

**WARRAGAMBA WASTE MANAGEMENT CENTRE
POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN
2013
Trim 358-4#193**

Developed Monday 9 December 2013 and reviewed by Brad Staggs (Manager Environmental Services) and Dan Meehan (Waste Management Officer) both employees of Wollondilly Shire Council

1.0 Pollution Incident - DEFINITION

- i) A pollution incident means an incident or set of circumstance 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.

- ii) It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but does not include an incident or set of circumstances involving only the emission of any noise.

2.0 Introduction and Planned Remediation at the Site

Warragamba Waste Management Centre is a closed landfill. It ceased operating as a landfill in 2007 and as a Resource Recovery Centre in 2008. The site has since been approved by EPA and Council for remediation pursuant to Section 76 of the Protection of the Environment Operations (POEO) Act 1997 and the WMC Landfill Environmental Management Plan dated August 2005, Section 7.2 which describes the landfill closure activities.

It is envisaged that remediation work will commence in 2014. Until that time no work aside for routine site testing requirements in accordance with the EPA License occurs at that site. The site is locked at it only entrance on Production Avenue Road Warragamba.

Because no work occurs at the site of a landfilling nature this PIRMP is concerned with the planned remediation and how the likelihood of a pollution Event will be minimized.

All remediation works shall be subject to Construction Quality Assurance Plan (CQA). The purpose of this plan is to define construction quality assurance procedures and requirements necessary to demonstrate to the NSW EPA and other project stakeholders that the Works comply with all requirements.

Responsible persons involved in the remediation shall be:

The Principal – The Council

Superintendent – Person(s) authorized by the Principal to manage and oversee the Works.

Contractor - The firm, including subcontractors, responsible for the completion of the works.

CQA Consultant – Suitably Qualified professional responsible for overseeing the completion of the construction quality assurance of the works.

Design Consultant – The Firm responsible for design and preparation of the Contract Drawings, Specifications, Construction Quality Assurance Plan, and Soil and Water Management Plan.

Regulatory Authority – Authority responsible for licensing the Works.

2.1 Scope of Works

The Works to be undertaken in summary include:

- Clearing and grubbing and installation of erosion and sediment control.
- Installation of stormwater management infrastructure.
- Earthworks to design levels including sorting and stockpiling suitable materials for inclusion in the Works.
- Preparation of capping subgrades.
- Installation of a final Cap including vegetation
- Construction of other civil works including site access roads and site fence

2.2 CQA Responsibilities

2.2.1 General

The CQA Team shall consist of the Superintendent, Design Consultant and CQA Consultant. The responsibilities of the CQA Team are:

1. **Superintendent** shall have overall authority for all CQA activities. All coordination, reporting and issues related to non-compliance will be directed through the Superintendent.
2. **Design Consultant** will be responsible for reviewing all design issues that may arise during the Works. The Design Consultant approval will be required for any modification to the Works Documents.
3. CQA Consultant shall be responsible for assessing the compliance of the completed Works with the Works Documents:
 - Review of Works Documents;
 - Review of CQA Plan;
 - Review approved changes to Work Documents;
 - Reviewing and recommended rejection or approval of site specific documentation including contractor submittals, manufacturer's information, installer's information and

- reference standards. The Superintendent shall make the final decision on approval or disapproval of submittals;
- Verify construction is performed in accordance with the Works Documents. CQA Representatives shall be assigned to every major construction activity being performed. A minimum of one CQA Representative shall be on site at all times during the Works;
 - Attend required meetings;
 - Assign CQA Representatives to observe all CQA activities requiring observation;
 - Educate CQA Representatives on site specific CQA requirements and procedures;
 - Confirm calibrations of CGC and CQA conformance testing equipment are correctly performed and recorded;
 - Confirm that CQC and CQA conformance tests are properly performed, recorded, and the results meet specified requirements;
 - Review Contractor qualifications to verify conformance with Works Documents;
 - Review warranty submittals to verify they comply with the Specified warranty requirements;
 - Verify that the Contractor is following the approved CQC plan;
 - Review required submittals and recommend rejections or approval;
 - Report any unapproved deviations from CQA Plan;
 - Note any activities that could result in damage to installed works.
 - Prepare and maintain required CQA documentation;
 - Oversee the collection, marking, packaging and shipping of CQA conformance samples; and
 - Review 'as built' surveys and Record Drawings.

