

## Attachment - General Earthworks within the Sediment Control Protection Area

### 20 Omaha Block Access Road

LUC60352464/ DIS60371156/  
DISDIS60355425

#### Introduction:

We respond to Council's s91 RMA letter (dated 16<sup>th</sup> November 2021)

We confirm that consent is required under the following activity:

- E11.4.1 (A9)

Information in support of this consent assessment is provided below, referencing the relevant assessment criteria under E11.8.2 AUP.

#### E11.8.2

*(1) All restricted discretionary activities:*

*(a) whether applicable standards are complied with*

Compliance with E11.6.2 is addressed in the letter report by Deane Consultancy Ltd ('Erosion and Sediment Control Plan' dated 2<sup>nd</sup> December 2021)

*(b) the proximity of the earthworks to any water body and the extent to which erosion and sediment controls and the proposed construction methodology will adequately avoid or minimise adverse effects on:*

*i) water quality including of the coastal marine area;*

The potential effects of land disturbance and sediment discharge on the Coastal Marine Area will be less than minor. No earthworks will be located within the CMA. The site is a coastal property and sediment and erosion control is vital in ensuring unmitigated runoff does not enter the CMA as a result of any earthworks.

The sediment control measures are of an approved, established standard (in strict accordance with Auckland Council Sediment Control Guidelines-GD05) and designed to minimise the amount of sediment entering any water bodies on or adjacent to the site. The sediment control measures are identified in the Sediment Erosion Control Plan-Deane Consultancy Ltd- and includes super silt fences, clean water diversions (for uncontaminated flows from higher ground), contoured channel drains (cut-offs) and sediment retentions ponds.

The amount of sediment in the water entering back into the local water way systems will be minimised through established best practice and will not adversely affect water quality in the CMA. This includes protecting overland flow paths from entering the construction sites by clean water diversions, and hence protecting surface water networks from sediment deposition during construction works.

All buildings (except Accommodation Unit 03 which is positioned in the same location as an existing building) are outside the 50m foreshore yard and earthworks at the top of any existing steep slopes have been avoided. Accommodation Unit 01 has been set back from the steep banks along the eastern edge of the site and planting along the coastline will remain (reducing chance of slip and erosion). The application proposes the existing driveway is retained to minimise the impact of a contracting a new road adjacent to the foreshore yard.

The earthworks will be staged (refer Sediment Control Report, Deane Consultancy Ltd) with larger cuts undertaken in the Earth Works Season (October through to April). Once each building is complete and lawful stormwater collection measures are operational, the sediment control measures will be removed and these areas remediated and progressively stabilised in line with best practice.

The amount of steep cut slopes will be kept to a minimum (to create the basement for Accommodation Unit 01 and site levelling for the northern aspect of Accommodation Unit 02 only) and will be protected during the build via progressive stabilisation planting, clean water diversions, and surface roughening.

*(ii) ecological health including of the coastal marine area;*

The various measures to be implemented by the subsequent Sediment Erosion Control Report and Plan are intended to work in combination to prevent uncontrolled sediment runoff through land disturbance. It is acknowledged that the ecological health of an area can be adversely affected through smothering habitats polluted by sediment discharge and abrasion, duly damaging local fauna and flora.

Surface water entering at the head of the site and subsequent building platforms will be temporarily diverted away from any construction (via clean water diversion channels). These will flow at non-erosive velocities and will minimise surface water flow over the site and sediment run-off. Super silt fences and contour drains have been installed down stream of any building platforms and along the headline of any steep banks. These will direct any runoff into the temporary sediment ponds, which will collect sediment and filter the surface/ground water in strict accordance with Auckland Council Sediment Control Guidelines-GD05.

The water entering back into the local water ways will be filtered of sediment/detritus and will not adversely affect the ecological health of the coastal marine area. The sediment control works will be monitored by the contractor during construction to ensure sediment generation from any land disturbance is minimised.

