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11 July 2023

The Chief Executive Officer  
Burdekin Shire Council  
145 Young Street  
AYR QLD 4807

Dear Sir / Madam,

REQUEST FOR DEVELOPMENT APPLICATION UNDER SUPERSEDED PLANNING SCHEME  
PURSUANT TO S29 OF PLANNING ACT 2016

DEVELOPMENT PERMIT FOR MATERIAL CHANGE OF USE FOR BULK STORE, GENERAL  
INDUSTRY, ENVIRONMENTALLY RELEVANT ACTIVITY 7 AND HAZARDOUS CHEMICAL  
FACILITY OVER LAND AT 39 – 57 HOME HILL ROAD, AYR (LOT 1 ON RP718903)  
Mewing Planning Consultants act on behalf of Nutrien Ag Solutions (the  
Applicant) in relation to the

site at 39 – 57 Home Hill Road, Ayr (the site).

On behalf of the Applicant, and pursuant to section 29 of the Planning Act 2016  
(Planning Act) and

section 11 of the Planning Regulation 2017 (Planning Regulation), we hereby  
submit a request for

the now superseded 2011 Burdekin Shire Planning Scheme (Superseded Planning  
Scheme) to be

applied to a Development Application over the site for the following:

- 
- 
- 
- 

Development Permit for a Material Change of Use for Bulk Store and General  
Industry;

Development Permit for a Material Change of Use for an Environmentally Relevant  
Activity

(ERA 7) for Chemical Manufacturing;

Environmental Authority for ERA 7; and

Development Permit for a Material Change of Use for Hazardous Chemical Facility.

In accordance with Section 115(1)(a) of the Environmental Protection Act 1994,  
this development

application for a Material Change of Use under the Planning Act is also taken to  
be an application for

an environmental authority for the prescribed ERA.

The applicant is wishing Burdekin Shire Council (Council) (as the Assessment  
Manager) to apply the

now superseded planning scheme to this development application. This request is  
sought as

comparison of the superseded planning scheme and the current planning scheme  
shows that the

intent for the site remains for industrial uses and the proposed development  
compliant with that intent.

However, the Burdekin Shire Council Planning Scheme 2022 (Current Planning  
Scheme) increases

the level of assessment from code to impact assessment.

The applicant is voluntarily seeking retrospective approval for the on-site  
activities, which have been

operating without complaint for several years. There is little benefit from  
proceeding with an impact

assessable process compared with the code assessment, given the site is existing  
and the local

community would be aware of the uses being undertaken on the site.

A review of the current planning scheme indicates that the development for which the approval is sought is generally consistent with the planning scheme intent for the site. The Burdekin Shire Planning Scheme 2022 commenced on 1 March 2023 and is the current Planning Scheme for the assessment of development proposals within the Burdekin Shire.

The current Planning Scheme defines the existing operations as both Agricultural Supplies Store and Special Industry (for fertiliser manufacture), both of which are Impact Assessable in the Industry Zone.

The Strategic Framework outlines economic growth through diverse rural futures. The Burdekin has a

strong and diverse rural economy underpinned by sugar cane production but including an increasing

mix of horticultural crops. The existing operations provides agricultural supplies and fertilisers that enable the increase in agricultural production.

The proposed development generally complies with the overall outcomes of the Industry Zone as the

existing operations do not compromise the future use of premises for industry activities. The Industry

Zone accommodates a range of service and low to medium impact industry and transport and storage

uses.

Therefore, based on the above the existing, historical use of the site and that of the Industrial zoning

does not change from the Burdekin Shire IPA Planning Scheme 2011 and the Burdekin Shire

Planning Scheme 2022. As such the existing operations generally complies with the intent of the zone

and the Strategic Framework.

In accordance with section 11 of the Planning Regulation, the following information is provided:

Requirement under Section 11 of the Planning Regulation

(a) the name, residential or business address, electronic address and phone number of the person making the request

(b) the address or property description of the premises that the request relates to; and

(c) a statement about whether the person making the request is asking the local government—

(i) to accept, assess and decide a superseded planning scheme application; or

(ii) to apply a superseded planning scheme to the carrying out of development that was accepted development under the

superseded planning scheme; and

(d) for a request under paragraph

(c)(i)—a copy of the proposed superseded planning scheme application; and

(e) for a request under paragraph (c)(ii)—a description and plan of the proposed development; and

(f) details of the superseded planning scheme that the request relates to; and

(g) if the local government has set a fee under subsection (3) for considering the request—the fee.

