3. Environmental Values, Potential Impacts and Mitigation Measures

3.1 Environmental Values

The relevant environmental values of the site and local area with regards to the facility's operations are described in Table 3.

Table 3 Environmental values

Environmental value	Description
Surface water	The site is located in the Boyne and Auburn Rivers sub basin of the Burnett catchment. The local area has a slight slope towards the unnamed drainage feature to the west of the site, which drains to the south-west towards Kingaroy Creek located approximately 438m south of the site. Kingaroy Creek flows to the north-west where it enters the Stuart River. The Stuart River flows to the north-west to the confluence with the Boyne River and Lake Boondooma. The site inspection confirmed that there are no watercourses at the site, however, an unnamed watercourse occurs approximately 45m west of the site.
Groundwater	There is one (1) registered groundwater bore at the site (RN144862) and an additional six (6) registered groundwater bores within a 1km radius of the site. The groundwater in the local area is sub-artesian and is associated with basalt aquifers of the Main Range Volcanics. The shallowest aquifer recorded in the area was 10m below ground level in the Main Range Volcanics.
Soil	The site inspection confirmed that soils at the site included reworked native materials such as weathered basalt. However, most of the site is hardstand or has a blue metal gravel surface layer.
Amenity (air and noise)	Ambient air quality and noise levels of the local area are expected to reflect the influence of the Kingaroy Wastewater Treatment Plant and nearby roads and manufacturing/retail industries. The closest noise sensitive receptor is a rural residential receptor located less than 10m east of the facility (Figure 3).

Figure 3 Sensitive Receptors

Project: Site Based Management Plan

Client: E.E Muir & Sons Pty Ltd

Project No.: J000821

Compiled by: MCW Date: 13/05/2022
Approved by: RM Date: 13/05/2022

0 80 160 Metres

Legend

- Site boundary
- Cadastre
- 500m buffer
- Roads
- Sensitive receptors

The content of this document includes third party data. Range Environmental Consultants does not guarantee the accuracy of such data.

Source: Cadastral data sourced from DNRME (2021). Aerial imagery sourced from Metromap (2021).

N

range environmental consultants

3.2 Potential Impacts and Mitigation Measures

Potential impacts to environmental values and key mitigation measures are outlined in Table 4. Reference should be made to the Environmental Control Plans (ECPs) at Section 4.3 for full details of mitigation measures.

Table 4 Potential impacts and mitigation measures

Environmental Value	Potential Source & Impact	Likelihood	Consequence	Risk	Comment
Land	Spill/leak of hydrocarbons from plant and equipment or from fertiliser storages adversely impacts soils.	Unlikely	Insignificant	Low	• The operational areas of the site will be sealed, except for some maintained trafficable blue metal gravel areas in the southern portion of the site. • Plant and equipment will be maintained in accordance with the manufacturer's specifications to reduce the risk of equipment failures and spills. • No bulk fuel storage is proposed for the site. • A spill kit shall be kept on site and any spills cleaned up immediately using dry methods. • Spills and leaks of hydrocarbons from plant and equipment is not anticipated to present a significant soil contamination risk. • Fertiliser for the manufacturing process will be in a dry, pellet form (not liquid). Any spills will be cleaned up immediately. • Fertiliser products shall be contained within silos prior to mixing and stored within Shed 2 (Storage) in 1t bulk bags. • No mixed fertiliser shall be stored outdoors. • Spills and leaks of stored fertiliser at the site are not anticipated to present a significant soil contamination risk.
	Accidental release of solid wastes to soil.	Unlikely	Insignificant	Low	• No waste streams will be generated by the fertiliser manufacturing process. • No liquid wastes will be generated at the site.

Environmental Value	Potential Source & Impact	Likelihood	Consequence	Risk	Comment
					• Solid wastes (general and recyclable) from the site more broadly will be stored in covered bins and removed from the site regularly. • Waste management will not present a significant risk of impact to soils.
Water	Flood waters are adversely impacted by contact with stored fertiliser products and plant and equipment.	Unlikely	Insignificant	Low	• Fertiliser products shall be contained within silos prior to mixing and stored within Shed 2 (Storage) in 1t bulk bags. Shed 2 is existing, is already used for fertiliser storage and is largely outside the flood zone. • No mixed fertiliser shall be stored outdoors. • Fertiliser for the manufacturing process will be in a dry, pellet form (not liquid). Any spills will be cleaned up immediately. • If flooding is predicted all reasonable and safe efforts shall be made to secure plant, equipment and fertiliser to prevent offsite harm during flooding. • The SDS for fertilisers do not suggest they are toxic to aquatic life. • The risk of elevated nutrients causing water quality impact under flood conditions is expected to be low given the likely high volumes of poor-quality water (mainly affected by suspended solids and elevated nutrients) in the Kingaroy Creek catchment. • Fertiliser manufacturing at the site is not expected to present a significant risk of offsite impact in the event of a flood.

Environmental Value	Potential Source & Impact	Likelihood	Consequence	Risk	Comment
	Accidental release of solid wastes to waters.	Unlikely	Insignificant	Low	• No waste streams will be generated by the fertiliser manufacturing process. • No liquid wastes will be generated at the site. • Solid wastes (general and recyclable) from the site more broadly will be stored in covered bins and removed from the site regularly. • Waste management will not present a significant risk of impact to waters.
	Spilt/leak of hydrocarbons from plant and equipment is released from the site and adversely impacts stormwater, surface water and groundwater.	Unlikely	Insignificant	Low	• The operational areas of the site will be sealed, except for some maintained trafficable blue metal gravel areas in the southern portion of the site. • Plant and equipment will be maintained in accordance with the manufacturer's specifications to reduce the risk of equipment failures and spills. • No bulk fuel storage is proposed for the site. • A spill kit shall be kept on site and any spills cleaned up immediately using dry methods. • Groundwater is at 10m below ground level (bgl). • Spills and leaks of hydrocarbons at the site are not anticipated to present a significant stormwater, surface water or groundwater risk.

Environmental Value	Potential Source & Impact	Likelihood	Consequence	Risk	Comment
	Spills or releases of fertiliser adversely impacts stormwater, surface water and groundwater.	Unlikely	Insignificant	Low	• The operational areas of the site will be sealed, except for some maintained trafficable blue metal gravel areas in the southern portion of the site. • The fertiliser mixing process described at Table 2 is an enclosed system and is unlikely to be impacted by ingress of rainfall. • Fertiliser products shall be contained within silos prior to mixing and stored within Shed 2 (Storage) in 1t bulk bags. • No mixed fertiliser shall be stored outdoors. • Groundwater is at 10m below ground level (bgl). • Fertiliser for the manufacturing process will be in a dry, pellet form (not liquid). Any spills will be cleaned up immediately. • Spills and leaks of fertiliser at the site are not anticipated to present a significant contamination risk to waters.
Amenity (Noise and Air)	Noise emissions from the operation of the plant and equipment at the site causes nuisance at sensitive receptors.	Unlikely	Insignificant	Low	• The site is situated in an area zoned as Industrial and is commensurate with the surrounding industrial land uses and acoustic environment. • The nearest noise sensitive receptor (residential dwelling) is approximately 67m from the proposed fertiliser mixing area. • Primary noise sources at the site are vehicles, mechanical plant and equipment which will operate intermittently between 8:00am to 5:00pm, Monday to Friday.

Environmental Value	Potential Source & Impact	Likelihood	Consequence	Risk	Comment
					• The proposed use is not expected to materially change the existing noise emissions profile of the site due to the limited nature and scale of the activity. • No significant impacts to amenity in relation to noise emissions from the proposed facility are anticipated.
	Air emissions from loading, unloading and mixing fertiliser products causes harm at sensitive receptors.	Unlikely	Insignificant	Low	• The fertiliser loading, unloading and mixing process described at Table 2 is an enclosed system and is unlikely to cause fugitive dust emissions. • The fertiliser granules are 2mm to 6mm in diameter and are unlikely to become windblown. • Trucks transporting loose fertiliser from the site shall have roller tarps covering the load to prevent spills. Remaining fertiliser product shall be stored in 1t bulk bags within Shed 2 (Storage). • The proposed development is not anticipated to cause air quality impacts at receptors.
	Fugitive dust emissions from vehicle movements causes nuisance at sensitive receptors.	Unlikely	Insignificant	Low	• Blue metal gravel areas shall be maintained to prevent fugitive dust emissions from vehicle movements. • All persons shall adhere to the site's speed limit of 10km/hr. • The proposed development is not anticipated to cause fugitive dust emission nuisance at receptors.

Environmental Value	Potential Source & Impact	Likelihood	Consequence	Risk	Comment
	Loose fertiliser products become windblown and leave the site.	Unlikely	Insignificant	Low	• The fertiliser loading, unloading and mixing process described at Table 2 is an enclosed system and is unlikely to cause fugitive dust emissions. • The fertiliser granules are 2mm to 6mm in diameter and are unlikely to become windblown. • Trucks transporting loose fertiliser from the site shall have roller tarps covering the load to prevent spills. Remaining fertiliser product shall be stored in 1t bulk bags within Shed 2 (Storage). • Any spillages shall be cleaned up immediately. • The risk of wind-blown waste causing pollution on-or off-site is low.
	Odour emissions from mixing and storing fertiliser products causes nuisance at sensitive receptors.	Unlikely	Insignificant	Low	• The fertiliser loading, unloading and mixing process described at Table 2 is an enclosed system and is unlikely to cause odour emissions. • Fertiliser manufacturing shall only be undertaken at the designated location shown at Figure 2. • Storage of fertiliser in 1t bulk bags shall only occur within Shed 2 (Storage). • The fertiliser mixing process is dry and does not include other additives such as water or chemicals and is not odorous. • The proposed development is not anticipated to cause odour impacts at receptors.

Environmental Value	Potential Source & Impact	Likelihood	Consequence	Risk	Comment
Biodiversity	Harm to threatened flora and fauna species and their habitat.	Rare	Minor	Low	• Threatened flora and fauna were not observed at the site and are unlikely to occur based on the existing industrial uses at the site. • The proposed development will not impact threatened flora or fauna.
	Harm to the ecological values and functions of waterways or wetlands.	Rare	Insignificant	Low	• The site and surrounds have been heavily disturbed by existing industrial uses in the area. • The site does not contain or immediately adjoin any high ecological value waterways or wetlands. • Any spills will be cleaned up immediately to minimise potential risks to water quality. • UAN storage is not an ERA and it is not classified as hazardous to the environment. • The proposed development will not impact the ecological values or functions of any waterways or wetlands that connect to Kingaroy Creek.
	Adverse impacts to areas of environmental significance, landscape connectivity or protected areas.	Rare	Insignificant	Low	• The site and surrounds have been heavily disturbed by existing industrial uses in the area. • The development site does not include or adjoin any protected areas or undisturbed areas that may provide habitat for fauna. • The development site does not provide important habitat or landscape connectivity value for local fauna.

Environmental Value	Potential Source & Impact	Likelihood	Consequence	Risk	Comment
					• The proposed development will not impact on landscape ecological values or connectivity.
	Adverse impacts on MSES or MNES at the site.	Rare	Insignificant	Low	• The site and surrounds have been heavily disturbed by existing industrial uses in the area. • There are no MSES or MNES at the site. • The proposed development will not have a significant residual impact on MSES. • The proposed development will not have a significant impact on MNES.
Visual Amenity	The proposed development adversely impacts the visual amenity values of the site and local area.	Rare	Insignificant	Low	• The site is situated in an area zoned as Industrial and is commensurate with the surrounding industrial land uses and visual amenity. • The proposed ERA activity will be undertaken within the south-western portion of the site, which will be screened by the existing retail store when viewed from River Road. • No significant impacts to visual amenity are anticipated.

Environmental Value	Potential Source & Impact	Likelihood	Consequence	Risk	Comment
Cultural Heritage	The proposed development adversely impacts the cultural heritage values of the site.	Rare	Insignificant	Low	• There are no recorded cultural heritage values within the site. • The site and surrounds have been heavily disturbed by existing industrial uses in the area. • No significant impacts to cultural heritage values are anticipated.

4. Environmental Management

4.1 Management Commitment

E. E Muir & Sons is committed to providing a high standard of environmental performance, protection, and conservation of the natural environment at the site. This will be achieved by practicing good environmental management and the ongoing measurement, evaluation, and review of performance to ensure continual improvement.

E. E Muir & Sons are committed to:

- Complying with all legal and other obligations that apply to the site for environmental protection;
- Providing adequate resources to implement this SBMP and the associated environmental protection and monitoring measures;
- Achieving environmental goals outlined in the Environmental Control Plans (ECPs); and
- Monitoring compliance with this SBMP and seeking to continually improve environmental performance at the site.

4.2 Environmental Management Responsibilities

4.2.1 General Environmental Duty

All personnel at the site shall comply with their General Environmental Duty under the *Environmental Protection Act 1994* (EP Act). This means a person must not conduct any activity that causes, or is likely to cause environmental harm, unless all reasonable and practicable measures to prevent or minimise the harm have been taken.

4.2.2 Duty to Notify of Environmental Harm

All persons have a duty under the *Environmental Protection Act 1994* to notify the Department of Environment and Science (DES) of incidents or emergencies that cause or threaten material or serious environmental harm. This obligation is detailed further at Section 7.

4.2.3 Roles and Responsibilities

All personnel, including sub-contractors and visitors, are responsible for environmental protection during operations and maintenance works at the site. Responsibilities and reporting lines for environmental matters are described in Table 5.

Table 5 Roles and responsibilities

Role	Responsibilities	Reports to
Site Manager	• Ensure operations comply with all relevant regulatory and project requirements. • Monitor changes to legislation which may affect site operations. • Ensure this SBMP is fully implemented, and environmental protection is not secondary to operational requirements. • Provide adequate resources for implementation of the SBMP. • Ensure that all personnel understand, accept, and fully carry out their obligations for environmental protection and that they are adequately trained, instructed, and resourced to fulfil their obligations. • Undertake the annual environmental management review and SBMP review. • Seek relevant approvals for any required works or changes to the site conditions outside the limits of the applicable approvals/permits/plans. • Conduct environmental incident investigations as required. • Direct that works be stopped immediately where there is an actual or potential risk of environmental harm. • Comply with General Environmental Duty (GED) and Duty to Notify of Environmental Harm.	Regulatory authorities
Other personnel (includes staff, visitors, inspectors, and contractors)	• Regard environmental protection as a central theme in their actions. • Conduct operations as per the SBMP to reduce the risk of adverse environmental impacts. • Report any defects in plant or equipment and keep the workplace in a tidy state. • Notify the Site Manager of any unexpected changes to site conditions. • Assist with environmental incident investigations as required. • Stop works where there is an actual or potential risk of environmental harm and notify the Site Manager. • Comply with General Environmental Duty (GED) and Duty to Notify of Environmental Harm.	Site Manager

4.3 Environmental Control Plans

Environmental control plans (ECPs) have been developed to document site-specific environmental management measures to address the key environmental management

considerations for the site. Alternative controls to those outlined in the ECPs may be adopted if the objectives of the relevant ECP can still be met and should be documented in an updated SBMP. The ECPs provide management measures in relation to:

1. Amenity (noise, air, light and odour) management;
2. Land and water management;
3. Dangerous goods and hazardous substances management; and
4. Waste management.

