

3.10.13 Pollution Incident Response Management Plan (PIRMP)

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Objectives

The objectives of this Pollution Incident Response Management Plan (PIRMP) are to:

1. Provide comprehensive and timely communication about a pollution incident to:
 - a. Staff at the premises
 - b. The EPA
 - c. Department of Health
 - d. SafeWork NSW Fire and Rescue Services
 - e. Members of the community who may be affected
2. Minimise and control the risk by identification and planned actions.
3. Identify staff training requirements, allocation of responsibilities and regular testing of the plan.

The PIRMP refers to detailed procedures which are to be implemented subject to the type of incident.

Definition of Pollution Incident

Pollution incident means an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.

A pollution incident is required to be notified if there is a risk of “material harm to the environment”.

- a. harm to the environment is material if:
 - i. it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or
 - ii. it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and
- b. loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.

It does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.

Responsibility for Activating the Plan

The following staff members have responsibility to perform the following roles in the event of a pollution incident.

Responsible for making first assessment and response, taking pre-emptive action and immediately advising Waste Services Manager		
Waste Operations Superintendent	0437 924 491	6499 2224
Responsible for making second assessment and Activating Plan. Responsible for advising Director		
Waste Services Manager	0419 668 401	6499 2434
Responsible for Activating Plan in absence of Waste Services Manager		
Director Assets and Operations		6499 2119

Risk Identification and Likelihood

Hazard	Risk Factors	Impact	Risk rating/likelihood	Control Measures	Residual Score
Spill of chemicals, fuels or oil	plant and vehicle hydraulic, fuel and oil lines or storage reservoir failure	Contamination of land/waterways Combustion	Major/likely (High 21)	Routine servicing of site plant/vehicles Spill kits and spill containment available Staff trained in spill response	Moderate/Unlikely (Medium 9)
	Leakage of site storage containers	Contaminated soils Contamination of waterways Combustion	Major/Possible (High 18)	All fuels, oils and other chemicals stored in appropriate bunded container(s) Minimal quantities left on site	Moderate/Unlikely (Medium 9)
	Incompatible or incorrect storage of chemicals	Explosion/fire Release of gases	Major/Unlikely (Medium 14)	Store chemicals in correct storage/cabinets Maintain minimal quantities Ensure correct storage distances	Moderate/Unlikely (Medium 9)
	Chemicals leaking from storage	Explosion/fire Fumes contamination of land/waterways	Major/Unlikely (Medium 14)	Use approved chemical storage containers/cabinets	Moderate/Unlikely (Medium 9)

Hazard	Risk Factors	Impact	Risk rating/likelihood	Control Measures	Residual Score
Leachate discharge off site	Leachate Storage Dams overflow	Leachate contaminating local waterways/land	Major/Possible (High 18)	Use evaporator to promote faster evaporation Monitoring of dam levels through site environmental Checklist Irrigation within the lined landfill cell. Dripper system running from top of lined cell down. Cell filling plan designed to minimise leachate generation through diverting clean water.	Major/Rare (medium 10)
	Leachate over topping waste landfill cells	Leachate contaminating local waterways/land	Major/Possible (High 18)	Cell filling plan designed to minimise leachate generation through diverting clean water. Regular pumping out of leachate sumps Irrigation within the lined landfill cell. Dripper system running from top of lined cell down.	Major/Rare (medium 10)
	Leachate conveyance line failure	Leachate contaminating local waterways/land/gr oundwater	Major/Possible (High 18)	Run leachate pump outs manually. This ensure supervision. Conveyance line outlet is fixed in place to prevent pipe from coming out of dam.	Major/Rare (medium 10)
	Leachate dam wall collapses	Leachate contaminating local waterways/land	Major/Rare (Medium 10)	Routine inspections through site environmental checklists	Major/Rare (medium 10)

	Leachate migrating into groundwater through lined cells	Contamination of groundwater	Major/Possible (High 18)	Liner system is installed and tested as per engineering standards. Ongoing monitoring of bore holes around site as per site EPL. Protective cover placed over liner prior to filling. selective waste material used when going onto protective cover. Any damage to liner is reported and repaired as per engineers specification.	Major/Rare (medium 10)
	Leachate springs	Leachate contaminating local waterways/land	Major/Possible (High 18)	Routine inspections through site environmental Checklists If detected earthmoving equipment to investigate and rectify.	Major/Rare (medium 10)

