
   - ❖ Fisheries and Coastal Livelihoods
   - ❖ Sustainable Port Planning
   - ❖ Marine Ecology
   - ❖ Integrated Terrestrial and Aquatic Ecology
   - ❖ Biodiversity Offset Framework
   - ❖ Heritage
6. Next Steps and Closing Remarks

Key Notes

1) Welcome and Opening:

The Third WG meeting for the Strategic Environmental Assessment (SEA) of the Boegoebaai Port, Special Economic Zone (SEZ), and broader Namakwa Region development was opened by the Chairperson (Abulele Adams), who outlined the objective and agenda of the meeting:

- To provide an overview of the SEA approach, sharing key actions related to public participation within the SEA process and providing an overview of stakeholder engagement initiatives outside the SEA process, and share initial draft findings from WP1 specialist studies.

2) SEA Approach (Appendix B):

Greg Schreiner (CSIR) provided an overview of the SEA approach, including CSIR's role, key principles, and the intent of the process.

- It was noted that CSIR was appointed due to its recognised expertise and 30 years of experience in SEA theory and practice. CSIR's role was outlined as the lead organisation responsible for designing,

facilitating, and integrating the SEA process and findings. It was explained that CSIR is not the sole developer of the content, as majority of the expert team members consists of external specialists.

- It was clarified that CSIR holds no financial or ideological interest in either the Northern Cape region or green hydrogen technology, and that CSIR's involvement is purely scientific and impartial.
- The SEA process was described as being guided by the principles of national legislation (e.g., the National Environmental Management Ac (NEMA)) and aims to deliver a credible, transparent, and evidence-based assessment process – not to promote development or serve as a rubber stamp exercise. It was reiterated that the SEA differs from an Environmental Impact Assessment (EIA); it is not a decision-making process but rather provides a strategic framework to inform future decisions and planning processes.
- The SEA is a high-level, scenarios-led assessment aimed at identifying risks and opportunities for development within the Northern Cape and Boegoebaai region. The approach supports integrated, forward-looking planning in the context of sustainable development.
- The SEA is structured into two WPs:
    - WP1 focuses on the 33 500 hectares (ha) proposed Port and SEZ, and its local environmental and social sensitivities.
    - WP2 addresses the broader 5.8 million ha regional scale to assess cumulative risks and opportunities of developing a hydrogen economy in the Northern Cape.
- It was noted that the current discussions and specialist presentations are focused on preliminary findings related to WP1. It was noted that independent peer reviewers have also been appointed to ensure quality and credibility of the outputs.
- It was emphasised that the SEA process is participatory, pluralistic, and strategically designed to ensure that all stakeholder-identified issues are comprehensively addressed.
- The SEA governance structure includes a Project Steering Committee, CSIR (managing and integrating the SEA), with content developed by over 70 experts (including peer reviewers) across chapter teams, stakeholder engagement facilitated through a WG, a public website for online participation and review, and a series of in-person public briefing sessions.

3) Approach to Public Participation (Appendix C):

Babalwa Mqokeli (CSIR) provided an overview of the public participation process which forms part of the SEA and aims to engage with stakeholders on the SEA process and outputs. Key activities undertaken and upcoming engagements to ensure inclusive stakeholder involvement throughout the SEA process were highlighted.

- A stakeholder engagement plan has been developed to guide meaningful, inclusive and continuous participation across both work packages of the SEA. The plan aims to keep stakeholders informed, involved, and able to contribute in ways that reflect a wide range of perspectives, including government, industry, academia, civil society, and affected communities.
- The stakeholder engagement plan is a living document and will be updated to reflect new insights, stakeholder feedback, and emerging priorities.
- Public participation activities of the SEA completed to date include the publication and dissemination of Background Information Documents (BIDs), stakeholder registration forms, and formal public notices. Advertisements have also been placed in local newspapers and a radio interview was conducted in Afrikaans to raise awareness and invite participation.

- A stakeholder registration process was established, and a dedicated website was launched to provide continuous access to SEA updates and documents.
- A WG has been established, comprising representatives from various sectors such as government departments, research institutions, NGOs, and community-based organisations. It was stated that three WG meetings have been held so far, with future meetings planned at key SEA milestones, including review phases for Work Package 2., serving as a platform for ongoing dialogue.
- Planned future engagements include additional WG meetings, online engagement sessions for broader stakeholder groups, in-person local briefings within the affected municipalities.
- All draft specialist reports and SEA outputs will be made available for public comment, and feedback will be formally captured in a comments and responses report published on the website.

❖ **Broader Participation (Appendix D)**

Hastings F Nel (NCEDA) provided an overview of the community engagement structure of the Boegoebaai and Northern Cape green hydrogen development plans, outlining the approach taken to ensure inclusive, transparent, and responsive communication with communities across the study area.

- It was clarified that the communication approach is guided by the legal framework, which emphasises the importance of engaging with communities and Communal Property Associations (CPAs) through recognised and structured protocols.
- It was explained that the rationale for the engagement structure was a means to facilitate consistent and open communication with communities situated within the broader Richtersveld area. The approach is intended to foster early, continuous, and inclusive engagement with all relevant stakeholders - especially communities directly affected by developments. The communication strategy promotes transparency and accountability by actively listening to community concerns, clearly presenting both benefits and challenges of projects, and ensuring community voices are valued.
- It was clarified that all communication with the restitution community takes place through the Richtersveld Communal Property Association (RCPA) and its Management Committee, to maintain focus and alignment on project-related matters. Adding that permission to engage directly with communities must be granted by the RCPA Management Committee, and noting the importance to recognise the municipality (both local and district) as legal stakeholders in the communication process.
- It was highlighted that in addition to this local structure, there are also broader government coordination platforms - such as the District DDM, District IGR, SIP committee, and project-level committees - where relevant issues can be communicated and discussed
- Several community meetings have already taken place, providing updates on the progress of various specialist studies and offering information on upcoming assessments and draft reports anticipated in the next phase of the SEA.
- Outlined plans for broader community engagement beyond the CPA structure, including outreach to residents in Port Nolloth, Alexander Bay, Steinkopf, O'Kiep, Concordia, and Springbok. These engagements will be conducted in collaboration with relevant local government representatives to ensure accessibility and alignment with municipal processes.

