

Our Ref: DOC21/1001963
Your Ref: PP 10.2021.630.1

General Manager
Byron Shire Council
PO Box 219
Mullumbimby NSW 2482

Attention: Mr Chris Larkin

Dear Mr Arnold

RE: Temporary Coastal Protection Works, Reflections Holiday Park, Byron Bay.

Thank you for your notification to the NSW Planning Portal dated 12 November 2021 about the proposed temporary coastal protection works at the Reflections Holiday Park, seeking comments from the Biodiversity and Conservation Division (BCD) of the Biodiversity, Conservation and Science Directorate in the Environment, Energy and Science Group of the Department of Planning, Industry and Environment. I appreciate the opportunity to provide input.

We have reviewed the proposed development application and accompanying information and have identified several issues about the proposed development. These issues are discussed in detail in **Attachment 1** to this letter.

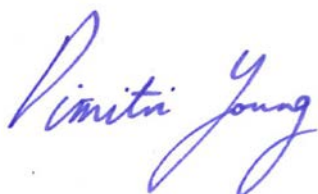
In summary, the BCD recommends that:

1. A more detailed management strategy addressing monitoring, maintenance and works-impact mitigation activities must be prepared for the life of the works, which should include:
 - a. details of the works maintenance and repair in the event of damage, and
 - b. the management and restoration of the beach and adjacent land in the event of impacts from the works, and
 - c. decommissioning of the works and site rehabilitation at the expiration of the development application, as well as in the event of a severe erosion event occasioning wall failure, and
 - d. a detailed monitoring strategy involving inspections and topographic / beach profile surveys and a monitoring and maintenance frequency that is increased proportionally during periods of increased risk, and
 - e. impact mitigation activities that address impacts to adjacent areas in a timely manner
2. Further information is required to ensure that any adverse impacts to coastal processes resulting from the works are appropriately managed throughout the consent period.
3. The proposal should include a strategy to progressively manage any adverse impacts to coastal processes resulting from the works through beach nourishment and revegetation, rather than at the end of the consent period, with impacts rectified before any further impacts may be realised from subsequent (following) erosion events.

4. The management strategy for the decommissioning of the works should consider a range of beach state scenarios and describe how the works are intended to be removed within the proposed consent period.
5. The proponent should actively engage with the council in the development of the Coastal Management Program for the area.
6. The National Parks and Wildlife Service (NPWS) Guidelines '*Developments adjacent to National Parks and Wildlife Service Lands – Guidelines for consent and planning authorities*' must be considered in the Byron Shire Council's and the Northern Regional Planning Panel's assessment of the application, and the formulation of mitigation measures and conditions of consent to ensure no additional impacts to the Cape Byron State Conservation Area or its natural, cultural or social values arise from the proposed retention of the sandbag walls and their ongoing maintenance and repair for the next five years.
7. The Environmental Impact Statement must include explicit consideration and assessment of the impacts of unregulated pedestrian access on the midden AHIMS # 04-5-0199, installation of appropriate measures to reduce this access and formalisation of restored public beach access through the Reflections Holiday Park.
8. Any proposed temporary or permanent storage of salvaged midden material on NPWS managed land must be undertaken in consultation with NPWS as this may be subject to separate authorisation processes.
9. Contact with the Bundjalung of Byron Bay Aboriginal Corporation (BOBBAC) must be maintained during through the life of the project to ensure the continued protection of Aboriginal Cultural Heritage sites and so that the BOBBAC remain informed of future long term coastal protection solutions before sandbags area potentially removed from Clarkes Beach.
10. The ongoing monitoring program undertaken as part of the project must be extended to include areas in the Cape Byron State Conservation Area.

If you have any questions about this advice, please do not hesitate to contact Mr Krister Waern, Senior Operations Officer, at krister.waern@environment.nsw.gov.au or 6640 2503.

Yours sincerely



23 December 2021

DIMITRI YOUNG
Senior Team Leader Planning, North East Branch
Biodiversity and Conservation

Enclosure: Attachment 1 Detailed BCD comments – Temporary coastal protection works - Reflections Holiday Park

Attachment 1: Detailed BCD Comments – Temporary coastal protection works Reflections Holiday Park

The Biodiversity and Conservation Division (BCD) of the Department of Planning, Industry and Environment has reviewed the development application and associated information for the proposed temporary coastal protection works at the Reflections Holiday Park and we provide the following comments.