Hazard	Risk Factors	Impact	Risk rating/likelihood	Control Measures	Residual Score
Fire/Explosion	Fire in active landfill cell	Smoke subsurface fires hard to extinguish Fire escaping site and damaging other properties damage to plant Injury to staff Damage to liner system	Major/Possible (high 18)	Fire fighting equipment such as water trailer/tank, hose reels and access to town water. Remove and isolate burning material where practicable. Use cover dirt to smother fire (if practicable). Inspection of incoming loads Waste acceptance criteria Staff training Call 000	Moderate/unlikely (Medium 9)

	Fire in incoming vehicle	Smoke Starts a fire in landfill cell Property damage Fire spreading and escaping site	Major/Possible (high 18)	Fire fighting equipment such as water trailer/tank, hose reels and access to town water. Remove and isolate burning material where practicable. Inspection of incoming loads Waste acceptance criteria Staff training Call 000	Moderate/unlikely (Medium 9)
	Fire impacting site	Smoke Potential psychical injury Damage to property Damage to liner system Inability to operate landfill		Ground maintenance e.g. regular mowing/slashing Sealed road/bare ground surrounding waste cell. Hose reels, trailer/tanker Access to mains water with hydrants On site storage tanks Call 000	

Actions taken immediately after a pollution incident

Actions to be taken during a pollution incident

The Waste Operations Superintendent (or delegate) shall make first assessment of pollution incident and take first response action if practicable.

The following should be considered only where taking such actions may minimise or prevent any risk of harm to human health or the environment. This plan is to be read in conjunction with the detailed site procedures, and these actions should only be implemented where the risks associated with these measures have been considered, and the safety of personnel implementing these measures is not compromised.

A risk assessment shall be undertaken in accordance with Council's procedure (WH&S Manual section 9.2).

This Plan should be read in conjunction with BVSC Waste Services procedures and WHS Manual

In the event of fire or explosion:
Evacuate site in accordance with evacuation plan
Ensure all site visitors and staff are accounted for
Assess whether there is need for first aid or medical treatment amongst staff and visitors – Call 000 for ambulance if required.
Contact Fire & Rescue 000 and Waste Services Manager
Deployment of pumps & fire hose if safe to do so.
Deployment of earth moving equipment to smother or isolate fire from other flammable materials if practicable
Contain or extinguish fire if practicable – otherwise await assistance from NSW Fire & Rescue Services.

Ring NSW EPA and all other relevant stakeholders.

Lodge an incident report

Conduct operational debrief and implement any necessary changes

Check all response equipment for damage

Check plant for any damage

In the event of a significant spill of chemicals, fuels or oil:

Evacuate site in accordance with evacuation plan

Ensure all site visitors and staff are accounted for

Assess whether there is need for first aid or medical treatment amongst staff and visitors – Call 000 for ambulance if required.

Contact Fire & Rescue 000 (Hazmat) and Waste Services Manager

Deploy mobile spill kit if practicable using PPE provided in kit.

Deploy earthmoving equipment to contain spill either by bunding or by use of absorbent materials

In the event of leachate being discharged off site

Isolate the affected area. Evacuate & close the site if appropriate.

Contact Waste Services Manager

Deploy earthmoving equipment to contain leachate spill by ponding/bunding if practicable

Deploy pumps/tankers and draw down leachate level pumping to appropriate storage dam if practicable or reinject to landfill in a stable, lined cell area.

Conduct sampling and notification as per EPL and PIRMP as required.

If storage is nearing or has reached capacity, then request for emergency pump out to local STP by temporary trade waste agreement will be sought.

In the event of a biosecurity hazard (e.g., uncontrolled dumping of diseased plant or animal matter):

Isolate the affected area. Evacuate & close the site if appropriate.

Contact Waste Services Manager & Department of Primary Industries

Second Assessment

The Waste Operations Superintendent shall contact the Waste Services Manager who will attend the site without delay, and undertake a second assessment of the incident.

The Waste Services Manager shall determine whether the incident is notifiable and activate the PIRMP accordingly.