ECP 1 - Noise, air, light, and odour management measures		
Guidelines and Legislative Requirements		
EP Act, EPP Air, EPP Noise, Development Approval and Environmental Authority.		
Performance Goal		
No complaints of nuisance regarding noise, air, odour, or light emissions from the site.		
Management Actions	**Responsibility**	**Frequency**
Air Quality		
Trucks transporting loose fertiliser to and from the site shall have roller tarps covering the load to prevent spills. Remaining fertiliser product shall be stored in 1t bulk bags within Shed 2 (Storage).	Site Manager	At all times
Blue metal gravel areas shall be maintained to prevent fugitive dust emissions from vehicle movements.	Site Manager	At all times
A speed limit of 10km/hr shall apply.	All persons	At all times
Maintain and operate plant and equipment within the manufacturer's recommended performance specifications.	Site Manager	As required
Plant and equipment shall be inspected and maintained in accordance with site operational procedures to minimise fugitive air emissions from leaking plant and equipment such as conveyors, weighing bin and mixer.	Site Manager	As required
No burning of wastes or other materials on site.	All persons	At all times
Wastes shall be stored within the designated areas.	Site Manager	At all times
Pick up all litter at the property and any litter that leaves the property boundary.	Site Manager	Weekly
General waste bins shall be covered and emptied regularly to prevent odour emissions and wind - blown litter.	Site Manager	At all times
Noise		
Maintain plant and equipment in accordance with the manufacturer's requirements to minimise noise emissions.	Site Manager	As required
No unnecessary revving or idling of engines on mobile and stationary machines and shut down any equipment not in use.	All persons	At all times
Heavy vehicle movements shall only occur during the daytime period (8:00am to 5:00pm, Monday to Friday) and not on weekends or public holidays.	Site Manager	At all times
Where appropriate and safe, reversing squawkers shall be used on vehicles and mobile plant rather than beepers.	Site Manager	Where appropriate and safe
Trafficable surfaces shall be maintained to minimise tyre noise.	Site Manager	At all times
A speed limit of 10km/hr shall apply.	All persons	At all times
Lighting		

ECP 1 - Noise, air, light, and odour management measures		
All external lighting shall comply with Australian Standard *AS4282:2019 Control of the Obtrusive Effects of Outdoor Lighting*.	Site Manager	At all times
Odour		
Maintain and operate plant and equipment within the manufacturer's recommended performance specifications.	Site Manager	As required
Fertiliser manufacturing shall only be undertaken at the designated location shown at Appendix A:.	Site Manager	At all times
Bulk UAN shall be stored in a closed tank near the fertiliser manufacturing area.	Site Manager	At all times
Storage of fertiliser in 1t bulk bags shall only occur within Shed 2 (Storage).	Site Manager	At all times
Monitoring		
Monitoring of noise, air, odour, and light emissions at sensitive receptors shall be undertaken upon written request by the administering authority in response to a complaint of nuisance.	Site Manager	Upon written request by the administering authority in response to a complaint of nuisance.
Monthly site inspections to inspect potential sources of air, odour, noise, and light emissions from the site shall be undertaken.	Site Manager	Monthly
Corrective Actions		
Complaints and incidents in relation to air, odour, noise, and light emissions from the site shall be investigated by the Site Manager to identify necessary corrective actions for implementation.		
Reporting		
Monitoring results shall be provided to the administering authority within 20 business days of a request to conduct nuisance-based monitoring.	Site Manager	Within 20 business days of receipt of a written request to conduct nuisance-based monitoring.

ECP 2 - Land and water management measures

Guidelines and Legislative Requirements

Environmental Protection Act 1994, EPP Water and Wetland Biodiversity, Environmental Authority and Development Approval.

Success Criteria

To minimise the risk of adverse impacts to soil or water (stormwater, floodwater, surface water and groundwater) resources and on downstream environmentally sensitive areas in the Burnett catchment.

Management Actions	Responsibility	Frequency
General		
Fertiliser products shall be contained within silos prior to mixing.	Site Manager	At all times
Conveyors, weigh bin and mixer shall be covered to prevent fertilisers contact with rainwater and minimise spills.	Site Manager	At all times
Fertiliser manufacturing shall only be undertaken at the designated location shown at Appendix A:.	Site Manager	At all times
Storage of fertiliser in 1t bulk bags shall only occur within Shed 2 (Storage).	Site Manager	At all times
General waste bins shall be covered and emptied regularly to prevent odour emissions and wind - blown litter.	Site Manager	At all times
Pick up all litter at the property and any litter that leaves the property boundary.	Site Manager	Weekly
Spills and Leak Prevention and Response		
All chemicals that are dangerous goods in containers greater than 15 litres shall be stored with secondary containment within the designated chemical storage shed. (refer to ECP 3).	Site Manager	At all times
Maintain and operate plant and equipment within the manufacturer's recommended performance specifications to minimise leaks/spills of hydrocarbons from hydraulic hoses, sumps, tanks etc.	Site Manager	At all times
Spilt/leaked fertiliser granules shall be recovered and contained immediately.	All persons	At all times
Spills shall be cleaned up as soon as reasonably practicable and safe to do so.	All persons	As required
Personnel shall be trained in spill prevention and spill response/control procedures.	Site Manager	At all times
Spill kits are located onsite. Ensure that spill clean-up kits are stocked and replenished appropriately, in the correct location for use.	Site Manager	At all times
Install bollards near the UAN AST to prevent impacts by vehicles or mobile plant and equipment.	Site Manager	At all times
The SDS for dangerous goods and hazardous substances shall be kept on site.	Site Manager	At all times
Emergency - Flooding		
The site shall be always kept in a clean and tidy state.	All persons	At all times

ECP 2 - Land and water management measures		
If heavy rainfall and/or flooding is forecast the site shall be prepared by ensuring that plant, equipment, and materials are securely stored;	Site Manager	As required
Where safe and practicable during a flood event, remove plant, equipment and materials from outdoor areas and store inside buildings or temporarily remove from site.	Site Manager	As required
All leaks and spills shall be cleaned up and the source of the leak/spill shall be rectified.	All persons	At all times
All materials and wastes that present a contamination risk shall be stored securely to minimise their contact with waters.	All persons	At all times
Emergency - Fire		
During operations undertake all management measures to prevent a fire.	All persons	At all times
Plant and equipment shall be maintained in accordance with the manufacturer's specifications.	Site Manager	At all times
Staff shall be trained to respond to a fire emergency and use fire safety equipment.	Site Manager	At all times
Where applicable, the storage and handling of flammable and combustible liquids shall comply with *AS1940-2017: The storage and handling of flammable and combustible liquids.*	Site Manager	At all times
Regular housekeeping shall be undertaken to prevent the build-up of combustible materials.	All persons	At all times
Monitoring		
Inspect silos and UAN fertiliser tank, mixing area, Shed 2 (Storage), chemical storage shed, stormwater controls and unsealed areas.	Site Manager	Monthly
Inspect spill kits	Site Manager	Monthly and after a spill incident
Corrective Actions		
Incidents in relation to soil and water management shall be investigated by the Site Manager to identify necessary corrective actions for implementation.		
Reporting		
If runoff from the site causes or threaten serious or material environmental harm the incident shall be notified to DES (refer to Section 7.3).	Site Manager	As required

ECP 3 - Dangerous goods and hazardous chemical management measures

Guidelines and Legislative Requirements

Development Approval, Environmental Authority, *AS1940-2017: The Storage and Handling of Flammable and Combustible Liquids*, Workplace Health and Safety Queensland's Managing Risks of Hazardous Chemicals in the Workplace – Code of Practice 2021.

Performance Goal

No environmental harm caused by the storage, use or handling of dangerous goods or hazardous chemicals at the site.

Management Actions	Responsibility	Frequency
Spills shall be cleaned up immediately. Personnel shall be trained in spill prevention and spill response/control procedures.	All persons	At all times
Spill kits are located on-site. Ensure that spill clean-up kits are stocked and replenished appropriately, and in the correct location for use.	Site Manager	At all times
No onsite disposal of wastes.	All persons	At all times
The SDS for dangerous goods and hazardous substances shall be kept on site.	Site Manager	At all times
All dangerous goods and/or hazardous substances shall be classified, stored, labelled, and used in accordance with the Code of Practice, SDS, manufacturer's requirements and the relevant Australian Standard.	Site Manager	At all times
All chemicals that are classified as dangerous goods in containers greater than 15 litres shall be stored with secondary containment (i.e., bunding) within the designated chemical storage shed.	Site Manager	At all times
Chemicals shall be stored within the designated chemical storage shed.	Site Manager	At all times
Routine maintenance of plant and equipment shall be undertaken offsite.	Site Manager	At all times
Daily pre-start checks shall be completed on all plant and equipment.	Plant Operators	Daily
Plant and equipment shall be operated and maintained in accordance with manufacturer's specifications.	Site Manager	At all times
Monitoring		
Inspect dangerous goods and hazardous chemical storages.	Site Manager	Monthly
Pre-start checks of plant and equipment to identify maintenance requirements.	Plant Operators	Daily
Ensure dangerous goods and hazardous chemicals are stored correctly when not in use.	All persons	At all times when not in use

Corrective Actions

Incidents in relation to dangerous goods and hazardous chemicals shall be investigated by the Site Manager to identify necessary corrective actions for implementation.

Reporting

ECP 3 - Dangerous goods and hazardous chemical management measures		
Large spills or leaks that cause or threaten serious or material environmental harm shall be notified to DES (refer to Section 7.3).	Site Manager	As required
An SDS register shall be kept on site and updated as required.	Site Manager	At all times

ECP 4 - Waste management measures

Guidelines and Legislative Requirements

Environmental Protection Act 1994, Waste Reduction and Recycling Act 2011, Development Approval and Environmental Authority.

Performance Goals

- Wastes correctly segregated and stored.
- No illegal waste disposal or burning of wastes.
- All wastes transported by appropriately licensed waste transporters to waste facilities that are licensed to receive the wastes.
- All regulated waste tracking documents and receipts retained.

Management Actions	Responsibility	Frequency
The site shall be always kept in a clean and tidy state.	All persons	At all times
Spilt fertiliser products shall be recovered and reused and shall not be disposed of as general waste.	Site Manager	At all times
Wastes shall be segregated and stored in covered bins in a designated storage area.	All persons	At all times
Bins and other waste storage devices shall be clearly labelled and stored within a designated bin storage area.	All persons	At all times
Covered bins shall be provided to prevent windblown litter, access by birds/vermin and rainfall ingress.	Site Manager	At all times
General wastes shall be removed regularly for offsite disposal or recycling at a licensed waste/recycling facility.	Site Manager	Weekly
Wastes of any kind shall not be burnt or disposed of on site.	All persons	At all times
Regulated Waste shall be disposed of by a licensed regulated waste contractor.	Site Manager	As required
Pick up all litter at the property and any litter that leaves the property boundary.	Site Manager	Weekly
Retain documentation relating to the removal and disposal of regulated waste.	Site Manager	At all times
Monitoring		
Waste storage areas shall be inspected for leaks, damage and/or maintenance requirements.	Site Manager	Monthly
Corrective Actions		
Incidents in relation to waste management and disposal shall be investigated by the Site Manager to identify necessary corrective actions for implementation.		
Reporting		
Retain records/receipts of Regulated Waste removal from the site.	Site Manager	At all times and retain for at least 5 years

5. Rehabilitation Plan

Where disturbed land at the site will not be subject to any further disturbance it will be rehabilitated. Rehabilitation will be planned and executed to ensure that:

- Any infrastructure that is not required by the landholder is removed. Infrastructure that is required by the landholder is left in a safe and stable condition;
- All liquid and solid wastes are removed from the site;
- Suitable vegetation for the location and any proposed future land use is established and sustained for exposed earthen surfaces to minimise erosion;
- The quality of soil and water, including seepage, released from the site does not cause environmental harm;
- The potential for environmental nuisance caused by dust is minimised; and
- The final landform is stable and protects the safety of humans and wildlife.

6. Complaint Management

All complaints shall be forwarded to the Site Manager:

- Name: Neil Mungall
- Email: nmungall@eemuir.com.au
- Phone: 0408 855 402

The Site Manager shall maintain and update the Complaint Log (Appendix B:) for all complaints received. The following details must be recorded for all complaints received:

- Time, date, name and contact details of the complainant;
- Reason for complaint;
- Any investigations undertaken;
- Conclusions formed; and
- Any actions taken

All complaints shall be investigated and managed in accordance with Figure 4.

Complaint is received by personnel (written, verbal, email, telephone, call, fax etc).

Complaint is immediately forwarded to the Site Manager who records it in the Complaint Log. The Site Manager shall confirm receipt of the complaint (verbally or in writing) to the complainant within 24 hours of receiving the complaint.

The Site Manager investigates the complaint within 24 hours of receipt of the complaint.

The Site Manager shall identify and implement all reasonable and practicable corrective actions to address a complaint as soon as reasonably practicable.

The Site Manager shall notify the complainant of the results of the investigation and any corrective actions implemented. This notification shall be made within 24 hours of the implementation of the required corrective actions.

The Site Manager shall document the findings of the complaint investigation and the corrective actions implemented and notifications made in the Complaint Log.

Figure 4 Complaint Management Procedure

7. Environmental Hazards, Incidents & Emergencies

7.1 Categories of Environmental Harm

There are three (3) categories of environmental harm for environmental incidents and emergencies under the *Environmental Protection Act 1994* (Table 6).

Table 6 Categories of environmental harm

Category	Definition	Internal reporting required?	External reporting required?
Nuisance	An unreasonable interference or likely interference with an environmental value caused by: • Aerosols, fumes, light, noise, odour, particles, or smoke; or • An unhealthy, offensive, or unsightly condition because of contamination; or • Another way prescribed by regulation.	Yes	Yes, but only if a breach of an EA condition (refer to Section 12.1)
Material	Environmental harm that: • Is not trivial or negligible in nature, extent, or context; or • Causes actual or potential loss or damage to property of an amount of, or amounts totalling, $5K-$50K; or • Results in costs of $5K-$50K for actions to prevent or minimise the harm and rehabilitate or restore the environment to its condition before the harm.	Yes	Yes
Serious	Environmental harm that: • Is irreversible, or a high impact or widespread; or • Causes harm to an area of high conservation value or special significance; or • Causes actual or potential loss or damage to property of an amount of, or amounts totalling more than $50K; or • Results in costs of more than $50K for actions to prevent or minimise the harm and rehabilitate or restore the environment to its condition before the harm.	Yes	Yes

7.2 Environmental Hazards, Incidents & Emergencies

7.2.1 Hazard and Incident Reporting

All environmental hazards, incidents and emergencies must be reported to the Site Manager as soon as possible but no longer than 24 hours after becoming aware of the matter.

All hazards, incidents and emergencies shall be investigated by the Site Manager and any other relevant personnel to identify root causes and the appropriate course of action taken to

prevent a recurrence. Corrective actions are to be evaluated based on the hierarchy of controls with the aim of elimination of the impacts identified. This SBMP may require review and amendment following identification of a hazard, incident, or emergency.

If a hazard, incident, or emergency causes or threatens material or serious environmental harm refer to Section 7.3 for external reporting requirements.

7.2.2 Incident Management & Investigation

The Site Manager shall investigate all incidents to determine:

- Nature, type, location, and extent of the incident and the affected area;
- Actual and/or potential environmental impacts of the incident;
- Suspected cause/s of the incident;
- Measures required to stop any further environmental harm;
- Remedial measures required to correct any environmental harm;
- Management measures to be implemented to prevent a recurrence of the incident; and
- Incident reporting requirements for regulatory authorities (refer to Section 7.3).

The requirements for the environmental assessment of impacts of an incident shall be determined by the Site Manager who may seek advice from an environmental consultant. If an incident involves serious or material environmental harm or a breach of an Environmental Authority condition, the regulatory authority may also advise/direct the environmental assessment.

The assessment may include environmental monitoring of a contaminant release. Based on the nature and type of the incident, the Site Manager in consultation with their environmental consultant shall determine:

- Sampling and analytical requirements; and
- Applicable guidelines or thresholds to apply to data for assessing compliance and level of impact.

7.3 External Reporting of Material or Serious Environmental Harm

All persons have a duty to notify the Department of Environment and Science (DES) of incidents or emergencies that cause or threaten material or serious environmental harm. Environmental incidents or emergencies that cause or threaten material or serious environmental harm shall be reported to DES in accordance with Table 7.

Table 7 External reporting of material or serious environmental harm

By	To	Within	Method
Employees, sub-contractors, or visitors	Site Manager If the Site Manager cannot be contacted, notification must be made directly to DES.	24 hours of becoming aware of the matter.	Verbal or written. Verbal initially followed by written.
Site Manager	DES	24 hours of becoming aware of the matter. This 24-hour period starts as soon as the Site Manager is first notified.	Verbal initially followed by written.

The Duty to Notify of Environmental Harm Guideline is provided at Appendix C:. The standard written notification form to DES for material or serious environmental harm is provided at Appendix D:. Both of these forms can be downloaded from the DES website. Contact details for the DES are provided in Table 8.

Table 8 DES contact details

Method of contact	Details
Pollution Hotline	1300 130 372
Fax	(07) 3330 5875
Email	pollutionhotline@des.qld.gov.au
Web	https://www.des.qld.gov.au/
Registered Post	Permit and Licence Management Department of Environment and Science GPO Box 2454 Brisbane 4001

8. Emergency Preparation and Response

This section provides an overview of response requirements for environmental emergencies that could reasonably be expected to occur at the site during operations and present a risk of harm to the environment. Incident reports and investigations are to be completed for any emergency at the site.

8.1 Fire

A fire has the potential to threaten the safety or health of people, cause environmental harm and damage infrastructure and equipment. The risk of fire at the site shall be reduced by:

- Provision and maintenance of firefighting equipment such as fire extinguishers at strategic locations at the site;
- Maintain plant and equipment in accordance with manufacturer's specifications;
- Training site personnel in emergency response to fire and the use of fire safety equipment;
- Compliance with *AS1940-2017: The storage and handling of flammable and combustible liquids* (where applicable); and
- Regular housekeeping at the site to remove wastes to prevent the build-up of combustible materials.

