ENVIRONMENTAL MANAGEMENT PLAN

Project Title: Handling and Transport of Liquid Sewer, Oil Water, Grease arrestor and acid traps waste

The purpose of the environmental management plan (EMP) is to provide specific environmental plan for the handling and transport of sewer, oily water, grease waste and acid trap waste. Which will ensure appropriate environmental management control and practices are applied to protect and minimise environmental impact.

Liquid waste is any waste that:

- has an angle of repose of less than 5 degrees
- becomes free-flowing at or below 60°C or when it is transported
- is not generally capable of being picked up by a spade or shovel

Nominated Environment Management Representatives

Name: Ms Jackie Maclean

Role: Director of GMS – overall company responsibility and sign of EMP

Phone 0418 892 061

Name: Mr Sven Baxter

Role: Operations Manager – operational responsibility and revision of EMP

Phone: 0448 473 042

Name: Dean Harrowell

Role: Site Contact – site responsibility

Phone: 0499 155 180

Training, Awareness and Competency

All staff working on the handling and transport of sewer, oily water, grease waste and acid trap waste have undertaken site inductions with PowerWater.

All staff driving the truck have a heavy rigid licence.

All staff have been trained to operate the hydro unit.

All staff have read and been provided a copy of the EMP to ensure staff are familiar with the requirements of the EMP.

Incident Response and Emergency Contacts

Name: Ms Jackie Maclean

Role: Director of GMS

Phone 0418 892 061

Phone 8947 3000

Name: Mr Sven Baxter

Role: Operations Manager

Phone: 0448 473 042

Implementation and Operation

As part of the risk assessment process, Gold Medal Services will take into account the impact of our work on the environment. Environmental issues are taken into consideration as part of the Job Safety Environment Analysis process.

The key environmental risks that could result from the handling and transport of sewer, oily water, grease waste and acid trap waste work include:

- Collection of liquid waste that is trade waste and/or hazardous
- Spillage of sewerage or grease in between pick up site and PowerWater facility
- Fuel, oil & chemicals spill from Motor Vehicle Accident
- Significant impact upon flora/fauna from spill into water ways
- Air quality from smell of spill and from MVA fire
- Noise from operations of the truck
- Dumping of waste to an unauthorised site

Gold Medal Services will determine the level of risk using the following risk assessment framework.

How likely is an event to occur:

Certain Will occur at a frequency greater than every week if preventative measures are not applied.

Likely Will occur more than once or twice but less than weekly if preventative measures are not applied.

Unlikely May occur once or twice during the project if preventative measures are not applied.

Rare Unlikely to occur during a project even if controls are missing.

How severe will the potential impact be?

Catastrophic **Significant damage or impact on environment or community:**

- severe and/or persistent waterway/ stormwater quality pollution
- deaths of fauna/ flora
- widespread and/or significant changes to ecosystems
- soil contamination over an area > 10 m^2, contamination of off site soil or contamination of soil with prescribed or hazardous materials
- widespread community impact resulting in illness, injury or inconvenience
- loss or destruction of archaeological/heritage places, sites or objects
- receiving a fine/s is a certainty or works will be halted

Major **Major adverse environmental or social impacts eg.**

- medium-term, noticeable/measurable change in waterway/ stormwater quality
- isolated deaths of non-vulnerable fauna/ flora species
- noticeable, localised changes to ecosystems
- soil contamination over an area 1m2 – 10 m2 (excluding contamination of off site soil or contamination of soil with prescribed or hazardous materials)

- annoyance or nuisance to community
- frequent, partial damage or off site movement of archaeological/heritage places, sites or objects
- fining likely or works may be halted

Moderate **Moderate undesirable environmental or social impacts eg.**

- localised, short term noticeable/measurable change in waterway/ stormwater quality
- short term, minor changes to ecosystems
- soil contamination over an area <1m2 (excluding contamination of off site soil or contamination of soil with prescribed or hazardous materials)
- some annoyance or nuisance to community
- isolated, partial disturbance or movement of archaeological/heritage places, sites or objects
- fines unlikely

Minor **No or minimal adverse environmental or social impacts eg.**

- no measurable/ unlikely effect on waterway/ stormwater quality and ecosystems
- no or isolated community complaints
- no or isolated events where areas of soil <1m2 is contaminated (excluding contamination of off site soil or contamination of soil with prescribed or hazardous materials)
- no or unlikely impact on archaeological/heritage places, sites or objects
- no likelihood of being fined

Using the table below determine the level of risk based on the likelihood of occurrence and the potential consequence.

	Likelihood			
Consequence	Rare	Unlikely	Likely	Certain
Catastrophic	Medium	Significant	Significant	Extreme
Major	Medium	Medium	Significant	Significant
Moderate	Low	Medium	Medium	Significant
Minor	Low	Low	Low	Medium

The level of risk will determine the type and amount of environmental protection measures that will be required on a site. Where a significant risk to the environment has been identified, environmental protection measures must be introduced to reduce the risk to an acceptable level. Aspects with a medium or low risk should also have practicable management measures implemented if these can further reduce risk.