4) Questions/Discussion

- A WG member raised concerns that the project communication seems to focus on aligning interests and execution without clearly identifying whose interests are being considered. Noting that while there's mention of valuing community voices, there's little detail on how their concerns are being integrated into the assessment process.
    - *Prior to this concern being responded to, context was provided; that there are two distinct processes involving public engagement. It was clarified that the SEA process includes its own public participation component, which is being overseen by the CSIR over a two-year period. On the other hand, the presentation delivered by NCEDA pertains to a broader, long-term community engagement process that they are responsible for, extending over several years into the future. This distinction was highlighted to ensure that all participants clearly understand the scope and timelines of the respective engagement efforts*
    - It was explained that that the communities are landowners and are kept informed throughout the SEA process. Engagement is not limited to the end of the SEA but occurs continuously. The most recent community meeting was referenced, where communities were updated on current and upcoming studies, with the understanding that a more detailed report will be shared by CSIR.
- A question was raised regarding community engagements and whether there are plans to engage communities outside of the CPA structure
    - It was confirmed that there are plans to engage a broader range of communities across the Namakwa District, including Alexander Bay, Port Nolloth, Springbok, and others. The engagements will be implemented in phases and will be conducted in collaboration with local government structures to ensure appropriate political coordination.
- Clarification was required (via the Meeting Chat) on whether the current SEA process follows the same regulatory streamlining seen in previous SEAs, such as those conducted for REDZ (Renewable Energy Development Zones). Noting that in the Namakwaland area, projects are now only required to undertake a Basic Assessment Report (BAR) instead of a full EIA, on the basis that the SEA has addressed the key issues typically covered in a full EIA. A question was raised as to whether a similar streamlined process, particularly in terms of public participation, would apply in the context of the current SEA.
    - It was clarified that this SEA does not include regulatory streamlining or geographic zoning like the REDZ. However, the findings of the SEA may inform future planning processes should government decide to pursue such streamlining processes. Adding that even in REDZ areas, public participation remains a legal requirement during the environmental assessment phase, although the scoping requirements may differ.
- A comment was raised regarding the role of SEAs, stating that they are intended to guide developers toward areas of low-sensitivity and for development to avoid higher sensitivity zones/areas. It was further enquired whether similar SEA protocols would be applied to infrastructure corridors, such as those for transmission lines and gas pipelines extending toward Namibia and Mozambique. Concerns were also raised around communication with communities, emphasising the need for

clear, coordinated engagement to avoid confusion, especially in areas like Boegoebaai where there are overlapping interests, including port development and renewable energy initiatives.

5) Specialist Presentations (Appendix E):

❖ **Fisheries and coastal livelihoods**

Dr. Louise Gammage (Amethyst) presented the findings on fisheries and coastal livelihoods, outlining key environmental and social risks associated with proposed developments along the Northern Cape coastline. The draft results from this study suggest that:

- The Boegoebaai coastal zone is part of the ecologically significant southern Benguela upwelling system, which includes vital nursery grounds for species such as sardine, hake, and mullet - key to sustaining both small-scale and commercial fisheries.
- Communities such as Alexander Bay, Port Nolloth, Kleinsee, and Hondeklipbaai rely on a combination of livelihoods, including mining, agriculture, fisheries, and tourism, with small-scale fishers being especially vulnerable due to their limited voice in planning processes.
- The risk of marine ecosystem degradation, noting activities such as construction, dredging, and increased vessel traffic could negatively impact critical fish nursery areas and lead to broader ecological and economic consequences.
- The concept of "ocean squeeze", referring to the cumulative spatial pressure faced by marine users. It was noted that proposed developments may further limit available space for small-scale fishers, who are already experiencing constraints due to mining activities, oil and gas exploration, and climate change.
- The risk of gentrification and displacement pressures on adjacent coastal communities. Such development could intensify existing socio-economic vulnerabilities by further marginalising small-scale fishers and altering the socio-cultural fabric of these coastal towns.
- The challenges associated with fragmented, project-level environmental assessments, warning that such approaches fail to capture the cumulative and interconnected nature of impacts on marine ecosystems and fisheries.
- In terms of recommendations; the importance of inclusive, transparent governance was highlighted, as well as the importance of addressing stakeholder power imbalances, and the need for integrated planning that safeguards critical habitats and supports the sustainability of coastal livelihoods was emphasised.

Questions/Discussion

- A WG member noted the reference to the current stress on the fishing industry due to existing mining and other activities, and emphasised that the proposed green hydrogen port should be considered as part of a broader transition plan rather than a standalone project. A question was raised about what the baseline scenario might look like if the area remains unchanged, particularly given the long-standing impacts of mining.
    - It was acknowledged that small-scale fisheries are indeed facing increasing pressure. It was also agreed that the report should reflect not only the risks but also potential benefits, particularly if projects are planned deliberately to support community livelihoods. The importance of helping local communities to thrive - not just survive-was highlighted, along with the need for inclusive and proactive engagement.

