Marine Conservation Zone (MCZ) Stage 1 Assessment

Stage 1 assessment: Part 1 - Is there a significant risk of hindering the conservation objectives?

This is a record of the assessment of the risk of the PPP (detailed in section 1) hindering the achievement of the conservation objectives for the MCZ(s). It is to meet our duties under Sections 125-126 of the Marine and Coastal Access Act 2009. If there is, or may be, a significant risk, this record is used to notify Natural England. The Marine Conservation Zones assessed are:

Isles of Scilly: Tean

Revision	Date	Description	By	Review	Approved
P01	February 2022	Draft	HW	JH	
P02	February 2022	Submission to NE			

This record || was / was not || sent to Natural England.

|| For EPR permits only (excluding Flood Risk Activity Permits): An additional component charge for habitats assessment was levied / was not levied / was not applicable for this application ||

1. Permission, plan or project (PPP) details

Type of PPP: Flood and Coastal Erosion Risk Management

Environment Agency reference:

National grid reference: SV 91485 16031

Site/project name or reference: Isles of Scilly Sea Defences – St Martin's, Lower Town Beach

2. Description of proposal

This assessment relates to the proposed works at Lower Town Beach, St Martin's as part of the coastal flood protection works across the islands off the Isles of Scilly. The objective of the proposed works at Lower Town Beach is to prevent further erosion caused by human activity which may erode and weaken dune defences.

Background:

The Council of the Isles of Scilly (CIoS) is proposing to construct coastal flood protection works at nine sites on islands of the Isles of Scilly. The works aim to

View historical record

sensitively restore the natural strength and adaptive flexibility of the extensive dunes across inhabited islands to improve the value of flood protection (ecosystem) services they provide. One of these sites is Lower Town Beach. Lower Town Beach is located on the western extent of the island of St Martin's. There are signs of erosion across Lower Town Beach that have occurred due to human activity from access to the beach and from cabling that has become exposed. The dunes are known to erode and accrete on an annual cycle. In order to prevent severe erosion of the dunes, which may lead to weak points in the dune defences and increase risk of flooding of Lower Town, measures to manage and control access to the beaches through the dunes are required.

Proposed Works:

The main objective of the proposed works at Lower Town Beach are to prevent further erosion caused by human activity which may erode and weaken dune defences.

The proposed works include:

- Fencing off the most sensitive area of dunes at the rear of the beach, including the area to the east of the access track where cabling has become exposed to help recovery by limiting access to this area and encouraging accretion of sand at the foot of the dunes.
- Additional erosion protection for the beach access at the west of the beach. This is proposed to be an open grid product appropriate for vehicle loading that will fill with sand to match the existing appearance whilst providing erosion protection to this area.
- General pedestrian footpath management to limit and control access to the beach through provision of signage and short sections of fencing to allow access locations through the dunes along the beach time to recover, whilst still providing different access points through the dunes, without the need for any restoration or other intervention.
- Provision of removable slipway that can be lain as needed and removed and stored during winter to enhance beach access. This will be an aluminium mat that can be rolled out and back up as required with a maximum axle load of 13 tonnes to meet the requirements of the tractors and boat trailers typically used here.