Notifications

The Waste Services Manager shall notify the following authorities, without exception, immediately upon assessing the incident:

Contact Authority	Phone Number
Environment Protection Authority EPA – Environment Line	131 555
Fire & Rescue NSW	000
NSW Health Department – Public Health Unit	(02) 6080 8900
SafeWork NSW	131 050

For bio-security incidents

NSW Department of Primary Industries DPI – Bega Emergency Management	02 6491 7800
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Inventory of Pollutants

The inventory of pollutants is provided as a guide for emergency purposes to estimate the potential scale, and appropriate response to an incident. The storage locations are provided in the site diagrams in Appendix 1.

Pollutant	Merimbula R&WD	Bermagui R&WD	Eden R&WD	CWF
General solid waste landfill	0.5 million tonnes	0.25 million tonnes	0.25 million tonnes	20,000 tonnes/annum
Vegetation waste stockpiles	Up to 3000 tonnes at any one time	Up to 500 tonnes at any one time	Up to 500 tonnes at any one time	N/A
Compost/mulch stockpiles	Up to 3000 tonnes at any one time	Up to 500 tonnes at any one time	Up to 500 tonnes at any one time	N/A
Timber stockpiles	Up to 100 tonnes at any one time	Up to 50 tonnes at any one time	Up to 50 tonnes at any one time	N/A
Tyre stockpiles	Up to 50 tonnes at any one time	Up to 50 tonnes at any one time	Up to 50 tonnes at any one time	N/A
Mattress stockpiles	Up to 100 mattresses at any one time	Up to 100 mattresses at any one time	Up to 100 mattresses at any one time	N/A
Leachate storage	Up to 1ML in landfill cells and storage tanks	Up to 1ML in landfill cells and storage dams	N/A	13ML in 3 dams
Sediment laden water storage	Up to 1ML in dams	Up to 0.5ML in storage dam	Up to 0.2ML in storage ponds	Up to 8ML in 3 dams.
Fuels and oils	Up to 2000L in plant and stored on site (lubricants)	Up to 2000L in plant and stored on site (lubricants)	Up to 2000L in plant and stored on site (lubricants)	Up to 2000L in plant and stored on site (lubricants)
Oil/water mixture	N/A	N/A	N/A	N/A
Chemicals	Up to 200L in storage	Up to 200L in storage	Up to 200L in storage	Up to 200L in storage

Safety Equipment

The following safety equipment is provided to minimise the risks to human health and to the environment and to contain or control a pollution incident.

Equipment	Merimbula R&WD	Bermagui R&WD	Eden R&WD	CWF
Mobile Spill Kits	At gatehouse	At gatehouse	At gatehouse	At machinery shed
Fire extinguishers	At gatehouse	At gatehouse	At gatehouse	At gatehouse, site offices & plant
Fire hose reels	At gatehouse	At green (buy back) shed	40000L tank with petrol powered pump available if needed	Hose reels in active cell at regular intervals as required Mobile – on water trailer
Hydrant points	See maps	See maps	See maps	Hydrants points across the site (see appendix 3 maps)

PPE	At gatehouse or Council store (Maher St)	At gatehouse or Council store (Maher St)	At gatehouse or Council store (Maher St)	Site office machinery shed site gatehouse
First Aid Kits	At gatehouse Backhoe Organics work shed	At gatehouse	At gatehouse	At gatehouse Mobile kits in Kubota (4 wheeler) Site truck Fuel Ute

Communicating with Neighbours and the Local Community

In the event of a notifiable incident occurring, owners or occupiers of premises in the vicinity of the licenced premises shall be advised and updated in one or more of the following ways, depending on the risks posed by the incident:

Nature of pollution incident	Mechanism for warning residents
Risk to health and safety of nearby residents appreciable	Door knocking, telephone and/or letterbox drops
Risk to health and safety of nearby residents not appreciable	Media release and Council website

Minimising Harm to Site Staff and Visitors

Refer to Initial Assessment & First Response. The emergency evacuation plan is displayed at each gatehouse. The Emergency Evacuation Plan shall be activated in the event of a significant pollution incident, where there is an appreciable risk to the health and safety of site staff and visitors.

Maps

Diagrams are provided in Appendix 3, indicating the location of the premises and surrounding area that may be affected in a pollution incident. The diagrams show the location of various storage areas, stormwater drains, dams and discharge points.