8.2 Flooding

The site is partially within a flood hazard area. To prevent the potential contamination of stormwater and floodwaters and impacts on the downstream receiving environment, the following strategies shall be employed:

- Keep the site in a clean and tidy state at all times;
- If heavy rainfall and/or flooding is forecast prepare the site by ensuring that plant, equipment, and materials are securely stored;
- Where safe and practicable remove plant, equipment and materials from outdoor areas and store inside buildings or temporarily remove from site;
- Ensure all leaks and spills have been cleaned up and the source of the leak/spill is rectified; and
- Ensure all materials and wastes that present a contamination risk are stored securely to minimise their contact with waters.

8.3 Spill Response

A chemical spill has the potential to threaten the safety or health of people, create a fire hazard or cause environmental harm. Where a chemical spill occurs, consult the Safety Data Sheet (SDS) for spill clean-up procedures and any necessary Personal Protective Equipment (PPE).

Spill response kits shall be kept at strategic locations on site. Equipment contained in spill response kit shall be replenished upon use, equal to the specified list contained with the kit. The Site Manager will ensure that spill response kits are inspected monthly (or after a spill incident), and any missing items are replaced.

A spill response flow chart is provided at Figure 5. If a spill cannot be safely contained and controlled with onsite resources, the matter shall be referred immediately to emergency services by calling triple zero (000).

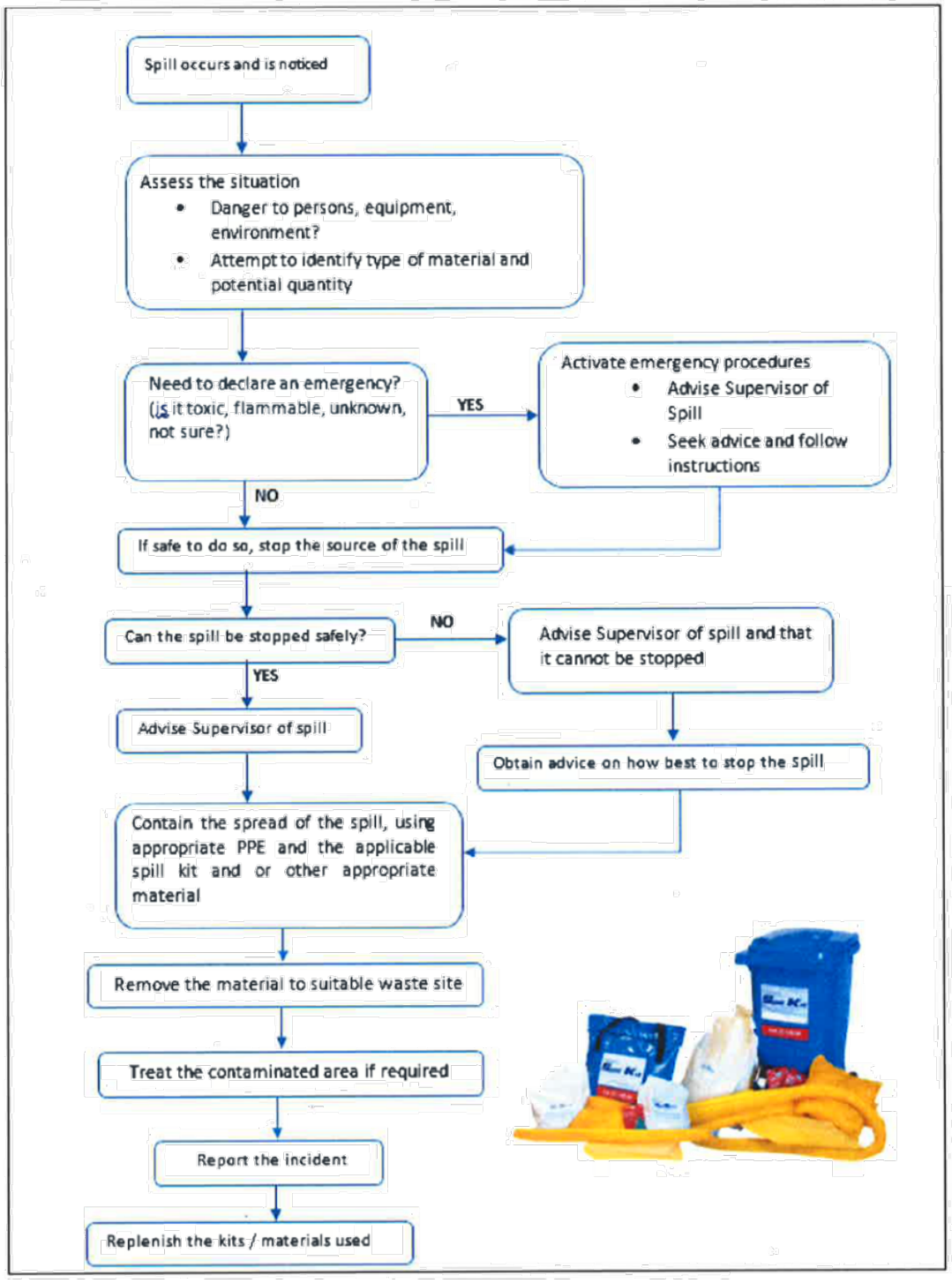


Figure 5 Spill Response Procedure

9. Inspections & Monitoring

9.1 Site Inspections

The Site Manager shall undertake monthly environmental site inspections of operations and work practices to:

- Ensure activities are being undertaken in accordance with approved procedures;
- Confirm that appropriate controls have been identified and are in place to minimise the risk of environmental harm;
- Identify any maintenance or workplace practice issues that need to be addressed; and
- Identify potential environmental hazards that need to be addressed.

9.2 Environmental Monitoring

Environmental impacts of routine and non-routine operations, incidents and emergencies shall be assessed. Where environmental monitoring is required, it shall be completed by suitably qualified and experienced persons in accordance with legislated standards and guidelines.

All equipment used for environmental monitoring shall be fit for purpose and maintained, operated, and calibrated in accordance with the manufacturer's specifications. Where analysis of samples is required, samples shall be submitted to a NATA accredited laboratory.

Environmental monitoring records shall be retained and managed in accordance with Section 11.

10. Training and Communication

10.1 Environmental Awareness Training

10.1.1 Inductions

A site induction shall be given to all personnel (staff, contractors, and visitors) to ensure they are aware of their responsibilities and are competent to carry out works at the site. This shall include environmental awareness training which addresses the following:

- General Environmental Duty;
- Duty to Notify Environmental Harm;
- Requirements of the SBMP;
- Environmental complaint, hazard and incident management and reporting; and
- Emergency response.

Training records are to be maintained and kept on site.

10.1.2 Ongoing Training

Ongoing staff training will be undertaken as new activities are ready to start, new environmental risks identified, or new processes are developed. This will usually be incorporated into a regular toolbox meeting and/or risk assessments prior to undertaking the job. Records of the special training sessions will be in a similar format to toolbox meeting minutes.

10.2 Internal Communication of Environmental Information

The Site Manager shall communicate information regarding environmental matters to site personnel on an as-required basis. The Site Manager shall determine the method of communication.

Protocols for internal reporting of environmental hazards, incidents and emergencies are outlined at Section 7.

10.3 Communication with Regulatory Authorities

There is no requirement for routine communication with regulatory authorities regarding environmental matters. Communication with regulatory authorities will be on an as-required basis. Examples of instances where communication may be required with regulatory authorities are below:

- Environmental hazards, incidents and emergencies that cause or threaten material or serious environmental harm will be reported to regulatory authorities in accordance with Section 7.
- Any breach of the conditions of the Environmental Authority must be reported by the Site Manager to DES within 24 hours of becoming aware of the breach.
- Any Notifiable Activities undertaken at the site (refer to Schedule 3 of the *Environmental Protection Act 1994*) shall be notified to DES with 20 business days of becoming aware of the activity.
- If invasive plants or animals listed as prohibited or Category 1 or 2 restricted matter at Schedule 2 of the *Biosecurity Act 2014* are identified these shall be reported within 24 hours to Biosecurity Queensland by calling 13 25 23.

11. Records Management

The Site Manager shall be responsible for managing environmental records for the site in accordance with E. E Muir & Sons' document control procedures.

All environmental and site maintenance records shall be made available upon request by regulatory authorities. All environmental and site maintenance records shall be retained for no less than 5 years.

Examples of records may include but not be limited to the following:

- Site observations and site diary entries;
- Complaints;
- Incidents and incident investigations;
- Results of any environmental monitoring;
- Correspondence with regulatory authorities or any other party;
- Waste disposal;
- Environmental management performance reviews;
- SBMP updates;
- Site emergencies; and
- Training.

12. Review and Improvement

12.1 Non-conformance & Corrective Actions

A non-conformance is defined as failure to comply with the requirements of this SBMP, regulatory requirements and conditions of approvals and permits. Non-conformances may be identified through monitoring, inspections, or incident investigations.

Non-conforming activities shall be stopped by any person at the site in consultation with the Site Manager. The activity will not recommence until an appropriate corrective action has been implemented.

A corrective action must be identified and implemented for each identified non-conformance.

Any breach of the conditions of the Environmental Authority must be reported by the Site Manager to the administering authority within 24 hours of becoming aware of the breach. Records of the breach must be kept and include details of the breach, notifications made to the administering authority and corrective actions taken.

12.2 Environmental Management Performance Reviews

Environmental management performance reviews will be undertaken annually as part of the continual improvement process. Reviews may also occur in addition to the annual reviews in response to matters that affect environmental management, for example, incidents, emergencies, changes in site conditions and operations, permit conditions or legislation changes etc.

The Site Manager and key staff will undertake the annual environmental management review. The review will consider:

- Monitoring, inspection, and audit results for the past year;
- Recent and relevant incidents and any lessons learnt;
- Management of complaints;
- Feedback from regulatory authorities;
- Tabling of any new legal or other obligations;
- The effectiveness of environmental controls; and
- Adequacy of resources for environmental management.

Findings, actions, timeframes, and the responsible parties shall be recorded in accordance with Section 11.

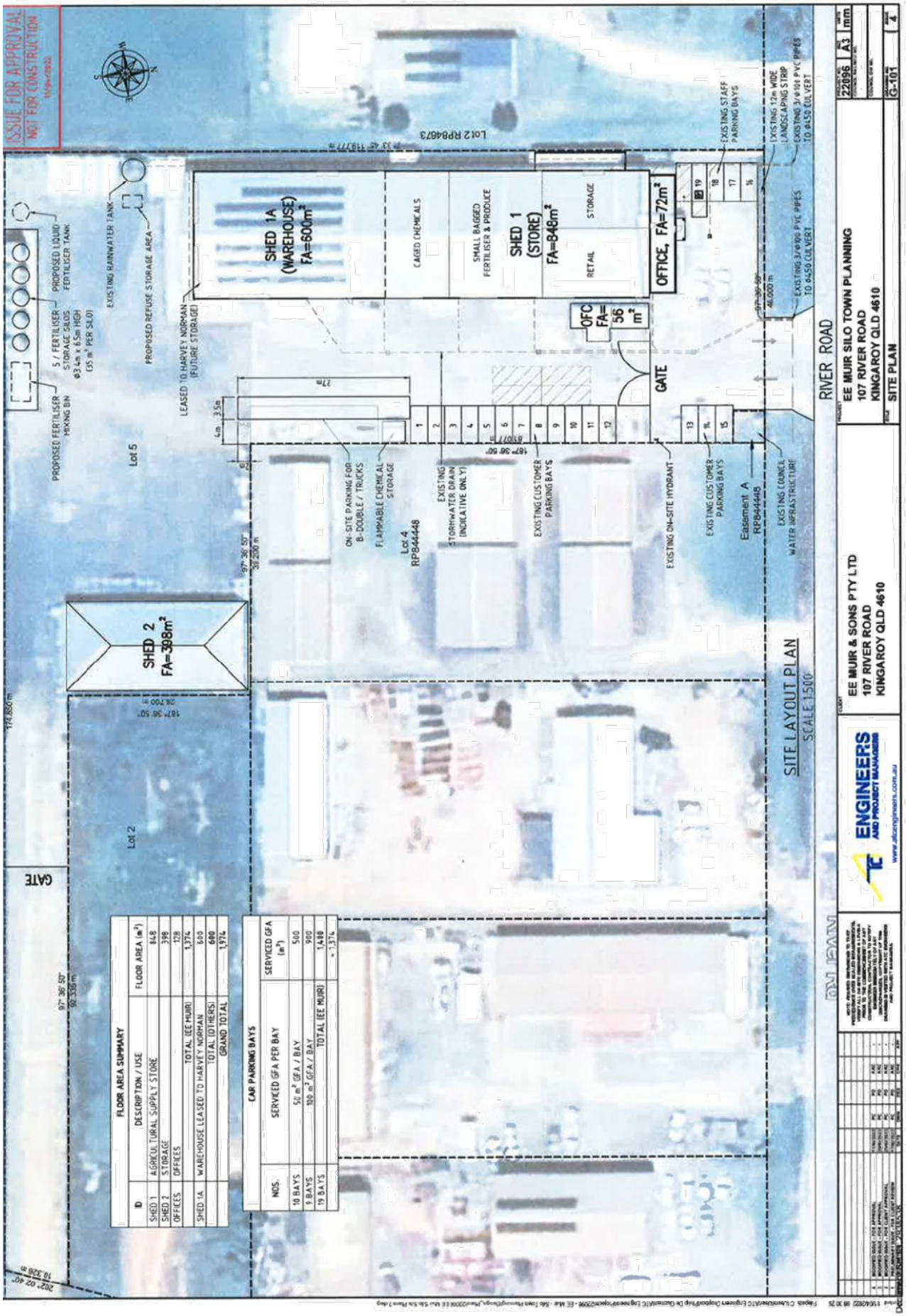
12.3 SBMP Review and Update

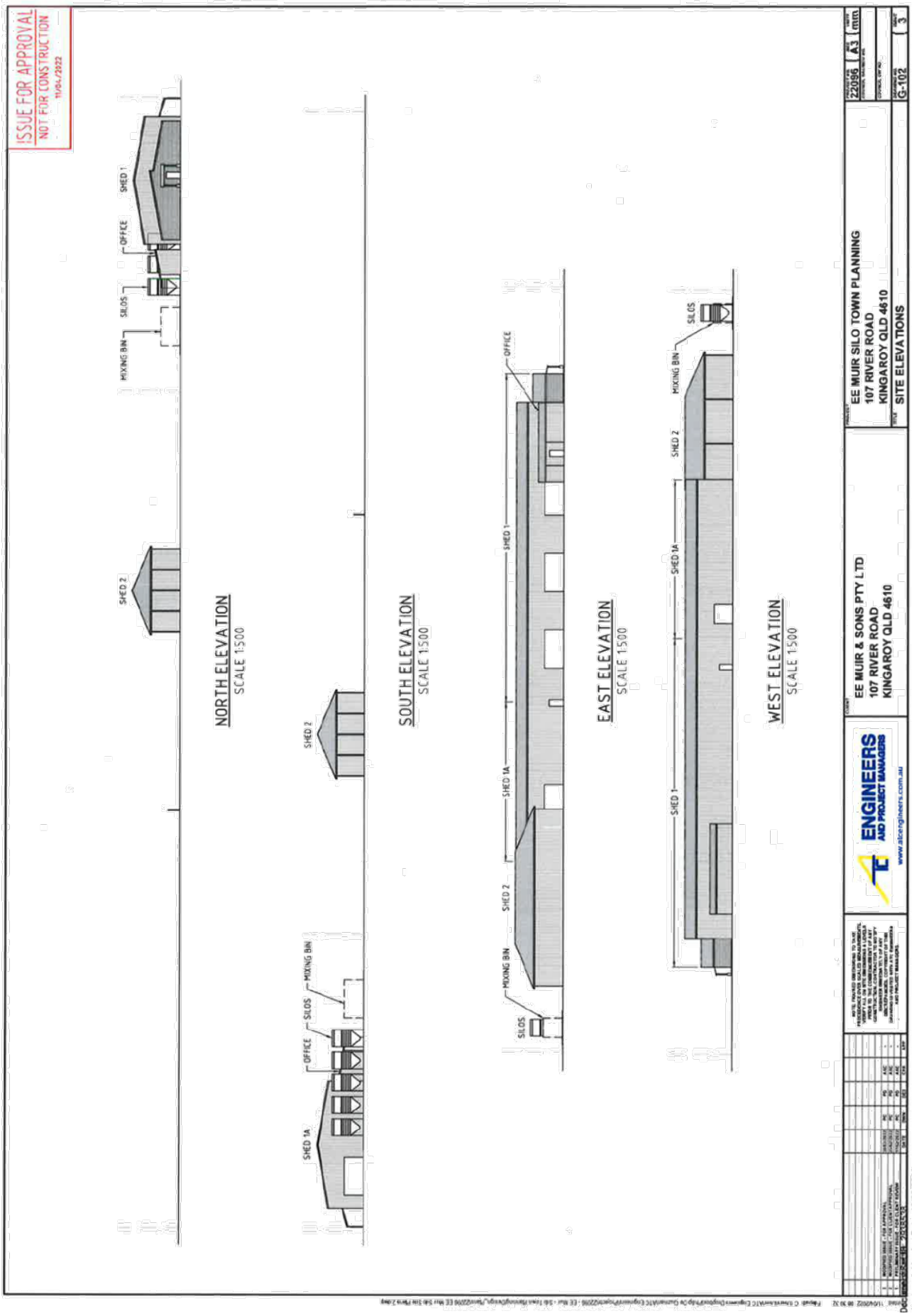
The SBMP shall be reviewed at least annually by the Site Manager to determine if the management measures are appropriate for operations and site conditions. If the SBMP is not appropriate for the operations and site conditions at the time of the review it shall be updated accordingly.