3.0 Need to Notify

The Contractor shall immediately notify Council of a pollution incident if there is a risk of 'material harm to the environment', which is defined in section 147 of the POEO Act as:

(a) Harm to the environment is material if:

(1) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or

(2) it results in actual or potential loss to 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 practical measures to prevent, mitigate or make good harm to the environment.

(c) Hazards to human health and the environment identified at premises

(1) Fire

Two types of fires may occur at Warragamba Bargo Waste Management Centre (WWMC);

Type 1 Fire to vegetation on site

Type 2 Fire in surrounding bushland

Each fire will create smoke and if on site can potentially escape from the site to adjoining bushland.

(2) Landslip

The WWMC has steep slopes on the south eastern side in the vicinity of a water course – Megaritys Creek. If a land slip occurred pollution would occur if the silt fencing were destroyed in the landslip.

(3) Asbestos

Whilst asbestos exposure risk is low stringent control plans will be implemented inclusive of monitoring and stakeholder education.

(4) Landfill gas

Landfill gas is low. It is currently monitored as per EPA license agreements

(5) Stormwater

Surface water generally sheet flows into natural drainage pathways, generally flowing in an easterly direction towards the Megaritys Creek. Much of the site has been graded to promote flow off or away from the mass waste.

(6) Leachate

From the initial development and commencement of site operations of the landfill no leachate collection or containment system was constructed. In 2006 a leachate collection system was installed at the eastern toe of the waste mass to capture and leachate percolating through the waste to the natural ground surface and following the original drainage paths.

3.0 Likelihood of Hazards Occurring

(1) Fire

The most recent fire at the BWMC occurred during 2002. Fires are more likely to occur during times of high temperatures and wind.

(2) Landslip

No recorded landslip has occurred at the WWMC. The planned remediation will negate this possibility into the future.

(3) Asbestos

Asbestos is known to be buried at the site.

(4) Landfill gas

Because buried material will be reshaped gas may be released. If not appropriately managed landfill gas can pose a range of risks to various receptors both on and off site including onsite workers, adjacent buildings and structures, vegetation die back and local air quality etc.

(5) Stormwater

During excavation stormwater may pollute Megarritys Creek if not correctly managed.

(6) Leachate

The site has a leachate management system that is designed to protect run off into Megarritys Creek.

4.0 Pre-emptive action to minimize or prevent the risk of harm to human health or the environment

(1) Fire

(a) Type 1 Fire in vegetation on site

- This vegetation is fenced from the public.

- The verge at the front is mown regularly as is the vegetation in and around Leachate tanks

(b) Type 2 Fire in bushland

- This is virgin bushland and as such aside from usual fire management strategies no control is possible.

(2) Landslip

- The Scope of works planned meet with EPA and Council guidelines. Contractors shall work to Construction Quality Assurance (CQA), Construction Quality Control (CQC).
- CQA shall have an appointed person to review
 1. Review the Work Documents
 2. Review the CQA Plan
 3. Review approved changes to the Work Documents
 4. Review and recommend rejection or approval of site specific documentation including contractor submittals, manufacture's information, installers and referred standards. The Superintendent shall make final decision on approval or disapproval of submittals.

(3) Asbestos

- Experts have advised that the likelihood of air born asbestos is extremely low. They site that during many such excavations asbestos sheeting if exposed, will be wet. Wetting down asbestos is the key treatment in rendering it safe. As a consequence escape of asbestos fibre by wind is negligible.
- However during excavation all works to reshape the area will be contained within safety fencing and barriers.
- Water sprays will clean every vehicle down that enters to site.
- All appropriate control measures inclusive of constant air monitoring systems will be in place.
- Samples will be taken daily to an approved and licensed facility where air samples will be measured for air borne asbestos.
- The Contractor shall provide and maintain all facilities required for asbestos removal and decontamination.

(4) Landfill Gas

- Gas is monitored now across the surface at various locations
- Gas generation has been and is currently low.
- Under the remediation plan effective gas monitoring will occur until 2030.