Staff Training

Site staff shall be trained in PIRMP procedures as part of site-specific workplace induction. The training shall:

- Raise awareness of the Plan amongst site staff
- Types of pollution incidents which may occur at waste facilities
- First assessment and response, and
- The various roles and responsibilities involved in activating the Plan.

Training exercises will be carried out periodically during testing of the plan.

Records of training will be recorded in site induction matrix, toolbox talk minutes and in site diaries.

Availability of Plan

The plan shall be kept in the site procedures folder at each licenced premises. A public summary of the Plan is available on Council's website.

Testing of Plan

Plans shall be tested by a combination of desktop review & update, and site drills.

Records of testing, including what was tested, and the staff member who undertook the test shall be recorded in the Record of testing section (appendix 2) and Record of amendments section (Appendix 1).

The Plan is a Controlled document. Review and update of the plan is authorised by the Waste Services Manager.

Implementation of Plan

The Plan shall be implemented immediately in the event of material harm to the environment being caused or threatened.

Appendix 1. Record of Amendments to PIRMP

Date	Reason for Amendment	PIRMP Section	Page Number	Authorised by
6/12/19	Update of PIRMP in relation to actions raised by NSW EPA Audit (Aug 2019)	Risk identification and likelihood section added	3,4	Kurt Marsh
		Addition of Record of amendment	10	Kurt Marsh
		Addition of Record of testing page	11	Kurt Marsh
		Addition of maps	12,13,14,15	Kurt Marsh
		Updated BVSC phone contacts	3	Kurt Marsh
01/09/20	Change in staff	Responsibility for activating plan.	3	Kurt Marsh
01/09/20	Error found during PIRMP review. Incorrectly referencing maps in appendix 1.	Maps	9	Kurt Marsh
19/01/20	Updates maps. Added Merimbula, Eden and Bermagui	Maps	12 to 18	Kurt Marsh
07/12/21	Change of staff	Responsibility for activating plan.	3	Kurt Marsh
	Update to risk assessment. New risks and upgrading of existing risks	Risk identification and Likelihood	4 to 6	Kurt Marsh
	Additional steps added to response to pollution incident. These were identified after an incident occurred during the year	Actions taken immediately after pollution incident	7, 8	Kurt Marsh
	Update to inventory of pollutants	Inventory of pollutants	10	Kurt Marsh
	Update for safety equipment. Spill kit location, addition of mains water/hydrants, first aid kits updated for CWF and Merimbula.	Safety Equipment	10,11	Kurt Marsh
03/05/22	Update safety equipment Eden	Safety Equipment	10,11	Kurt Marsh

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Appendix 2. Record of Testing PIRMP

Date Tested	Tested By	Details of test	Issues identified	Next testing date
28/07/17	Kurt Marsh Michael Jarochowicz Vanessa O'Keefe Robert Matthews David Screen Jason Stratford	PIRMP – Exercise with Logicus Environmental Management	The need for a site location statement to be prepared Investigate hydrants or ring mains connectivity Ensure staff are aware that anyone can call 000 Staff training Update PIRMP to reflect new staff positions	TBD
21/01/19	Kurt Marsh	Desktop review	Update staff contacts Look into developing more site specific PIRMPs Update equipment list Fix duplication of contacts	January 2020
27/11/20	Kurt Marsh David Screen	Desktop review	Emergency cell needs to be included Hydrant points need to be added to maps Change in tank volumes Change in extinguishers and locations Missing maps for other licenced sites. Only CWF maps present Need to train staff in PIRMP and create a training register Need to involve staff in PIRMP test Need to formalise a template for conducting test of PIRMP.	TBD
07/12/21	Kurt Marsh David Screen	Desktop Review – Leachate spill CWF Leachate Spill Merimbula Perched leachate escaping batter wall at Bermagui Eden – Fire	Map for CWF needed updating to include emergency cell. This was identified last test but had not yet been completed. Previously identified additional steps had still not been added to response to leachate spill event. Needed to add an additional risk for leachate escaping lined cell. This occurred earlier in year due to extreme rain events.	24/01/21 (tentative)
03/05/22	Kurt Marsh David Screen	Desktop review	Nil	TBC
19/09/23	Kurt Marsh David Screen Alan Gundrill	Desktop Review – CWF fire in landfill cell Bermagui - Chemical spill	Identified that a major heading in the document needs to be renamed. Rename “actions taken immediately after a pollution incident” to “action to be taken during a pollution incident”. Create sperate section for	TBC

		in pit Eden – Asbestos contamination found in C&D Merimbula - Fire in transfer bin (marine flare).	actions after incident. Updated a fire control in risk assessment. Identified need for after action review. Identified that PIRMP lacking in dealing with asbestos. To be included in risk assessment and have own specific response included.	
19/02/2024	Kurt Marsh Alan Gundrill	Desktop review	Nil	TBC