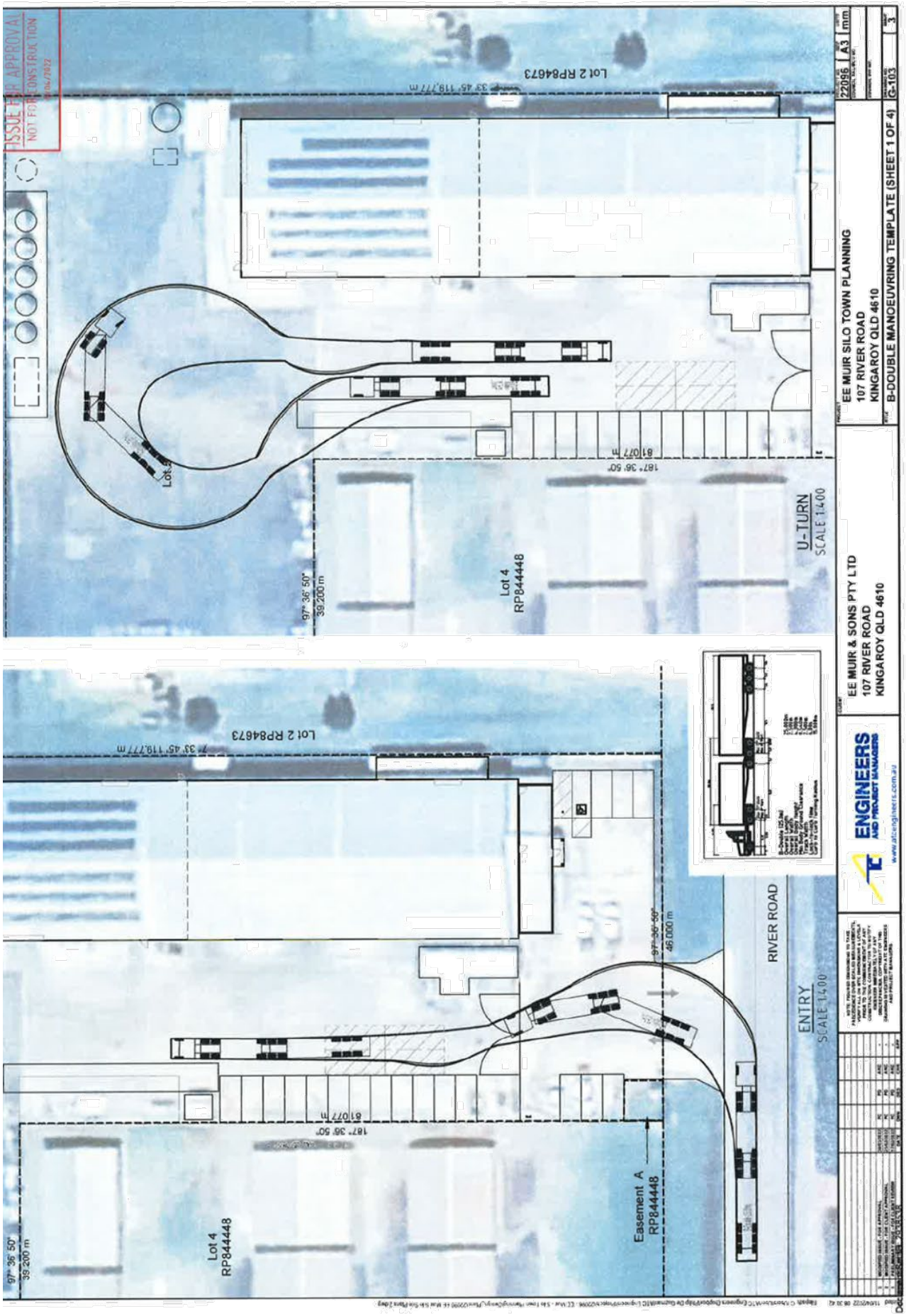
Other triggers for review and update of the SBMP outside of the annual review cycle may include but not be limited to:

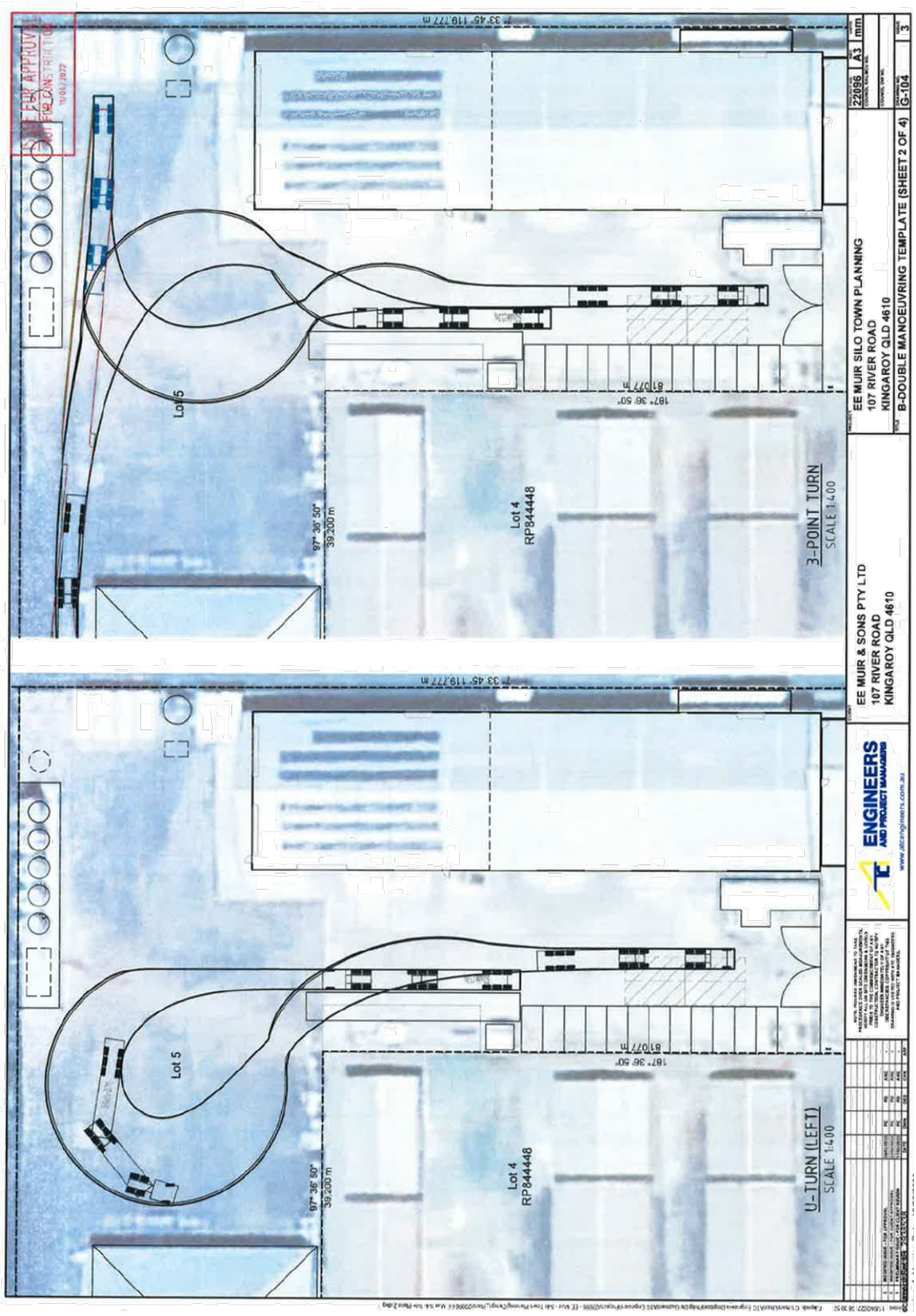
- Following the issue of project approvals and permits;
- After an incident that causes environmental harm;
- Changes to the risk profile of the operation;
- Changes to relevant legislation or project approvals; and
- Changes to operational methods or site conditions that require additional or alternative environmental controls to manage risk to environmental values.

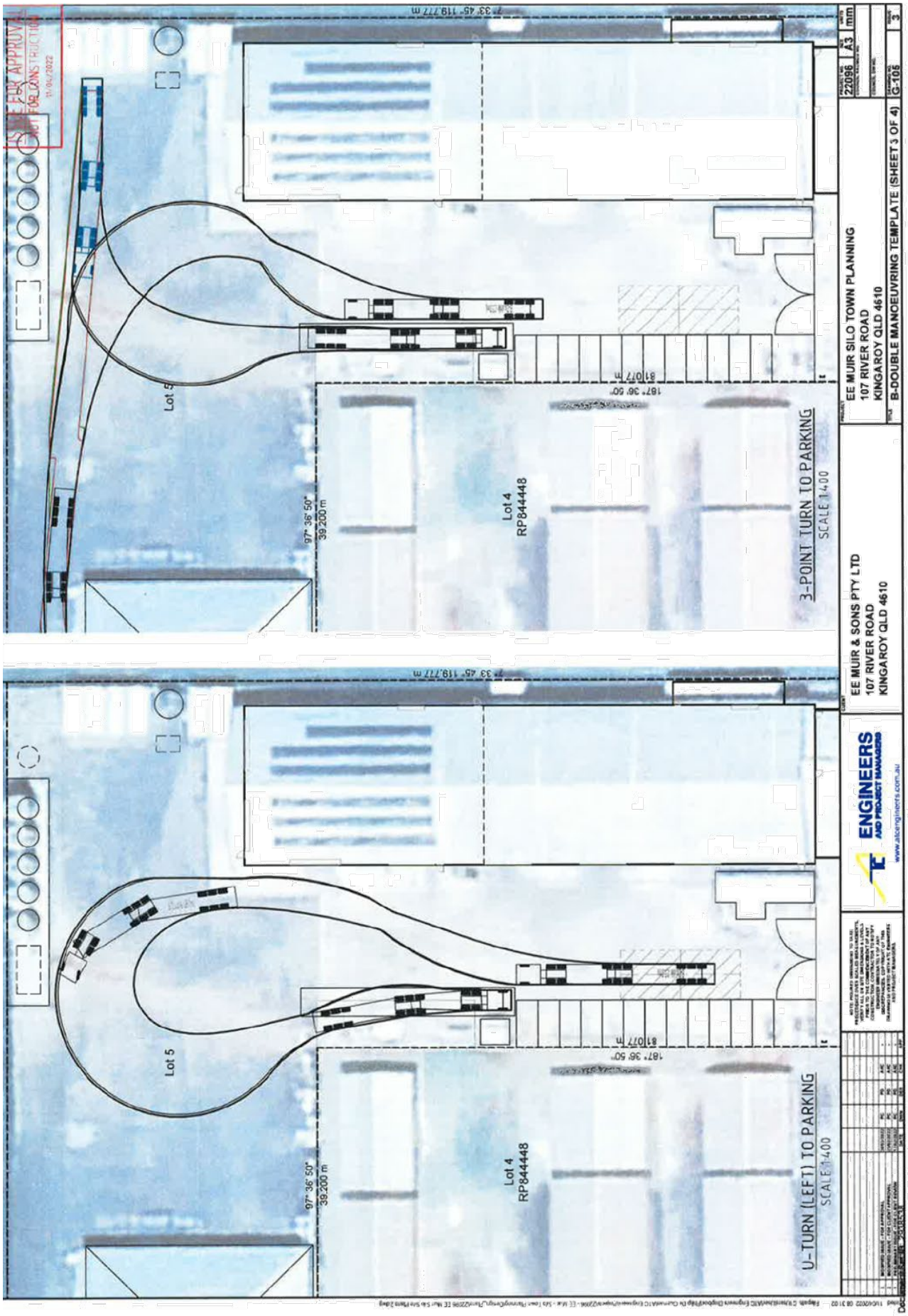
Appendix A: Development Plans


ISSUE FOR APPROVAL
NOT FOR CONSTRUCTION
SHED 1A (WAREHOUSE) FA=600m²
CAGED CHEMEALS
SMALL BAGGED FERTILISER & PRODUCE
SHED 1 (STORE) FA=848m²
RETAIL
STORAGE
OFFICE, FA=72m²
OFC FA= 56 m²
GATE
SHED 2 FA=398m²
Lot 12 RP84673
Lot 5
Lot 2
Lot 4 RP844448
Easement A RP844448
RIVER ROAD
EXISTING RAINWATER TANK
PROPOSED REFUSE STORAGE AREA
LEASED TO HARVEY NORMAN (FUTURE STORAGE)
PROPOSED FERTILISER MIXING BIN
5 / FERTILISER STORAGE SILOS ø3.4m x 6.5m HIGH (35 m³ PER SILO)
PROPOSED LIQUID FERTILISER TANK
ON-SITE PARKING FOR B-DOUBLE / TRUCKS
FLAMMABLE CHEMICAL STORAGE
EXISTING STORMWATER DRAIN (INDICATIVE ONLY)
EXISTING CUSTOMER PARKING BAYS
EXISTING ON-SITE HYDRANT
EXISTING COUNCIL WATER INFRASTRUCTURE
EXISTING STAFF PARKING BAYS
EXISTING 12m WIDE LANDSCAPING STRIP
EXISTING 3/600 PVC PIPES TO 6450 CULVERT
SITE LAYOUT PLAN
SCALE 1:500
EE MUIR SILO TOWN PLANNING
107 RIVER ROAD
KINGAROY QLD 4610
SITE PLAN
EE MUIR & SONS PTY LTD
107 RIVER ROAD
KINGAROY QLD 4610
ENGINEERS AND PROJECT MANAGERS
www.atcengineers.com.au
22096
A3
G-101
FLOOR AREA SUMMARY
ID | DESCRIPTION / USE | FLOOR AREA (m²)
SHED 1 | AGRICULTURAL SUPPLY STORE | 848
SHED 2 | STORAGE | 398
OFFICES | OFFICES | 128
TOTAL (EE MUIR) | 1,374
SHED 1A | WAREHOUSE LEASED TO HARVEY NORMAN | 600
TOTAL (OTHERS) | 600
GRAND TOTAL | 1,974
CAR PARKING BAYS
NOS. | SERVICED GFA PER BAY | SERVICED GFA (m²)
10 BAYS | 50 m² GFA / BAY | 500
9 BAYS | 100 m² GFA / BAY | 900
19 BAYS | TOTAL (EE MUIR) | 1,400
Version: 1, Version Date: 18/08/2022