*(iii) riparian margins;*

No permanent or intermittent streams or rivers are located on the property or affected by the proposal.

*(iv) the mauri of water; and*

The mauri of water is of huge significance to mana whenua. As kaitiaki, mana whenua wish to ensure that the spiritual and cultural aspects of resources are maintained for future generations. This involves the ongoing protection of mauri from damage, destruction or modification. Loss of mauri can occur when excessive sediment builds up in waterways/harbours, erosion destroys the habitat of local fauna and flora and degrades traditional mahinga kai resources.

Controlling erosion on the site and minimising any sediment from entering the waterways and adversely affecting its mauri is vital. The establishment of the sediment control measures will ensure local waterways are not adversely affected by earthworks associated with the project. Regular monitoring of the system, including regular de-silting of the sediment ponds/contour drains will help to minimise the risk of accidental spillage into Leigh Harbour and the surrounding coastal line. The amount of sediment in the water entering back into the local water-way systems will be minimised through established best practice and will not adversely affect the surrounding environment, protecting the mauri of the site and its significance for Mana Whenua.

*(v) the quality of taiāpure or mahinga mātaītai.*

Potential effects on the cultural and spiritual values of Mana Whenua will be less than minor. The proposed sediment control measures will prevent sediment discharge into the surrounding waterways which have a vital cultural and spiritual connection with Mana Whenua. Leigh Harbour and its surrounding coastline are an important food/cultural/spiritual resource for Mana Whenua and is a significant recreational attraction for the wider community. Any disturbance of this environment via uncontrolled sediment discharge could adversely impact mahinga mātaītai and would be unacceptable in terms of the cultural and spiritual values of Mana Whenua.

The various measures to be implemented by the subsequent Sediment Erosion Control Report and Plan are intended to work in combination to prevent uncontrolled sediment runoff. Clean water entering at the head of the site and subsequent building platforms will be temporarily diverted away from any construction. Silt fences and contour drains have been installed down stream of any building platforms and along the headline of any steep banks. These will direct any runoff into the temporary sediment ponds, which will collect sediment and filter the surface/ground water in strict accordance with Auckland Council Sediment Control Guidelines-GD05. The water entering back into the local water ways will be filtered of sediment and will not adversely affect the surrounding environment, protecting the mauri of the site and its significance for Mana Whenua.

The installation of these features will involve an insignificant amount of earthworks and are temporary site constructions, in place for the duration of each build stage only. Once each building is complete and lawful stormwater collection measures are operational, the sediment control measures will be removed and these areas remediated, restoring the intrinsic natural qualities of the site.

*(c) the extent to which the earthworks minimises soil compaction, other than where it benefits geotechnical or structural performance;*

Soil compaction can compromise the performance of a sediment control system as it increases the flow velocity of surface water around a build site, increasing erosion and resulting in more sediment. If excessive compacted soil occurs around the site, it can compromise the performance of the sediment control measures installed. The following methods will prevent compacted fill from around built works to minimise the velocity of surface water flow.

- Areas of exposed earth will be roughened to alter the construction surface soil profile to promote infiltration and increase flow-path lengths, collect sediment in the ground hollows and allow for seeding of restorative planting.
- No stockpiles of fill greater than 3m in height.
- As the build is staged, earthworks will be progressively stabilised during the construction process through restorative planting.
- The contractor, with oversight from the geo-technical engineer, will monitor the site and check for areas of soil compaction and remediating these areas as required (as per Auckland Council Sediment Control Guidelines-GD05).

*(d) the proximity of the earthworks to areas of significant ecological value and the extent the design, location and execution of the works provide for the maintenance and protection of these areas;*

The intent of the proposal is to sensitively incorporate the buildings within the established vegetation and topography of the site and preserve the ecological value of the site. The site is subject to both a High Natural Character and Outstanding Natural Landscapes Overlays which identify the ecological characteristics of the site. The proposal intends to maintain and enhance the natural qualities of the site by not building within these areas, unless where otherwise established (Accommodation Unit 03).