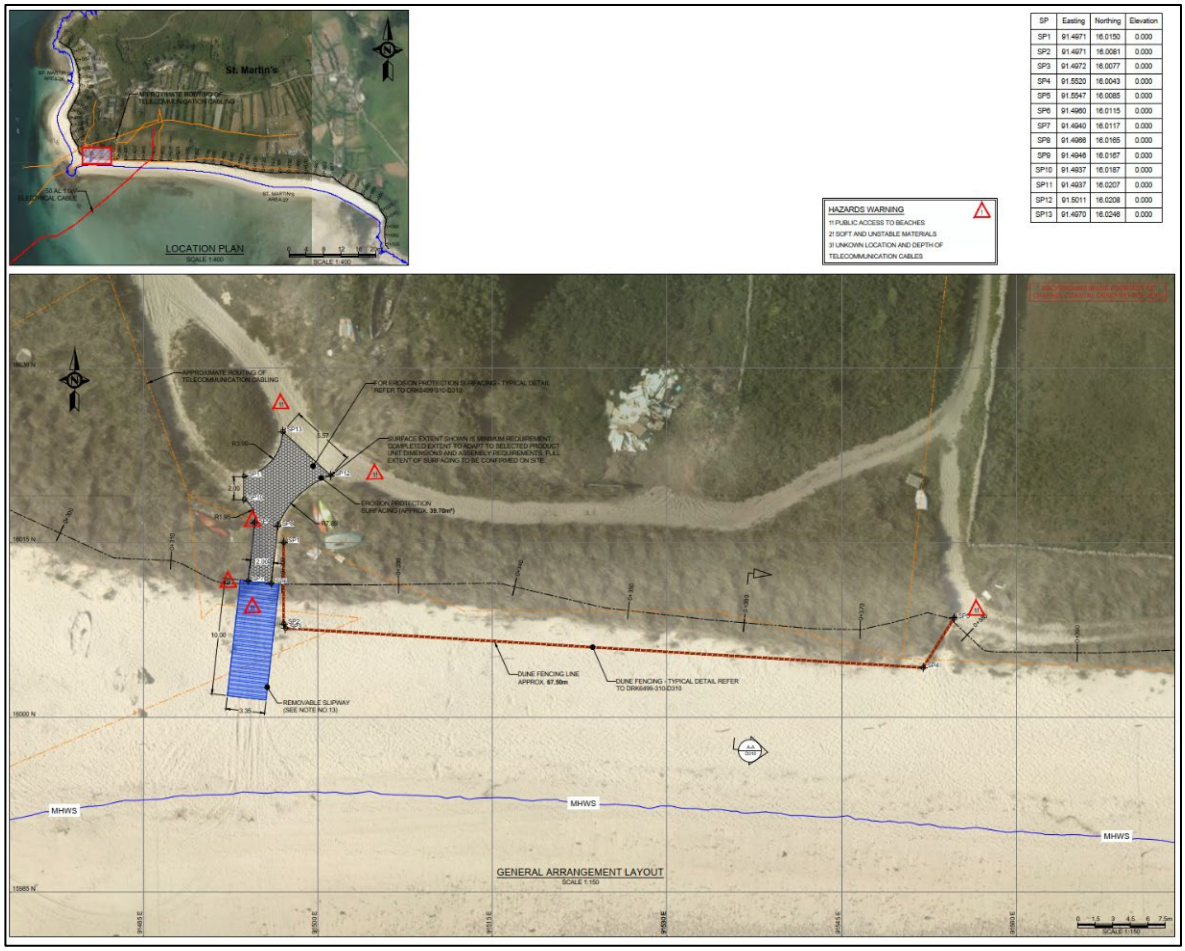

Figure 1 Extent of proposed works at Lower Town Beach

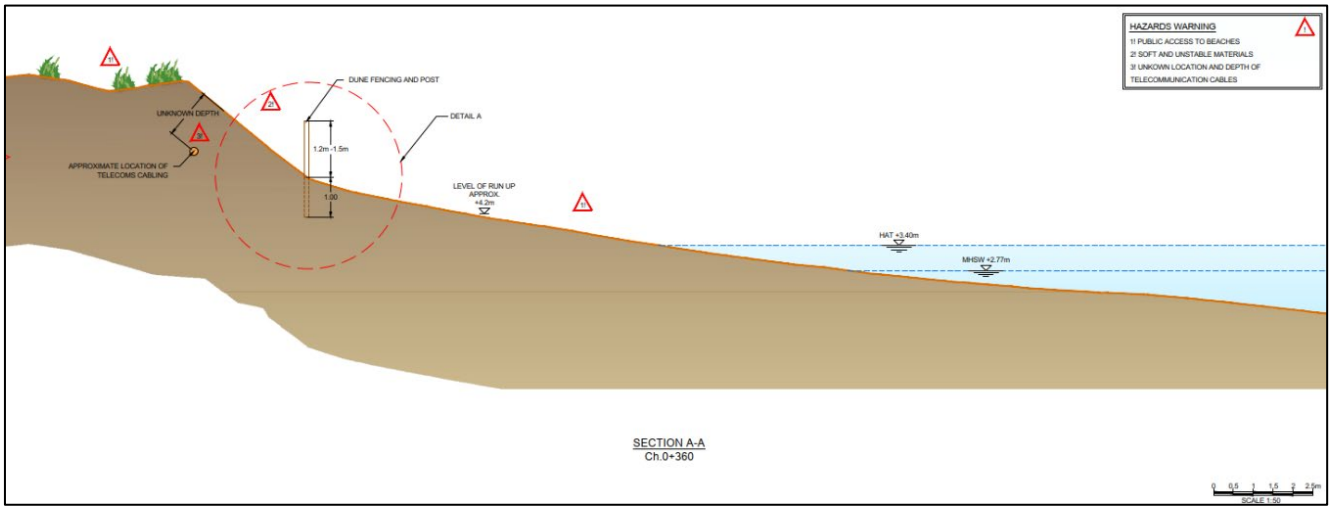

Figure 2 Cross-section of extent of fencing at Lower Town Beach

Construction Methodology:

Construction of the proposed scheme on the island of St Martin's will be facilitated through the access route illustrated in Figure 3 below. Specific details for the proposed construction works at Lower Town Beach are outlined below:

- Construction materials will be transported to St Martin's by an appropriate vessel which will arrive either at St Martin's quay and transported via Lower Town ramp, or at the beach landing site approximately 120m south. Construction materials will be offloaded and transported to the temporary storage area behind the beach. It is anticipated that deliveries will be staggered. Any intertidal works will cease three hours prior to the anticipated high tide time.
- It is anticipated that it will take a total of approximately 7 working days in April 2025 to complete the construction of the proposed scheme at Lower Town beach.
- Construction works will entail the construction of timber fencing at the most sensitive area of the dunes at the rear of the beach, including the area east of the access track where cabling has become exposed. At the western extent of the beach, excavation will be undertaken for the installation of geotextile and Type 1 sub-base to the access track. A 30mm layer of 5 to 20mm aggregate will be placed and compacted, with grid erosion protection matting will be placed and filled with 5-20mm granite aggregate.
- It is assumed that a 360° 20 tonne excavator will be used to fill the open grid protection matting. Signs and fencing will be erected around the dune for pedestrian footpath management.
- A removable aluminium mat slipway will also be installed which can be lain and removed as needed.
- Once complete, the working area will be demobilised, and any plant and construction materials will be removed from site.

