

Sewage Treatment Plant Pollution Incident Response Management Plan



| Document Control | | | | | |
|---|-----------|---|--------|----------------|----------|
| PBPL SEMS 3.4.2 | | | | | |
| Sewage Treatment Plant Pollution Incident Response Management Plan | | | | | |
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Contents

| | | |
|---|--|----|
| 1 | Purpose | 4 |
| 2 | Scope..... | 4 |
| 3 | Objectives | 4 |
| 4 | Definitions | 4 |
| 4.1 | Pollution | 4 |
| 4.2 | Pollution Incident | 4 |
| 4.3 | Material Harm..... | 5 |
| 5 | Risk Management | 5 |
| 5.1 | Visitors and Guests | 5 |
| 5.2 | Emergency Muster Location | 5 |
| 5.3 | Emergency Response Equipment | 5 |
| 6 | Inventory of Pollutants and Plant..... | 6 |
| 7 | Safety and Spill Response Equipment | 7 |
| 8 | Notifications | 10 |
| 8.1 | When does notification need to be given of a pollution incident? | 10 |
| 8.2 | Communicating with Neighbours and the Local Community | 10 |
| 8.3 | Contact Details..... | 11 |
| 8.4 | Incident Information to provide to the EPA..... | 14 |
| 8.5 | Additional Resources..... | 14 |
| 8.5.1 | Laboratory, Fyshwick..... | 14 |
| 8.5.2 | Liquid Pumping and Transport..... | 14 |
| 8.5.3 | Portable Toilets..... | 15 |
| 8.5.4 | Expert Systems Advice..... | 15 |
| 9 | STP Site Maps | 16 |
| 10 | Staff Training..... | 19 |
| 11 | Plan Review and Testing..... | 19 |
| ATTACHMENT 1 - POLLUTION INCIDENT ACTION PLAN | | 20 |
| 1 | Initial Response – STP Operator or Attendant..... | 21 |
| 2 | Emergency Incident Coordinator (Operations Director or delegate) | 22 |
| 3 | Sewage Spill - Clean up | 22 |
| 3.1.1 | PPE to Minimise Risks..... | 22 |
| 3.1.2 | Other Safety Considerations..... | 23 |
| 3.1.3 | Clean-up and disposal..... | 23 |
| 4 | Incident Debrief..... | 24 |
| 5 | Investigation (Internal)..... | 24 |
| ATTACHMENT 2 - COLLECTING SOIL OR WATER SAMPLES | | 25 |
| Water Samples | | 26 |
| Soil Samples..... | | 26 |
| Storing Samples..... | | 27 |

Chain of Custody27
ATTACHMENT 3 - RISK ASSESSMENT29

EXTRACT

7 Safety and Spill Response Equipment

The tables below outline the safety equipment, PPE and spill response equipment kept onsite at the STP.

Staff training in the safe and effective use of this equipment is addressed in *Section 10*.

Table 7.1 Safety equipment kept at Bullocks Flat

| <u>Safety Equipment</u> | <u>Purpose</u> | <u>Location</u> | <u>Image</u> |
|---|---|--|---|
| Code Pack | Code Pack for use in Code Emergencies | Administration Office, Skitube Terminal Building (near kronos clock) |  |
| Draeger gas detector x 1 MSA Altair x 1 | Monitoring gas discharge of confined space areas and chemical areas. Note: Gas detectors are maintained under a service contract with Draeger Australia and serviced and calibrated every 6 months in accordance with Australian Standards and records held on a company database. | STP Lab |  |
| Draeger self-contained breathing apparatus (S.C.A.B.A) sets x 1 | To allow workers to enter oxygen depleted atmospheres. Note: SCBA are maintained under a service contract with Draeger Australia and serviced and calibrated every 6 months in accordance with Australian Standards and records held on a company database. | Workshop / storage area behind STP |  |
| First aid kits | Initial first aid response | STP Lab, on wall |  |
| Rescue tripod and hand winch | Confined Space rescue | Workshop / storage area behind STP |  |






| <u>Safety Equipment</u> | <u>Purpose</u> | <u>Location</u> | <u>Image</u> |
|--|--|--|---|
| Rescue tripod mast | Tank Rescue Operations | Workshop / storage containers behind STP |  |
| Safety harnesses x 2 sets | Confined Space and Tank access operations | STP Lab |  |
| Eye wash station shower | Initial first aid treatment where hazardous contaminants have come into direct contact with part of the body – to wash away contaminants | Chemical shed |  |
| Water trailer (not operable during winter) | Firefighting | Bullocks Flat. | |