❖ **Sustainable Port Planning**

Susan Taljaard (CSIR) delivered a presentation on sustainable port planning, emphasising the importance of integrating environmental and social considerations from the outset and outlining key criteria for sustainable development in relation to the potential port development at Boegoebaai. The draft results from this study suggest that:

- Port planning is evolving through a shift away from development driven solely by economic priorities. Increasing recognition was noted for the critical role of environmental and social responsibilities, understood as central to a port's long-term viability and social licence to operate.
- Environmental and social considerations must be integrated from the planning phase, rather than being treated as secondary or compliance-driven elements. This integrated approach ensures that sustainability is embedded throughout the development lifecycle.
- Several mechanisms exist to support sustainable port development, including incentives, voluntary commitments, and awareness-raising efforts focused on the long-term benefits of sustainability. Pathways for accessing financing for sustainability-aligned initiatives was also discussed.
- Key sustainability criteria relevant to the Boegoebaai context, include eco-efficiency, sustainable energy and water sources, community health and well-being, cultural and heritage protection, climate resilience, and intermodal connectivity. These criteria are intended to serve as a guiding framework for assessing development proposals in the area.
- Strategic spatial planning is of critical importance. Careful spatial planning is necessary to avoid conflicts between port development and surrounding community interests. Alignment with existing municipal, provincial, and national planning frameworks was identified as critical for maintaining coherence and legitimacy in the development process.

Questions/Discussion

- A WG member raised concerns regarding the economic and planning sustainability of the proposed harbour development; noting that no feasibility study to date has demonstrated a positive Net Present Value (NPV), indicating that the project is not financially viable without subsidies. A question regarding how sustainability could be achieved under these conditions, particularly given that government appears to be pivoting toward oil and gas development due to cost-related concerns associated with green hydrogen was also asked. It was further highlighted that updates to regional and local Spatial Development Frameworks (SDFs) are being rushed and are incorporating the harbor, despite an earlier statement in one of the presentations that the SEA is intended to inform these frameworks. The reversal of this planning logic and how such developments align with the "circles of sustainability" model was under question.
    - The response acknowledged that the concerns raised relate primarily to the economic sustainability of the proposed port, especially given that the project has not demonstrated a positive NPV ad appears to be heavily subsidised. It was explained that the current study's mandate did not include conducting a full feasibility or sustainability assessment for the port itself. Rather, the focus has been on identifying the key issues and factors that should be considered when planning for sustainable port development more broadly. It was agreed that if a project is not economically viable in the long term, it cannot be considered sustainable, and therefore a dedicated feasibility study focused on economic and sustainability factors for this particular project and regional context is necessary.

Furthermore, it was emphasised that spatial planning processes should not occur in isolation. Projects of this nature must be integrated into broader strategic planning frameworks to manage potential conflicts and ensure alignment with long-term sustainability goals.

❖ **Marine Ecology**

Barry Clark (Anchor Environmental) presented the marine ecology assessment, identifying key biota, seabirds, marine mammals, and fisheries in the study area, and highlighting the sensitivity of the Boegoebaai point for port development. The draft results from this study suggest that:

- From a technical perspective Boegoebaai Point is considered an optimal location for the proposed port breakwater due to its proximity to deep waters, which could facilitate easier construction. However, concerns about the presence of an offshore reef were highlighted, which could negatively affect biodiversity, especially marine habitats, if the breakwater is constructed as planned.
- Endangered species, such as the Giant pillbug, and protected seabirds such as the Bank Cormorant are present. It was emphasised that a breeding colony of Cape fur seals is located at Boegoebaai Point (the identified site for the port breakwater), which could be significantly impacted by the proposed port breakwater development, suggesting that consideration be given to identifying an alternate site for port development.
- Thirty six (36) marine mammal species are likely to occur in the area, including humpback and southern right whales. However, these species are listed as least concern in terms of their conservation status. The limited fishing activities in the region, with only occasional beach-cast kelp collection, was noted in the study, indicating minimal commercial or artisanal fishing impact in the area.
- The presence of a future abalone ranching concession in the Boegoebaai area is noted. While no aquaculture activities have yet been initiated, the concession holder is required to conduct a baseline assessment before proceeding, emphasising consideration in terms of future planning.
- The National Biodiversity Assessment (2018) and marine spatial planning data was referred to, which show that the offshore habitats in the study area are classified as endangered. Given the vulnerability of these areas, the study recommends that careful planning be conducted to ensure the conservation of marine biodiversity during the port development process.
- The Boegoebaai area falls within an Ecologically or Biologically Significant Marine Area (EBSA) (i.e., Orange Cone EBSA), which extends offshore and overlaps with the Orange River estuary. It was explained that the EBSA is zoned into conservation and impact management areas; with conservation zones requiring stricter protection due to higher ecological sensitivity, while impact management zones allow for some level of activity but still requiring oversight. In relation to the Boegoebaai development, it was noted that while a portion of the area may qualify as a no-take conservation zone, most of the offshore marine area falls within the impact management zoning.
- The environmental sensitivity of the area was assessed, resulting in classifications of high, medium, low, and very low sensitivity - where high sensitivity is concentrated around Boegoebaai Point, medium sensitivity spans much of the area, and lower sensitivity is found in the southern parts of the Southern study area; additionally, a list of potential impacts associated with the project's construction, operational phases, and unplanned activities was compiled.

Questions/Discussion

- A WG member asked if there are predictions about what might happen to the seals at Boegoebaai should the proposed development proceed. The member highlighted the presence of Crowned Cormorants in the area, noting their conservation importance and breeding behaviours. Referring to the earlier presentation on coastal livelihoods, the member requested further clarity on the potential impacts to spawning and nursery areas and emphasised the importance of alignment between the findings of the coastal livelihoods and marine ecology studies to avoid inconsistencies. In addition, the member noted that the West Coast Rock Lobster fisheries were only briefly referenced and requested further detail on how they might be affected.
    - It was explained that the construction of a breakwater at Boegoebaai Point would likely result in seal colony abandoning the area, although relocation is uncertain. Crowned cormorants, along with other cormorants, are known to breed at Boegoebaai and are considered important. Regarding fisheries, the Boegoebaai area is not regarded as a significant spawning or recruitment area for major pelagic fisheries based on available data; anecdotal suggestions around the Orange River mouth exist but lack firm evidence and are likely offshore. The fisheries assessment focused primarily on current fishing effort, which is very low in the Boegoebaai area for West Coast Rock Lobster, small-scale, and line fisheries, largely due to the lack of nearby population and access controls limiting fishing activity.