Coastal Processes

Proposed Works

The proposal involves retention of the existing (emergency) coastal protection works comprising two sandbag walls approximately 70m in length (total 140m) for a period of five years, and associated activities (monitoring, maintenance, impact mitigation measures, decommissioning and restoration of the site).

Reviewed documents

The BCD reviewed the following documents:

- Environmental Impact Statement - Use of Coastal Protection Works – Clarkes Beach, Byron Bay Lot 410, DP 729062 – 1 Lighthouse Road, Byron Bay (being Reflections Holiday Park – Clarkes Beach), Planit Consulting Pty Ltd, May 2021.
- Clarkes Beach Addendum Coastal Assessment, BMT May 2021
- Geobag walls at Clarkes Beach, Byron Bay, WRL TR 2021/12, September 2021

General Comments

The risks to beachfront land, values and assets along Clarkes and Main Beach resulting from coastal hazards, including short-term beach erosion and underlying long-term coastal recession, have been recognised for several decades. Projected sea level rise is likely to exacerbate coastal hazard risks into the future.

We understand the initial geobag seawall works (now subject to this Development Application (DA) 10.2021.698.1) were constructed in July 2019 as 'coastal protection works' authorised under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), in accordance with s.19(2)(a) of the State Environmental Planning Policy (Coastal Management) 2018 (Coastal Management SEPP) permitting them to remain in place for a period of 90 days. We note the works approval expired some time ago and the works currently have no legal status.

We also note that following the construction of the works, Aboriginal cultural heritage was identified directly behind the geobag structure in the dune escarpment.

We recognise that these types of temporary works, installed by or on behalf of a public authority as development permitted without consent under the Coastal Management SEPP, are not intended as permanent or ongoing works. The fact these works were installed and remain on the beach highlights a need for improved recognition of, and strategic planning for, the management of current and projected future coastal hazard risks at the subject site. The coastal hazard risks at Clarkes Beach have been known and described in various studies over several decades.

The DA seeks to retain and maintain the existing works in-situ for a period of five years. It is envisaged this timeframe will provide ample time for the proponent to evaluate and resolve adaptive options for the management of the Clarkes Beach Holiday Park with due consideration of public access and safety, Aboriginal cultural heritage, environmental and economic values, and existing infrastructure and development. The Coastal Management Program (CMP) being prepared by the Byron Shire Council is also highly relevant to the future management of the site.

We note the proponent intends to develop and implement a masterplan for the Clarkes Beach Holiday Park, in the form of a revised Plan of Management (PoM) for the site. We understand this PoM will consider various measures to mitigate or manage risks from coastal hazards.

The council is currently developing a CMP in accordance with provisions of the *Coastal Management Act 2016* (CM Act) to set the long-term strategy for the coordinated management for the area covering Cape Byron to South Golden Beach, including Clarkes Beach. Division 2 of the CM Act describes the purpose and scope of a CMP. We anticipate the CMP will be completed within the near future.

The CMP will consider the appropriate means of developing and implementing a suitable and coordinated coastal management strategy for the Byron Bay embayment.

We note that a significant volume of sand has recently been transported into the eastern margins of the Byron Bay embayment via natural coastal processes, resulting in the partial recovery of the Clarkes Beach profile. However, this currently observed trend may continue, stall or indeed reverse at any time, as it is subject to the influence of physical coastal processes at that time.

Development consent relating to coastal protection works (s 27 CM Act)

Section 27 of the CM Act requires that development consent for coastal protection works must not be granted unless the works will not, over the life of the works, unreasonably limit public access, pose a threat to public safety, and that satisfactory arrangements have been made for maintenance of the works and restoration of the beach if increased erosion is caused by the presence of the works.

The DA is supported by a technical report prepared by the Water Research Laboratory (WRL) School of Civil and Environmental Engineering, UNSW Sydney, to investigate the impact of the proposed works on coastal processes over the estimated five year design life, and the monitoring and maintenance requirements that will be associated with the works. The report also assesses the risk of coastal hazards on the proposed works.