Table 7.2 PPE kept onsite

| <u>Equipment</u> | <u>Location</u> | <u>Image</u> |
|-----------------------------------|---------------------------|---|
| Disposable overalls | Blue box in lab |  |
| Rubber and general-purpose gloves | Blue box in lab |  |
| Rubber boots and waders | STP Plant Room - cupboard |  |

| <u>Equipment</u> | <u>Location</u> | <u>Image</u> |
|-----------------------------|-----------------|---|
| Safety glasses / goggles | Blue box in lab |  |
| Face shields | STP Lab |  |
| Face masks | Blue box in lab |  |
| Hearing protection | Blue box in lab |  |
| Respirators | Blue box in lab |  |
| Hard hats | To be confirmed |  |
| Wet weather coats and pants | STP Lab |  |

EXTRACT

Table 7.3 Spill response equipment kept onsite

| <u>Spill Equipment</u> | <u>Location</u> | <u>Image</u> |
|---|--|---|
| Spilmax 240ltr spill kit | Located at chemical shed area |  |
| 120L hydrocarbon spill kit | Located at the rear of the STP Control Room beside the chlorine drum |  |
| Other spill kits | One hydrocarbon spill kit located at Skitube Maintenance and one 90 litre spill kit located at the Freight shed. | 3 mini boom bags, 5 absorbent pads, and 1 poly bag at Maintenance. |
| Suction trailer – 1000 litres with pumping capacity | Located on Perisher premises as needed operationally. Furthest distance from STP, 48km. |  |

8 Notifications

8.1 When does notification need to be given of a pollution incident?

Notification is required if a pollution incident causes or threatens to cause 'material harm to the environment'. Material harm is defined in section 4 of this plan.

8.2 Communicating with Neighbours and the Local Community

The following parties must be promptly notified of any overflow or discharge from the STP that may pose a risk to public health:

- Mountain Office (*typically will notify the following*) -
- Call 000 in the case of an emergency;
- Internal stakeholders, including the relevant Supervisors/Managers, see Table 8.1. The relevant personnel will then communicate with the appropriate external stakeholders and authorities as listed in Table 8.2.

8.3 Contact Details

Table 8.1 Internal Personnel Contact Details

| STP Emergency Procedure Perisher Internal Notifications | | | |
|--|---------------------------------|---------------------------------------|---------------------------------------|
| Mountain Office | Channel 1 (Mountain network) | Phone 2 way radio | Notified by: Time/Date: Signed: |
| Skitube Control Room | Channel 1 (Skitube network) | Phone 2 way radio | Notified by: Time/Date: Signed: |
| Operations Director / Emergency Incident Coordinator – Michael Fearnside | | Phone Speed Dial Mobile | Notified by: Time/Date: Signed: |
| Civil and Building Manager – David Rowson | | Phone Speed dial Mobile | Notified by: Time/Date: Signed: |
| Sewage Treatment Plant Operator – Ben D’Helin | | Phone Mobile | Notified by: Time/Date: Signed: |
| Skitube Manager – Luke Rickards | | Phone Speed dial Mobile | Notified by: Time/Date: Signed: |
| Skitube Electrical Manager – Garth Bush | 6459 457 | Phone | Notified by: Time/Date: Signed: |
| Risk, Systems and Compliance Director, Systems and Compliance – Richard Tuck | 6459 497 3039 | Phone Speed Dial Mobile | Notified by: Time/Date: Signed: |
| COO – Peter Brulisauer | | Phone Speed Dial Mobile | Notified by: Time/Date: Signed: |
| Environment Manager – Tanya Bishop | | Phone Speed Dial Mobile | Notified by: Time/Date: Signed: |
| Safety Systems Manager – David Milford | | Phone Speed dial Mobile Home | Notified by: Time/Date: Signed: |
| Environmental Officer – Amber Gault | | Phone Speed dial Mobile | Notified by: Time/Date: Signed: |