❖ **Terrestrial and Aquatic Ecology**

Gretel van Rooyen (EkoTrust) provided the main findings on terrestrial and aquatic ecology – covering inland and aquatic ecosystems and estuaries, avifauna, bats, fauna (mammals, reptiles, amphibians) and flora/vegetation; highlighting the sensitivity of inland aquatic ecosystems, priority habitat features, and the presence of critically endangered species. The draft results from this study suggest that:

- The area is not particularly rich in inland aquatic systems, though large pans provide essential wetland habitat for wildlife, including macroinvertebrates.
- The National Wetland Map classified all mapped inland aquatic systems on site and depressions in the area as critically endangered. The potential presence of rock pools in rocky areas, which could support endemic invertebrate communities, was also discussed, although these features were mapped with low confidence.
- No estuaries were identified on the project site itself, but the Orange River Estuary (a Ramsar wetland) and the Holgat River Estuary are located nearby.
- All mapped depressions, artificial pans, and rocky areas were classified as highly sensitive, and the Orange River Estuary was also flagged as a high-sensitivity area.
- The consequences of development included the potential loss of all inland aquatic ecosystems and significant negative impacts on the Orange River Estuary. The aquatic study recommended that the development layout be carefully planned to avoid these ecosystems. Also noting the need for increased human and financial resources to manage activities at the Orange River Estuary.
- In terms of avifauna, a total of 87 bird species were recorded in the broader region, 47 of which were considered priority species due to conservation status or sensitivity to disturbance. Thirteen of these species were identified as likely to occur on site, including one critically endangered, three endangered, and four vulnerable species.

- Bird nests and core habitats should be avoided, and new power lines should be fitted with bird flight diverters. The site sensitivity map for avifauna indicated that most of the area is of high sensitivity, with a central band of medium sensitivity.
- Regarding bats, it was reported that 10 species may occur in the region, though only one is currently listed as near-threatened locally. The occurrence of this species on site remains unconfirmed. Mitigation recommendations included minimising artificial lighting, preventing bat mortalities around vertical structure such as wind turbines or cooling towers, and adhering to the sensitivity map to avoid habitat destruction. The bat sensitivity map identified scattered high-sensitivity spots and broader medium-sensitivity areas.
- For the fauna assessment (mammals, reptiles, and amphibians); ten species of conservation concern were identified as potentially present, including two golden mole species - one critically endangered and one vulnerable - whose presence was detected through eDNA sampling. It was stated that confirmation through direct surveys is needed, as their confirmed presence would likely constitute a "fatal flaw" to development in the coastal dune veld.
- The web-footed gecko, critically endangered in South Africa, was reported as occurring on site, though it is common in Namibia. The leatherback sea turtle was noted to overlap with the site range-wise, but no nesting was identified there. The desert rain frog was confirmed to occur in wet areas on site.
- It was highlighted that development must avoid very high sensitivity areas and that numerous mitigation measures had been proposed. However, it was emphasised that while these measures may be effective in theory, they are difficult to implement in practice, and their success relies on sustained monitoring - which is not always maintained.
- Lastly, the vegetation and flora assessment was presented. The presence of two critically endangered vegetation types occurring predominantly west of the tar road was highlighted, as well as large areas mapped as irreplaceable or optimal Critical Biodiversity Areas (CBAs). Much of the site falls within a nationally recognised Protected Area Expansion Strategy and is part of an internationally recognised Key Biodiversity Area (KBA).
- Approximately 75% of the site could serve as habitat for critically endangered plant species. The site's proximity to the Namib Lichen Fields, which are extremely sensitive to wind-blown sand and air pollution, was noted. Stabilising sand and preventing pollution from the proposed development were identified as essential. Around 400 plant species have been confirmed on site, with 46 species of conservation concern recorded to date; it was mentioned that reassessment of species threat status data from the South African National Biodiversity Institute (SANBI) is still pending.
- Vegetation clearance was identified as the primary source of botanical impact, which would result in habitat loss and transformation. However, it was stated that previously mined and sand plume-covered areas on site - already ecologically transformed - could potentially accommodate development, provided that priority habitats are avoided.
- It was highlighted that the current site sensitivity map is at a coarse scale, which is inadequate for the far-reaching planning decisions required. A fine-scale sensitivity map, informed by in-depth vegetation surveys, is needed to improve planning accuracy.
- Lastly, the presentation discussed the verification of the national screening tool's site sensitivity ratings. The plant theme, originally rated as medium sensitivity, was recommended to be upscaled to very high due to the high number of species of conservation concern. The very high rating for

terrestrial biodiversity was confirmed, although the team recommended that previously transformed areas (e.g. former mining sites) be recognised as suitable for development to reduce impacts on priority habitats.

Questions/Discussion

- A concern was raised that critical ecological issues - such as the presence of high numbers of threatened species and very high site sensitivities - were being addressed too quickly due to time constraints. The WG member emphasized that the value of the WG is diminished if spatial detail, including areas of lower sensitivity and suggested shifts in development footprints, is not clearly presented. Also noted that relevant data (e.g., from SANBI and field surveys) had been made available to specialists and expected to see clearer spatial identification of sensitive areas, particularly from the plant specialist presentation.
    - The concern was acknowledged, and it was noted that while the purpose of the session was to present preliminary findings, the opportunity for in-depth engagement with the content - particularly on biodiversity- will be provided through the formal commenting process. WG members, along with any interested party, will be given access to draft chapters for detailed review and input. Comments received during this process will be formally responded to and incorporated before any chapter is finalised.

