ARSWL 8 – ERA for AQUA ROD (SOUTH WEST) LIMITED - Tanker Emptying and dewatering Facility - Apex Site, Cardrew Way, Cardrew Industrial Estate, Redruth, Cornwall TR15 1SS

As part of an application for an environmental permit Operators must assess the risk to the environment and human health from the activities they seek to permit.

This Environmental Risk Assessment has been undertaken in accordance with the online Environment Agency Guidance for undertaking environmental risk assessments.

Environmental risks relevant to the proposed activities are:

- Emissions to Air;
- Emissions to Water;
- Emissions to Land;
- Odour;
- Noise;
- Litter;
- Pests;
- Vandalism;
- Fire; and
- Incompatible Feedstock.

For each of the above environmental criteria the approach to the assessment has followed the following

four-stage process:

- Identify the risks;
- Assess the risks (assuming those control measures proposed are in place);
- Choose appropriate further measures to control these (if required); and

• Present the assessment.

Hazard	Receptor	Pathway	Risk Management Techniques	Probability of Exposure	Consequences	Overall Risk (following mitigation)
Point Source\Releases to Air	Atmosphere	Airborne	• There will be no point source emissions to air from the facility.	Low: offsite receptor impact	Air Pollution	**VERY LOW** due to the proposed processes on site
Emissions to water	Groundwater /Geology / Surface Water	Water borne	• The dewatering and screening system will be sighted on an impermeable surface as part of a sealed drainage system. • The dewatering system is also located within a bunded area. • There will be no hazardous wastes delivered to site. • Spill kits will be strategically located around site. These are subject to regular checks in the planned preventative maintenance system. • The dewatering and screening system aims to remove suspended solids and larger items from the tankered liquids. • In the event of additional liquid capacity being required, a tanker would be employed to remove the liquids to a permitted waste facility. This would also happen when the water treatment system is cleansed for maintenance or contamination is observed or identified during testing. • The tanks used for the waste treatment are heavy duty singled skinned, but are located within a bunded area. • The bunded area also contains all pipe work, flocculants and pumps associated associated with the treatment of waste. • Discharging of waste liquids to the foul sewer takes place in a controlled and metered manner. • If the bunded area requires cleansing or emptying of rainwater this will be via a pump to the foul sewer. • Minor spills to be cleaned up immediately using spill kits. Resultant materials to be placed in container for offsite disposal to appropriate facility. • Staff will be trained in how to deal with a spill. • Immediate action to be taken in event of any major spills. Spillage to be cleared immediately and placed in containers for offsite disposal at an appropriate facility. EA to be informed. • There will be no point source emissions to land arising from the proposed facilities. • The anionic flocculant is delivered in pre-mixed 1,000 litre IBC's and these will be stored within the bunded area either connected to the dosing unit and pump system or as a spare. In both instances they will be on their own dedicated spill pallet	Low: all runoff is controlled on site, in line with standard rules permits therefore the probability of exposure is low	Contamination	**VERY LOW** due to the proposed processes and management techniques as described within the summary EMS

			offering 110% of the IBC so that spills or leaks would be limited to the spill pallet and not the entire bund.			
Emissions to land	Groundwater / Geology	Spills / Leaks	• The dewatering and screening system will be sighted on an impermeable surface as part of a sealed drainage system. • The dewatering system is also located within a bunded area. • There will be no hazardous wastes delivered to site. • Spill kits will be strategically located around site. These are subject to regular checks in the planned preventative maintenance system. • The dewatering and screening system aims to remove suspended solids and larger items from the tankered liquids. • In the event of additional liquid capacity being required, a tanker would be employed to remove the liquids to a permitted waste facility. This would also happen when the water treatment system is cleansed for maintenance or contamination is observed or identified during testing. • The tanks used for the waste treatment are heavy duty singled skinned, but are located within a bunded area. • The bunded area also contains all pipe work, flocculants and pumps associated with the treatment of waste. • Discharging of waste liquids to the foul sewer takes place in a controlled manner. • If the bund requires cleansing or emptying of rainwater this will be via a pump to the foul sewer. • Minor spills to be cleaned up immediately using spill kits. Resultant materials to be placed in container for offsite disposal to appropriate facility. • Staff will be trained in how to deal with a spill. • Immediate action to be taken in event of any major spills. Spillage to be cleared immediately and placed in containers for offsite disposal at an appropriate facility. EA to be informed. • There will be no point source emissions to land arising from the proposed facilities. • The anionic flocculent is delivered in pre-mixed 1,000 litre IBC's and these will be stored within the bunded area connected either to the dosing unit and pump system or as a spare. In both instances, they will be on their own dedicated spill pallet offering 110% of the IBC so that spills or leaks would be limited to the spill pallet and not the entire bund.	Low: spills / leaks could potentially contaminate the ground / groundwater- Underneath the site.	Contamination	**VERY LOW** due to the proposed processes and management techniques as described within the summary EMS
Noise and vibration	Local Residents and wildlife	Airborne / ground	• Vehicle deliveries will only take place during daytime hours (0700 – 1800 Monday to Saturday).	Low – due to the minimal operation of the site (on an ad-hoc basis and only during	Nuisance in the form of noise and vibration	**VERY LOW** due to the