Table 8.2 External Stakeholders and Relevant Authorities

| | | |
|--|---|---------------------------------------|
| EPA Reporting Hotline (Refer Table 8.3) | 13 15 55 | Notified by: Time/Date: Signed: |
| <i>For immediate EPA advice:</i> Queanbeyan EPA Office | (02) 6229 7002 or Queanbeyan@epa.nsw.gov.au . | Notified by: Time/Date: Signed: |
| Department of Planning, Industry and Environment (DPIE), Regional (Mick Pettitt) | (02) 6450 5501 | Notified by: Time/Date: Signed: |
| Department of Planning, Industry and Environment (DPIE) – Municipal Services Unit (Perisher Valley) (Ryan Petrov) | (02) 6457 4444 | Notified by: Time/Date: Signed: |
| Snowy Monaro Regional Council Notify SMRC Enviro Health Officer, will notify residents | (02) 6451 1195 1300 345 345 | Notified by: Time/Date: Signed: |
| Greater Southern Public Health Unit (Albury) - Infectious Disease Outbreak After hours number diverts to Albury Base Hospital - ask for on call Public Health Officer | (02) 6080 9900 | Notified by: Time/Date: Signed: |
| Safework NSW Reporting Hotline | 13 10 50 | Notified by: Time/Date: Signed: |
| NSW Fire and Rescue If 000 already called, do not ring | 1300 729 579 | Notified by: Time/Date: Signed: |
| NSW Local Land Services - Cooma | (02) 6452 1455 | Notified by: Time/Date: Signed: |
| Lake Crackenback Resort General Manager (Anthony Cleary) | (02) 6451 3000 | Notified by: Time/Date: Signed: |
| Snowy Hydro (Safety and Environment Incidents Line) | 1800 766 333 | Notified by: Time/Date: Signed: |
| Gaden Trout Hatchery General Manager Assistant Manager | (02) 6451 3400 (02) 6451 3401 | Notified by: Time/Date: Signed: |

| | | |
|----------------------------|----------------|---------------------------------------|
| NSW Office of Water – Bega | (02) 6491 8200 | Notified by: Time/Date: Signed: |
|----------------------------|----------------|---------------------------------------|

Notifications to media will be made in accordance with the Reportable Events Policy ([SEMS 3.4.2](#))

EXTRACT

8.4 Incident Information to provide to the EPA

| | |
|---|---------------------------------|
| STP Bullocks Flat | |
| Date | Time |
| Nature of spill | Duration of spill |
| Estimated quantity | Concentration of any pollutants |
| Discharge point | |
| Cause of the spill and any circumstances | |
| Action taken or proposed to be taken | |
| Any resulting pollution or threatened pollution from the action | |

8.5 Additional Resources

8.5.1 Laboratory, Fyshwick

Contact for coordinating delivery and analysis of samples:

ALS Water Resources Group
Client Services
16B Lithgow Street, Fyshwick
(02) 6202 5404

8.5.2 Liquid Pumping and Transport

Contact Southeast Waste Recovery (6456 4657 or Steve Field 0428 409 669) if assistance is required for any pumping.

Contact Cleanaway (Liquids and Industrial Services) in Queanbeyan if further assistance is needed with pumping and liquid transport (02 6297 8185).

8.5.3 Portable Toilets

For Portable toilets, where required, contact local Council (Table 9.2) or Events Hire contacts (eg. TFH Cooma 0418 666 663). Local builders may also be able to assist.