(5) Stormwater

- The current stormwater plan was designed and has been effective in protecting Megarritys Creek.
- The proposed Stormwater Management Plan has ben developed based on the principle that all surface water falling onto the capped and revegetated portions of the landfill would be considered clean as it would not generate suspended solids.
- The proposed Works will construct a stormwater diversion bund over the top of the anchor trenches around the perimeter of the platform
- A stormwater collection drain around the north, east and south perimeter of the waste mass at the toe of the batters to direct clean surface water runoff to the clean water discharge pints. They will be constructed with geotextile and drainage aggregate to minimize scour.
- A stormwater discharge structure at the south east of the site will be constructed with dissipation structure will minmise erosion

(6) Leachate

- In order to address the seepage from the eastern batter, a leachate collection drain will be constructed along the toe of the eastern batter to collect potential leachate seepages, and in turn prevent leachate from migrating offsite. The leachate will flow from the drain to the existing leachate collection tank on site. Leachate collected in this tank is pumped out as required and disposed of at an appropriate licensed facility.

5.0 Inventory of potential pollutants at the premises

(a) Hazardous chemicals and asbestos cement products are known to be located in preexisting landfills at the WWMC.

6.0 Safety equipment or other devices used to minimize the risks to human health or the environment or control a pollution incident

All new devices and controls are yet to be installed. This PRIMP will be updated when these controls are known.

7.0 Key person contact details

- Wollondilly Shire Council
Manager Environmental Service – Authorised to contact responsible authorities and to manage the response to the pollution incident.
 - **Brad Staggs** 0417 258159 / 46771100 / 46810511

- Regulatory Authority
EPA – Environment Line 131555

- Local Authority
Wollondilly Shire Council – Manager Environmental Services 0417 258159

- Ministry of Health - Local Public Health Unit
Camperdown SSW PHU 95159420 after hours 95156111

- Work Cover Authority 13 10 50

- Fire and Rescue 000

9.0 Mechanism for Early warning and regulate updates to owners and occupiers of premises in vicinity to Warragamba WMC

(1) Fire

i) In the event of a fire at the WWMC following immediate contact with each relevant authority the occupiers of the adjacent properties at 11 and 10-14 Production Avenue as soon as practical.

ii) The notification will either be in the form of attendance at the properties and/or the leaving of a note in the properties mail box.

iii) Updates will be provided to the occupiers until the risk of an extended fire event is eliminated.

(2) Landslip

In the event of a landslip the WWMC the Manager of Environmental Services will be contacted who will determine an appropriate response.

(3) Asbestos

The Contractor shall provide and maintain all facilities required for asbestos removal and decontamination. The Manager of Environmental Services will be contacted who will determine an appropriate response.

(4) Landfill Gas

The Manager of Environmental Services will be contacted who will determine an appropriate response. The contractor shall evacuate the site with gas monitoring points establishing safe points.

(5) Stormwater

The Manager of Environmental Services will be contacted who will determine an appropriate response.

(6) Leachate

The Manager of Environmental Services will be contacted who will determine an appropriate response.

10.0 Arrangement to minimize risk of harm to people at premises

(1) Fire

Type 1 Fire

- i) Personnel working at the site may be requested to leave.
- ii) Access to the landfill will be prevented until the fire is brought under control and it is safe for re-entry to commence.

Type 2 Fire

- i) Personnel working at the site will only be permitted when no danger from flame or smoke exists.

2) Landslip

- i) Personnel working will not be permitted in any section of the landfill that has been affected by any landslip unless the Contractor and Superintendent decide it is safe to do so to make the area safe.

(3) Asbestos

Adherence with the development of an Asbestos Management Plan.

(4) Landfill Gas

Adherence with the Proposed Landfill Gas Management System.

