ATTACHMENT E1 – EMISSIONS TO SURFACE WATER

The nearest watercourses to the application site are the small stream which runs along the northern boundary of the Applicant's landholding and the River Slaney which runs along or immediately beyond its western property boundary.

At the present time, rainfall across the application site either

(i) percolates downwards through unsealed ground into the underlying bedrock and ultimately intercepts groundwater, the upper surface of which lies at approximately the same level as the water in the worked out quarry void
(ii) runs over sealed ground and falls over the vegetated ground sloping westwards where it infiltrates to the ground and/or is intercepted by local drains
(iii) runs over unsealed ground into the existing pond in the worked out quarry void

Once surface water infiltrates through the ground to recharge the groundwater body, it follows the regional groundwater flow toward the River Slaney

Previously, when rock was being extracted at the former quarry, dewatered groundwater collected in sumps at the quarry floor was pumped via existing pipe networks to a water holding tank system. Water collecting in these tanks was then recycled for concrete production or discharged via existing pipes and settlement ponds to a pipe / drainage channel / ditch leading to the River Slaney. The approximate line of the established drainage network at the quarry is shown in Figure E1-1.

Emissions of dewatered groundwater to the River Slaney will take place prior to commencement of waste recovery activities at the application site as the water levels within the worked out pit are lowered to facilitate backfilling. Reduced emissions will continue thereafter for the duration of the quarry backfilling and restoration works.

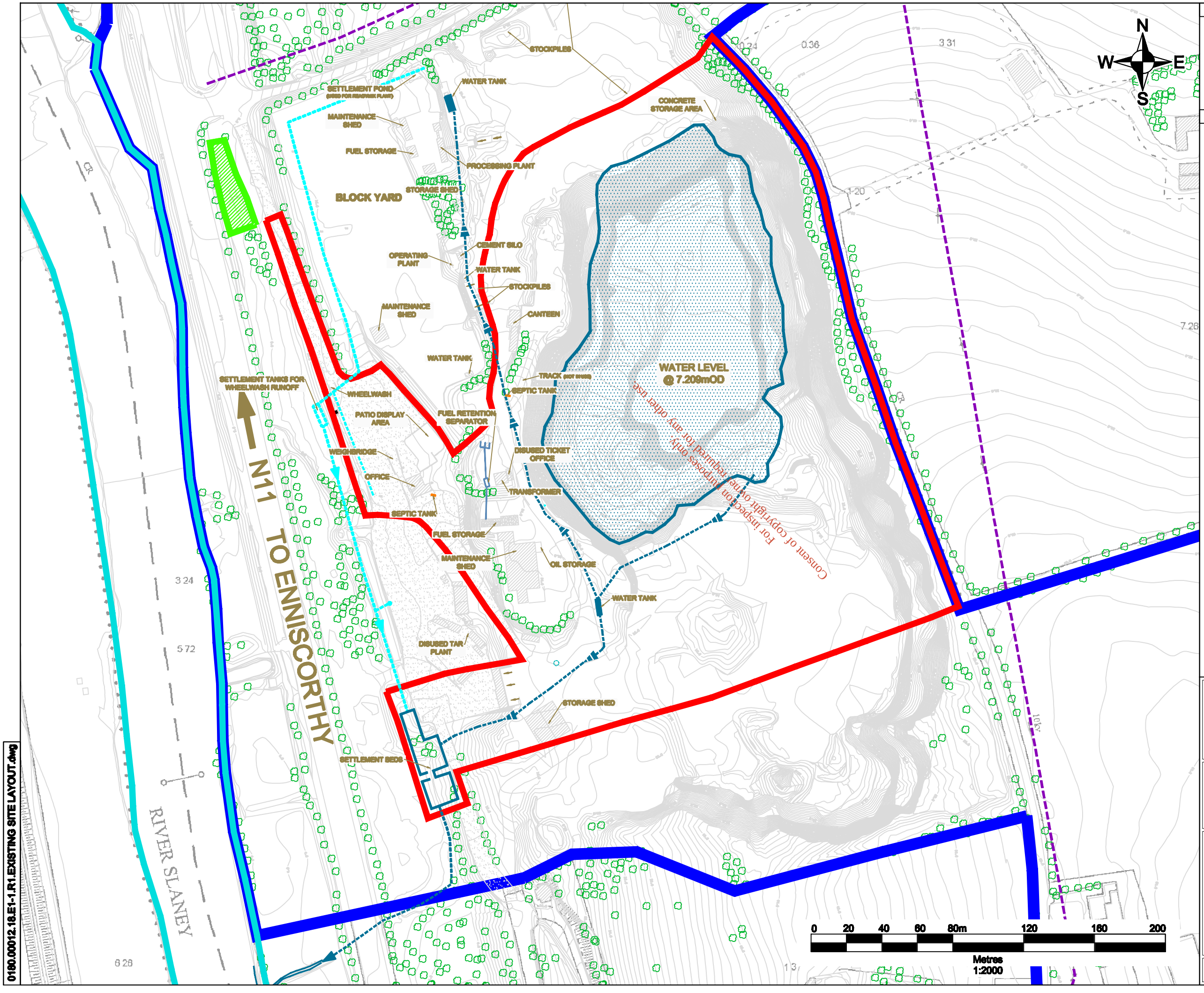
Water intercepted by the initial and ongoing dewatering of the worked-out quarry will be pumped via new settlement ponds or a mobile silt trap and oil interceptor (to be installed) to the existing water holding tank. Water in the holding tank will either be recycled for concrete production or discharged, via the existing drainage network, to the River Slaney discharge.