❖ **Biodiversity Offset Framework**

Mark Botha (Conservation Strategy Tactics & Insight) presented the preliminary findings and approach for the development of a biodiversity offsets framework for the Boegoebaai SEZ. The draft results from this study suggest that:

- Biodiversity offsets are not typically framed within an SEA, making this a unique and complex task. The offsetframework aims to pre-emptively set out triggers, offset ratios, and no-go areas to inform project-level EIA processes and give SEZ proponents an indicative sense of offset requirements.
- Establishing effective offsets in the Boegoebaai region is particularly challenging due to poor spatial resolution and publicly available data on existing land use authorisations, especially in the mining sector. The absence of comprehensive, up-to-date land use information hinders the identification of suitable receiving areas and land use constraints. In such conditions, protected areas will be the most viable and enforceable form of offset receiving areas, as these offer the only legally enforceable mechanism for long-term biodiversity conservation.
- The offset planning process integrates community-derived spatial priorities, particularly from the Richtersveld community's local knowledge mapping, and includes consultation with state conservation agencies. It was emphasised that the offset framework must integrate these inputs to prioritise areas that are ecologically viable and socially acceptable.
- The distinction between biodiversity offsets and ecological compensation was clarified. Where biodiversity targets cannot be met for a particular biodiversity feature - ecological compensation may apply.
- Drawing on lessons from other SEZs and IDZs, it was stressed that a key limiting factor in biodiversity offset implementation is the lack of willing and able implementers and suitable offset sites. Adding that project-level studies should explicitly focus on locating willing and capable implementers and

suitable offset sites. Also strongly recommending the establishment of a proactive offset scheme or "offset bank".

- In comparing the small and large green hydrogen rollout scenarios, the presentation outlined that the small scenario (approx. 440 ha in the SEZ) could potentially be accommodated within existing disturbed areas, avoiding major biodiversity losses and significant offset liabilities. Also noting that while the environmental footprint of green hydrogen activities within the SEZ is expected to be relatively small (most renewable energy development will occur regionally – focus of WP2), some natural areas will still likely be affected due to infrastructure needs.
- In contrast, the large-scale green hydrogen scenario (a ~4,000-hectare impact within the SEZ), which will unlikely be entirely accommodated within already disturbed areas, and would trigger offset requirements (potentially affecting critically endangered ecosystems or species) - raising the risk of fatal flaws in EIAs. Additionally, the ~140,000-hectare regional footprint and associated linear infrastructure (e.g., transmission lines) would introduce complex, hard-to-model cumulative impacts, posing major challenges for offset planning.
- From a project-level offset perspective, it is recommended that regulators assign specific offset ratios upfront based on biodiversity sensitivity, with critical ecosystems likely requiring ratios of up to 30:1, and most areas at least 5:1.
- By layering specialist mapping input and community-prioritised biodiversity maps, and assuming some land within the SEZ can be set aside, it would be possible to set aside potential offset receiving areas within and around the SEZ, including the Holgat River drainage (south) and north of the site linking to the Orange River Mouth Nature Reserve (north).
- To avoid fragmented, project-by-project negotiations, a centralised, proactive offset scheme is recommended. This would allow early calculation of offset requirements, coordinated landowner engagement, and the ability for project developers to buy into a shared credit system.

Questions/Discussion

- A question was raised on whether the proposed offset receiving areas, specifically the northern and southern biodiversity corridors, are intended to apply to both the small-scale and large-scale development scenarios. Further asking whether it would be appropriate for SEA specialists to begin engaging with the proposed offset receiving areas, to get an early sense of potential trade-offs—particularly in light of possible biodiversity losses in the Boegoebaai development footprint involving highly sensitive and threatened species.
    - It was explained the offset areas presented apply to both the small-scale and large-scale green hydrogen development scenarios, but only in relation to infrastructure situated within the SEZ footprint. Noting that even in the large-scale scenario, The SEZ-related infrastructure has a relatively small total footprint (~4,000 ha), parts of which could likely be placed within already disturbed or transformed areas. It was emphasised that this is contingent on effective project-level avoidance of the most sensitive priority areas within the SEZ itself.
    - It was further clarified that the largest biodiversity impacts are expected to occur outside the SEZ footprint, across the broader regional landscape.
    - It was emphasised that the specialist team and Mark are engaging closely on offset requirements, and further discussions will take place during upcoming engagements

- It was added the information presented is a preliminary update on WP1 and that the team is mindful of the time commitments for WG members. It was noted that while a dedicated full-day session on biodiversity alone may not be feasible, stakeholders such as SANBI or regulatory authorities are welcome to join the more detailed biodiversity meetings planned over the next six months.

❖ **Heritage**

Jayson Orton (ASHA Consulting) presented the heritage sensitivity assessment, identifying key areas of archaeological, palaeontological, and living heritage significance, and emphasising the need for careful consideration of these aspects in the development process. The draft results from this study suggest that:

- The palaeontological sensitivity of the area is predominantly low due to the nature of underlying sediments and the low likelihood of encountering fossils, which are sparsely distributed and difficult to detect during excavations. However, a localized exception of moderate sensitivity exists behind high cliffs in the port precinct area. It is recommended that any future deep excavations in this zone include a fossil monitoring protocol.
- The archaeological sensitivity is highest within a 4.5 km-wide coastal band, based on both historical survey data and recent fieldwork, although extensive mining activity has already disturbed much of this landscape. Significant archaeological resources have been destroyed in the mining zone, where previous recommendations for heritage protection were not implemented. The study recommends comprehensive archaeological surveys and mitigation during EIAs, especially in undisturbed coastal areas and rocky inland outcrops which show evidence of past settlement by Nama herders.
- The maritime archaeological sensitivity of the offshore environment is generally low due to sparse and unreliable shipwreck data. However, two specific offshore locations -correlated with historical shipwreck records - are rated as high sensitivity. These areas should be flagged for specialist assessment if development is proposed nearby, though the overall probability of encountering maritime heritage remains low.
- Known graves, likely pre-colonial in origin, were recorded near Boegoeberg and are rated as very high sensitivity. While it is acknowledged that burials may exist in other undisturbed and excavatable locations, the probability of encountering additional graves is very low given regional trends along the Namaqualand coast. Nonetheless, EIAs must remain responsive to the potential discovery of graves, with appropriate heritage and community protocols in place.
- Living heritage associated with Nama pastoralist land use is still active in parts of the inland high-lying areas east of the R382 road, with a number of currently used or recently abandoned stock posts identified. These areas were rated as high sensitivity within 1 km of each stock post, with medium sensitivity allocated to the broader inland zone due to seasonal and historical grazing practices. The SEA process should recognise the cultural significance of land restitution claims and avoid creating further restrictions on land access, especially if offset areas are proposed that may displace current use patterns. Living heritage associated with Nama pastoralist land use is still active in parts of the inland high-lying areas east of the R382 road, with a number of currently used or recently abandoned stock posts identified. These areas were rated as high sensitivity within 1 km of each stock post, with medium sensitivity allocated to the broader inland zone due to seasonal and historical grazing practices. The SEA process should recognise the cultural significance of land restitution claims and

avoid creating further restrictions on land access, especially if offset areas are proposed that may displace current use patterns.