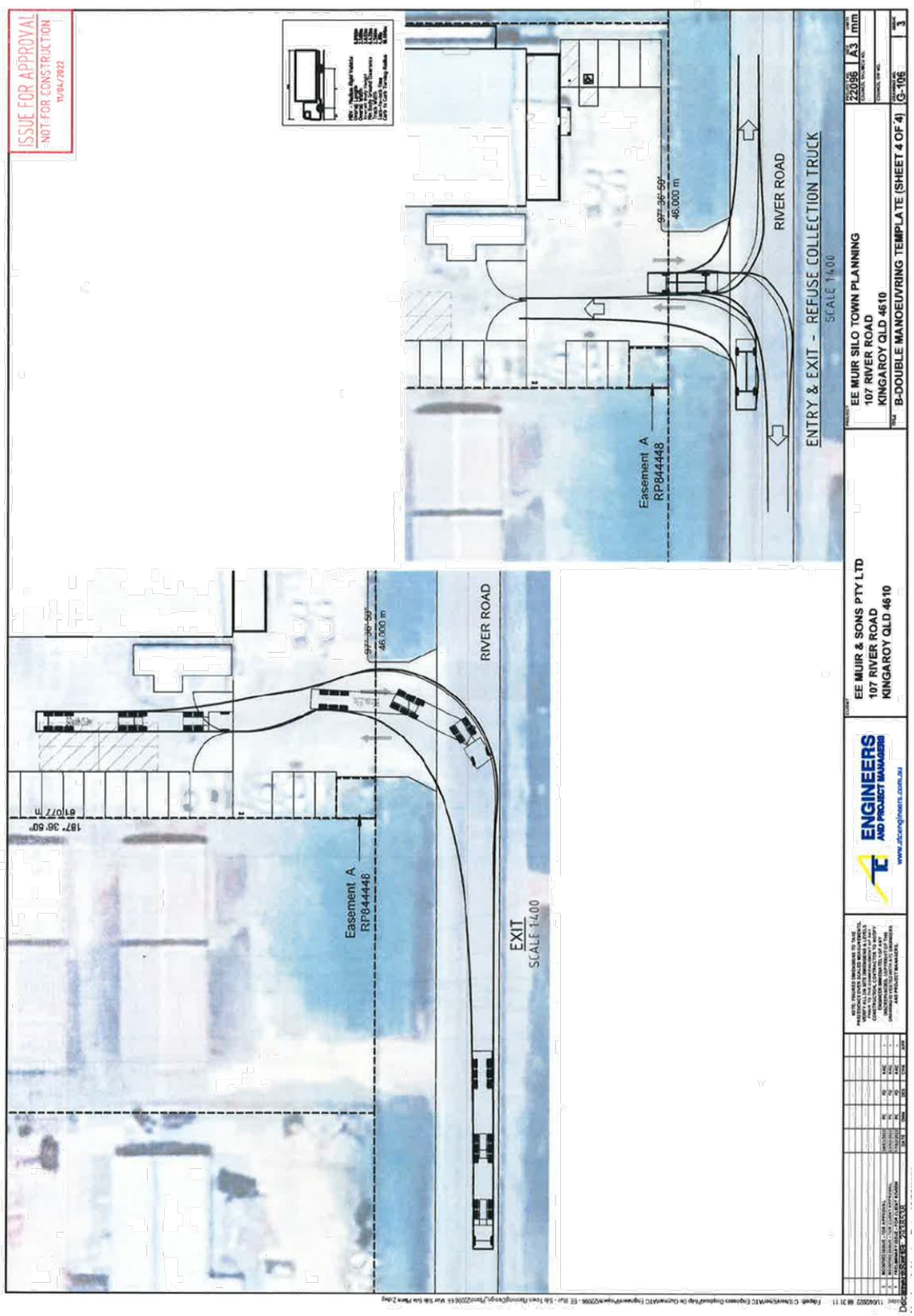

ISSUE FOR APPROVAL
NOT FOR CONSTRUCTION
11/04/2022
SHED 1
OFFICE
SILOS
MIXING BIN
SHED 2
NORTH ELEVATION
SCALE 1:500
SHED 1A
SOUTH ELEVATION
SCALE 1:500
EAST ELEVATION
SCALE 1:500
WEST ELEVATION
SCALE 1:500
ENGINEERS
AND PROJECT MANAGERS
www.alcengineers.com.au
EE MUIR & SONS PTY LTD
107 RIVER ROAD
KINGAROY QLD 4610
EE MUIR SILO TOWN PLANNING
107 RIVER ROAD
KINGAROY QLD 4610
SITE ELEVATIONS
22096
A3
G-102
3


ISSUE FOR APPROVAL
NOT FOR CONSTRUCTION
Lot 2 RP846473
33° 45' 119.777 m
187° 36' 50"
81.077 m
97° 36' 50"
39.200 m
Lot 4
RP844448
U-TURN
SCALE 1:400
EE MUIR SILO TOWN PLANNING
107 RIVER ROAD
KINGAROY QLD 4610
B-DOUBLE MANOEUVRING TEMPLATE (SHEET 1 OF 4)
22096
A3
mm
C-103
3
EE MUIR & SONS PTY LTD
107 RIVER ROAD
KINGAROY QLD 4610
ENGINEERS
AND PROJECT MANAGERS
www.atcengineers.com.au
Easement A
RP844448
97° 36' 50"
46.000 m
RIVER ROAD
ENTRY
SCALE 1:400
Version 1, Version Date: 16/06/2022


Lot 5
Lot 4
RP844448
97° 36' 50"
39.200 m
187° 36' 50"
81.077 m
7° 33' 45" 119.777 m
U-TURN (LEFT)
SCALE 1:400
3-POINT TURN
SCALE 1:400
EE MUIR & SONS PTY LTD
107 RIVER ROAD
KINGAROY QLD 4610
ENGINEERS
AND PROJECT MANAGERS
www.atcengineers.com.au
EE MUIR SILO TOWN PLANNING
107 RIVER ROAD
KINGAROY QLD 4610
B-DOUBLE MANOEUVRING TEMPLATE (SHEET 2 OF 4)
22096
A3
mm
G-104
3



Version 1, Version Date: 18/08/2022


ISSUE FOR APPROVAL
NOT-FOR CONSTRUCTION
11/04/2022
ENTRY & EXIT - REFUSE COLLECTION TRUCK
SCALE 1:400
RIVER ROAD
97° 36' 50"
46.000 m
Easement A
RP844448
EXIT
SCALE 1:400
187° 36' 60"
61.072 m
EE MUIR SILO TOWN PLANNING
107 RIVER ROAD
KINGAROY QLD 4610
B-DOUBLE MANOEUVRING TEMPLATE (SHEET 4 OF 4)
EE MUIR & SONS PTY LTD
107 RIVER ROAD
KINGAROY QLD 4610
ENGINEERS
AND PROJECT MANAGERS
www.zlcengineers.com.au
22096
A3
G-106
3

Appendix B: Complaint Log

Date & Time Received	Date, Time & Method of Acknowledgment	Complaint Name & Contact Details	Nature of Complaint	Investigation Findings	Corrective Actions Identified	Date Corrective Actions Implemented	Date of Complaint Close-out Notice

Appendix C: Duty to Notify Guideline

Guideline

The duty to notify for contaminated land

1. Purpose

This guideline provides guidance on meeting the duty to notify under the *Environmental Protection Act 1994* (the Act) with respect to events, changes in condition or activities on land that either is contaminated or is reasonably likely[1] to be contaminated by a hazardous contaminant. Depending on the circumstances, it may sometimes also be relevant to consider the general guidance on the duty to notify of environmental harm which is found in the EM467 guideline.

The duty to notify in relation to contamination of land can apply to both land that is already listed on the environmental management register (EMR) or contaminated land register (CLR) and to land that is or is reasonably likely to be contaminated and hence may warrant listing on the EMR.

The purpose of these duty to notify provisions is to enable a timely response to contamination hazards by the administering authority (the Department of Environment and Heritage Protection). Its response could be to:

- issue a show cause notice to the owner of the land if there are sufficient grounds to propose listing of land on the EMR or CLR, or
- require an environmental investigation to be conducted and an environmental report prepared, or
- require a site investigation report and/or a site management plan to be prepared and then certified by an approved auditor, or
- undertake another appropriate compliance action, for example by issuing a clean-up notice.

There may also be a duty to notify owners or occupiers of affected or potentially affected land, to enable them to respond to potential impacts; this is addressed in EM467.

2. Interpretation of contaminated land in the context of the duty to notify

In the context of sections 320A, 320DA and 320DB of the Act, **contaminated land** is interpreted to mean land, including associated soil, soil gases, surface waters or groundwater, that is:

- contaminated by a hazardous contaminant; or
- reasonably likely to be contaminated by a hazardous contaminant[2].

[1, 2] Because someone who has a duty to notify in respect of contaminated land may not be certain that the land is contaminated, such a person should notify the administering authority if they think the land is likely to be contaminated

3. Responsibilities for the duty to notify with respect to contaminated land

In accordance with sections 320 to 320G of the Act, a duty to notify the administering authority exists for:

- an **owner or occupier** of contaminated land
- an **auditor** who has been commissioned to perform an auditor's function, in accordance with section 568(b) of the Act, i.e. with respect to the certification of a CLID
  - from the time that they have been engaged to perform an auditor's function,
  - until either they provide an auditor's certification or their engagement ceases and they have advised the administering authority accordingly
- a **local government** that has relevant statutory responsibilities with respect to land within a local government area.

The duties to notify applying to these different parties are distinct. There may be circumstances in which more than one party becomes aware of a relevant event, change in condition of the land or a notifiable activity and therefore needs to notify the administering authority.

A written notice is to be provided where a duty to notify arises. The notice must state:

- the notifiable activity that has been, or is being carried out; or
- the nature of the event or change in condition; and
- the circumstances in which the event or change happened.

In addition to the duties of the parties above, a person who has been employed or engaged to perform the regulatory function of a **suitably qualified person** may need to notify their employer or potentially the administering authority (in accordance with the general provision under section 320B). The role of an SQP is specified in sections 564 and 565 of the Act, i.e. to prepare one or other form of contaminated land investigation document (CLID).

Where an SQP or another employee has notified an owner or occupier, the owner or occupier would then have a duty under section 320D of the Act to notify:

- the administering authority within 24 hours
- any occupier or the registered owner of any affected land as soon as practicable.

4. Triggers for the duty to notify

For owners or occupiers, auditors and local governments

In accordance with sections 320 to 320G of the Act, an owner or occupier, an auditor or a local government should notify the administering authority:

1. Within 24 hours of becoming aware for the first time of the **happening of an event** involving the spillage, leakage, exposure, combustion, mobilisation or other form of dispersal of a contaminant on the relevant land, where the event:
   a) was not authorised by an instrument listed under section 320A(4) of the Act,
   b) has not been previously notified by the responsible party (i.e. owner or occupier, auditor or local government), and
   c) is causing or is reasonably likely to cause serious or material environmental harm

2. Within 24 hours of becoming aware for the first time of a **change in the condition** of land, relative to the previous condition (as either known or reasonably inferred) of the land, where the change in condition
   a) is either known to be or reasonably known to be likely to relate to the nature or extent or impact of contamination, and
   b) either is causing or is reasonably likely to cause or constitute serious or material environmental harm
3. Within 20 business days of becoming aware for the first time of a **notifiable activity** (as listed under Schedule 3 of the Act), where the activity:
   a) is currently being carried out, or
   b) was previously carried out.

   The occurrence of a notifiable activity is considered to provide sufficient grounds to conclude that serious or material environmental harm is reasonably likely to occur.

In accordance with the applicable provisions, the above time periods apply unless the relevant person has a reasonable excuse for not complying within the time period.

For a suitably qualified person

Consistent with section 320B of the Act, a duty to notify may also exist for a suitably qualified person, i.e. as a person employed or engaged by an owner or occupier. This duty arises within 24 hours of the suitably qualified person becoming aware for the first time of the happening of an event involving the spillage, leakage, exposure or mobilisation or other form of dispersal of a contaminant on the relevant land, where the event:

a) was not authorised by an instrument listed under section 320A(4) of the EP Act,
b) having regard to available information, has caused or is reasonably likely to cause serious or material environmental harm, either on the relevant land or any other affected land.

The suitably qualified person needs to notify the person who has engaged or employed them, or if they cannot contact the latter, then the administering authority.

While there is not a specific obligation for a suitably qualified person to advise an auditor of a notifiable activity or a relevant event or change in condition of land, it would be appropriate and advisable for them to do so given the auditor's role in reviewing the CLID being prepared by the suitably qualified person and the auditor's statutory duty to notify.

Where notification is needed – an overview

An owner or occupier, auditor or local government should notify the administering authority where they become aware of:

- an event that is not authorised or a change in condition involving contaminants
  - that is causing or could involve serious or material environmental harm
  - on land that has previously been listed on the EMR on the basis of a notifiable activity
- a notifiable activity either has or is being conducted

Where notification may not be needed

The responsible party does not subsequently need to provide a further notification unless

- a new event or notifiable activity is observed or detected
- a further change in condition is detected, involving a credible risk of material or serious environmental harm that was not previously identified (e.g. associated with either additional contaminants or a more elevated level of the same contaminants).

Notification may not be warranted if a responsible party becomes aware of further information about a change in condition while a site investigation report is being prepared, and the administering authority is aware that the forthcoming report will address this information.

However, notification would be warranted if a change in condition either has occurred over a relatively short time or involves a relatively high level of risk of environmental harm.

If it has already been demonstrated through an auditor-certified CLID that land is not contaminated by a hazardous contaminant and is suitable for any use, the detection of a past notifiable activity on the land would not need to be notified.

5. Determining if serious or material environmental harm is likely

To determine whether an event or change in condition is causing or reasonably likely to cause material or serious environmental harm, it may be appropriate to have regard to:

a) relevant indicators of contamination signalling the extent and nature of harm already caused (see section 8 in this appendix)

b) the nature and extent of the contaminants

c) the sensitivity of the local receiving environment, in terms of pathways by which contaminants could cause impacts

d) the possible effects of the harm over the long-term

e) any exacerbating factors such as flooding or fire

f) the criteria for material and serious environmental harm[2] under sections 16 and 17 of the Act.

6. Dealing with uncertainty

The duty to notify arises when the responsible party "becomes aware" of relevant information. Since the risk from contamination need only be "reasonably likely" to cause serious or material environmental harm in order to warrant notification, it is not necessary for a responsible party to have a high measure of certainty before acting on their duty to notify.

At the same time, in order to be "reasonably certain" that sufficient grounds for a notification exist, a responsible party could be justified in seeking further information before notifying the administering authority. In particular, it could be appropriate for a person to seek information confirming that the potential harm is not trivial or negligible and is likely to be material or serious.

[2] The financial threshold for which includes costs of losses or damages to property or costs of actions to prevent or minimise harm, to rehabilitate or restore the environment to its previous condition, but not associated costs of assessing harm

However, if an event or change in condition may need an urgent response, a notification should be provided promptly on the basis of available information, even if significant uncertainty is involved.

Where a responsible party is uncertain regarding their duty to notify they may:

- notify the administering authority on the basis of available information
- consult the administering authority as to whether notification is warranted.

7. Information sources for the duty to notify

It is recognised that the different parties to whom the Act assigns a duty to notify have substantially different abilities in terms of both competencies and access to relevant information. The circumstances in which the different parties will typically become aware of matters that are required to be notified are:

1. By an **owner or occupier**
   a) their observation or knowledge of a notifiable activity that has been carried out or is being carried out on the relevant land, or
   b) their observation or knowledge of an actual event involving contaminants, or
   c) their observation of a change in condition on the basis of physical indicators of contamination on the relevant land or any affected land that
      i. would be apparent to any reasonable person, and
      ii. are of a nature or extent to indicate that serious or material environmental harm has occurred or is reasonably likely to occur, or
   d) information provided to them by a land contamination professional that explicitly identifies
      i. the presence of a hazardous contaminant, or
      ii. the occurrence or reasonably likely occurrence of serious or material environmental harm on the relevant land or any affected land
2. By an **auditor**
   a) their observation of a notifiable activity that is being carried out on the relevant land, or
   b) relevant information that they receive from a suitably qualified person who is preparing a CLID for certification by the auditor and submission to the administering authority, or
   c) relevant information that they receive from a support expert engaged by the auditor to assist them in their evaluation of a CLID, or
   d) their observation of relevant physical indicators of contamination, but
   e) only where b), c) or d) provides evidence of
      i. the presence of a hazardous contaminant, or
      ii. the occurrence or reasonably likely occurrence of serious or material environmental harm on the relevant land or any other affected land

   An auditor should inform their client and any suitably qualified person or support expert who supplied relevant information that they have acted on their duty to notify.