Existing permitted activities	Closest residents located at 420m to the NW of the site boundary		• On site, vehicles will be fitted with 'white noise' reversing alarms. • No activities will take place at night • Speed limits in place of 5mph to reduce noise generation on the access roads. • Site access roads to be kept in good order to prevent potholes that may give rise to noise incidents. • A preventative maintenance system is implemented. This will ensure no deterioration of plant or equipment that would give rise to increases in noise generation. • All equipment has been designed to ensure that any noise does not present an issue to the employees at the site under the Control of Noise at Work Regulations. • All vehicles and equipment will be switched off when not in use. • The site operates a complaints investigation procedure which involves efficient mitigation if a complaint is found to be substantiated. All complaints are recorded and reviewed regularly.	daylight hours), location of sensitive receptors and all other mitigation measures described.		management techniques, modern equipment, maintenance and earth bund.
Odour	Local Residents	Airborne	• Waste contracts will be in place to ensure the consistency of the waste is continuous. • Addition of sanitising chemical to effluent reduces odour. • To prevent excessively odorous waste from arriving on site, the site has stringent waste acceptance procedures waste will be rejected by site should it be deemed malodourous. • Any air released during pumping liquids from the tankers will pass through a carbon filter. • Inspections will happen daily to inspect the site for odours. Any odorous waste will be prepared for removal off site immediately. • Sumps will be regularly cleaned and the site will be emptied in line with good housekeeping measures. • There will be no exposure of the effluent to air due to the sealed connection. • Spill will be washed down the foul sewer immediately to prevent evaporation. • All areas of the permitted area will be regularly cleansed. • Any complaints will be actioned in accordance with the site complaints procedure and recorded in the site diary. • Solids skip will be sealed and exchanged weekly. • A preventative maintenance system is implemented, which covers all plant and equipment. This will ensure no deterioration of plant or equipment that would give rise to increases in odour generation. • A odour abatement system will be used on the site. • The site will have a windsock and a weather station on site to monitor and record meteorological conditions to prevent complaints.	Low: due to the activities being managed by dust management techniques	Nuisance	**LOW** due to the proposed risk management technique highlighted within the odour management plan

			• The company will employ a Odour Management Plan.			
Dust	Local Residents	Airborne	• All incoming wastes will be in liquid form preventing dust generations. • All surfaces will be cleansed and kept free from dust and mud.	Low: due extensive dust suppression equipment and methods being employed	Nuisance	**VERY LOW** due to the proposed risk management techniques
Litter	Local Residents	Airborne & migration	• All incoming wastes will be in liquid form preventing and not containing litter. • Sealed solids skips would prevent the escape of any drying rags.	Low: due to feedstock not containing litter	Nuisance	**VERY LOW**
Pest	Local Residents	Airborne and migration	• A pest control company is contracted to undertake fortnightly inspections of the site. • The waste types do not attract pests. • Vermin baited traps will be located on the site on a permanent basis. • Should pests be identified, reasonable measures will be taken to use commercially available products and services to control pests.	VERY Low risk of pets on site is possible	Nuisance	**VERY LOW** due to the proposed risk management techniques
Vandalism	Operator	The site could be subject to intentional vandalism and damage by intruders / trespassers who could cause damage or harm to the site or cause fires.	• The site has a CCTV system with motion sensors across the site. • The site entrances are secured by lockable gates. • Site is secure and the entire site is bounded fencing. • Unauthorised access is prohibited onsite. • The site perimeter is inspected daily by operations staff to identify deterioration and damage and the need for repair. • Fencing is maintained and repaired to ensure its continued integrity. If damage is sustained, repair will be made within the same working day. If this is not possible, suitable measures will be taken to prevent unauthorised access to the site and permanent repairs will be affected as soon as is practicable. • All visitors to the site are required to register in the visitor's book and sign out again on exit, thereby minimising the risk of unauthorised visitors on the site.	Low: the occurrence of vandalism taking place on site is highly unlikely	Nuisance, damage or fire	**VERY LOW** due to the proposed risk management techniques
Fire	Operator / Residential Properties	Windborne	• The site will not accept flammable wastes. • Wastes processed on the site are not combustible. • A planned preventative maintenance system is in operation for all plant and equipment.	VERY Low: the occurrence of a fire taking place	Fire	**VERY LOW** Due to lack of combustible waste
Incompatible Feedstock	Operator / Residential Properties	If incorrect waste is accepted on site it could result in adverse emissions/ breaking of equipment	• All wastes accepted onto site have been subject to 'pre-acceptance' in accordance with the sites Environmental Management System. • Waste acceptance procedures are implemented, which control all incoming wastes. • Any non-conforming waste will be rejected from site in accordance with the sites Environmental Management System and waste acceptance procedures.	Low: off-site receptor impacts	Nuisance /Adverse Emissions	**VERY LOW** due to the proposed processes and management techniques as described within the summary EMS

Flooding	Operator	Surface and coastal waters	• Management techniques identified within the Summary EMS	Low: off-site receptor impacts	Flooding	**VERY LOW** due to the proposed processes and management techniques as described within the summary EMS

Flood map for planning generated form the Environment Agency website showing the site sits within Flood zone 1