- The visual and scenic sensitivity of the landscape, while not covered in a dedicated SEA chapter, was assessed through supplementary mapping. The R382 is a key scenic route to Namibia and the Richtersveld, and is rated high in visual sensitivity, as is the coastline, owing to its natural beauty and transformation risk. High sensitivity is also assigned to the buffer zone of the World Heritage Site east of the SEA area. Development proposals should incorporate visual impact mitigation and recognise the cultural and tourism value of these vistas.
- From a cultural landscape perspective, two major landscape features - the Boegoeberg Twins and Namakwakop - were identified as areas of very high sensitivity due to their visual prominence and cultural resonance. The surrounding upland terrain is also rated as medium to high sensitivity due to skyline impacts and the cumulative effect of infrastructure on sense of place.
- General recommendations include the implementation of specialist field surveys during EIAs, proactive monitoring of sensitive zones, avoidance of heritage-rich coastal and upland zones where feasible, engagement with affected communities - especially concerning grazing rights and land restitution - and careful visual integration of infrastructure in scenic or culturally valued landscapes. The SEA should ensure these sensitivities are spatially reflected and used to guide development footprints to avoid or minimise irreversible impacts to heritage resources.

Questions/Discussion

- A WG member raised a question regarding whether the most intact archaeological sites, given the extent of mining related damage, should be considered more significant as they best represent what remains of the region's archaeological landscape. Also proposing that the findings and methodological framework of the current SEA heritage assessment could serve as the basis for developing a region-specific set of protocols and procedures, which could serve as a baseline for future EIA processes.
    - It was explained that that archaeological significance is not solely determined by the size or intactness of a site. To accurately represent the archaeology of a region, it is important to include a variety of site types, large and small, dense and ephemeral, as each contributes to an understanding of different historical periods, activities, and land uses. However, it was agreed that as more sites are lost due to activities such as mining, the remaining sites inherently become more significant. It was referenced how pre-colonial sites in the Cape Town area have been assigned higher significance due to their scarcity and noted that a similar rationale would apply in this context. It was further explained that while the current survey work has been limited due to the vastness of the study area, it provides a useful baseline by identifying areas with higher archaeological concentration, such as dune ridges, pans, and coastal zones.

Questions Posted in the Meeting Chat

- A WG member requested a copy of the presentations.
    - Confirmed that the presentations and notes would be made available and accessible on the project webpage**:** **https://www.csir.co.za/boegoebaai-port**.

- It was suggested that the CSIR engage with the JET Green Hydrogen Secretariat housed in the IDC and invite their participation in this working group
    - The suggestion was acknowledged and noted that IDC representatives are already part of the WG. It will be verified whether the JET GH2 Secretariat is represented and taken further from there, where necessary.
- A WG member requested that a case be created on SAHRIS for formal commenting on the SEA.
    - The request was acknowledged and liaison with SAHRA will take place accordingly.
- It was requested that the SEA team consider longer public commenting period; noting that the standard 30-day period is not sufficient to meaningfully review and respond to detailed technical studies, particularly in light of the number of other EIAs and public participation processes currently taking place along the west coast. In this context, suggesting a 90-day commenting period would be more reasonable and appropriate.
- A question was directed to NCEDA asking when consultations with other communities are planned, and whether these would only occur once everything is already in place for the projects. She noted that there was never any consultation in Concordia, which will also be impacted by the project and has its own Communal Property Association (CPA). Seeking clarity on whether only one CPA - specifically the Richtersveld CPA -would be consulted, and whether they would also be giving consent on behalf of other CPA communities. Expressing concern that the consultation process is not very clear or transparent.
    - It was explained that that the consultation process is phased initial engagements are currently underway with the Richtersveld CPA as part of Phase 1, since this is the first area of impact. Adding that consultations with other communities in the broader impacted areas, forming part of Phase 2, will commence once that phase of the project is initiated.
- A concern was raised regarding the legality of the CPA being consulted, noting that there is disagreement within the community about whether the CPA representatives were legally nominated.
    - It was explained that the issue had been ratified by the Department of Rural Development and Land Reform as part of their due diligence process. Adding that further clarification on this matter should be sought directly from the Department.
        - The WG member requested that a contact person from the Department be shared them.
- A participant raised concerns regarding issues related to global warming and its impact on fishers due to climate-related issues and quota restrictions. Questioning where the negative impacts of the Boegoebaai development project are being addressed, stating that all that is currently visible is the optimistic picture painted by the Masterplan. Also questioning whether the Masterplan truly accounts for all the communities that will be affected.
    - It was clarified that the SEA is intended to examine both the positive and negative impacts of the proposed Boegoebaai development. Although the SEA is being conducted at a strategic level, it seeks to bridge the gap between high-level masterplanning and the actual environmental, social, and economic conditions experienced at regional and local levels. With respect to global warming and climate change, it was noted that the SEA includes an assessment of current baseline conditions, which take into account existing pressures such as climate change.