The DA is also supported by the Clarkes Beach Addendum Coastal Assessment prepared by BMT to assess the impact of the seawall on the physical coastal processes of Clarkes Beach as well as to determine the management measures required to ensure the function, integrity and safety of the sandbags and public space for the life of the works.

Based on the WRL technical report, in the event of a 5-year ARI storm event, there is a likelihood that the geobag seawall will experience more than 2% damage and likely wave overtopping necessitating repairs. There is a 63% probability of a 5-year ARI event occurring during the proposed 5-year design life of the works. Similarly, the BMT Coastal Assessment report advises that the seawall is most likely to fail in a severe storm event (10-year ARI) if the beach is in an eroded condition.

Should the works be exposed to the impacts of wave action during the proposed 5-year period they may alter coastal processes, resulting in impacts to the beach or land adjacent to the beach, public access and safety, and beach amenity. The works may adversely impact coastal values within the adjacent Cape Byron Marine Park, National Parks estate and Crown Land. It is, therefore, critical that the works are subject to continued monitoring.

Impact mitigation works to 'restore the beach' and maintain public safety and access in accordance with section 27 of the CM Act should be adequately defined and committed to by the proponent. This includes a strategy to monitor for and respond to any impacts resulting from the works should they be damaged by coastal processes.

We consider the DA fails to provide an adequate level of detail regarding monitoring, maintenance and impact management activities for the ongoing management of the proposed works over the nominal five-year period. Whilst the EIS alludes to a monitoring program, very little detail is provided within the EIS. Further, page 35 states that 'mitigation measures beyond maintenance, such as additional beach nourishment or asset relocation, are outside of the scope of this proposal'. Some monitoring and mitigation measures are recommended within the BMT Coastal Assessment report, however it is unclear whether the proponent intends to adopt these recommendations.

A more detailed management strategy addressing monitoring, maintenance and works-impact mitigation activities should be prepared for the life of the works to ensure the requirements of section

27 of the CMA are complied with. The management strategy should include details of the works maintenance and repair in the event of damage, the management and restoration of the beach and adjacent land in the event of impacts from the works, and decommissioning of the works and site rehabilitation at the expiration of the DA currency period; as well as in the event of a severe erosion event occasioning wall failure.

A monitoring strategy is required to ensure the potential impacts of the works are adequately monitored, and in addition to monthly inspections, the proponent should undertake topographic / beach profile surveys on a quarterly basis, particularly following storm events.

Any adverse impacts to coastal processes resulting from the works should be managed progressively through beach nourishment and revegetation, rather than at the end of the consent period, with impacts rectified before any further impacts may be realised from subsequent (following) erosion events. This may help to reduce impacts to cultural heritage, littoral vegetation, lands, infrastructure and built assets.

The DA fails to provide adequate detail on the works decommissioning and site rehabilitation within or at the end of the proposed 5-year approval period. The management strategy for the decommissioning of the works should consider a range of beach state scenarios and describe how the works are intended to be removed commensurate with the proposed consent period. Ultimately, decommissioning of the works should be undertaken prior to the expiration of the DA period, or if relevant, be guided by the longer-term strategy determined in the council's CMP being developed for the area. It is important that the proponent works urgently to resolve the management of the site such that the works might be removed as soon as possible should they become exposed within the proposed five-year consent period.

The proponent is strongly encouraged to actively engage with the council in the development of the CMP for the northern Byron Shire, to ensure the proposed works (including their management, maintenance and decommissioning) do not interfere with nor impede the development and implementation of the CMP and the longer-term strategy for management of the Byron Bay embayment. The CMP will set out the long-term strategy for the coordinated management of land within the coastal zone with a focus on achieving the objects of the CM Act.