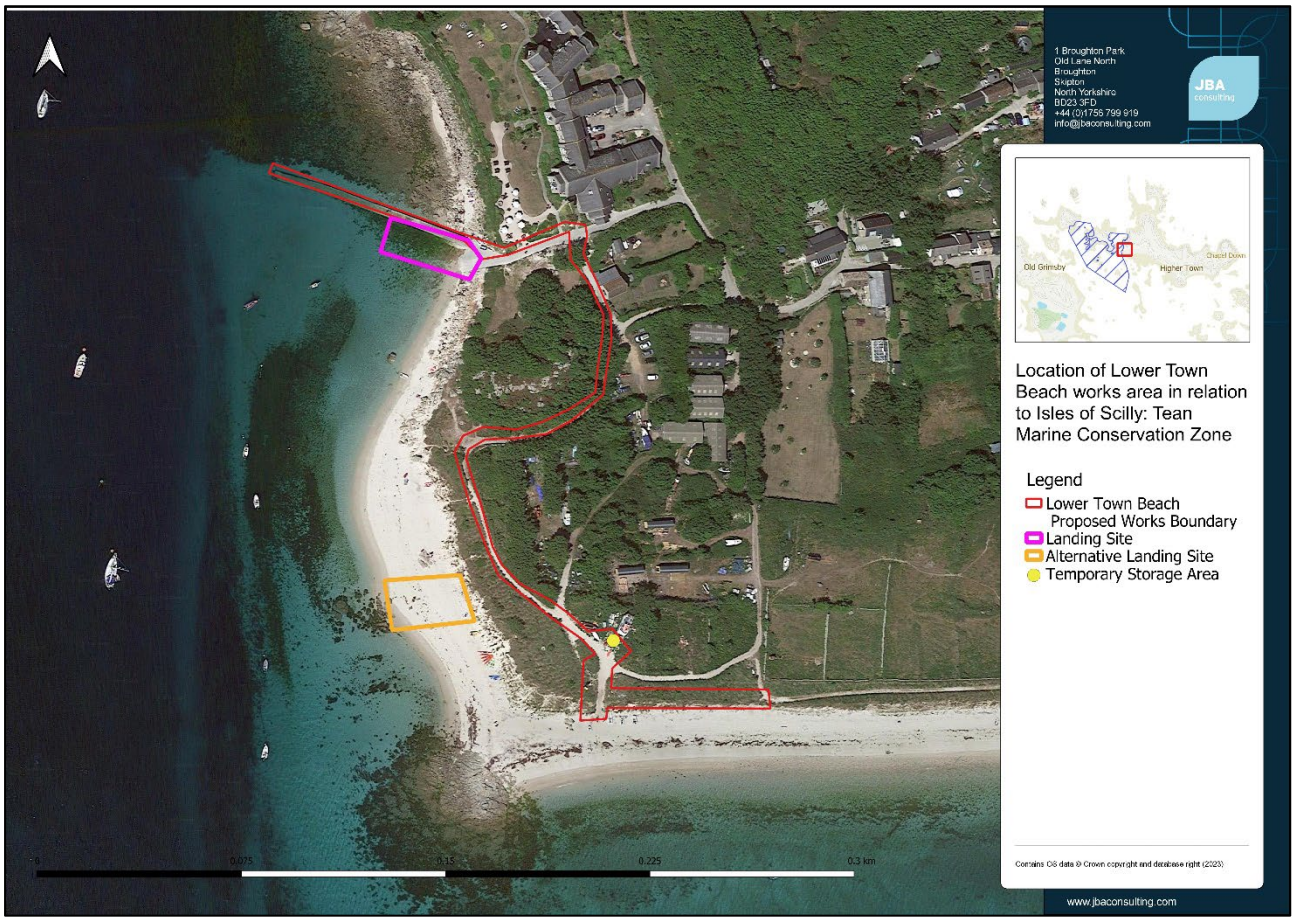

Figure 3 Construction access routes across the island of St Martin's

3. Map(s) showing PPP location and MCZ(s)