Appendix 3 Maps



Figure 1 CWF location and surrounds



Figure 2 CWF Leachate and Sedimentation Dams and Storage Volumes

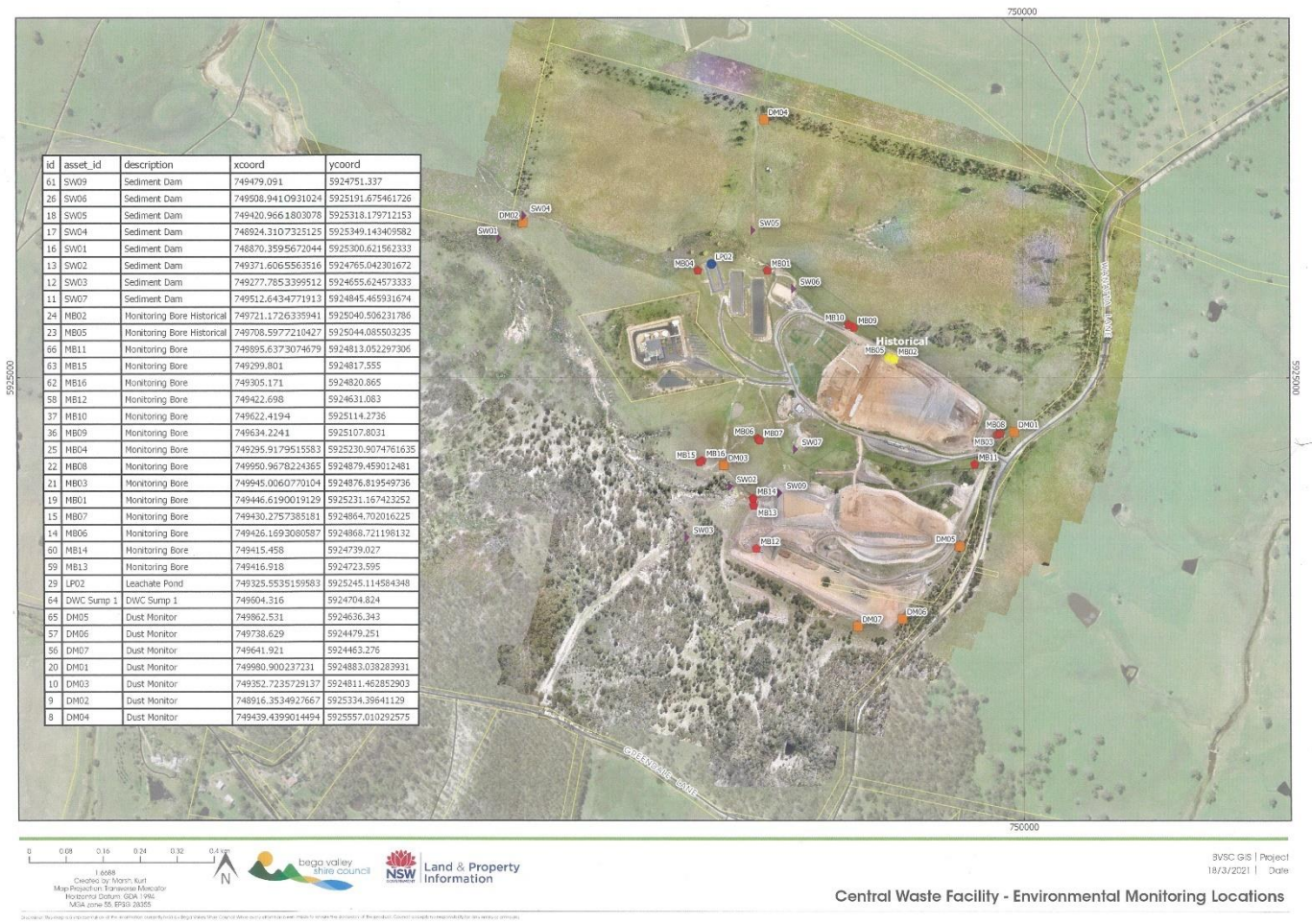