3. By a **local government**
   a) the observation by an employee of
      i. any unauthorised notifiable activity that is being carried out on the relevant land, or
      ii. an actual event involving contaminants , or
      iii. a change in condition on the basis of relevant physical indicators of contamination on the relevant land or any affected land
   b) receipt of information from a person with relevant competencies that identifies
      i. the presence of a hazardous contaminant, or
      ii. the occurrence or reasonably likely occurrence of serious or material environmental harm on the relevant land or any affected land
4. Also, in accordance with section 320B of the Act, a **suitably qualified person** is expected to notify their employer (if this is the owner or occupier) where practicable, and if not then the administering authority, in response to
   a) their observation of
      i. an actual event involving contaminants, or
      ii. relevant physical indicators of an event on the relevant land or any affected land, but
   b) only where a) i or ii provides evidence of
      i. the presence of a hazardous contaminant, or
      ii. the occurrence or reasonably likely occurrence of serious or material environmental harm on the relevant land or any other affected land

8. Examples of indicators of contamination

An inspection of the relevant land and its surrounds may provide physical indicators of a change in condition resulting from contamination. Examples of indicators of contamination that may correspond to the occurrence or reasonably likely occurrence of material or serious environmental harm are:

- unusual occurrences of illness among people who have had exposure to a contaminated site, where the illness could plausibly relate to contamination
- the presence of chemicals on or in surface water or groundwater at the site (for example, abnormal colouration of the water, odours emanating from the water)
- visible signs of toxic responses to contaminants in flora and fauna (for example, unusual numbers of birds or fish dying on or near the site, dead vegetation within or adjacent to areas of otherwise normal growth)
- liquid or solid chemicals or chemical wastes found on or in the soil during site works, where these substances have not been applied for soil management
- the presence or the storage of bulk liquid dangerous goods on the site with potential for leakage or spillage
- the presence of illegal and/or uncontrolled landfills on site

- the presence of asbestos as free fibres that may be released to the air environment and affect people either on-site or off-site
- evidence of off-site migration of contaminants into adjacent or nearby environments (for example, residential areas, creeks or wetlands)
- the accumulation of asphyxiating, toxic or flammable gas, or organic vapours, in enclosed spaces or in close proximity to buildings or structures.

Some of these indicators will be observable to a lay person. Others would depend on some level of technical expertise.

Note that this list is not exhaustive and there may be other indicators that are relevant.

Appendix D: Duty to Notify Form

Notification

Environmental Protection Act 1994

Duty to notify of environmental harm

This form is to be used for notifying the administering authority about events or changes in condition of land causing or threatening serious or material environmental harm, in accordance with the duty to notify provisions contained in sections 320 to 320G, Chapter 7 Part 1 of the Environmental Protection Act 1994 (the EP Act).

This Notice should be completed having regard to the guidance in:

- *Guideline: The duty to notify of environmental harm (ESR/2016/2271)*

The details provided should address the nature of the event or change in condition as relevant. The notice should be completed as fully as practicable in the circumstances. Indicate any sections of the notice that are not applicable or for which information is not currently available.

If a notice is being given with respect to a notifiable activity, the template for giving written notice about a notifiable activity (ESR/2015/1845) should be used. Circumstances could arise in which notice of a related event or change in condition of land also needs to be provided.

Office use only

Date entered in Dynamics:	Click here to enter text.	Relevant regional manager:	Click here to enter text.
Dynamics reference #:	Click here to enter text.	Date sent to regional manager:	Click here to enter text.
Relevant regional area:	Click here to enter text.	Officer actioning this item:	Click here to enter text.

1. Person giving notice

NAME Click or tap here to enter text.	TELEPHONE (BUSINESS HOURS) Click or tap here to enter text. TELEPHONE (AFTER HOURS) Click or tap here to enter text.
COMPANY/ORGANISATION NAME (IF APPLICABLE) INCLUDE THE ACN NUMBER Click or tap here to enter text.	
POSITION IN COMPANY/ORGANISATION (IF APPLICABLE) CLICK OR TAP HERE TO ENTER TEXT.	
POSTAL ADDRESS Click or tap here to enter text.	
EMAIL Click or tap here to enter text.	FACSIMILE Click or tap here to enter text.

Queensland Government

2. Who is giving notice about an event or change of condition

2.1. In what capacity are you giving notice?

Tick relevant box

- I am the owner of the land ☐
- I am an occupier (e.g. lessor or tenant) of the land ☐
- I am a representative of a local government ☐
- I am an auditor performing an auditor's function under EP Act ☐
- I am an employer ☐
- I am an employer of someone carrying out an activity ☐
- I am an employee carrying out an activity and have not been able to contact my employer ☐
- Other (specify) Click or tap here to enter text.

2.2. Please provide details of your involvement

For example, what is your involvement as an employer or employer or as a representative of a local government?

Click or tap here to enter text.

3. Details of the affected land where the event or change in condition has occurred

3.1. Please provide details of the lot and plan description at which the event or change in condition has taken place (and full street address if available).

NAME BY WHICH THE PROPERTY IS KNOWN CLICK OR TAP HERE TO ENTER TEXT.	
FULL STREET ADDRESS OF THE SITE CLICK OR TAP HERE TO ENTER TEXT.	
ANY OTHER INFORMATION THAT WILL ASSIST IN QUICKLY LOCATING THE LOCATION WHERE AN EVENT OR ACTIVITY HAS OCCURED CLICK OR TAP HERE TO ENTER TEXT	
LOT(S) CLICK OR TAP HERE TO ENTER TEXT.	PLAN(S) CLICK OR TAP HERE TO ENTER TEXT.
GRID REFERENCES NORTHING CLICK OR TAP HERE TO ENTER TEXT. EASTING CLICK OR TAP HERE TO ENTER TEXT	
LOCAL GOVERNMENT AUTHORITY CLICK OR TAP HERE TO ENTER TEXT.	

3.2. Is a map or locality plan attached to this notification?

☐No ☐Yes

A map or locality plan that shows the affected land may greatly assist the processing of this notification.

3.3. Is the affected land the origin of contamination or area harmed or both?

Is the affected land (as described above) the land on which the contamination originated, caused harm (impacts) or both? ☐Origin ☐Harmed ☐ Both

4. Activity that has led to the event or change in condition

Notice
Duty to notify of environmental harm

4.1. Nature of activity

- Is the activity a notifiable activity listed under Schedule 3 of the EP Act (if it is then use the template ESR/2015/1845) or another activity that has caused or may cause serious or material environmental harm? ☐Notifiable ☐Other
- Is the change in the land due to it being affected by a hazardous contaminant? ☐Yes ☐No
- Is the activity a resource activity? ☐Yes ☐No
- Is the activity currently occurring or did it occur previously? ☐ Current ☐Previous

4.2. Describe the nature of the activity

If you require additional space attach the information on a separate sheet and make reference to that sheet here.

Click or tap here to enter text.

4.3. State whether the primary activity that led to the event was being carried out under:

- an environmental protection policy ☐ Yes
- a transitional environmental program ☐ Yes
- an environmental protection order ☐ Yes
- an environmental authority (use ESR/2015/1845) ☐ Yes
- a development condition of a development approval ☐ Yes
- a prescribed condition for carrying out a small scale mining activity ☐ Yes
- an emergency direction ☐ Yes
- an accredited environmental risk management plan ☐ Yes

4.4. Please provide the identifying details of the relevant approval or authority for carrying out the activity (if known). If possible attach a copy of the relevant document.

Click or tap here to enter text.

5. Special requirement for resource activities (petroleum and gas, geothermal and greenhouse gas storage activities but not a mining activity)

Does this notice relate to notification of an event that has occurred while carrying out a resource activity that has:

- negatively affected, or is reasonably likely to negatively affect, the water quality of an aquifer; or ☐ No ☐ Yes
- has caused the connection of two or more aquifers ☐ No ☐ Yes

6. Nature and circumstances of how event has occurred

If it is an event involving the release of contaminants that is being notified, the following information should be provided

6.1. Describe the circumstances in which the event has occurred.

Please provide details of the circumstances that led up to the event, any factors that may make the effects of the event worse, any preventive measures or cleanup up action taken and any other matters that may be relevant. If you require additional space attach the information on a separate sheet and make reference to that sheet here.

Click or tap here to enter text.

6.2. Provide any additional information that may be relevant to this notification of an event

If additional space is required attach the information on a separate sheet and make reference to that sheet here.

Click or tap here to enter text.

6.3. Event type:

☐ Spill ☐ Discharge ☐ Leakage ☐ Exposure/uncovering
☐ Fire ☐ Fishkill ☐ Other _____

6.4. Source of release:

☐ Vehicle spill ☐ Vessel spill ☐ Pipeline breach ☐ Dam/pond failure
☐ Drain outlet ☐ Bulk/tank ☐ Vessel sinking ☐ Dumping
☐ Sewage discharge ☐ Industrial activity ☐ Cattle/sheep dip ☐ Horticulture
☐ Excavation ☐ Landfill ☐ Other _____

6.5. Contaminants (if known):

☐ Solid chemicals ☐ Liquid chemicals ☐ Hydrocarbons ☐ Gas/vapour
☐ Pesticide/herbicide ☐ Nutrients ☐ BOD/COD ☐ Dangerous goods

☐ Other _____Click or tap here to enter text.__

6.6. Details of contaminants (if known):

Substance(s): ____Click or tap here to enter text.

Quantity: _Click or tap here to enter text._ Litres/Kilograms/Tonnes/<other>

Area/extent affected:_____ m by _____ m

7. Change in condition of land

If it is a change in the condition of land that is being notified, the following information should be provided

7.1. Nature of change in the condition of the land (that has caused or is reasonably likely to cause or involve serious or material environmental harm)

- Dispersal of contaminants in soil ☐No ☐Yes
- Dispersal of contaminants in groundwater ☐ No ☐ Yes
- Dispersal of contaminants in surface waters ☐ No ☐ Yes
- Accumulation of gases or vapour in soil or structures ☐No ☐Yes
- Change in surface features (e.g. vegetation) ☐ No ☐Yes

7.2. Details of change in the condition of the land

Describe what the change in condition involves

Click or tap here to enter text.

If additional space is required attach the information on a separate sheet and make reference to that sheet here.

7.3. Cause of change in condition (if known)?

Describe the known factors that have led to the change in condition

Click or tap here to enter text.

If additional space is required attach the information on a separate sheet and make reference to that sheet here.

7.4. Timeframe of change in condition

Outline what is known of the timeframe in which the change in condition has occurred

Click or tap here to enter text.

7.5. Type of environment affected:

What is the type of environment that has been affected by an event or change in condition?

☐ Waterway/drain ☐ Marine ☐ Estuarine ☐ Freshwater

☐ Land contamination ☐ Urban area ☐ Air/fallout ☐ Vegetation

☐ Protected area ☐ Other ___Click or tap here to enter text.

8. How and when did you become aware of the event or change of condition

8.1. What was the source of information about the event or change in condition

- own observation ☐ Yes
- information provided by a person with relevant competencies ☐ Yes
- information provided by an employee ☐ Yes

8.2. When did you first became aware of the event or change in condition for which notice is given

TIME	DATE
Click or tap here to enter text.	Click or tap to enter a date.

9. Details of registered owners or occupiers of affected land to which notice has been given

Note: Registered owners or occupiers of affected land do not need to be notified before notifying the administering authority.

9.1. Have any registered owners or occupiers of affected land been notified of this incident?

☐ No

☐ Yes (provide details of the occupiers and registered owners of land affected, or potentially affected, by this incident including details of how notice to those persons was given)

NAME	TELEPHONE
Click or tap here to enter text.	Click or tap here to enter text.
POSTAL ADDRESS Click or tap here to enter text.	
DESCRIPTION OF HOW NOTICE WAS GIVEN Click or tap here to enter text.	

If you require additional space you may attach the information on a separate sheet.

10. Declaration

Note: If you have not told the truth in this application you may be liable for prosecution under the relevant Acts or Regulations.

I do solemnly and sincerely declare that the information provided is true and correct to the best of my knowledge. I understand that it is an offence under s. 480 of the *Environmental Protection Act 1994* to give to the administering authority or an authorised person a document containing information that I know is false, misleading or incomplete in a material particular.

I understand that all information supplied on or with this application form may be disclosed publicly in accordance with the *Right to Information Act 2009* and the *Evidence Act 1977*.

NOTIFYING PERSON'S SIGNATURE	DATE
Click or tap here to enter text.	Click or tap to enter a date.

11. Phoning the pollution hotline

In addition to providing the written notice if you become aware of a matter which has caused or threatens serious or material environmental harm you should immediately call the pollution hotline on **1300 130 372** and report the matter. Reporting the matter through the pollution hotline allows the administering authority to take necessary measures to prevent further harm and to mitigate the effects of an incident or event.

In addition to notifying the administering authority, and where that is not the relevant local government, it is good practice to notify the local government for the area where the event has occurred.

12. Sending the written notice

Please return the completed notice to Permit and Licence Management at the Department of Environment and Science by:

Pollution hotline 1300 130 372

AND written notification via email, fax or registered post:

Email: pollutionhotline@des.qld.gov.au

Note: Include **'Duty to notify of environmental harm'** in the subject line of the fax or email and attach a completed copy of the template.

Registered post:

Permit and Licence Management
Department of Environment and Science
GPO Box 2454
Brisbane QLD 4001

13. Further information

The latest version of this publication is available at www.qld.gov.au using the publication number ESR/2015/2230 as a search term or by contacting Permit and Licence Management on 13 QGOV (13 74 68).

Privacy statement

The Department of Environment and Science (DES) will use the personal information collected on this form to investigate an incident that potentially caused or threatened to cause serious or material environmental harm, as provided for under ss. 320

Document Set ID: 2938538
Version: 1. Version Date: 18/08/2022

-320G of the *Environmental Protection Act 1994*. The information will only be accessed by authorised employees within DES. The information provided on this form will not be otherwise be used or disclosed unless required or authorised by law. For information about privacy matters email: For queries about privacy matters email: privacy@des.qld.gov.au or telephone: 13 74 68.

ENGINEERS AND PROJECT MANAGERS
THE TRUSTED ENGINEERS

Preliminary Stormwater Management Report

EE Muir Development

107 River Road, Kingaroy, 4610

Lot 5 SP249675

Version	Authored By	Approved By	Date
1.0	David Eberhard	Allen Christensen	17 March 2023
This version replaces all previous versions of this report.			

THE TRUSTED ENGINEERS

1. Introduction

This preliminary stormwater management plan is part of a development at 107 River Road, Kingaroy (Lot 5 SP249675).

The new development involves silos and new concrete pavements.

ATC Engineers have been engaged to assess the stormwater management of the proposed development, on behalf of the applicant. This report will address the pre- and post-development stormwater flows, and any attenuation requirements, to demonstrate that the post-development flows can be adequately managed without any additional impacts on other properties or infrastructure.

2. Site Characteristics

2.1. Site Description

The site is located at on 107 River Road, Kingaroy as shown in *Figure 1*. The site occupies 0.7931 hectares of developed land.

Figure 1 - Proposed Development Site at 107 River Road, (Lot 5 SP249675) (Source: Queensland Globe)

The access for the proposed lot is via the River Road frontage.

The existing lot has impervious surfaces consisting of concrete and bitumen as shown in Figure 1. Two large established sheds are on the development lot. There is general fall across the site with the hinge point approximately at the concrete/bitumen interface. An estimated 1% surface grade is evident at the rear, with stormwater surface runoff discharging via the bitumen driveway area to the south-west corner of the lot.

Figure 2 - Development site photos

2.2. Current Stormwater Arrangements

The development is situated within a typical industrial environment with overland flow in the catchment managed by open table drains at the road frontage and via surface runoff at the rear.

The existing shed to the west discharges to the River Road frontage via a piped network. The rear of the lot discharges to the lots on the south (Lot 2 SP054363) and west (Lot 2 RP84673) which ultimately discharge to Kingaroy Creek.

There was no evidence of scouring or other erosion issues on site during an inspection undertaken on the 20th of February 2023. An earth bund has been installed by the owner of Lot 89 SP287696 to the south, potentially to stop erosion of the earthworks batter as a result of leveling the development lot.

3. Stormwater Analysis

3.1. Existing Point of Discharge

Catchment 1 (0.399 hectare) discharges to the River Road frontage. The south-west corner of the lot is to be used as the point of discharge for the analysis of Catchment 2 (0.394 hectare) shown in orange in Figure 2. The development features a concrete slab that has slightly impacted the discharge location. The pavement area has been levelled around the slab and now discharges approximately four (4) meters to the east of the concrete slab.