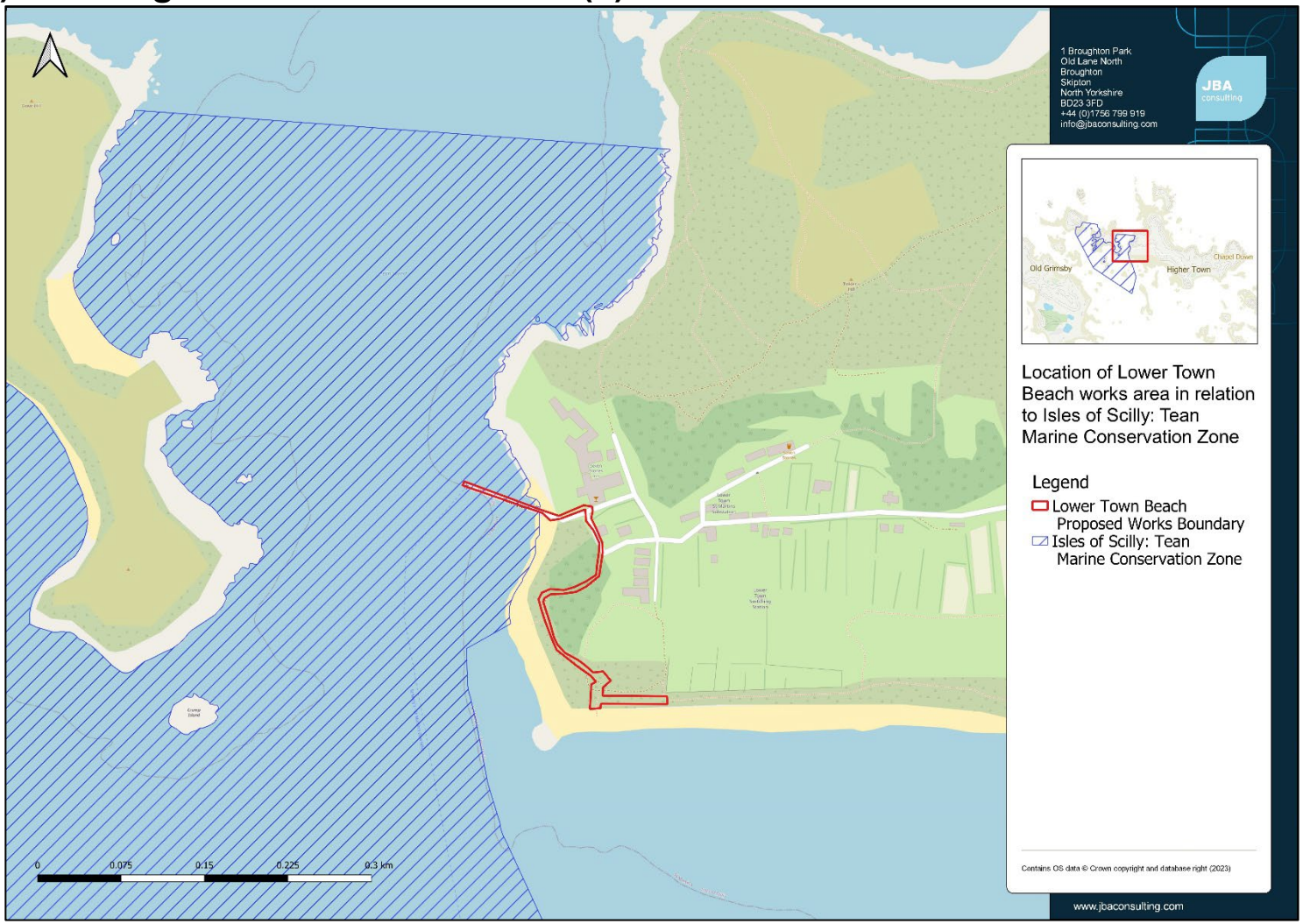

Figure 4 Location of Lower Town Beach proposed works area in relation to Isles of Scilly: Tean Marine Conservation Zone

