WARLEY ENERGY HUB
CONSULTATION RESPONSE - ENVIRONMENT AGENCY

19th March 2025

Ref: P1498.24 Land Adjacent to St Mary's Lane, Ockenden Upminster RM14 3PA

Dear Raphael,

Please see below and attached summary response to the comments dated 21.02.2025 received from the Environment Agency (Ref: NE/2024/137663/02) in relation to requests for further clarification and reassurance on potential firefighting run off storage capacity and management.

The response includes additional clarification from RMA Environmental, our Environmental Consultant on the project.

The Environment Agency's primary query is in relation to the capacity of the impermeable drainage blanket, and the individual development terraces, to retain firefighting run off.

Environment Agency Query: *"The applicant should determine firefighting run off storage capacity based on anticipated water application rates, duration and firefighting strategy expected to be used. The submitted emergency response plan should consider how firefighting run off in excess of 1,900 litres per minute for at least 2 hours will be managed."*

Applicant Response Summary: Each terrace has sufficient capacity to store in excess of 1,900 litres per minute for at least 2 hours (228 m3) of firefighting runoff. Terrace 5 provides the smallest volume of 306 m3 which is sufficient to store the firefighting water for at least 2.5 hours.

In the unlikely event of a 1 in 2 year 48 rainfall event occurring before or during a fire or the firefighting exceeding 2.5 hours, mobile pumps could be used by the emergency response team to convey runoff from the lower terraces to the higher terraces to ensure that all of the runoff is contained within the drainage blanket.

Precast Concrete Chambers (PCC) with an instantaneous coupling will be located upstream of the penstocks on each of the terraces which will allow the pumps to be connected. Details of the temporary pumps (i.e. centrifugal pumps) and hoses required to transfer water to the upper terraces will be determined at the detailed design stage and are separate from the surface water drainage system.

The strategy would be submitted for approval within the Battery Safety Management Plan (BSMP), under the condition wording proposed within the Submitted Site Safety Report (Document R010).

In summary, the mobile pumping sumps would be connected to the installed tanker take off valves (shown on the submitted Surface Water Drainage Strategy (Document R004)). For example, if a fire occurred in Terrace 5 shortly after the 1 in 2 year 48 hour rainfall event, the water could be stored within Terrace 5 and pumped up to Terraces 1 and 2.

WARLEY ENERGY HUB
CONSULTATION RESPONSE - ENVIRONMENT AGENCY

Environment Agency Query: *"Contamination of the aggregate and how this would be addressed will need to be considered should there be an incident."*

Applicant Response Summary: The aggregate layer will be lined with an impermeable membrane. Any potentially contaminated firefighting water will therefore be stored within the drainage blanket.

Tanker take off valves will be positioned adjacent to the penstock valves to enable contained water to be tankered away for treatment if tests show that it is contaminated.

Environment Agency Query: *"It should also be considered whether the aggregate blanket will compact over time, potentially reducing porosity and available storage capacity."*

Applicant Response Summary: Aggregate is a self-compacting material. In the absence of loading across the vast majority of the blanket, it is considered there will be an insignificant loss of volume within the blankets as a result of compaction. Concrete check dams will provide additional capacity above the aggregate if required.

Please let me know if you require any further information from us in relation to this.

Yours sincerely,

James Nicol
Head of Planning