

Memorandum

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Attention: Brad Henderson

Company: Lodestone Energy Ltd

Date: 26 February 2026

From: Prepared by: Sue McManaway (Principal, Landscape Planner), Rhys Girvan (Senior Principal, Landscape Planner).

Message Ref: Response to RFI #2 (Questions 1 and 2 – Landscape Mitigation)

Project No: BM240408

Introduction

This memorandum has been prepared by Boffa Miskell Limited (BML) in response to a request by Lodestone Energy to consider questions 1 and 2 of RFI #2 (16 February 2026) issued by the Fast-track panel.¹

BML has previously prepared an assessment of landscape effects of the proposed Haldon solar farm (the LEA) dated 22 August 2025. The following comments are made in this context.

We wish to flag that in the absence of confirmed locations for potential future loss of existing lakeside screen planting given this existing environment, we have sought to develop the response to Question 1 to a practicable level of detail.

Question 1 Mitigation Condition 25A:

This new condition addresses the issue of compensatory screen planting if any or all of the current screen planting next to Lake Benmore should be lost. However, the proposed condition is unclear where this new planting would be located and whether it is within the Lodestone site or within Haldon Station land.

- a) *Please clarify on a suitable map or aerial photograph, that also shows the solar farm extent, where the compensatory planting would be located*
- b) *Please detail the plant species, plant spacing, irrigation and maintenance requirements which would guide that planting.*

We have prepared the map in **Figure 1** attached, identifying:

- the Site boundary;
- boundary of Haldon Station private land;
- site character area A3 (referenced from *Image 6: Site Characteristics* of the LEA²); and
- the compensatory planting area

¹ Letter (File ref FTAA-2508-1097) from June Cahill (Fast-track Application Lead) to Daniel Cunningham (Lodestone) regarding 'Request for information from Lodestone Energy Limited in relation to the Haldon Solar application under the Fast-track Approvals Act 2024', by email, 16 February 2026.

² Boffa Miskell Ltd (2025) *Haldon Solar Project: Landscape Effects Assessment.*, Image 6, p20

Character area A3 corresponds to the area of current screen planting adjoining the proposed solar farm next to Lake Benmore, at the southwest edge of the solar farm Site. 'A3' is described in the LEA as:

Southwest edge of outwash plains and lake margins. Dominated by riparian willows and poplars. Proximity to lake increases sensitivity to natural character effects however vegetation provides considerable screening.

In the event that any or all of the current willow and poplar vegetation next to Lake Benmore should be removed, there are opportunities for planting within 'A3', inside the Haldon Station boundary to assist with maintaining a visual buffer along this established edge. However, as set out in the LEA, we note that the Project Site is above Te Ao Marama / Lake Benmore, and typically set back some 200m or more from the lake edge. In addition to the riparian vegetation, we rely on this setback and the steep lake scarp which continues to the west towards the Haldon Arm Campground for considerable screening, particularly in close views. In the event that removal of the existing lakeside vegetation should occur, we consider the lower growing native species listed below to be suitable compensatory planting due to the combination of viewing angle, topography and panel height in this context.

Plant species

Recommended plant species identified for this lake margins planting area are provided in Table 1 below. Plants would typically be implemented at 1m spacings to achieve a self-supporting community.

Table 1: Plant species - lake margins planting area

Lake margins	
Scientific name	Common name
Coprosma propinqua	mingimingi
Austroderia richardii	Richards toetoe
Carex secta	pukio
Carex coriacea	rautahi / cutty grass
Aciphylla aurea	golden spaniard
Chionochloa rubra subsp. cuprea	Copper tussock
Corokia cotoneaster	Korokio
Festuca novae-zelandiae	Hard tussock
Phormium tenax	Harakeke

Planting and maintenance guidance

- Plants must be grown under contract and hardened off to suit the environment they are being planted into.
- Planting to occur during the best time of year in this location to ensure establishment success (mid-late autumn).
- Heavy irrigation is not recommended in the Mackenzie Basin however irrigation may be necessary to assist establishment of new plantings through the first two summers (if particularly dry). If irrigation is applied, it should be a deep water, undertaken infrequently (every two weeks if no rainfall), and during the evenings. The use of water crystals such as Stockosorb™ Granular water retention crystals – 20kg - Advance Landscape Systems would reduce the need for watering.
- Where willows are lost, if practicable, leave dead standing trees as shelter to help establish native replacements.
- Undertake control of sweet briar and other exotic invasive plants as necessary to provide space and reduce competition for plantings.

Question 2 The Mitigation of Effects on Haldon Arm Road:

In the course of the site visit to the Haldon site, it became apparent that much of Haldon Arm Road and the camping ground users of that road would be appreciably exposed to the Haldon Solar proposal, despite the setback from the road that is proposed. However, the effects on that road could be reduced by utilising the adjoining 'conservation area' (south-west of the pivot irrigation system) and incorporating a mixture of low shrubland, grey shrubland and manuka planting within its near margins – without the need to screen them entirely. However, it is unclear what Lodestone's intentions for the 'conservation area' are. The Panel notes that Page 8 of the 3. Ecology document in response to comments includes "Establishment of on-site nursery function in Conservation Area Zone 1" and "Dryland-appropriate planting and reinforcement in conservation areas and selected project footprint areas." However, the extent of this is unclear.