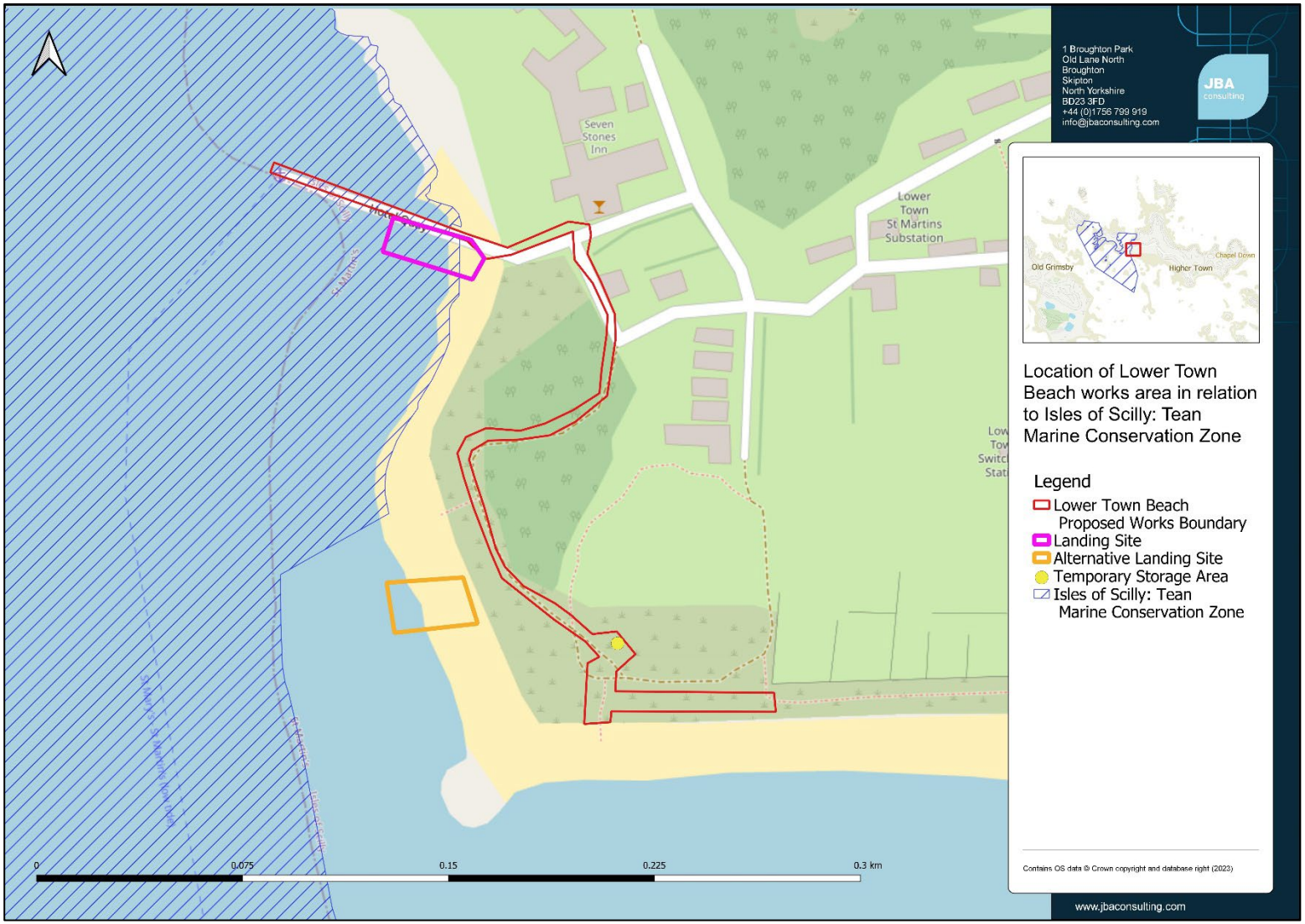

Figure 5 Location of Lower Town Beach proposed work sites in relation to Isles of Scilly: Tean Marine Conservation Zone

4. MCZs requiring assessment[1]

The small-scale nature of the proposed works means that the zone of influence was, on a precautionary basis, taken to be 1km from the red line boundary shown in 4. The Marine Conservation Zone included within this zone of influence is also presented in 4.

Table 1: Marine Conservation Zones requiring assessment

Marine Conservation Zone	Complete list of designated features
Isles of Scilly: Tean Marine Conservation Zone	• Intertidal Coarse Sediment • Intertidal Sand and Muddy Sand • Intertidal Under Boulder Communities • Moderate Energy Intertidal Rock

5. Conservation objectives

The assessment will consider the risk of significantly hindering the site's conservation objectives.

Table 2: Conservation Objectives

Site name: Isles of Scilly: Tean MCZ Version: 1 Date: 19/03/2021
Conservation objectives for Isles of Scilly: Tean MCZ: The conservation objective of the zone is that the protected habitats are: • Maintained in favourable condition if they are already in favourable condition. • Brought into favourable condition if they are not already in favourable condition. For each protected habitat favourable condition means that, within a zone: • Its extent is stable or increasing. • Its structure and functions, its quality, and the composition of its characteristic biological communities (including diversity and abundance of species forming part or inhabiting the habitat) are sufficient to ensure that its condition remains healthy and does not deteriorate. Any temporary deterioration in condition is to be disregarded if the habitat is sufficiently healthy and resilient to enable its recovery. Any alteration to a feature brought about entirely by natural processes is to be disregarded when determining whether a protected feature is in favourable condition.

[1] This is based on screening criteria the Environment Agency consider appropriate to identify possible significant risk

6. Risks (pressures) relevant to the type of PPP being assessed

These are the reasonably foreseeable risks for this type of PPP, assessed using the Supplementary Advice on Conservation Objectives for Isles of Scilly: Tean MCZ (Natural England, 2021b). Possible risks that might occur during the proposed works at Lower Town Beach that could impact on the habitats in the Isles of Scilly: Tean MCZ are detailed in **Error! Reference source not found.**. Where possible, these risks have been summarised broadly, rather than considered separately for different habitats.

Given the small scale of the works, its temporary nature and the relatively short proposed construction time, some of these risks listed within the Supplementary Advice on Conservation Objectives are not relevant to the proposed works being assessed; these are:

- Loss of key structural and influential species
- Changes to presence and spatial distribution of biological communities
- Changes to extent and distribution
- Changes to sediment total organic carbon content
- Changes in species composition of competent communities
- Changes in energy/exposure
- Changes in topography
- Changes in physico-chemical properties
- Reduction in water quality through decrease in dissolved oxygen
- Reduction in water quality through increased nutrient levels
- Changes to hydrodynamic regime

Risks that are not considered to be foreseeable outcomes of the proposed works at Lower Town Beach are not included in Table 3 and are not considered further.