During the infilling operations, the upper surface of the backfilled soil will be graded so as to ensure that surface water run-off falling over the worked-out quarry falls to sumps at temporary low points within the quarry floor or backfilled material. These temporary sumps will effectively function as primary settlement ponds and water collecting in them will be pumped (causing minimum agitation to ponded water) to the proposed new settlement ponds or mobile silt trap and oil interceptor and from there, to the existing water holding tank and drainage network leading to the River Slaney discharge.

Waste inspection and quarantine facilities at this waste recovery facility are located within a covered structure constructed over a concrete slab. As incipient rainfall will not come into contact with consignments of suspected contaminated waste stored at the covered shed, there is no requirement to install any drainage infrastructure to provide for collection and storage of potentially contaminated surface water run-off.

In the longer term, toward the end of the quarry backfilling works, ground contours within and around the backfilled quarry void will be modified to ensure that surface water run-off across the area is directed to a closed depression in the south-eastern corner. The restored ground level at this closed depression will be slightly below the natural groundwater level (at approximately 6-7mOD) and as such, it is expected that a small surface water pond will form within it. This shallow water feature is expected to facilitate and control recharge of surface water runoff across the restored area to the groundwater body.

Further details of surface water management at the waste recycling facility are provided in Chapter 2, Paragraphs 2.27 to 2.35 of the Environmental Impact Statement which accompanies this waste licence application.



NOTES

1. EXTRACT FROM 1:2,500 ORDNANCE SURVEY DIGITAL SHEET NO. 5143 A-D

2. ORDNANCE SURVEY IRELAND LICENCE SU 0000711 (C) ORDNANCE SURVEY & GOVERNMENT OF IRELAND

LEGEND

- ROADSTONE WOOD LTD. LANDHOLDING (c. 86.2 ha
- WASTE LICENCE APPLIC AREA (c. 8.3 ha)
- AREA NOT OWNED BY ROADSTONE WOOD LTD. (c. 0.1 ha) - FOLIO WX53689F & WX20685
- OVERHEAD 10KV POWER LINE

Roadstone AWOOD
The Right Choice

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WINDY AR
DUB
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F: +353-1-29
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ROADSTONE WOOD LTD. WASTE LICENCE APPLICATION

WASTE RECOVERY FACILITY, BROWNSWOOD, CO. WEXFORD

EXISTING SITE LAYOUT

FIGURE E1-1

Scale: 1:2,000 @ A3

Date: JULY 2011

0160.00012.18.E1-1.R1.EXISTING SITE LAYOUT.dwg