To: Sara Westcott, Team Leader Consents
From: Stuart Wright, Senior Consents Monitoring Officer
CC:
Date: 16 June 2026
Re: Foxton Solar Farm Erosion and Sediment Control Assessment Technical Memo

1. Scope of Assessment

This memorandum provides a technical assessment of proposed erosion and sediment controls for a solar farm proposed to be constructed on a 436 ha site north of Foxton (Application APP-2025205573.00). The focus of the assessment is on the erosion and sediment control and earthworks aspects during the construction phase of the project. This assessment considers and assesses the potential effects on the environment and whether the proposed controls and actions will mitigate potential risk sufficiently. This assessment has been undertaken using the principles and details provided in the Erosion and Sediment Control Guide for Land Disturbing Activities in the Wellington Region, dated February 2021. The assessment comprised of a review of the project scope, the draft erosion and sediment control plan (ESCP) and a site walkover with the applicant on 28th April 2026. The assessment also considers the draft consent conditions.

1.1. Scope of works

The scope of works being assessed include:

- Establishment of approximately 14 km of access tracks, which are proposed to be 4 to 6 m wide and require the removal of the top 0.35m and covered in compacted soil and aggregate.
- Excavation and installation of approximately 50 km of cable trenches, which will be 1.2 m deep and between 0.3 to 2 m wide. These will result in approximately 48,000 m^3 of excess soil.
- Installation of a substation area that will require an area of 11,000 m^2 to be excavated, levelled and have a concrete slab constructed. This may result in 7,700 m^3 of excess spoil.
- Installation of a Battery Energy Storage System (BESS) that will require an area of 17,500 m^2 to be excavated, levelled and have a concrete slab constructed. This may result in up to 12,250 m^3 of excess soil.
- The installation of approximately 300,000 solar panels, which are to be installed onto driven piles from the surface. The method of installation will mean minimal land disturbance will occur and there will not generate notable volume of waste soils
- Up to 14,00 m^2 of contingency and minor works, such as landscaping, fencing ancillary buildings, etc.

1.2. Site description

The site is largely a flat area and is currently an operating farm that has been levelled to reduce the elevations from the historic sand dunes that would have been present in the area. Based on the preliminary geotechnical assessment, the soil beneath the site was found to be mostly sandy and free draining. There is a network of waterways that cross the site and areas of wetlands.

The adjacent receiving environment that could potentially be impacted by poor erosion and sediment controls are largely limited to onsite waterways and wetland areas. The nearest significant waterway is the Manawatu River approximately 2.4 km to the southeast. It is however unlikely to be impacted by the proposed works given the distance. There are also a small number of residential dwellings adjacent to the project area, particularly to the south. These properties have the potential to be impacted by dust if not managed appropriately.

2. Technical Assessment of Earthworks

2.1. Erosion and Sediment Control Plan

The draft Erosion and Sediment Control Plan (ESCP) that has been provided with the application contains all of the relevant basic information expected to be included, in line with the Guidelines for Preparing an Erosion and Sediment Control Plan prepared by the Greater Wellington Regional Council. The ESCP has been prepared and reviewed by environmental consultants SLR. These are considered to meet the requirements of a suitably qualified and experienced person (SQEP) who would be capable of preparing a suitable ESCP.

The method of construction of the solar panels structures is proposed to be driven piles from the surface. This will likely result in minimal land disturbance impact except for the plant and equipment required to drive the piles into the ground, which will be temporary in nature.

Given the scale of the project, it is likely that construction will be undertaken in different phases that will require bespoke erosion and sediment controls. It is also likely that it will be too ineffective to capture everything in one ESCP. Therefore, projects of a similar scale tend to have one overarching ESCP that applies principles across the whole of the project. Site specific ESCP's (SSESCPs) are then developed for different areas of the site that provide details and locations of specific control measures.

There are a number of placeholders within the ESCP for further information to be provided in a revised version of the plan once site-specific details are known. This demonstrates that the project is considering all relevant factors that should be provided in an ESCP.

The ESCP recognises that trenches may need dewatering due to areas of shallow groundwater. Appropriate consideration has been provided for in the ESCP, however,

specific details are yet to be determined. Further information is expected in a final version of an ESCP.