(5) Stormwater

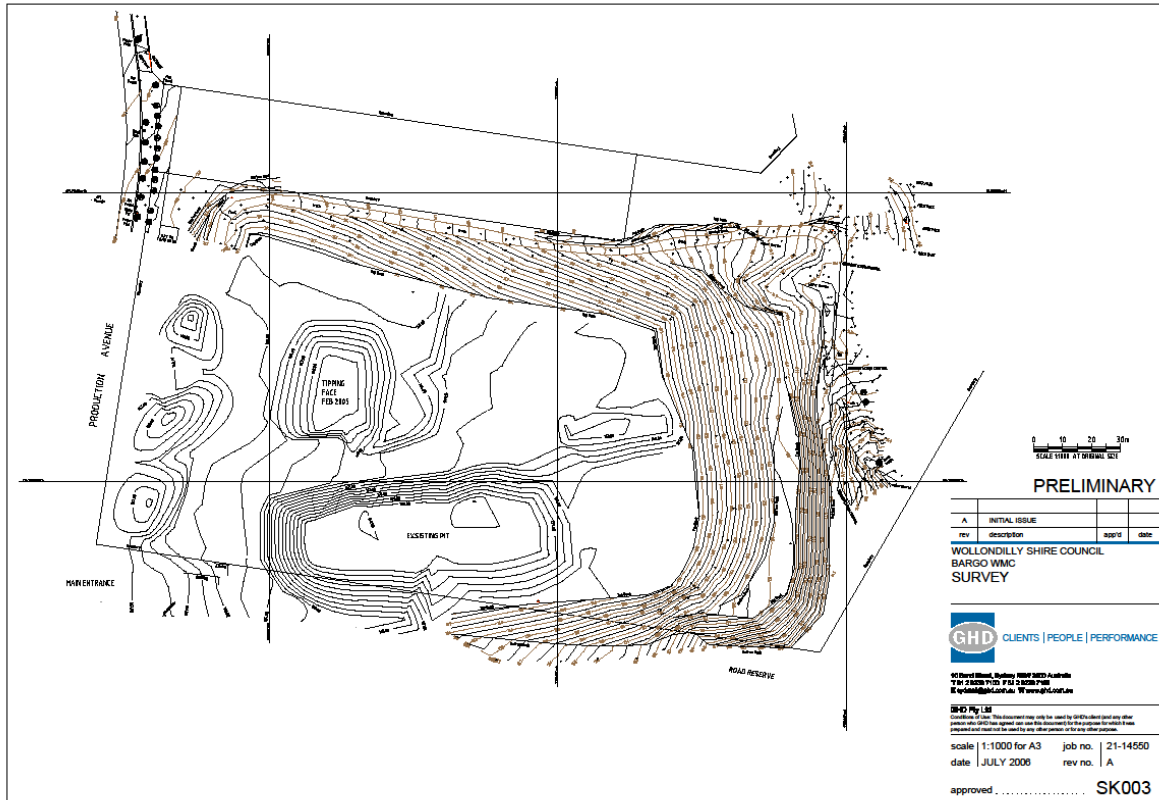
Adherence with the Proposed Stormwater Management Plan.

