# Purpose

The purpose of this standard is to provide a Wannon Water framework, and guidance for the management of Biosolids to reduce and control the risks to human health and the environment, as far as reasonably practicable, and to ensure compliance with regulatory obligations.

We receive, generate, and manage a variety of Biosolid materials as part of our activities. The acceptance, storage, handling, transport, treatment, and reuse of this presents different levels of risks and needs to be managed effectively to prevent adverse impact to our Strategic Direction and support our **Zero Harm** ambition.

# Scope

This framework applies to:

* Any employee or contractor engaged in our activities involving the acceptance, storage, handling, transport, treatment, and reuse of Biosolid materials on our sites.

Biosolids is a subset of all our waste materials, and this Standard should be considered in conjunction with the **Waste Management Standard**.

**Out of Scope**

* When a principal contractor has been granted formal possession of a site whilst carrying out contracted work, it is the responsibility of the principal contractor to comply with the relevant waste management regulations and consult with our Engaging Officer to determine if their activities pose a risk to us (e.g., contamination of our site or asset).
* The process of desludging.

# Standard Requirements

**Note:** Where Minor Trade Waste is mentioned within a requirement below accountability sits with the GM Community & Corporate Services and responsibility sits with the BM Customer Services.

| **Requirements** | **Responsibility[[1]](#footnote-2)** | **Accountability[[2]](#footnote-3)** |
| --- | --- | --- |
| **General** | | |
| Assets, plant, and equipment, including safety equipment, used for processing of Biosolids (e.g., excavator, temperature probe) must:   * Comply with Australian Standards[[3]](#footnote-4) * Be installed and used as per the manufacturer’s instructions. * Be inspected, calibrated (where required) and maintained. * Be fit for purpose, and; * Be appropriate for the full duration of the task. | **Executive People & Resilience**  BM Asset Creation  BM Maintenance  BM Operations | GM People & Business Services |
| Anyone working with or near Biosolids must be made aware of the risks, licence requirements and trained in the procedures relevant to them as per the **Biosolids Management Procedure**[[4]](#footnote-5). | **Executive People & Resilience**  BM Operations  BM Maintenance  BM Asset Creation  BM Corporate Services | GM People & Business Services |
| Risks associated with Biosolids must be managed in accordance with the **Biosolids Management Procedure**4and the hierarchy of control, to our accepted levels, so far as reasonably practicable. | **Executive People & Resilience**  BM Operations  BM Maintenance  BM Asset Creation | GM People & Business Services |
| Operating manuals and associated procedures must include information relevant to the management and operation of Biosolid processes. | **BM Operations**  BM Maintenance  BM Asset Creation | GM Assets & Service Delivery |
| Sludge and Biosolid storage and handling areas/processes must be set up to prevent the risk of escape (e.g., runoff, leakage, dust generation). | **BM Operations**  BM Maintenance  BM Asset Creation | GM Assets & Service Delivery |
| A **Hazard Report** must be raised for any suspected/obvious risk, and/or faulty/damaged plant and equipment that is a risk to human health or the  environment. | **Executive People & Resilience** | GM People & Business Services |
| An **Incident Report** must be raised for any event involving Biosolid works that has resulted in a near miss or injury to any person. | **Executive People & Resilience** | GM People & Business Services |
| Confirmed or suspected notifiable incidents involving Biosolid materials must be investigated, reported, and managed in accordance with the **Incident Response and Reporting Procedure** to ensure legislative requirements are met (e.g., EPA notifiable event, WorkSafe notifiable event, notification to Agriculture Victoria). | **Executive People & Resilience**  BM Operations  BM Maintenance | GM People & Business Services |
| **Biosolids Inputs (Wastewater Quality (Source Management))** | | |
| All inputs (e.g., minor/major trade waste) to sewage treatment plants must have an impact assessment completed prior to acceptance to assess any potential impact to the Biosolids quality, as per the **Biosolids Management Procedure**4-with records kept. | **BM Operations** | GM Assets & Service Delivery |
| All sampling, monitoring, and testing must be conducted as per the **Biosolids Management Procedure**4**.** | **BM Operations** | GM Assets & Service Delivery |
| Agreements must be in place for all minor and major trade waste customers, including a declaration of waste contents and control requirements (e.g., pre-treatment) – with records kept. | **BM Operations**  BM Corporate Services | GM Assets & Service Delivery |
| For all domestic wastewater systems there must be education materials provided to the community to safeguard Biosolids quality (e.g., what not to flush, engagement with commercial businesses, etc.). | **BM Communications & Engagement**  BM Customer Services  BM Operations | GM Community & Corporate Services |
| **Sewage Treatment Plant Design and Processing** |  |  |