Risk Assessment				
Risk	Likelihood	Consequence	Rating	Control Measure
Collection of liquid waste that is trade waste and/or hazardous	Likely	Minor	Low	Trained and knowledgeable staff
Spillage of sewerage, oily water, grease in between pick up site and PowerWater facilities	Likely	Moderate	Medium	Maintenance of Truck and Equipment Trained and knowledgeable staff Containment and spill kits on board Contracted back up vacuum truck
Fuel, oil & chemicals spill from Motor Vehicle Accident	Certain	Moderate	Significant	Maintenance of Truck and Equipment Trained and knowledgeable staff Containment and spill kits on board
Significant flora/fauna from spill into water ways	Certain	Moderate	Significant	Trained and knowledgeable staff Containment and spill kits on board Contracted back up vacuum truck
Air quality from smell of spill and from MVA fire	Certain	Moderate	Significant	Trained and knowledgeable staff Containment spill kits and fire extinguisher on board Contracted back up vacuum truck
Noise from operations of the truck	Unlikely	Minor	Low	Work during permissible hours Maintain noise suppression devices on equipment
Dumping of waste to an unauthorised site	Rare	Major	Medium	Trained and knowledgeable staff of authorised dump sites

Aspects and Impact Register						
Risk	**Rating**	**Control Measures**	**Responsibility**	**Timeframe**	**Monitored**	**Performance level**
Collection of liquid waste that is trade waste and/or hazardous	Low	Trained and knowledgeable staff	Sven Baxter	Weekly	Yes	No trade waste or hazardous transported
Spillage of sewerage or grease in between pick up site and PowerWater facilities	Medium	Maintenance of Truck and Equipment Trained and knowledgeable staff Containment and spill kits on board Contracted back up vacuum truck	Sven Baxter	Weekly	Yes	No more than 5l of spillage
Fuel, oil & chemicals spill from Motor Vehicle Accident	Significant	Maintenance of Truck and Equipment Trained and knowledgeable staff Containment and spill kits on board Refuel only at service station	Sven Baxter	Weekly	Yes	No fuel spillage
Significant flora/fauna from spill into water ways	Significant	Trained and knowledgeable staff Containment and spill kits on board Contracted back up vacuum truck	Sven Baxter	Weekly	Yes	No spillage into water ways
Air quality from smell of spill and from MVA fire	Significant	Trained and knowledgeable staff Containment spill kits and fire extinguisher on board Contracted back up vacuum truck	Sven Baxter	Weekly	Yes	No moderate smell issues

Noise from operations of the truck	Low	Work during permissible hours Maintain noise suppression devices on equipment	Sven Baxter	Weekly	Yes	No moderate noise issues
Dumping of waste to an unauthorised site	Medium	Trained and knowledgeable staff of authorised dump sites	Sven Baxter	Weekly	Yes	No authorised dumping

Monitoring and Reporting

Environmental Monitoring will be undertaken as per the aspects and impacts register.

Monitoring Checklist					
Risk	When Carried Out	Who carried it out	What method	Sign off	Follow up actions
Collection of liquid waste that is trade waste and/or hazardous	Weekly	Dean Harrowell	Laboratory test result Review of Dump records Phone GPS records	Sven Baxter	Review operational procedures Confirm client operations
Spillage of sewerage or grease in between pick up site and PowerWater facilities	Weekly	Dean Harrowell	Quantity check before and after transport Vehicle for evidence of leakage	Sven Baxter	Review operational procedures Review truck serviceability
Fuel, oil & chemicals spill from Motor Vehicle Accident	Weekly	Dean Harrowell	Vehicle for evidence of leakage	Sven Baxter	Review operational procedures Review truck serviceability
Significant flora/fauna from spill into water ways	Weekly	Dean Harrowell	Quantity check before and after transport Vehicle for evidence of leakage	Sven Baxter	Review operational procedures Review truck serviceability
Air quality from smell of spill and from MVA fire	Weekly	Dean Harrowell	Compliant from staff or public	Sven Baxter	Review operational procedures
Noise from operations of the truck	Weekly	Dean Harrowell	Compliant from staff or public	Sven Baxter	Review operational procedures
Dumping of waste to an unauthorised site	Weekly	Dean Harrowell	Review of Dump Records Phone GPS records	Sven Baxter	Review operational procedures Action against staff

GSM Emergency Response Plan MAN-06.1

In the event of an emergency environment GMS will record the location of on-site spill containment materials, provide and follow directions as per Material Safety Data sheets and other information on any hazardous materials present. GMS will follow the Emergency response plan to minimise damage and control the emergency.

Environmental Control Maps

The maps indicates the location of the following:

- Environmentally sensitive areas both on and adjacent to the project site
- Waterways including drains
- Erosion and sediment control features
- Work areas, machine/vehicle parking, spoil stockpiles, material storage, wash points and fuel and chemical stores
- Vegetation requiring protection
- Traffic restrictions/transport routes/direction of movement
- Monitoring sites
- Perimeter fencing

The maps are Attachment A

GMS Management Schedules

GMS Management schedules are used during the day-to-day management of this project. For this project the following are being used:

- Environmental Management Policy POL 03
- Use of CCTV equipment SOP-06
- Use of Hydroexcavator SOP-17
- Environmental Incident Register FM 78
- Job Plan Safety & Environmental Analysis Template FM-08
- Recycling Register FM 51
- Document Data and Record Control SSP19
- Customer feedback Survey FM-36

Auditing

GMS have the following internal documents which control the internal audit activity. Which includes the scope, frequency and methods, as well as responsibilities and requirements for conducting audits and reporting results.

- Internal Audit Schedule FM-31
- Internal Audit Checklist FM-32
- Internal Audit Request FM-34

CEMP Review

GMS consider the CEMP to be a live document to ensure the environmental management controls are still relevant to the activities being undertaken. The CEMP will be revised when there are any proposed changes to the nature, extent or scope of activities included in the project scope.

Jackie Mclean and Sven Baxter will be responsible for conducting the review of the CEMP.

The revised CEMP will record any decisions made and the reasons for making them. Any revised and approved CEMP will be submitted for approval.