- A WG member enquired about the possibility of sharing the slide show from the session.
    - It was confirmed that the presentations and notes from the session would be made available on the project webpage for accessibility.
- Concerns were raised regarding the potential for oil and gas exploration to be driven by the harbour plans, particularly in relation to its impact on fishing and marine environments.
    - It was acknowledged that oil and gas exploration needs to be considered in the planning processes, especially with the marine spatial planning framework. However, while oil and gas impacts were not a significant part of the stakeholder engagements for the study, it was noted that these industries should be considered in cumulative impact assessments. It was further explained that oil and gas exploration rights have existed along the West Coast long before the Boegoebaai port development, and the motivations for exploration are largely driven by economic and geopolitical factors.
- A question was raised regarding whether the "no-go alternative" had been considered in the SEA.
    - It was confirmed that the regional assessment (WP2) includes three scenarios, one of which considers a "dynamic baseline" where the Boegoebaai development does not take place, but other trends, such as development and climate change, continue. It was confirmed that the SEA includes a dynamic baseline scenario that reflects conditions without the Boegoebaai development.
- There were concerns about the sustainability of the Boegoebaai port development given that the updated NPV for the project is still negative. The sustainability of the port, particularly if it requires subsidies, was questioned. Additionally, there was a comment regarding the misalignment of Spatial Development Frameworks (SDFs) and Provincial Planning Frameworks, which often fail to adequately consider sustainability.
- It was mentioned that green hydrogen planning policy documents were only approved by Cabinet at the end of 2023, and public entities are still awaiting guidance on how to incorporate green hydrogen into their 2024-2029 planning processes.
- A WG member raised a question regarding whether offshore wind energy had been considered in the SEA.
    - It was clarified that offshore wind is not explicitly considered within the SEA due to technological challenges and the lack of nearby ports (in the absence of Boegoebaai) close to the northern west coast to support offshore wind development.
- Concerns were also raised about desalination and its impact on biodiversity.
    - It was confirmed that desalination facilities within the SEZ are part of the assessment, specifically within the marine chapter.
- A concern was raised regarding the site selection process and rating scale published on the project platform, which compares Boegoebaai with Port Nolloth and several existing harbours, but does not consider any other greenfield sites. It was suggested that a credible site selection process should include comparisons with alternative greenfield locations.
    - It was acknowledged that this point is noted, and that it may be necessary to consider alternative locations for the port breakwater, either within the broader Boegoebaai area or further afield, as part of a more comprehensive assessment.
- There were also discussions about the CBA (Critical Biodiversity Areas) information used in the study.

- The relevant people consulted for CBA information at SANBI were confirmed
- The marine specialists were encouraged to hold follow-up discussions to clarify any concerns related to small CBA areas.

- The need for a focused cumulative impact assessment was emphasised, particularly from a marine ecology and fisheries perspective.
  - It was acknowledged that, given the limited details on proposed developments, it was difficult to fully assess cumulative impacts, but the site had been analysed holistically.
    - There was a call for a more focused cumulative impact assessment, as site-specific EIAs often fail to address cumulative impacts effectively.
- A WG member raised a question regarding whether the Brown Hyena was listed as a species of conservation concern, particularly around the seal colony and Holgat River area.
- The uplisting of *Breviceps macrops* to "Vulnerable" was highlighted as an important change for inclusion.
- It was added that the desert rain frog is present at Visagieskop, in sight of Boegoeberg, where aggregate gravel prospecting is proposed.
- It was suggested that there should be adequate time for presenters and questions in future sessions.
  - It was confirmed that full draft reports would be shared for detailed review and input.
- Suggestions were made to recheck the latest information from the DFFE on Terrestrial Biodiversity Theme and to consider the latest 2024 Northern Cape CBA mapping, and gazetted list of Threatened Ecosystems.
- Proposals were put forward for focused meetings with biodiversity specialists, to allow for more detailed discussions and better engagement on biodiversity issues.
  - The suggestion was acknowledged, and it was confirmed that interested WG members are welcome in upcoming biodiversity sessions.
- Clarification was sought regarding the approximate size of proposed biodiversity offset and set-aside areas.
  - It was indicated that there is approximately 30 000 ha of the offset receiving area, and the total offset required for just the SEZ-related impacts is probably of 12 000 ha.
- A participant highlighted that stock farming west of the tar road has been prohibited since 1928.
- A request was made for CSIR to provide a 10 m contour line or Digital Elevation Model (DEM) to the Offsets Specialist, in understanding potential sea-level rise impacts on remnant ecosystems and associated infrastructure.
  - The requested was noted.
- A request was made for further clarification on the heritage survey methodology, with a perception that some aspects of the local context may not have been adequately incorporated.
  - It was confirmed that that fieldwork aimed to validate desktop findings and that findings are further detailed in the relevant report chapter. It was also noted that complete field surveying would have required significantly more time.
- A query was raised on whether local fishing community heritage was considered in the heritage assessment.
  - It was indicated that most heritage sites encountered comprised shell middens of varying density and that no active fishing communities were identified in the project area due to restricted sea access through the mining area.

- A question was posed regarding whether the heritage sensitivity layer in the national screening tool would be upgraded, as done for the plant and terrestrial biodiversity themes.
- A comment was made about the absence of a credible site selection process, with documented justification, and a credible economic feasibility report.
- A request was made for the distribution of specialist reports ahead of the Phase 2 meeting.

6) Closure and Next Steps (Appendix C):

- The closing remarks emphasised that the SEA is not a decision-making process, but rather a tool to guide future decisions through the identification and consideration of potential risks and opportunities, and by proposing ways to minimise or enhance them where needed.
- It was clarified that this SEA does not intend to result in regulatory streamlining or to circumvent any project level assessment, engagement or decision-making. It does seek to provide an evidence base, transparent and available to all, to support future policy, planning and decisions.
- The importance of the various ongoing levels of engagement were reiterated:
  - ❖ The SEA-specific engagements (via CSIR) currently underway (inter alia this WG meeting) and for the duration of the SEA. Focused on SEA content and outcomes.
  - ❖ Policy/programme-driven communication (via e.g. NCEDA, TNPA) which has occurred in the past, is ongoing now and into the future.