| The design of any new sewage treatment plant must ensure all licencing and regulatory requirements relevant to Biosolids can be met. This includes consideration of best available techniques and technology requirements (BATT). | **BM Asset Planning**  BM Asset Creation | GM Assets & Service Delivery |
| Sludge must undergo periodic quality testing as per the **Biosolids Management Procedure**4. | **BM Operations** | GM Assets & Service Delivery |
| **Handling of Sludge and Biosolids** |  |  |
| Biosolids and sludges must be handled in a safe manner to minimise the risk to the health and safety of stakeholders as per the **Biosolids Management Procedure**4. | **BM Operations**  BM Maintenance | GM Assets & Service Delivery |
| PPE suitable for work being performed must be identified and provided. It must be used correctly (e.g., fitted), and maintained (e.g., cleaned and stored) – according to the standards described in our procedures or equivalent system. | **Executive People & Resilience**  All BM | GM People & Business Services |
| Applicable vaccinations must be offered to the relevant employees to manage risk of disease whilst working with Biosolids and sludges as outlined in the **Department of Health Australian Immunisation Handbook**. | **Executive People & Resilience** | GM People & Business Services |
| **Sludge Cartage** |  |  |
| Transport of sludge must meet relevant licencing and regulatory requirements – with records kept for 2 years. | **BM Operations**  BM Corporate Services  BM Asset Creation | GM Assets & Service Delivery |
| Sludge cartage contractors must record sludge movements in the EPA waste tracker system or an equivalent approved system. | **BM Corporate Services**  BM Operations  BM Asset Creation | GM Community & Corporate Services |
| Sludge for Biosolids processing must be deposited and/or received at a lawful place (e.g., Camperdown Industrial, Portland and Hamilton sites). | **BM Operations** | GM Assets & Service Delivery |
| Generated sludge volumes and movements must be recorded using real-time data as per the **Biosolids Management Procedure**4**.** | **BM Operations** | GM Assets & Service Delivery |
| **Biosolids Processing** | | |
| A Biosolids Environmental Management System (EMS) Risk Assessment must be in place, periodically reviewed, and updated to control Biosolid risks. | **BM Operations** | GM Assets & Service Delivery |
| Biosolids processing facilities must have the appropriate operating permits and licences. | **Executive People & Resilience**  BM Operations | GM People & Business Services |
| Analysis and classification of other sludge materials (e.g., K400H from lagoons) must occur prior to inclusion to any Biosolid facility as per the **Biosolids Management Procedure**4**.** | **BM Operations** | GM Asset & Service Delivery |
| The processing of Biosolids (e.g., air-drying, stockpiling, clearing sludge build-up. monitoring, testing) must be conducted as per our procedures (e.g., **Biosolids Management Procedure**4**,** Task Risk Assessment (JSA)) or equivalent system[[5]](#footnote-6)). | **BM Operations** | GM Asset & Service Delivery |
| Biosolids processing contracts (e.g., desludge works, air-drying) must be in place, meet relevant licencing and regulatory requirements – with records kept. | **BM Corporate Services**  BM Operations | GM People & Business Services |
| Sludge processing records must be retained for 3 years. | **Manager Information Services**  BM Operations | Chief Information Officer |
| Non-compliant odours generated must be managed in line with the **Noise and Odour Response Plan**[[6]](#footnote-7). | **BM Operations**  BM Customer Services | GM Asset & Service Delivery |
| Odour complaints from Biosolids processing must be managed as per the **Customer Feedback Procedure**. | **BM Customer Services**  BM Operations | GM Community & Corporate Services |
| Monitoring processes must be in place and completed to ensure Biosolids quality is achieved and risks (e.g., odour, combustion, runoff) are managed effectively as per the **Biosolids Management Procedure**4. | **BM Operations** | GM Asset & Service Delivery |
| Livestock must be prevented from accessing sewerage sludge/Biosolids processing areas. Where livestock gain access, they must be quarantined and Agriculture Victoria notified. | **BM Operations**  BM Corporate Services  BM Asset Creation  BM Maintenance | GM Asset & Service Delivery |
| A contingency plan must be in place for the continuation of Biosolids processing (e.g., excess material produced with limited storage capacity, extreme weather). | **Executive People & Resilience**  All BM | GM People & Business Services |
| **Land Application** | | |
| Biosolids Reuse Agreements must be in place with all Biosolid reuse landholders which state relevant licencing and regulatory requirements – with records kept. | **BM Corporate Services**  BM Operations | GM Community & Corporate Services |
| A Health and Environment Management Plan (HEMP) must be in place and in line with the **Biosolids Management Procedure**4**.** | **BM Operations** | GM Asset & Service Delivery |
| All records of Biosolids reuse must be kept as per our processes and equivalent systems (e.g., spreading details, application rates, volumes use, quality test results, etc.). | **Information Services Manager**  BM Operations | Chief Information Officer |