The applicant is investing significant resource and time into the continued propagation of the sites bio-diversity and ecological value. The end use as a luxury lodge depends on the sites inherent natural qualities being preserved and enhanced. The sediment control measures will mean that the quality of the surrounding ecology will be protected during the construction, a key performance indicator of the brief. The staging of the construction will allow the gradual remediation of the site (through progressive stabilisation and restorative planting) as buildings are completed, ensuring the sites intrinsic ecological qualities and mauri is preserved.

Existing site attributes have been incorporated into project designs with almost all earthworks occurring outside established areas of indigenous vegetation. Areas of steep earthworks have been greatly minimised (parts of Accommodation Units 1+2 only) and avoidance of disturbance of any existing steep slopes, including the coastline and the vegetative gully running north-south through centre of the site.

The project will be staged, with each building and its associated earthworks sequenced to minimise the amount of exposed site at any one time and allowing progressive stabilisation to occur during the construction process. The amount of vegetation removed or disturbed by earthworks is greatly minimised. Less than 250m<sup>2</sup> of Contiguous Indigenous Vegetation is proposed to be removed as a result of the proposed building and their associated earthworks.

*(e) whether monitoring the volume and concentration of sediment that may be discharged by the activity is appropriate within the scale of the proposed land disturbance; and*

Deane Consultancy Ltd will be engaged to supervise the construction of the sediment and erosion control plan and will provide oversight to assist the contractor in monitoring the building and landscape construction in the areas affected by this report. This will include:

- weekly monitoring of the sediment control measures by the contractor
- monitoring and maintenance programme that will be implemented during the winter works
- pre-storm preparation and checking weather forecast for inclement weather
- pre- and post-event inspections
- frequency of de-silting of treatment devices

- disposal of excavated sediment
- emergency response procedures

*(f) whether the extent or impacts of adverse effects from the land disturbance can be mitigated by managing the duration, season or staging of such works.*

The proposal intends to reduce the amount of land disturbance to a minimum. The bulk of the earthworks are limited to the creation of the basement level in Accommodation Unit 01 and benching of site around Accommodation Unit 02. The larger areas of excavation will be undertaken during the earthworks season, or the dryer months from October through to April. The project will also be staged, to minimise the area of exposed earth at any one time and allowing progressive stabilisation to occur during the construction process (refer Deane Consultancy Ltd Sediment and Erosion Control Plan)

*(g) the extent to which appropriate methods are used to prevent the spread of total control pest plants or unwanted organisms (as listed under the Biosecurity Act 1993), such as kauri dieback disease.*

Vehicle wash down bays at the site entrance are intended to remove unwanted organisms/plant matter from earthmoving equipment. Other methods proposed, to prevent the spread of total control pest plants or unwanted organisms include:

- Allow for succession planting where appropriate
- Contractor engaged to identify pest plants and remove them via either physical (shading, hand weeding, ring barking, grubbing, felling and mulching) or chemical control (herbicides)
- Correctly disposing of weed/pest plants in order to prevent them from re-sprouting
- Monitoring the site for invasive plant/pest species and notify Council of noxious or widespread infestation
- Install mustelid rodent traps around the site to control pest numbers
- Protect new native planting from climatic conditions and pests to allow rapid growth and add succession planting.

## **Summary**

It is considered that the proposal readily meets the above assessment criteria and is also consistent with relevant policies and objectives of E11, specifically objectives E11.2 (1), (2) and (3) and policies E11.3 (1), (2), (3), (4), (5), 96) and (7).

Earthworks methodologies have been designed to minimise land disturbance on this site and to put in place best practice sediment and control practices. Land disturbance has been kept to a minimum, with full regard given to the site's coastal context.

3<sup>rd</sup> December 2021