8.5.4 Expert Systems Advice

Adrien Ridgley, Senior Process Specialist, Aspect Process Systems (Narooma), 02 4476 7606 / 0407 663 008.

Simmonds & Bristow, 1800 620 690 (QLD)

EXTRACT

ATTACHMENT 1 -

POLLUTION

INCIDENT ACTION

PLAN

EXTRACT

Attachment 1 - Dooch's Flat Sewage Treatment Plant, Pollution Incident Response Management Plan

1 Initial Response – STP Operator or Attendant

| | |
|---|-----------------------|
| Name | |
| Position | |
| Date | Time |
| Description of Incident | |
| Location of Incident | |
| Checklist | Time Completed |
| <u>Assess</u> the situation and identify action plan | |
| <u>Notify</u> - If immediate threat to health or property, Phone 000, <u>OR</u> Phone Mountain Office and request 000 be called. | |
| Ring Mountain Office (ext 4400) <input type="checkbox"/> Notify of incident <input type="checkbox"/> Request internal notifications (section 8) <input type="checkbox"/> Request additional assistance / resources | |
| <u>PPE</u> - Put on all required PPE - safety gloves, boots, face mask, etc | |
| <u>Stop</u> the spill at the source if possible. Isolate points at central switch board and at the external point | |
| <u>Contain</u> any spills with booms from spill kits or sand bags. Prevent spill from entering stormwater drains or water courses. Close isolation valve at end of holding pond (ie. discharge to channel, see Figure 9.1 Site Map). | |
| To control inflow to STP, phone the C&B Manager's mobile and the Skitube Manager by radio/phone <input type="checkbox"/> request stop/slow inflow to STP (toilets, wash areas, water supply) <input type="checkbox"/> request additional assistance / resources | |
| Control the flow within the STP if necessary - move sludge between tanks using pumps | |
| Preserve the scene and take photos | |
| Assist with clean-up when appropriate | |
| Signature | |

2 Emergency Incident Coordinator (Operations Director or delegate)

If appropriate, refer to Major Incident Management Plan (sems 3.4.2) - developed for major incidents which fall outside the definition of a Code Red or Blue. It may be utilised in the event of a major environmental incident, public disturbance or other emergency requiring a resort response.

- 1) Identify and set up a safe control point at the entrance to the site with barriers and signage.
- 2) Identify a person to manage the control point
- 3) Set up additional barriers and signage around the contaminated site.
- 4) Identify a process for registering persons entering or leaving the site.
- 5) Ensure all staff have appropriate PPE before entering the site.
- 6) Organise jobs for staff attending the incident. Ensure only staff who are vaccinated are involved in clean-up of sewage.
- 7) Ensure all media requests are directed to the Sales and Marketing Director or in his absence the COO (refer to the PBPL POL 023 Reportable Events within Perisher Policy and Procedure).
- 8) Identify the extent of the incident and clean up as required (if it is safe to do so)
 - ⇒ Determine if it is possible and safe to recover the spilled substance (e.g. sewage);
 - ⇒ Subject to safety considerations use the suction trailer and equipment to recover the spillage, and/or engage a local approved contractor to assist with the recovery and the clean-up;
 - ⇒ Assess the need for removal of activated sludge. Contact the National Parks and Wildlife Service Perisher Team Leader to request transfer of activated sludge to Sawpit and or Perisher STP as available.
- 9) Contact the EPA for advice on managing pollutants which have entered waterways.
- 10) Carry out water and soil sampling – refer to Appendix C of the [SEMS 3.4.2 Environmental Incident Response and Reporting Procedure](#). Ensure a chain of custody occurs when sampling. Take photos of the samples. Ensure there are enough sample containers available for a minimum of 24 hours of testing.

3 Sewage Spill - Clean up

3.1.1 PPE to Minimise Risks

To minimise the risks to human health associated with exposure to sewage, personnel are to ensure the appropriate PPE is used in any clean-up, including:

- Ensure vaccinations are up to date for all workers undertaking the clean-up, specifically Tetanus, Diphtheria and Hepatitis A and B.
- Eye protection (goggles are recommended if using a hose and/or any chemicals);
- Face mask;
- Rubber boots;
- Rubber gloves;

- Impervious coveralls;
- Breathing apparatus (only if trained and competent in its use); and
- Thorough full body wash immediately after the clean-up is completed.