Recommendations

1. A more detailed management strategy addressing monitoring, maintenance and works-impact mitigation activities must be prepared for the life of the works, which should include:
 - a. details of the works maintenance and repair in the event of damage, and
 - b. the management and restoration of the beach and adjacent land in the event of impacts from the works, and
 - c. decommissioning of the works and site rehabilitation at the expiration of the DA, as well as in the event of a severe erosion event occasioning wall failure, and
 - d. a detailed monitoring strategy involving inspections and topographic / beach profile surveys and a monitoring and maintenance frequency that is increased proportionally during periods of increased risk, and
 - e. impact mitigation activities that address impacts to adjacent areas in a timely manner
2. Further information is required to ensure that any adverse impacts to coastal processes resulting from the works are appropriately managed throughout the consent period.
3. The proposal should include a strategy to progressively manage any adverse impacts to coastal processes resulting from the works through beach nourishment and revegetation, rather than at the end of the consent period, with impacts rectified before any further impacts may be realised from subsequent (following) erosion events.

4. The management strategy for the decommissioning of the works should consider a range of beach state scenarios and describe how the works are intended to be removed within the proposed consent period.
5. The proponent should actively engage with the council in the development of the CMP.

National Parks and Wildlife Service Estate

The NSW National Parks and Wildlife Service (NPWS) has a strong interest in DA10.2021.698.1, being an application by Reflections Holiday Parks for the retention of 2 x sandbag walls approximately 70m in length (a combined overall length of 140 metres) for a further period of five years.

The site of the proposed works (Lot 410, DP 729062 – 1 Lighthouse Road, Byron Bay) is located adjacent to the Cape Byron State Conservation Area (SCA), which is land reserved under the *National Parks and Wildlife Act 1974* (NPW Act) and for which NPWS is the Park Authority.

For works in such an iconic location, with significant values to all stakeholders, NPWS would have expected that NSW legislation and relevant policy guidance would have been adhered to in the planning and delivery of this project.

Application of NPWS Guidelines

The NPWS refers the Byron Shire Council and the Northern Regional Planning Panel to the document, '[Developments adjacent to National Parks and Wildlife Service Lands – Guidelines for consent and planning authorities](#)' (NPWS Guidelines) for guidance when assessing development on lands adjacent to NPWS managed lands. The intent of this document is to provide clear direction on development applications, construction or service placement on the interface of NPWS park, assessing the impacts of those proposals, and identifying where authorisation under the NPW Act may be required.

As the site adjoins NPWS land, the EIS should have considered the NPWS Guidelines in its assessment but fails to do so. It is concerning that the EIS provides no detailed consideration of the impacts arising on the SCA from the existing sandbag walls, or the potential for those impacts to continue or worsen into the future, or the likely impacts from the failure of the sandbag wall in a storm event predicted to have a 10-year average recurrent interval (ARI).

Errors and missing information in the EIS

The following sections of the EIS contain errors or fail to present key information:

Section 1.4 Project Description.

The project scope is very limited – being merely an additional 5-year extension to what should have been a temporary structure. The EIS does not cover the eventual removal of the sandbag walls, nor does it detail the operations associated with the retention of the wall, including formalisation of pathways to provide beach access for the public and the works to maintain and repair the sandbag walls.

Section 2.2 Statutory Context.

There is no mention of the NPW Act, either in relation to the potential need for authorisation from NPWS if beach access and maintenance works encroach into the SCA, or in relation to the protection of Aboriginal objects and sites. As identified in Section 3.1.11 of the EIS, Part 6 of the NPW Act is directly relevant to the works, in relation to an existing Aboriginal Heritage Impact Permit (AHIP) that covers sandbag removal and revegetation. The executive summary identifies the need for an extension to this existing AHIP, because of the delay in the walls' removal. However, it is concerning that it is assumed retention and maintenance of the

sandbag wall for a further five years, during which more significant erosion events could occur, may not also require a more substantial modification to the AHIP.

Aboriginal Cultural Heritage

The EIS makes passing reference to the potential for impacts on adjoining parcels of land in section 3.1.4.1 (p.25). This includes a statement that dismisses potential impacts on a known midden in the SCA (Clarkes Caravan Park Midden Site AHIMS # 04-5-0199) due to the redirection of pedestrian access through the SCA following installation of the sandbag walls. This issue was identified in the pre-lodgement consultation (see page 17 of the Pre-Lodgement Consultation Submissions Report). NPWS maintains its concerns about the impacts of unregulated public access through the section of the SCA adjoining the Holiday Park. It is disappointing that the EIS dismisses such concerns and does not identify any mitigation measures to reduce this impact.