Table 3: Threats to Isles of Scilly: Tean MCZ

Threat Type	Relevant Feature
Introduction and spread of non-native species and pathogens	All features
Changes to sediment composition and distribution	All features
Decrease in water quality through increase in levels of contaminants	All features
Decrease in water quality through increase in levels of turbidity	All features

7. MCZ assessment table

This section is a record of the screening for each risk (pressure) and the qualifying features that could be sensitive to that risk. The features may be grouped if they will be affected in the same way and the screening is the same for each feature. If appropriate, the assessment may be considered at a site level, rather than feature by feature.

The individual conservation objectives for each feature are not started in this table; rather, it is assumed that for all features the objective to recover and improve on current conditions. It is assumed that if the PPP would not hinder feature improvement, it would not hinder any conservation objective for maintenance of current condition either.

Table 4: MCZ assessment table

Threat	Protected feature(s) that could be impacted	Capable of affecting either the protected species of the MCZ, or any ecological or geomorphological process on which the conservation of any protected feature of the MCZ is dependent?	Will there be any in-combination with other plans or projects on the feature?	Can impacts be mitigated for in the proposed method statement?	Will the conservation objective for the feature(s) be hindered?
Introduction and spread of non-native species and pathogens	All features	Yes - There is potential for the proposed works to impact designated features through the introduction and spread of non-native species and pathogens. Hottentot Fig has been recorded within the proposed works boundary and therefore an invasive species management plan will be put in place to ensure that the proposed works do not cause further spread of Hottentot Fig across the site. Brown rats pose a threat to nesting birds within the Isles of Scilly and therefore biosecurity measures will be put in place to ensure the	No	Yes - To ensure that no non-native species or pathogens are spread to the proposed site as a result of plant movement or contaminated PPE, strict biosecurity measures will be implemented, ensuring that equipment is clean and free of any specimens of both native and invasive non-native species before, during, and upon completion of site work. This will be done by following Check-Clean-Dry procedures and ensuring adequate biosecurity measures are available for day-to-	No

Threat	Protected feature(s) that could be impacted	Capable of affecting either the protected species of the MCZ, or any ecological or geomorphological process on which the conservation of any protected feature of the MCZ is dependent?	Will there be any in-combination with other plans or projects on the feature?	Can impacts be mitigated for in the proposed method statement?	Will the conservation objective for the feature(s) be hindered?
		proposed works do not facilitate the spread of Brown rats across the site. Measures include the use of rope guards on the vessel transporting construction material and ensuring food and waste onboard are all contained in rodent proof containers. It is considered unlikely that these species would have an impact upon the features of this MCZ, however, mitigation to avoid their spread has been included in the CEMP (ES Volume II) and summarised here.		day site work. A toolbox talk will be given to all site staff regarding the importance of biosecurity on site. Following the procedures stated above, it is considered that there will be no significant effects on designated features as a result of non-native species or pathogens in the MCZ.	
Changes to sediment composition and distribution	All features	Yes – As part of the proposed works a vessel will be used to transport construction materials to site, this is likely to be in the form of a barge. There is potential that the landing of the barge on site will impact designated features through disturbing or compaction of sediment. Any disturbance to sediment via the barge landing will be temporary and localised. There is also potential that the landing of the barge and the tracking of vehicles across the site may result in a small amount of sediment movement and compaction. .	No	Yes - Any disturbance to sediment via the barge landing will be temporary and localised. To minimise disturbance and habitat degradation plant will keep to agreed haul routes and not stray outside of these areas. It is considered that in this case the haul routes will rapidly recover following the completion of the works. Following the procedures stated above, it is considered that there will be no significant effects on	No