(6) Leachate

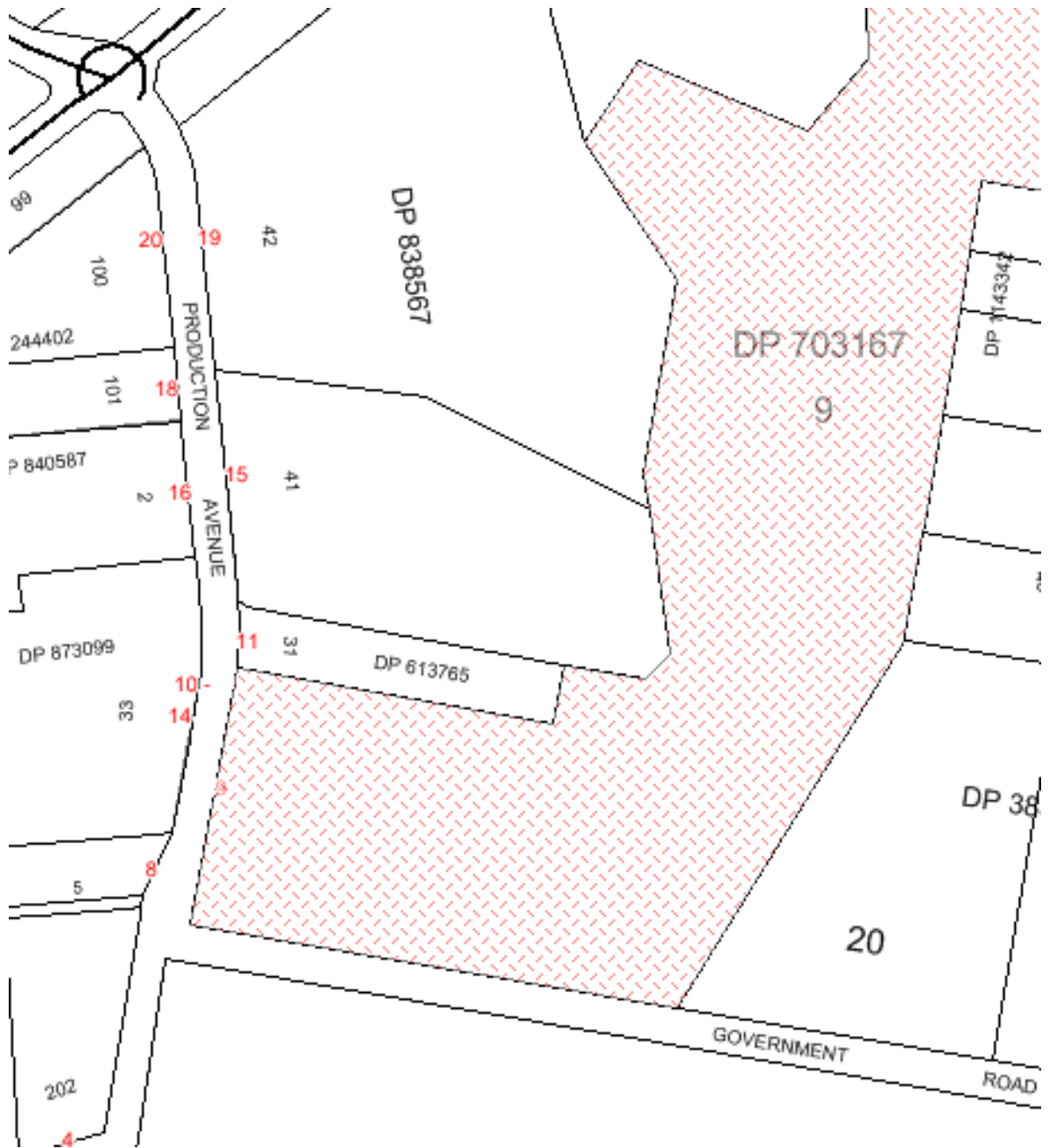
Adherence with the Proposed Leachate Management Plan.

11.0 Detailed map of premises and surrounding area

Map of premises



12.0 Other Maps
MAPS OF SURROUNDING AREA



13.0 Risk of harm limitation

1) Fire

Summer Season

Discussion will occur with officers from the NSW Rural Fire Service and any recommendations carried out each year before the fire season commences.

2) Landslip

Work to proceed as per Landfill Closure Plan

(3) Asbestos

Adherence with the development of an Asbestos Management Plan.

(4) Landfill Gas

Adherence with the Proposed Landfill Gas Management System.

(5) Stormwater

Adherence with the Proposed Stormwater Management Plan.

(6) Leachate

Adherence with the Proposed Leachate Management Plan.

14.0 Training

- i) PRIMP training of all Personnel when first engaged as part of overall induction program.
- ii) Training updates of existing staff must be carried out every 12 months from Commencement Date.
- iii) Training to include all matters documented in the PRMP.
- iv) Personnel are to sign a copy of the plan certifying that the training has taken place with the signed copy forwarded to Council.
- v) The issue of pollution responses to be a permanent agenda item at the WWMC CQA Meetings.

15.0 Plan Training Date

- i) The annual training will be undertaken by the Manager Environmental Services in conjunction with the Contractor prior to commencement of the Works.

16.0 Plan Updated Date

December 2014

16.0 Plan testing and maintenance

- i) Details of the Plan testing and maintenance will be recorded in the minutes of the WWMC - CQA meetings.
- ii) Training will be undertaken upon inductions thereafter.
- iii) Testing will also within one month after any actual pollution events.

17.0 Training plans for Commencement - Date to be determined.

PLAN REVIEW/TRAINING for the following Council personnel is required prior to start;

- i) **Name** Brad Staggs
Position Manager Environmental Services
- ii) **Name** Dan Meehan
Position Waste Management Officer
- iii) **Name** Laura Sandoval
Position Waste Project Officer
- iv) **Name** Justin Nyholm
Position Manager Works
- v) **Name** Michael Nelson
Position Works Engineer
- vi) **Name** Paul Draper
Position Works Engineer

Other Contract and Council Staff as applicable