2.2. Control Measures

The proposed ESC measures are to primarily consist of cut and cover (stabilisation with aggregate) and silt fences. No specific details of the location of the silt fences have been provided at this stage of the project, which is often the case. There is also the mention of the potential use of a sediment retention pond (SRP) or a decanting earth bund (DEB), however this is yet to be determined.

It will therefore be important for the ESCP and SSECP to be reviewed and certified in advance of any land disturbance activities.

The scope of works currently includes works in some of the wetland areas, but excludes works in the largest central wetland area and the waterways. There are no proposed amendments or additions to existing culverts. Therefore, the main risk of impact to the waterways and wetland area to be retained is from surface run off.

It is considered that for trenching works and access tracks, a potential combination of bunding (clean and dirty water diversion bunds), silt fences and super silt fences will be appropriate controls measures to protect sensitive receptors, such as wetland areas and drains.

The highest risk area is the location where the main site access, substation and BESS will be sited, due to it being the largest area of concentrated land disturbance and its proximity to a waterway. However, due to the relatively flat topography and the likely free draining soils, the risk of erosion and sediments impacting the environment is still likely to be low. Additional standard controls beyond some silt fencing may be required. It would be reasonable for the project to consider a installing an SRP or DEB to manage runoff during construction of substation / BESS area, if large areas of exposed soil are left not stabilised for extended periods of time. However, this can be addressed at a later stage via a revised final ESCP and SSESCPs.

There is likely to be a large volume of excess spoil to be managed on site. At this stage it is not known where the excess soil will be stockpiled or reused. There are also no specific details of what controls will be in place to prevent loss of sediment from the stockpiles. These details are expected to be provided in the ESCP and SSESCPs.

2.3. Dust control

Dust may be one of the key issues on the site during construction. This is a relatively easy potential risk to manage. Regular dust management via the use of water trucks on the access tracks is expected to keep dust at a minimum. However, it is recommended that dust monitoring is undertaken on the perimeter of the site in the vicinity of the residential properties.

It is important to monitor and maintain controls in place to manage potential erosion and sediment losses. The ESCP states that weekly inspections will be undertaken and additional checks after periods of heavy rain. Some specifics are yet to be determined; however, these are expected to be provided in a revised final ESCP.

3. Recommendations and Conditions

It is recommended that site specific erosion and sediment control plans (SSESCP) are developed that would sit beneath the overarching ESCP, which details general principles and approach. It is recommended that it is appropriate that MWRC is required to review and certify the final versions the ESCP and each of the SSESCP prior to the commencement of land disturbance activities.

Applicants proposed condition C1 – Minor additions to what is expected to be included in an ESCP have been recommended. These include providing a methodology for stabilising disturbed soils, and detail on how and when the ESCP and SSECPs will be reviewed or updated.

Applicants proposed condition C2 – It is recommended to update the condition so that a SQEP provides 'as-builts' for all erosion and sediment controls rather than just sediment retention ponds or decanting earth bunds. This is important so that the consent holder can demonstrate that the controls, such as silt fencing, has been installed correctly in accordance with guidance.

Applicants proposed Condition C3 – This condition currently requires the consent holder to provide a copy of the final ESCP to MWRC. However, this would have already been provided as part of MWRC requirement to certify the ESCP. Therefore, this condition is either redundant or could be updated for the ESCP to be provided to Horowhenua District Council.

Applicants proposed condition C15 – It is recommended that a requirement for dust monitoring equipment to be installed on the boundary of the site is included.

Applicants proposed Conditions C1, C4, C5, C10 and C23 – Minor updates recommended to include reference to SSESCPs. This will ensure SSESCPs are captured appropriately for reviews and updates.

4. Conclusion

The general approach and details provided in the draft ESCP are considered broadly in line with Greater Wellington's Erosion and Sediment Control guide for Land Disturbing Activities in the Wellington region. While specific details of exact controls and their locations are not currently provided, it is deemed appropriate that this level of detail can and often is provided between a consent being granted and construction works commencing.

Based on my assessment of the site and proposed works, it is considered that the risks associated with erosion and sediment during construction that can be mitigated with appropriate industry standard controls in accordance with well established guidelines.