Next Steps

- CSIR to draft and distribute the WG meeting notes (these notes) of key issues and action items via the project website.
- Lead Authors to present WP2 draft findings to WG (~Jun 2025 meeting) in a similar format to the current meeting, allowing stakeholders to interrogate the results before a formal review process begins.
- Planned engagements include online public webinar briefings and in-person sessions in selected towns and communities within the study area.
- **Key Actions from the meeting include:**
  - The comment on opening a case on SAHRIS for formal commenting on the SEA was noted and CSIR will liaise with SAHRA accordingly.
  - Consider the possibility of extending the commenting period to allow for maximum stakeholder engagement with technical materials.
  - Incorporate relevant feedback from the session into the draft chapter content.
  - Contact interested WG members (i.e., SANBI, BirdLife, DAERL, DFFE [Oceans & Coast] & Environmental Traits) regarding possible theme specific engagements, particularly the biodiversity themes.

The meeting was closed: appreciation was expressed to the specialists for their presentations on draft findings and to the WG for their valuable and constructive inputs. Stakeholders were encouraged to follow up via email for any outstanding questions or comments.

Appendix A: Working Group meeting 3 attendance

Note: *The register below includes participants whose names and/or organisations were visible during the meeting. Some attendees appeared as "unverified" or missing identification details and were thus not identifiable by name or organisation. A total of 88 participants were recorded, although actual attendance may have been higher.*

Organisation	Name and Surname
Council for Scientific and Industrial Research (CSIR)	Greg Schreiner
	Luanita Snyman-Van der Walt
	Lizande Kellerman
	Babalwa Mqokeli (Project Manager)
	Abulele Adams (Chairperson)
	Rinae Tsedu
	Susan Taljaard
Transnet National Ports Authority (TNPA)/ Transnet Corporate/ Transnet Freight Rail	Thulisa Zukulu
	Jabulani Maluleke
	Aphelele Tomsana
	Magenthran Ruthenavelu
	Tauqeer Ahmed
	Nonkululeko Hadebe
	Mapaseka Lukhele
	Nosicelo Biyana
	Motlatso Molapo
	Daisy Molamodi
	Phomolo Motaung
	Zanele Manyathi
Northern Cape Economic Development Trade and Investment Promotion Agency (NCEDA)	Napo Ramabina
	Hastings Nel
Private (Consulting)	Hendrik Louw
DFFE: Oceans and Coasts	Gerhard Cilliers
DFFE: Oceans & Coast (Coastal Pollution Management)	Lona Nondaka
DFFE: Fisheries Research and Development	Stephen Justin Lamberth
DFFE: Aquaculture Development and Freshwater Fisheries	Michelle Pretorius
DFFE: Marine Protected Areas Unit	Ntombovuyo Madlokazi
DFFE: Appeals & Strategic Environmental Instruments	Simon Moganetsi
DFFE: Climate Change Mitigation Research and Analysis Unit	Paseka Mabina
Department of Economic Development and Tourism (DEDAT)	Hendrik Louw
Department of Agriculture, Environmental Affairs, Rural Development and Land Reform (DAERL)	Elsabe Swart
	Natalie Uys
	Louise Geldenhuys
Department of Science and Innovation (DSI)	Mandy Mlilo
Department of Trade, Industry and Competition (the dtic) (via the Green Hydrogen Panel)	Mike Levington
Infrastructure South Africa	Avik Singh
Department of Cooperative Governance, Human Settlements and Traditional Affairs	Feroza Fredericks
South African National Energy Development Institute (SANEDI)	Richmore Kaseke
	Phumlile Kunene
South African National Biodiversity Institute (SANBI)	Tsamaelo Malebu
	Dewidine Van Der Colff
	Hlengiwe Mtshali

	Domitilla Raimondo
South African National Parks (SANParks)	Jeffrey Manuel
South African Heritage Resources Agency (SAHRA)	Nokukhanya Khumalo
South Africa Wind Energy Association (SAWEA)	Santosh Sookgrim
Endangered Wildlife Trust (EWT)	Zanne Brink
Zutari	Reuben Heydenrych
Birdlife South Africa	Samantha Ralston-Paton
Conservation South Africa	Christopher Ovies
Liz Day Consulting	Liz Day
Kleinzee Holdings	Deidre Karstens
Vedanta Zinc International	Cindy Mogotsi
VVVT - Namakwaland	Anthony Wyngaard
	Shereen Fortuin
Richtersveld Local Municipality	Lara Young
AfriAvian Environmental	Albert Froneman
Anchor Environmental	Barry Clark
	Andrea Pulfrich
The Nature Conservancy	D'Reull de Beer
Natural Justice	Dean Palmer
	Amelia Heyns
	Melissa Groenink
	David Mtshali
University of Stellenbosch	Calumet Links
Amethyst Independent Facilitation	Louise Gammage
	Annastacia Mpala
ASHA Consulting	Jayson Orton
	Lita Webley
Ekotrust	Gretel van Rooyen
Bios Diversitas Consultants	Corné Niemandt
Conservation Strategy Tactics & Insight	Mark Botha
Desalination Community of Practice	Dawid Bosman
Infrastructure South Africa	Avik Singh
	Charles Mabuza
EcosolGIS	Philip Desmet
Environmental Traits	Not specified
Wilderness Foundation Africa	Ben-Jon Dreyer
Eskom Distribution	Ronald Marais
Alliance for Law in Development	Maria Smith
	Henk Smith
Animalia Consultants	Werner Marais
WoMin African Alliance	Alexandria Hotz
Not specified	Ina Basson
	Susan Meyer

Appendix B: Brief overview of SEA Approach Presentation

Refer to separate attachment

Appendix C: Overview of the Approach to Public Participation

Refer to separate attachment

Appendix D: Broader Participation presentation

Refer to separate attachment

Appendix E: Specialist Presentations

Refer to separate attachment