Threat	Protected feature(s) that could be impacted	Capable of affecting either the protected species of the MCZ, or any ecological or geomorphological process on which the conservation of any protected feature of the MCZ is dependent?	Will there be any in-combination with other plans or projects on the feature?	Can impacts be mitigated for in the proposed method statement?	Will the conservation objective for the feature(s) be hindered?
				sediment composition and distribution in the MCZ.	
Decrease in water quality through increase in levels of contaminants	All features	Yes – There is the potential to negatively impact designated features through pollution incidents. Appropriate mitigation measures will therefore be implemented through the construction phase to ensure that water quality is not adversely affected through pollution incidents and the release of contaminants from site.	No	Yes - Best guidance pollution prevention will be followed to minimise the risk of any such event, including a secure store for chemicals and vehicles off the beach, use of drip-trays for refuelling, and the carrying of spill-kits while carrying out works. No refuelling of machinery will occur within 7m of any waterbody. A toolbox talk will be given to all site staff for pollution prevention and incident response. All site staff will undertake emergency drills for incident response.	No
Decrease in water quality through increase in levels of turbidity	All features	Yes – As part of the proposed works a vessel will be used to transport construction materials to site, this is likely to be in the form of a barge. There is potential that the landing of the barge on site will impact designated features through disturbing sediment and therefore increasing turbidity levels, affecting water quality.	No	Yes - Any increases in turbidity via the barge landing will be temporary and localised and it is therefore considered that there will be no significant effects on sediment composition and turbidity in the MCZ.	No

8. Information / Advice (if applicable)

This section summarises the information and/or advice requested/received during the assessment.

Environment Agency internal advice and consultation (if applicable)

No advice was requested.

Natural England information / advice (if applicable)

No advice was requested.

Third party information / advice (if applicable)

No advice was requested.

9. References

GOV.UK (2019a) *Isles of Scilly MCZ: factsheet*. Available Online: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/926991/mcz-isles-of-scilly-2019.pdf [Accessed: 02/02/2023]

GOV.UK (2019b) *Isles of Scilly MCZ: Feature Maps*. Available Online: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/926990/isles-scilly-mcz-feature-maps.pdf [Accessed: 02/02/2023]

Natural England (2021a) *Natural England Conservation Advice for Marine Protected Areas - Isles of Scilly: Tean MCZ*. Available Online: https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=MCZ0008-11&SiteName=scilly&SiteNameDisplay=Isles%20of%20Scilly:%20Tean%20MCZ&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=&HasCA=1#hlco [Accessed: 02/02/2023]

Natural England (2021b) *Isles of Scilly: Tean MCZ – Supplementary Advice on Conservation Objectives.* Available online: https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=MCZ0008-11&SiteName=scilly&SiteNameDisplay=Isles+of+Scilly%3a+Tean+MCZ&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality= [Accessed: 02/02/2023]

10. Decision

The Environment Agency concludes that there is || no significant risk / a significant risk and intends to refuse the application or not proceed with the activity / need for further assessment. ||

Name of Environment Agency officer:

Job title:

Date: || Select date ||

Marine Conservation Zone (MCZ) Stage 1 Assessment

Environment Agency record of assessment (Stage 1, Part 2)

Stage 1 assessment: Part 2 - Are there other means of proceeding that would create a substantially lower risk?

This is a record of the assessment of whether there are other means of proceeding that would create a substantially lower risk. It is to meet our duties under Sections 125-126 of the Marine and Coastal Access Act 2009. This record starts at Section 11 because it follows on from Stage 1, Part 1 which covers the assessment of whether there is a risk of hindering the achievement of the conservation objectives for the MCZ.

11. Assessment

There are no other means of proceeding with a substantially lower risk to the MCZ or its conservation objectives.

12. Decision

The Environment Agency || are satisfied that there is no other means of proceeding with the PPP / concludes that there are other means of proceeding with the PPP. ||

Name of Environment Agency officer:

Job title:

Date: || Select date ||

View historical record

Marine Conservation Zone (MCZ) Stage 1 Assessment

Environment Agency record of assessment (Consultation)

13. Consultation

Date sent to Natural England: || Select date ||

Date response received from Natural England: || Select date ||

Do Natural England have concerns about the assessment? || Yes / No ||

Do Natural England have concerns about the decision? || Yes / No ||

Natural England advice

Write here...

Name of Natural England officer:

Job title:

Date: || Select date ||

View historical record