3.1.2 Other Safety Considerations

The following safety measures must be observed when handling sewage or contaminated materials:

- Have all unnecessary personnel vacate the area immediately;
- Determine whether professional help or other assistance is required.
- Conduct a risk-based approach to determine a safe work procedure. This includes (but is not limited to):
 - an initial site assessment,
 - confined space assessment. Do not enter confined spaces that have been contaminated with sewage, as toxic, flammable or asphyxiating gases may be present. Implement confined space entry procedures;
 - monitoring and permits (if required),
 - dealing with electrical hazards. Be aware of electrical hazards when dealing with floodwater,
 - removal of materials,
 - review of SDS (if required). Read labels on hazardous goods and other chemicals, observe the appropriate safety precautions and follow the manufacturer's directions;
 - the transfer and disposal of sewage and contaminated materials,
 - site sanitation. Always assume that floodwater is contaminated with sewage, and
 - decontamination of workers.
- Contact a doctor immediately if an illness is suspected.

3.1.3 Clean-up and disposal

The following safety measures must be observed when cleaning up the contaminated area, and disposing of contaminated objects:

- Assess and manage the hazards that are present;
- Ensure all necessary and appropriate PPE is used;
- Clean all contaminated objects and surfaces immediately to reduce the risk of infection and to prevent further microbial growth. The longer that contaminated water remains unattended the greater is the risk of an infection occurring. Cleaning should be carried out before the sewage dries out to avoid contaminated dust (airborne pathogens) being dispersed into the air;
- Remove any gross contamination and dispose of in the sewage treatment facility and not into storm drains or landfill;
- Clean hard surfaces such as paving, concrete and tarmac with a detergent solution then disinfect. **Use only approved disinfectants**, as failure to do so can have adverse effects on the operation of the STP;

- Do not allow waste water to enter drains or water courses it may be necessary to construct a bund using sandbags or other available material, e.g. embankment of earth, brick, stone or other suitable material to retain liquid;
- Dispose of liquids to a suitable collection pit;
- Allow contaminated soil, sand or lawn to degrade naturally as microbes will be inactivated within several days of exposure to UV radiation from sunlight. Bacterial numbers on grass are generally reduced to background levels within 20 days. Place barriers and signs to restrict access to the area during this time;
- Clean all equipment and PPE used with a detergent then a disinfect (or use a combined product) or discard if possible (eg mop heads);
- Immediately wash and disinfect any wound that comes into contact with sewage; and
- Shower and change out of work clothes before leaving. If the STP shower is not able to be accessed; there are showers at the railway workshop and the Bullocks Flat terminal. Do not keep soiled work clothes with other clothes. Launder work clothes separately or discard.

4 Incident Debrief

As soon as possible after the emergency response and no more than 7 days, the C&B Manager should convene a meeting of all relevant personnel to consider:

- The cause and implications of the pollution incident;
- Aspects relative to:
 - The root cause, the contributing factors and any other matters affecting safety;
 - The effectiveness of the notification, coordination and management approach;
 - The effectiveness of the first response and the implementation of pollution control measures; and
 - The effectiveness of the subsequent emergency response and recovery,
 - A review of this Plan.
- The scope and conduct of the investigation, including the writing of a report; and
- The distribution of the investigation report to stakeholders.

5 Investigation (Internal)

Systems and Compliance staff will thoroughly investigate the incident, in accordance with Perisher's [SEMS 3.8.1 Incident and Hazard Investigation Management Procedure](#) to first determine and then analyse the facts, identify the root cause and contributing factors and to make recommendations for improvements to safety and the operation of the STP. The investigation report will be forwarded to the Risk, Systems and Compliance Director, the Operations Director and the COO.