Figure 3 Central Waste Facility - Environmental Monitoring Map



Figure 4 CWF flow path for sediment and leachate dams

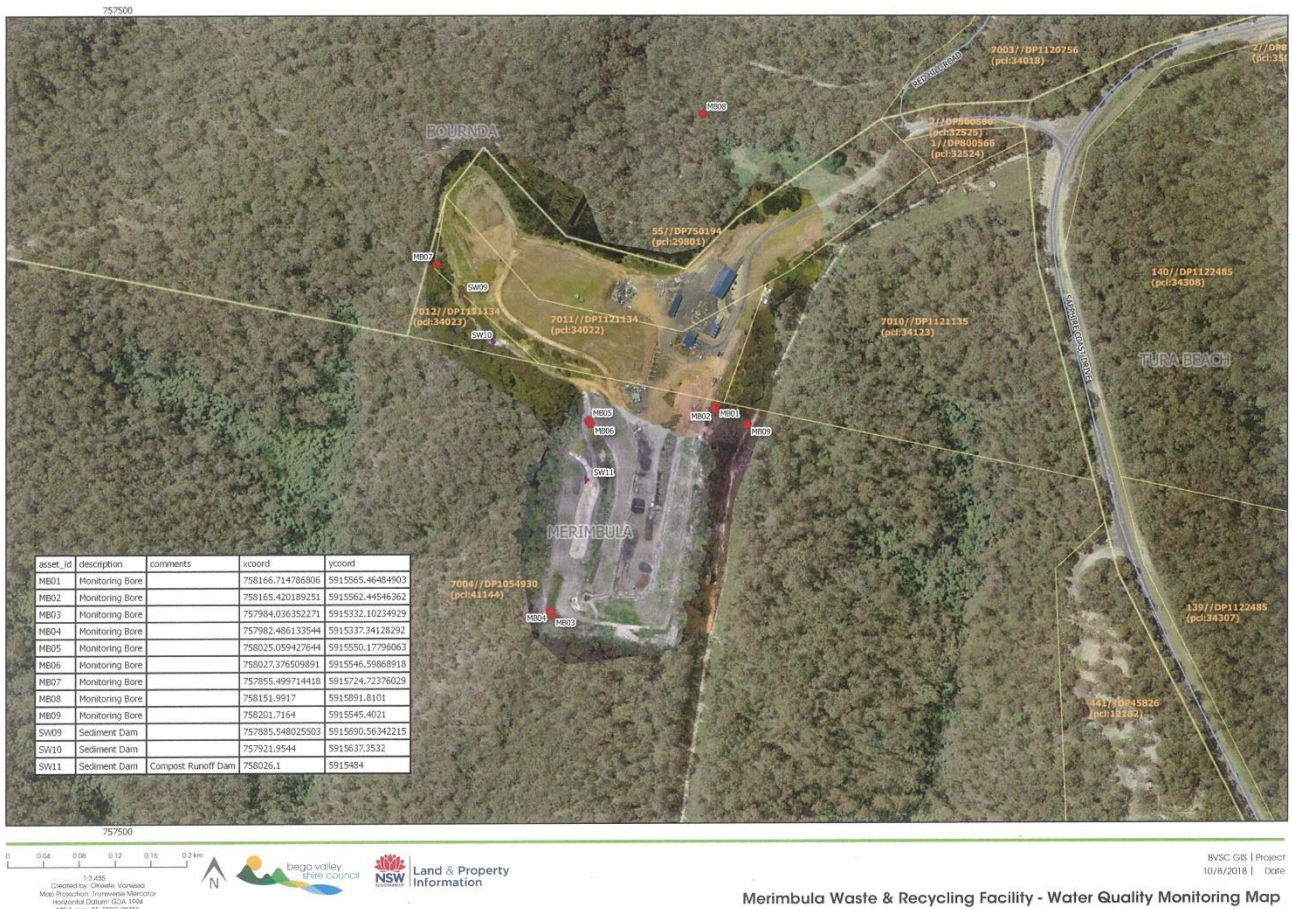