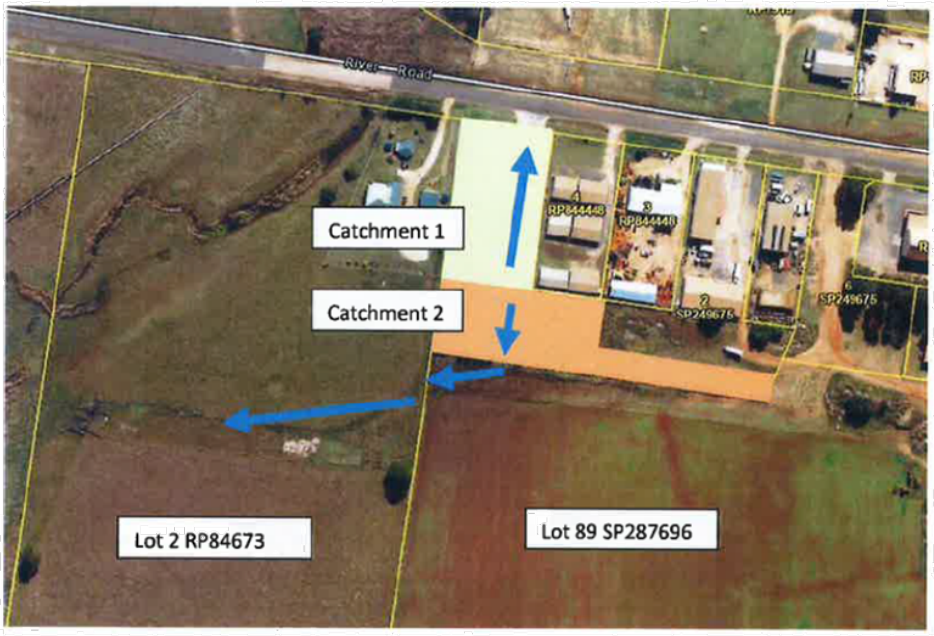


Figure 3: Lot Pre-Development Catchment Plan

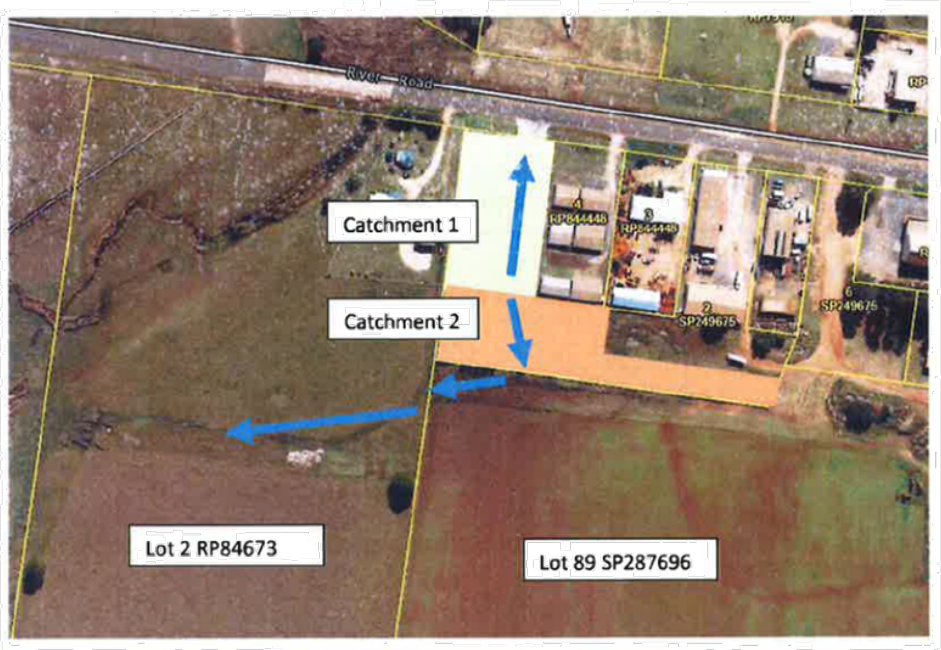


Figure 4: Lot Post-Development Catchment Plan

3.2. Hydraulic Design

A hydraulic assessment has been undertaken for the development using the Drains software program (Version 2020.034 (64bit) – 18 April 2020). An analysis was conducted to determine the peak runoff flows for the pre- and post-development conditions, and any potential detention requirements. 39% AEP minor and 1% AEP major storm events, with storm durations between 5 minutes to 4.5 hours, were used as part of the assessment.

For the purpose of this report, only the rear area from the concrete/bitumen was used in the analysis – referred to as Catchment 2 above.

Drains Input

The inputs shown in Table 1-3 were used for the stormwater modelling process.

Table 1 - Drains Model Inputs

Hydrological Model	ILSAX
Paved (impervious) area depression storage (mm)	1
Supplementary area depression storage (mm)	1
Grassed (pervious) area depression storage (mm)	5
Soil Type	3 (Slow Infiltration Rate)
Antecedent Moisture Condition	3 – Rather Wet

Catchment Information

The below areas and assumptions for Catchment 2 were used in the stormwater modelling process.

Table 2 – Drains Model assumptions

Catchment 2	Area (ha)	% Impervious	% Supplementary	% Grassed
Pre-development	0.397	73 (2,898m²)	0 (0m²)	27 (1072m²)
Post-development	0.397	75 (2,977m²)	0 (0m²)	25 (993m²)

Peak Flows

The peak flow rates for pre-development and attenuated post-development are shown in the table below. Peak flow rates shown in the below table may not be representative of the critical stormwater event under ARR guidelines.

Table 3 – Pre- and Post-Development Peak Flows

Storm Duration	Peak Flow Discharges					
	Pre-development		Post-development		Post-development (attenuated)	
	Minor 39% AEP (m³/s)	Major 1% AEP (m³/s)	Minor 39% AEP (m³/s)	Major 1% AEP (m³/s)	Minor 39% AEP (m³/s)	Major 1% AEP (m³/s)
5 minutes	0.091	0.222	0.094	0.226	-	-
10	0.115	0.261	0.117	0.265	-	-
15	0.117	0.267	0.119	0.270	-	-
20	0.117	0.256	0.118	0.259	-	-
25	0.104	0.253	0.106	0.255	-	-
30	0.105	0.254	0.106	0.257	-	-
45	0.095	0.227	0.098	0.23	-	-
1 hour	0.092	0.205	0.093	0.207	-	-
1.5	0.078	0.137	0.079	0.138	-	-
2	0.101	0.133	0.103	0.135	-	-
3	0.064	0.113	0.064	0.113	-	-
4.5	0.048	0.083	0.049	0.084	-	-

A summary of the Pre-development and post-development peak flows are shown in the table below.

Table 4 - Peak Flow Discharges

Discharge Reference	Southern Lot Boundary	
Storm Event	**Minor 39% AEP**	**Major 1% AEP**
Pre-Development (m^3/s)	0.117	0.267
Post-Development (m^3/s)	0.119	0.270
Final Difference (m^3/s)	+0.002 (+1.7%)	+0.003 (+1.1%)

4. Stormwater Management Strategy

The results for the discharge point show that the post development flows do not lead to significant increases in stormwater discharges to the rear of the lot. The large, rural downstream lots are unlikely to be impacted during these storm events. The overall stormwater strategy therefore is to:

- Grade overland stormwater flow from the will to the southern lot boundary as per the current flow arrangement.
- Adequately disperse the flow at the discharge point.
- Monitor and maintain the discharge point at all times.

A copy of the Drains Model is attached in the Appendix.

5. Design Assumptions

The assumptions made in calculating the on-site flows are:

1. All water up to the 1% AEP event falling on the driveways to the south of the hinge point and new silo development can be safely discharged to the rear of the block.
2. Stormwater will act generally in accordance with the assumptions made in the Drains model.

6. Conclusions

In summary:

- The development may lead to increases in stormwater flow discharging from the site for the specified design storm events. This is unlikely to cause material change to flow exiting the development and therefore mitigation strategies such as attenuation are not required.
- The effects of the increased discharge may be adequately managed with general maintenance of the southern discharge point. Stormwater flows at the discharge point shall not be concentrated to reduce the risk of nuisance to adjoining landowners. This is subject to detailed design.

I believe that the above response satisfies the requirements of QUDM and South Burnett Regional Council requirements with respect to stormwater management – subject to the application of reasonable and relevant conditions.

Should you require further assistance or information please feel free to contact me on ☎0438 122 997 or email allen@atcengineers.com.au.

Regards

Allen Christensen
DIRECTOR
BEng (Civil) RPEQ FIPWEQ

APPENDIX

Drains Layout

Drains Critical Storm Results

Minor (39% AEP)		Major (1% AEP)	
0.095	0.097	0.222	0.226

Delegated Authority: Date:

0.0 MATERIAL CHANGE OF USE - WAREHOUSE (STORAGE FACILITY) AT 11155 BUNYA HIGHWAY, KINGAROY (AND DESCRIBED AS LOT 7 ON SP303245). APPLICANT: G CRUMPTON & SONS & CO PTY LTD C/- ONF SURVEYORS

File Number: **MCU23/0005**

Author: **Planning Consultant**

Authoriser: **Chief Executive Officer**

	SIGNATURE	DATE
~~Coordinator~~ ~~MANAGER~~	[redacted]	13/09/
~~GM~~		
CEO		13-9-

PRECIS

Development application for Material Change of Use – Warehouse (Storage Facility) over land described as Lot 7 on SP303245 and situated at 11155 Bunya Highway, Kingaroy. The Applicant is G Crumpton & Sons & Co Pty Ltd c/- ONF Surveyors and the application reference is MCU23/0005.

SUMMARY

- Application for a Development Permit for a Material Change of Use for Warehouse
- The applicant seeks a Warehouse land use for the purposes of a storage facility, comprising Thirty-three (33) shipping containers plus a total of twelve (12) storage buildings, including:
    - Five (5) large buildings containing 8 storage units / sheds each; and
    - Seven (7) medium buildings containing 8 storage units / sheds each.
- The proposed development will have a total gross floor area of 5,289m^2
- The subject site located in the Rural zone under the South Burnett Regional Council Planning Scheme;
- The proposal triggered Impact Assessment, as it involves development for a Warehouse use within the Rural zone;
- The subject site used for Warehouse is 2.1ha in area;
- The development application is assessed against the entirety of the South Burnett Regional Council Planning Scheme. Relevant parts include:
    - Strategic Framework;
    - Rural Zone Code; and
    - Services and Works Code.
- The subject site is situated within 25m of a state controlled road and therefore required referral to SARA in accordance with Schedule 10, Part 9, Division 4, Table 4 of the Planning Regulation 2017;
- Council issued an information request on 13 April 2023, seeking further information on matters regarding:
    - Planning need
    - Operation of the use
    - Acoustics
    - Wash bays
    - DA Form 1
- The application has been assessed and the proposal generally meets the requirements of the planning scheme. Relevant matters have been advanced in support of any non-compliance (refer Attachment A – Statement of Reasons);
- Refer Attachment B – Infrastructure Charges Notice;
- Refer Attachment C – Referral Agency response;
- Application recommended for approval subject to reasonable and relevant conditions

Delegated Authority: Date:

OFFICER'S RECOMMENDATION

That Council approve the Development Permit for Material Change of Use for Warehouse (Storage Facility) at 11155 Bunya Highway, Kingaroy (Lot 7 on SP303245) – Applicant – G Crumpton & Sons & Co Pty Ltd c/- ONF Surveyors.

GENERAL

GEN1. The development must be completed generally in accordance with the approved plans and documents and any amendments arising through conditions to this development approval.

Drawing Title	Prepared by	Ref No.	Rev.	Date
General Site Layout	ATC Engineers and Project Managers	C-101	8	08-08-2023

GEN2. The approved hours of operation are 7:00am to 6:00pm. The site will be secured outside of these hours with no access available.

GEN3. A minimum 6 metre wide strip of landscaping is to be provided along the Bunya Highway frontage of the site (excluding vehicle manoeuvring areas). Plantings are in the form of defined gardens with three tier planting comprised of groundcovers, shrubs (understorey), and trees (canopy) and provided with a drip irrigation system, mulching and border barriers.

A detailed landscaping plan prepared and submitted to Council for approval prior to any work commencing on site.

GEN4. The development herein approved may not start until the following development permits have been issued and complied with as required:
- Development Permit for Building Works; and
- Permit for Plumbing and Drainage Work.

GEN5. Any new earthworks or structures are not to concentrate or impede the natural flow of water across property boundaries and onto any other lots.

GEN6. Dust prevention measures must be undertaken to ensure that dust does not cause a nuisance to occupiers of adjacent properties.

APPROVED USE

GEN7. The approved development is a Material Change of Use for Warehouse (Storage Facility), as shown on the approved plans and does not imply approval for other similar uses. All storage is to be within the approved sheds and no outdoor storage of goods, vehicles or equipment is permitted.

COMPLIANCE, TIMING AND COSTS

GEN8. All conditions of the approval shall be complied with before the change occurs (prior to commencement of the use) and while the use continues, unless otherwise noted within these conditions.

GEN9. All works, including the repair or relocation of services (Telstra, lighting) is to be completed at no cost to Council.

MAINTENANCE

GEN10. The development (including landscaping, parking, driveway and other external spaces) shall be maintained in accordance with the Approved Plans, subject to and modified by any conditions of this approval.

GEN11. Maintain the site in a clean and orderly state at all times.

Delegated Authority: Date:

ENGINEERING WORKS

ENG1. Complete all works approved and works required by conditions of this development approval and/or any related approvals at no cost to Council, prior to commencement of the use unless stated otherwise.

ENG2. Undertake Engineering designs and construction in accordance with the Planning Scheme, Council's standards, relevant design guides, and Australian Standards.

ENG3. Be responsible for the full cost of any alterations necessary to electricity, telephone, water mains, sewer mains, stormwater drainage systems or easements and/or other public utility installations resulting from the development or from road and drainage works required in connection with the development.

LOCATION, PROTECTION AND REPAIR OF DAMAGE TO COUNCIL AND PUBLIC UTILITY SERVICES INFRASTRUCTURE AND ASSETS

ENG4. Be responsible for the location and protection of any Council and public utility services infrastructure and assets that may be impacted on during construction of the development.

ENG5. Repair all damages incurred to Council and public utility services infrastructure and assets, as a result of the proposed development immediately should hazards exist for public health and safety or vehicular safety. Otherwise, repair all damages immediately upon completion of works associated with the development.

STORMWATER MANAGEMENT

ENG6. Provide stormwater management generally in accordance with the Preliminary Stormwater Management Report prepared by ATC Engineers & Project Managers dated 30 November 2022.

ENG7. Provide overland flow paths that do not adversely alter the characteristics of existing overland flows on other properties or that create an increase in flood damage on other properties.

ENG8. Ensure that adjoining properties and roadways are protected from ponding or nuisance from stormwater as a result of any site works undertaken as part of the proposed development.

PARKING AND ACCESS - GENERAL

ENG9. Provide a minimum of 4 car parking spaces including a minimum of 1 person with disability (PWD) car parking spaces, generally in accordance with ATC Engineers & Project Managers drawing C-101 "General Site Layout" Issue 8 dated 8 August 2023.

ENG10. Design & construct all car parking spaces in accordance with AS2890.1, and PWD car parking spaces in accordance with AS2890.6.

ENG11. Provide vehicle bollards or tyre stops to control vehicular access and to protect landscaping or pedestrian areas where appropriate.

ENG12. Ensure access to car parking spaces, vehicle loading and manoeuvring areas and driveways remain unobstructed and available for their intended purpose during the hours of operation.

ELECTRICITY AND TELECOMMUNICATION

ENG13. Connect the development to electricity and telecommunication services.

EROSION AND SEDIMENT CONTROL - GENERAL

ENG14. Ensure that all reasonable actions are taken to prevent sediment or sediment laden water from being transported to adjoining properties, roads and/or stormwater drainage systems.

Delegated Authority: Date:

ENG15. Remove and clean-up sediment or other pollutants in the event that sediment or other pollutants are tracked/released onto adjoining streets or stormwater systems, at no cost to Council.

STANDARD ADVICE

ADV1. Section 85(1)(b) of the *Planning Act 2016* provides that, if this approval is not acted upon within a period of six (6) years the approval will lapse.

ADV2. This development approval does not authorise any activity that may harm Aboriginal Cultural Heritage. Under the Aboriginal Cultural Heritage Act 2003 you have a duty of care in relation to such heritage. Section 23(1) provides that "A person who carries out an activity must take all reasonable and practicable measures to ensure the activity does not harm Aboriginal Cultural Heritage." Council does not warrant that the approved development avoids affecting Aboriginal Cultural Heritage. It may therefore be prudent for you to carry out searches, consultation, or a Cultural Heritage assessment to ascertain the presence or otherwise of Aboriginal Cultural Heritage. The Act and the associated duty of care guidelines explain your obligations in more detail and should be consulted before proceeding. A search can be arranged by visiting https://www.datsip.qld.gov.au and filling out the Aboriginal and Torres Strait Islander Cultural Heritage Search Request Form.