# Training and assessment

|  |  |  |
| --- | --- | --- |
| **Standards** | **Responsibility** | **Accountability** |
| All managers with Responsibilities & Accountabilities within this document must be made aware of this standard. | **Executive People & Resilience** | GM People & Business Services |

# Monitoring

|  |  |  |
| --- | --- | --- |
| **Standards** | **Responsibility** | **Accountability** |
| Compliance with and effectiveness of this standard  must be verified at least every four years by including periodic audits in the **Audit Program**. | **Executive People & Resilience** | GM People & Business Services |
| Periodic audits of application sites and training of landholders must be conducted during the land application season to ensure compliance. | **BM Operations** | GM Asset & Service Delivery |
| All records required by this standard must be maintained in our records management system –(e.g., Aquantify, CM, etc.) | **Information Services Manager** | Chief Information Officer |

# Definitions

| Term | **Means** |
| --- | --- |
| BM | Branch Manager |
| BATT | Best Available Techniques and Technology requirements |
| Biosolids | Biosolids are a product of sewage sludge that has undergone treatment to significantly reduce disease causing pathogens and volatile organic matter, producing a stabilised product suitable for beneficial use. |
| Brine Waste | Any solution with a high concentration of salt dissolved in water. |
| Contractor | A person or company engaged to provide materials or work (construction, maintenance, service, supply, or operation) on a particular project or activity. This includes:   * Consultant - A person or company that provides professional expert advice. * Supplier   Labour Hire Company Performs outsourced work on a temporary basis, under the direction and control of Wannon Water. |
| CM | Content Manager |
| Engaging Officer | The employee who has engaged the contractor to undertake the works. |
| EPA | Environmental Protection Authority |
| GM | General Manager |
| K400H | EPA Waste Code (Treated sewage solids and sludge that does not meet the permit conditions in the permit in relation to item 23 (A15—Biosolids supply or use) in the table in Schedule 1.) |
| Odour | Any smell deemed to be objectional or unpleasant. |
| Septage | Excrement & other waste material contained in or removed from a septic tank. |
| Sewage | Wastewater and excrement conveyed in sewers. |
| Sludge | Sludge is usually any material that still has high moisture content and can be sourced from human/animal waste or industrial processes. It can also be a dry product that is not yet processed to the point of being ready for reuse. |
| Task Risk Assessment (TRA) / Job Safety Analysis | Job Safety Analysis Procedure and eForm. |

# Governance

|  |  |
| --- | --- |
| **Parent policy/standard** | Zero Harm Policy |
| Associated procedures/standards | * Biosolids Management Procedure**4** * Waste Management Standard * Trade Waste Management Policy * Noise and Odour Response Plan**6** * Customer Feedback Procedure * Environmental Management Plan – Water Reclamation Plants & Reuse * Contractor Management Standard * Hazard Reporting Procedure * Incident Management Procedure |
| **Legislation mandating compliance and external references** | * EPA Publication P441: A Guide to Sampling & Analysis of Water & Wastewater * Victoria EPA Biosolids & Land Application Guidelines * Department of Health Australian Immunisation Handbook. * EPA Publication 1946.1 How to establish a lawful place. |
| **Approval** | Executive Committee |
| **Owner** | GM People & Business Services |
| **Content enquiries** | Major Customer Coordinator |

# Document version history

|  |  |
| --- | --- |
| Version | Changes made to document |
| 1 | New document created as part of the new IMS Standard Framework. |
| 2 | Re-worded Section 2 Out of scope: from “has taken legal ownership of a site” to “has been granted formal possession of a site”. |

1. The nominated person who is responsible for ensuring there is the system in place to meet a requirement or delivering a task to an acceptable level of performance. [↑](#footnote-ref-2)
2. The Executive are collectively accountable for the standard. The individual GM is the nominated person who will approve any capital/operating expense requests (within the Instrument of Delegation) and any material changes to current work practices to meet requirements of the standard. [↑](#footnote-ref-3)
3. Where equipment is manufactured internationally – the manufacturer or supplier must be consulted for assurance that the item complies with relevant Australian Standards [↑](#footnote-ref-4)
4. The **Biosolids Management Procedure** is still under development. Please liaise with the Major Customer Coordinator in the interim. [↑](#footnote-ref-5)
5. For contractors, an equivalent system (e.g., Safe Work Procedure, JSA) must be of equivalent or higher standard. [↑](#footnote-ref-6)
6. The **Noise & Odour Response Plan** is still under development. Please liaise with the Environmental Risk and Compliance Officer in the interim. [↑](#footnote-ref-7)