

12. Surface Water

12.1 Storm Water Management

12.1.1 Storm Water Management during Construction

REA commits to the development and implementation of a Construction Environmental Management Plan which will outline the measures to be implemented during the construction phase of the Project. The area of construction disturbance is estimated at 10,000m² and construction impacts will be managed in accordance with the Environmental Guidelines for Major Construction Sites EPA Publication 480. Erosion prevention measures will include:

- Scheduling measures to avoid and reduce erosion by phasing the work program to minimise land disturbance in the planning and design stage;
- Keeping the areas of land disturbed to a minimum, and the period of time areas remain cleared to a minimum;
- Control measures to manage erosion and prevent soil loss, paying particular attention to protecting slopes;
- Mulch, roughen and seed cleared slopes and stockpiles where no works are planned for more than 28 days, with sterile grasses;
- Keep vehicles to well-defined haul roads;
- Rehabilitate cleared areas promptly.

Erosion and sedimentation containment devices such as sediment fences, coir matting and sedimentation basins will be employed where necessary. A lined area for vehicle washdown will be installed and fuel and chemical storage will be bunded to capture spillage. Spill kits will be available adjacent to storage and operations areas.

Contractors will be supervised by the site manager and with the appropriate measures implemented, the risks to surface water contamination have been assessed as low (Appendix 4).

12.1.2 Storm Water Management during Operation

The entire processing area will be enclosed and isolated from rainfall and runoff. Internal drainage will be designed to keep all process water within bunds with internal drainage to in-ground pits and pumping to various containments within the process area. Mixing of process water and clean runoff water will be avoided and no contaminated wastewater will be discharged in the process (Section 6.3.1.2.3, Section 9).

Rainfall capture of roof runoff is proposed. However, runoff from hardstand outside the facility building will occur. This is unlikely to contain any contaminants of significance and will be directed to a lined vertically draining reed bed prior to discharge to the storm water system. The sizing of the reed bed basin will be refined during the development of the surface water management component of the Environmental management system.

12.1.2.1 Risk Assessment

The risk assessment (Section 5.4.3 and Appendix 4) identified a number of risks associated with surface water. These were generally low but the risk associated with containment of fire water was rated as moderate.

In the case of fire within the building, the building design will ensure that fire water will be contained within floor bunds and associated sumps and will be removed using tankers if required. However, in

the unlikely event of a catastrophic fire, it is possible that fire water could land on the hardstand surrounding the facility and this water would find its way into stormwater and into the vertically draining reed bed basin. In order to minimise the risk of fire water moving offsite the reed bed discharge will be fitted with a valve that can be closed in emergency situations and retained fire water can be trucked off site to a licensed treatment facility.