ATTACHMENT 2 - COLLECTING SOIL OR WATER SAMPLES

(Attachment 2 - Bullocks Flat Sewage Treatment Plant, Pollution Incident Response Management Plan)

Water Samples

Advice may be sought on the parameters relevant to the pollution incident from suitably qualified consultants/experts or the EPA (if notified).

Where an incident has impacted, or has the potential to impact a waterway, the Emergency Incident Coordinator is to arrange for the following to be bought to site to conduct water sampling:

- 3 x 1 litre plastic bottles;
- 3 x bacterial sample bottles;
- bottle labels and a pen; and
- disposable gloves.

Sample bottles are available at the Bullocks Flat Sewage Treatment Plant office, the Smiggin Holes Civil and Building Maintenance office or from the Environment Manager).

Sampling will be conducted as follows:

1. Ensure bottles are clean.
2. Wear disposable gloves to prevent cross-contamination.
3. Use a new set of gloves for taking each sample. Dispose of gloves between samples.
4. Take the following samples;
 - a. One sample in each bottle type of the pollutant from the spill location.
 - b. One sample in each bottle type of river water approximately fifty (50) metres (m) upstream of the spill.
 - c. One sample in each bottle type of river water approximately fifty (50) m downstream of the spill.
5. Seal and label all bottles with date, time and location of sample.
6. Store the samples in accordance with this Procedure (*section 12.3*).

Soil Samples

Advice may be sought on the parameters relevant to the pollution incident from suitably qualified consultants/experts

Where an incident has impacted, or has the potential to impact soil, the Emergency Incident Coordinator is to arrange for the following to be bought to site to conduct soil sampling:

- at least two bacterial sample bottles;
- bottle labels and a pen; and
- disposable gloves.

Sample bottles are available at the Bullocks Flat Sewage Treatment Plant office, the Smiggin Holes Civil & Building Maintenance office and from the Environment Manager in the Perisher Valley Centre.

Sampling will be conducted as follows:

1. Ensure bottles are clean.
2. Wear disposable gloves to prevent cross-contamination.
3. Use a new set of gloves for taking each sample. Dispose of gloves between samples.
4. Take a minimum of two (2) samples of the pollutant from soil in and around the spill location.
5. Seal and label all bottles with date, time and location of sample.
6. Store the samples in accordance with this Procedure (*section 12.3*).

Storing Samples

Sample bottles are kept in the blue esky marked "SAMPLES" in the office at the Bullocks Flat sewerage treatment plant and the Civil and Building Maintenance office at Smiggin Holes.

Store samples in fridge/ice/snow (samples must be stored below 4 degrees) and arrange testing for the following parameters as soon as possible with the testing contractor (advice may be sought on the parameters relevant to the pollution incident from suitably qualified consultants/experts or the EPA):

- Faecal coliforms – 1 bacterial sample bottle to be used for testing purposes
- Ammonia
- Total Nitrogen
- Total Phosphorus
- Biological Oxygen Demand
- Suspended Solids
- Total Hydrocarbons

| | |
|------------------|--|
| Send Samples to: | ALS Global 16B Lithgow Street PO Box 1834 Fyshwick ACT 2609. Contact: Client Services Phone: 02 6202 5430 Fax: 02 6202 5412 Email: ecoliseresults@alsglobal.com |
|------------------|--|

Chain of Custody

The Emergency Incident Controller will need to complete the Chain of Custody form (attached) for each sample. Alternatively, use a Chain of Custody form provided by the laboratory.



| Specimen Details | |
|---|--------------------|
| <input type="checkbox"/> Water sample <input type="checkbox"/> Soil Sample | |
| Name of Person collecting samples | Container Serial # |
| Position: | |
| Requesting Authorised Testing Officer | |
| Name | Contact Number |
| I certify that the specimen identified on this form is that provided to me by the person name above and this specimen has been collected, labelled and sealed in accordance with Perisher's Environmental Incident Response and Reporting Procedures. | |
| Signature | Date |
| Collection Certification | |
| Collection Location | |
| Date | Time |
| Collection Comment | |