The Aboriginal Cultural Heritage Assessment Report (ACHAR) prepared by Everick Heritage dated August 2021 acknowledges the presence of this Aboriginal site but excludes any consideration of the potential or likely impacts of the proposal on this AHIMS site. Instead it notes (on page 3 of the ACHAR) that this site has been '*subject to a separate assessment and approval by NPWS. As such this section of the midden has been excluded from the ACHAR*'. The ACHAR is referring to work done under an Aboriginal Heritage Impact Permit (AHIP) by NPWS in 2018 when research was conducted to obtain further understanding of the midden's extent through radio carbon dating and Ground Penetrating Radar (GPR) which was separately documented in the AHIMS database. This assessment work by NPWS has not covered the ongoing impacts of redirected pedestrian access on the midden due to the presence of the sandbag walls.

The ACHAR only considers the two middens located within the subject site, namely AHIMS #04-5-0358 and AHIMS #04-5-0359. As these midden sites are located off park, NPWS advised the council by email on 29 November 2021 that the potential impacts of the dune stabilisation works on the cultural values of these sites is subject to separate assessment by Heritage NSW. However, it is noted that this EIS has not been referred to Heritage NSW for comment even though it flags the need to seek an extension to the existing AHIP.

The EIS also flags that salvaging of midden material is occurring with three "active salvages ('collections') have occurred". It is unclear whether this salvaging is covered by the terms of an AHIP. The ACHAR states that "*it is recommended that the salvaged midden material be temporarily stored within a secure area within the Reflections holiday park or off-site in the office of either BOBBAC or NPWS until such time as a permanent storage area is identified*".

We also note the DA is only for a period of five years and that, within this five year period, additional investigations and strategic planning activities will be pursued to provide a longer term and sustainable outcome for cultural heritage and the operations of the Reflections Holiday Park – Clarkes Beach Holiday Park.

Coastal erosion risks to Cape Byron State Conservation Area

We note the application is seeking an 8-year timeframe for what originally was intended to be temporary coastal protection structures. It appears from the WRL Report entitled *Geobag walls at Clarkes Beach, Byron Bay* that the design and placement of existing walls may not meet recommended standards and may fail during events with a relatively short average recurrence interval (ARI).

Table 6.3 of the WRL Report identifies that a design ARI for temporary protective structures should be 20-50 years and for the protection of parkland (other than very high value natural assets) is 200–300 years. In section 6.6.1 of the WRL Report, the expected geobag performance appears to be much less than this, with more than 2% damage occurring in a 5-year ARI wave event (with a probability of 63%) and failure in a 10-year ARI event (with a probability of .

The WRL Report outlines its assumptions that end effects on the eastern end of the sandbag walls are unlikely due to the lack of observed effects and the pattern of drift-aligned wave behaviour in a

westerly direction. It is noted that some protection exists on the eastern edge due to the existence of a rocky reef. However, the report also concedes that the end effects observed to date may not be the totality of end effects over the design life of the works. NPWS retains concerns that, during storm events where the waves approach square on, there may be significant end effects on the eastern edge which encroach into the SCA.

Recommendations

6. The NPWS Guidelines must be considered in the council's and the panel's assessment of the application, and the formulation of mitigation measures and conditions of consent to ensure no additional impacts to the SCA or its natural, cultural or social values arise from the proposed retention of the sandbag walls and their ongoing maintenance and repair for the next five years.
7. The EIS must include explicit consideration and assessment of the impacts of unregulated pedestrian access on the midden AHIMS # 04-5-0199, installation of appropriate measures to reduce this access and formalisation of restored public beach access through the Holiday Park.
8. Any proposed temporary or permanent storage of salvaged midden material on NPWS managed land must be undertaken in consultation with NPWS as this may be subject to separate authorisation processes.
9. Contact with the Bundjalung of Byron Bay Aboriginal Corporation (BOBBAC) must be maintained during through the life of the project to ensure the continued protection of Aboriginal Cultural Heritage sites and so that the BOBBAC remain informed of future long term coastal protection solutions before sandbags area potentially removed from Clarkes Beach.
10. The ongoing monitoring program undertaken as part of the project must be extended to include areas in the SCA.