ADV3. Attached for your information is a copy of Chapter 6 of the Planning Act 2016 as regards Appeal Rights.

INFRASTRUCTURE CHARGES

ADV4. Infrastructure charges are now levied by way of an infrastructure charges notice, issued pursuant to section 119 of the *Planning Act 2016*.

DEVELOPER INCENTIVE

ADV5. Council is offering a reduction in infrastructure charges payable through the development incentive scheme which is available between 1 December 2020 and 31 December 2023. Eligible development under this scheme is required to be completed by 31 December 2023.

For further information or application form please refer to the rules and procedures available on Council's website.

CONCURRENCE AGENCY

ADV6. The State Assessment and Referral Agency has imposed conditions on the development permit - refer Attachment C.

Delegated Authority: Date:

FINANCIAL AND RESOURCE IMPLICATIONS

No implication can be identified.

LINK TO CORPORATE/OPERATIONAL PLAN

Growing our Region's Economy and Prosperity

- GR8 Support and advocate for appropriate growth and development with responsive planning schemes, process, customer service and other initiatives.

COMMUNICATION/CONSULTATION (INTERNAL/EXTERNAL)

Refer to CONSULTATION in this report.

LEGAL IMPLICATIONS (STATUTORY BASIS, LEGAL RISKS)

No implication identified.

POLICY/LOCAL LAW/DELEGATION IMPLICATIONS

No implication can be identified.

ASSET MANAGEMENT IMPLICATIONS

No implication can be identified.

Delegated Authority: Date:

REPORT

1. APPLICATION DETAILS

Site address	11155 Bunya Highway, Kingaroy		
Real property description	Lot 7 on SP303245		
Easements or encumbrances on title	Not applicable.		
Area of Site	11.85ha		
Current Use	Rural		
Environmental Management Register or Contaminated Land Register	No known listing.		
Applicant's name	G Crumpton & Sons & Co Pty Ltd		
Zone	Rural Zone		
Applicable Overlays	OM1 Airport Environs Overlay OM3 Flood Hazard Area OM8 Agricultural Land Overlay		
Proposed use as defined	Warehouse		
Details of proposal	Material Change of Use (MCU's)		
	▪ Gross Floor Area (GFA)	5,289m²	
	▪ Building height	Approximately 5.37m	
	▪ Site Cover	4.46%	
	▪ Access	12metre wide vehicular crossover to Bunya Highway	
	▪ Landscape	402m²	
	▪ Number of car parks	Six (6) (incl. 1 PWD)	
	▪ Number of units/tenancies	124 storage units	
Application type	Aspects of Development	Type of Approval Requested	
		Preliminary Approval	Development Permit
	Material Change of Use (MCU)		X
	Reconfiguration of a Lot (RAL)		
	Building Work (BW)		
	Operational Work (OPW)		
Level of Assessment	Impact Assessment		
Pre-lodgement / Consultation history	Not applicable.		
Key planning issues e.g. vegetation, waterway corridors, overland flow	Zoning		

Delegated Authority: Date:

Referral agencies	Agency	Concurrence / Advice
	SARA	Concurrence
Public notification	Yes – 15 business days	
Planning Regulation 2017	N/A	

Delegated Authority: Date:

2. THE SITE

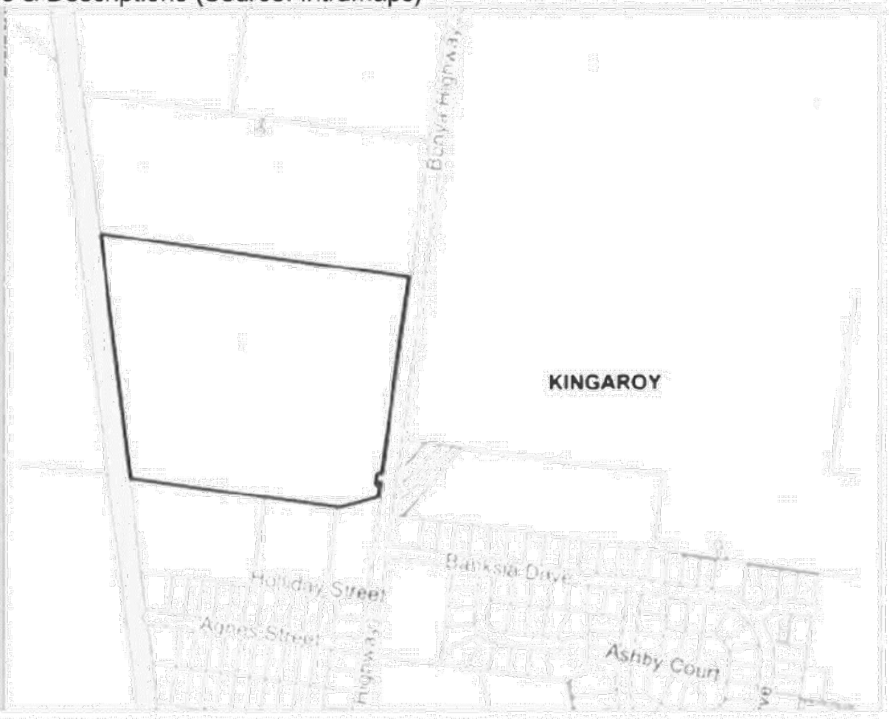
This section of the report provides a description of the site, details about the existing use and notable characteristics of the site, the standard of servicing, and the form of development in the immediate locality.

2.1. SITE DESCRIPTION & EXISTING USE

The subject site is located at 11155 Bunya Highway, Kingaroy, formally described as Lot 7 on SP303245. The site has a total area of 11.85 hectares and has frontage to Bunya Highway of approximately 296 metres. The development application specifically relates to a portion of land situated in the north-east corner of the site, comprising an area of 2.1ha and frontage to Bunya Highway of approximately 210 metres. The subject site contains a gravel hardstand area in the north-eastern corner which is currently unimproved, whilst the balance of land predominantly used for agricultural purposes.

Access to the site is currently obtained via an existing 12 metre wide vehicular crossover, which is purported to have been approved by the Department of Transport and Main Roads as part of a previous approval. The site generally slopes toward the western boundary, with a gradient of 2% which directs overland flows to an existing dam and stormwater culverts near the western lot boundary. The subject site directly adjoins a railway corridor along the western boundary (South Burnett Rail Trail).

Table 1 – Maps & Descriptions (Source: Intramaps)

Site	

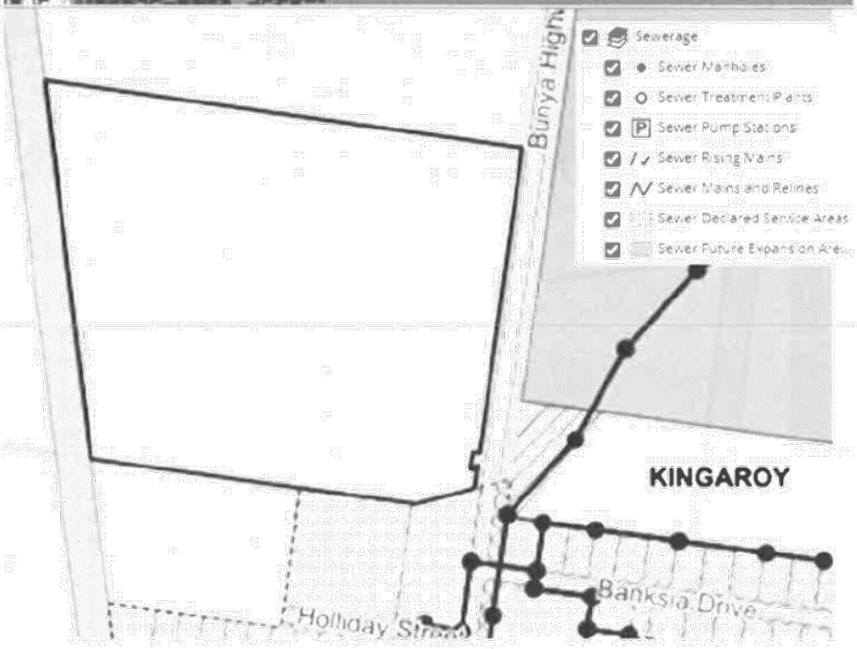
Delegated Authority: Date:

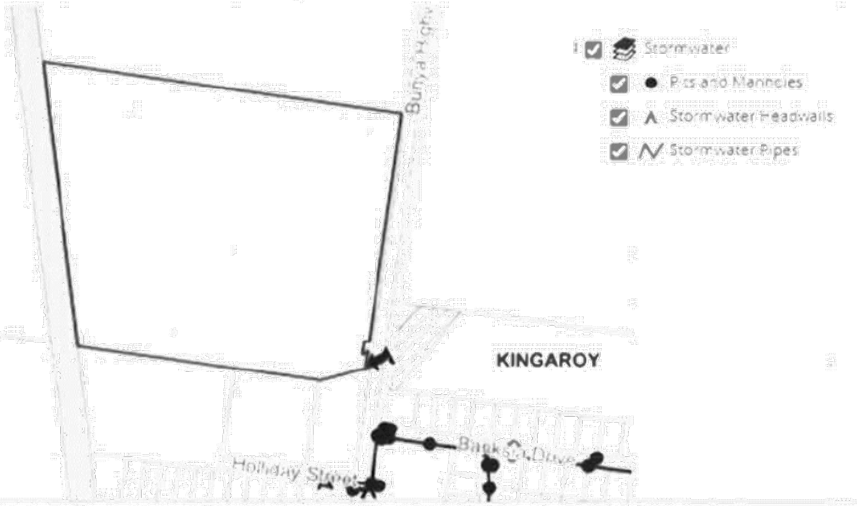
Zoning

Delegated Authority: Date:

Overlays

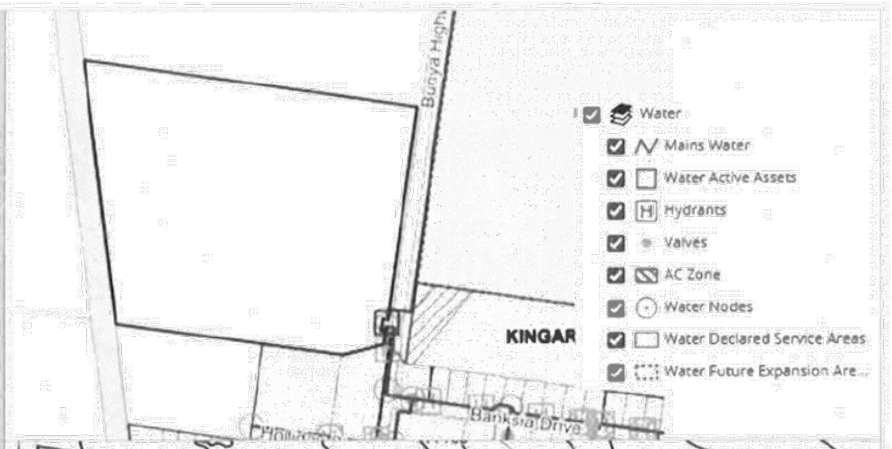
Services



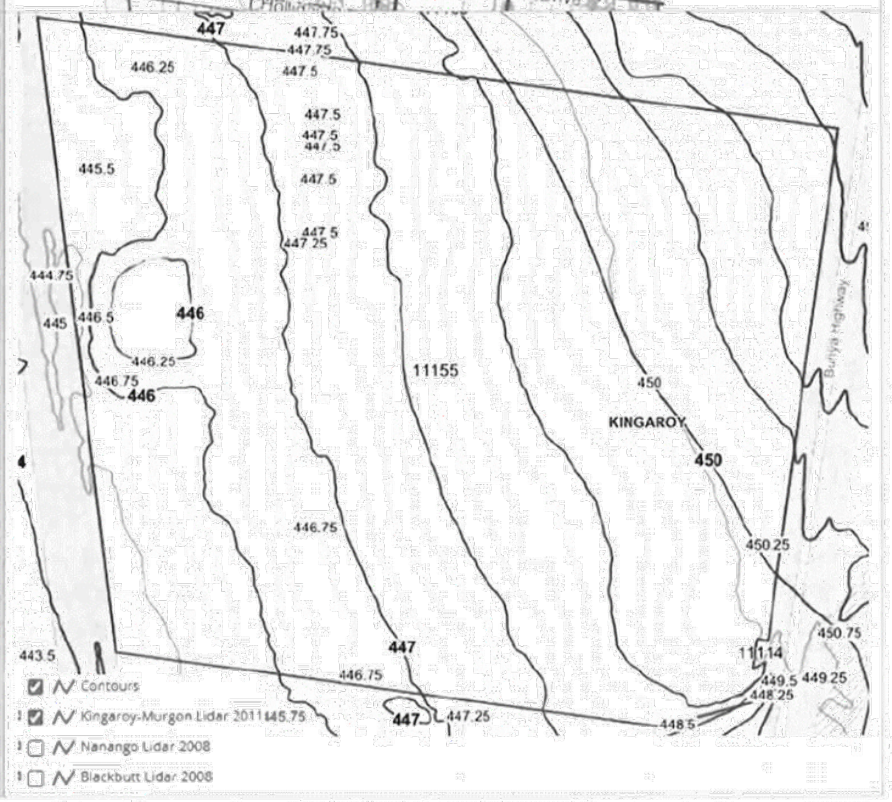


Item 0.0 Page 10

Delegated Authority: Date:



Topography



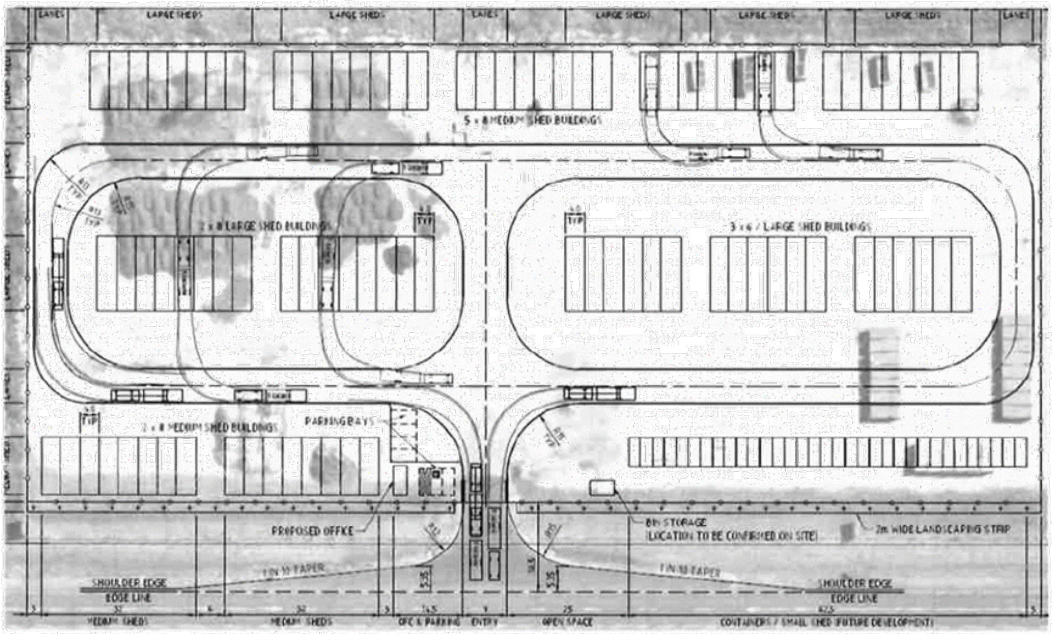
2.2. DEVELOPMENT HISTORY OF THE SITE

No past development applications are recorded against the site.

Delegated Authority: Date:

3. PROPOSAL DETAILS

The proposed site plan is shown below.



SUMMARY DETAILS

The proposed development seeks a Development Permit for Material Change of Use for a Warehouse for the purposes of a storage facility. The proposal seeks to provide a total of 123 storage sheds across five (5) large buildings, seven (7) medium buildings, and thirty-three shipping containers (refer to figure above). A small office (18sqm) is also proposed at the front of the site south of the entry and visitor parking. The proposed development will comprise a total gross floor area of 5,289m² (a site cover of 4.46%) and achieve a maximum building height of approximately 5.37m.

Gross Floor Area	5,289m²
Building height	Approximately 5.37m
Site Cover	4.46%
Landscape	402m²
Number of parking spaces	Four (4) (Incl. 1 PWD)
Access	12 metre wide crossover via Bunya Highway
Design Vehicle	AV
Setbacks	Minimum of approximately 3m to the north and south, approximately 10m to the east (Bunya Highway)

APPLICATION HISTORY

Confirmation Notice