Has partial screening of the solar farm along the margins of the Haldon Arm Road conservation area been considered as a mitigation option?

Are there any known barriers to this occurring?

Visibility of the solar farm from Haldon Arm Road was considered as part of the assessment process which is why the setback of approximately 300m to the nearest modules was proposed in the project shaping stage, to reduce potential material visual effects where the solar farm is seen by road users in this otherwise more open and expansive context (please refer to **Visual Simulation 1** in the Graphic Supplement to the LEA). We have not identified nor relied on screening as necessary in this area as consider this of itself conflicts with the open values of the Macenzie Basin and may in itself appear foreign in this context, introducing potential for additional adverse effects.

Notwithstanding the above, we note the proposal by Lodestone for a Conservation Area (Conservation Area Zone 1) in the setback south of Haldon Arm Road. Conservation Area Zone 1 broadly aligns with Site character area A7, identified in the LEA and we acknowledge the potential that additional representative vegetation in this location could have for additional landscape and visual benefits. This would include softening and reducing unobstructed views of the solar array which are otherwise available in middle distance views and consequent restoration of this intervening Mackenzie Basin setting.

Accordingly, we have prepared the map in **Figure 2** attached, identifying:

- the Site lease area;
- the fenced solar farm area;
- site character area A7 (referenced from *Image 6: Site Characteristics* of the LEA³); and
- Conservation Area Zone 1 which provides an opportunity for landscape and visual mitigation planting in addition to the establishment of other ecological functions.

We have also prepared a list of recommended dryland species and a set of parameters to achieve self-supporting communities of planting that will fit with the open, outwash dryland plains. Through this planting opportunity, the inclusion of patches of intervention shrub species have been identified in the context of the other ecological functions proposed for this zone.

In addition, **Figure 2**, identifies indicative planting plots within Conservation Zone 1, illustrating an outcome based on the parameters provided below. It is considered the addition of representative dryland species within this conservation framework will function to soften and break up views and demonstrate the intention of the parameters provided.

Plant species

Recommended plant species identified for Conservation Area Zone 1 are provided in Table 1 below.

³ Boffa Miskell Ltd (2025) *Haldon Solar Project: Landscape Effects Assessment.*, p20

Table 1: Plant species - Conservation Zone 1 planting opportunity area

Conservation Zone 1	
Scientific name	Common name
Coprosma intertexta	a twiggy coprosma
Ozothamnus leptophyllus	tauhinu
Melicytus alpinus	porcupine Shrub
Muehlenbeckia axillaris	creeping Wire Vine
Corokia cotoneaster	Korokio
Discaria toumatou	Matagouri
Carmichaelia petriei	desert broom






Planting parameters:

- 12 plots to be planted across the 12.5 ha Conservation Zone 1.
- The arrangement of plots shall be dispersed across Zone 1 and shall not form belts, rows, geometric layouts, evenly spaced grids, or perimeter-only planting.
- No more than 2 plots shall be located within any single hectare of the Zone with a minimum separation distance of 40m between plots.
- Each plot must be approximately 10 m × 10 m (100 m²).
- Within each 100 m² plot, plant in irregular drifts with spacings between 0.5 m (Muehlenbeckia axillaris) – 1.5 m, providing a minimum of 100 plants per plot. Avoid linear rows and regular spacings, to support naturalistic structure and self-sustaining outcomes.
- Each plot must comprise a mix of species with a minimum of 40 percent to be made up of Coprosma intertexta and Discaria toumatou, taller species to maximise visual screening outcomes. The final location and species composition to be confirmed prior to construction of the solar farm and implemented in the next available planting season.

In addition to the need to develop a predator enclosure as set out in the ecology assessment, we acknowledge this is an extremely difficult environment within which to establish new vegetation. Accordingly, the success of any planting should be guided by sound ecological considerations and ongoing adaptive management to address likely environmental barriers and guide success.

This plan has been prepared by Boffa Miskell Limited on the instructions of our Client, in accordance with the agreed scope of work. If it is intended to support an application under the Fast-track Approvals Act 2024, it may be relied upon by the Expert Panel and relevant administering agencies for the purposes of assessing the application. While Boffa Miskell Limited has exercised due care in preparing this plan, it does not accept liability for any use of the plan beyond its intended purpose. Where information has been supplied by the Client or obtained from external sources, it has been assumed to be accurate unless otherwise stated.

LEGEND







-  Site Character Area A3
-  Fenced Area
-  Haldon Station private land
-  Compensatory Planting Area
-  Lease Area

Data Sources: Boffa Miskell, Lodestone, Eagle Technology, LINZ
Projection: NZGD 2000 New Zealand Transverse Mercator



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LEGEND

-  Indicative Planting Plot
-  Fenced Area
-  Conservation Zone 1 – planting opportunity area
-  Site Character Area A7
-  Lease Area
-  Haldon Station private land

Data Sources: Boffa Miskell, Lodestone, Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors
 Projection: NZGD 2000 New Zealand Transverse Mercator