Figure 5 Merimbula Water Quality Monitoring Map

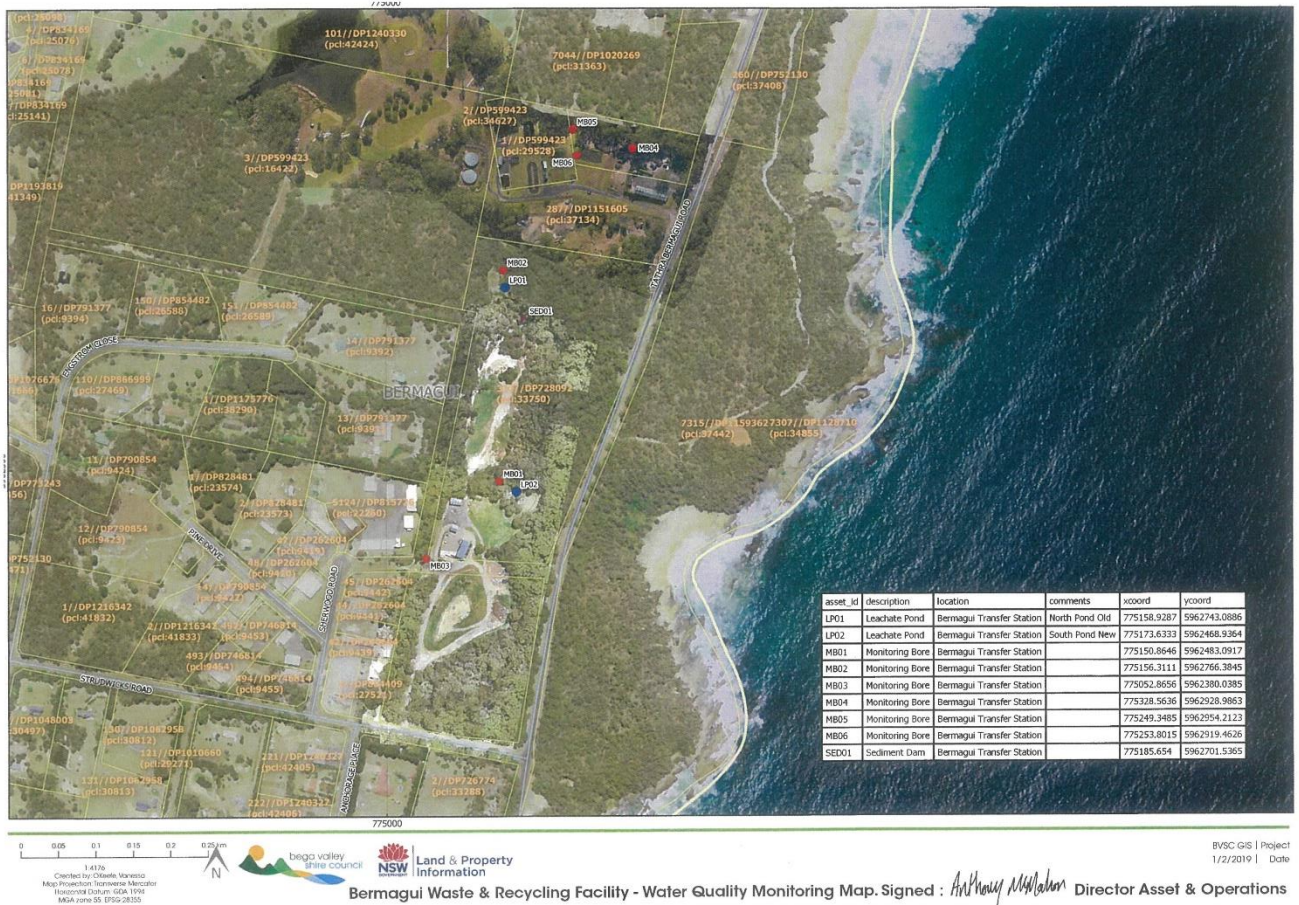


Figure 6 Bermagui Water Quality Monitoring Map



Figure 7 Eden Water quality monitoring map