Response

This request is being made by:

Nutrien Ag Solutions Limited  
c/- Mewing Planning Consultants  
GPO Box 1506  
Brisbane QLD 4000  
Contact: Nicole Boulton  
Email: [nicole.boulton@mewing.com.au](mailto:nicole.boulton@mewing.com.au)  
Phone: 0403 155 291  
39-57 Home Hill Road, Ayr  
Lot 1 RP718903

This request is asking the local government to accept, assess and decide a superseded planning application in accordance with (c)(i).

A copy of the superseded planning application is attached.

Not Applicable

The Planning Scheme to which this relates is the 2011 Burdekin Shire Planning Scheme, which was superseded on 1 March 2023. In accordance with Burdekin Shire Council's Schedule of Fees and Charges for 2023/24, the fee for a request for an application to be considered under the Superseded Planning Scheme is \$1,356 (not subject to GST). We would appreciate confirmation from Council on the preferred method of payment of this fee.

We would welcome the opportunity to discuss any aspect of this request. Should you wish to discuss, please contact myself on 0403 155 291 or at [nicole.boulton@mewing.com.au](mailto:nicole.boulton@mewing.com.au).  
Yours sincerely,

Nicole Boulton  
Principal  
Mewing Planning Consultants

Town Planning  
Assessment  
Address

37-59 Home Hill Road, Ayr

Application

Development Permit for Material Change of Use for Bulk Store and General  
Industry,  
ERA 7 and Hazardous Chemical Facility

Applicant

Nutrien Ag Solutions

Date

July 2023

Prepared for: Nutrien Ag Solutions Limited  
Prepared by: Mewing Planning Consultants  
Our reference: 22372

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Development Application – 39 – 57 Home Hill Road, Ayr

Summary  
Site and Planning Framework Details  
Table 1: Site Details and Planning Framework  
Site Details  
Address

39-57 Home Hill Road, Ayr

RP Description

Lot 1 on RP178903

Site Area

12,140m<sup>2</sup>

Owner

Nutrien Ag Solutions Limited (A.C.N 008743 217)

Easements

None

Planning Framework  
Burdekin Shire IPA Planning Scheme 2011 (Superseded Planning Scheme)  
Local Government

Burdekin Shire Council

Zone

Industry

Overlays

Natural Features or Resources Overlays - Low Bushfire Hazard

2022 Burdekin Shire Planning Scheme (Current Planning Scheme)  
Local Government

Burdekin Shire Council

Zone

Industry

Overlays

- 

Acid sulfate soils - 5-20m contour

- 

Flood hazard – low hazard

- 

Regional Infrastructure – State controlled road and Railway corridor

- 

Water Resources

- o Water resource planning area boundaries
- Native Vegetation Clearing
- o Regulated vegetation management map (category X)
- State Transport Corridor
- o State-controlled Road and area within 25m of a State-controlled Road
- o State controlled Railway and area within 25m of a railway corridor.
- o State Code 22: Environmentally relevant activities

State Designations  
State Designations and  
mapping

- 
- 

Town Planning Assessment – July 2023  
Development Application – 39 – 57 Home Hill Road, Ayr

Development Application Details  
Table 2: Development Application Details  
Proposal Overview

The site is currently used for fertiliser manufacturing (blending). This application is seeking retrospective approval for this use, as well as some building works proposed on site.

The site contains four large buildings/ sheds with associated outdoor storage and vehicle manoeuvring areas. The existing site operations have an annual volume output of 16,000 tonnes mixed fertiliser products and 120,000 litres of liquid fertiliser products.

There are also approvals triggered for Environmentally Relevant Activities and Hazardous Chemical Facilities triggered under the Planning Regulation 2017. In accordance with Section 115(1)(a) of the Environmental Protection Act 1994, this development application for a Material Change of Use under the Planning Act is also taken to be an application for an environmental authority for the prescribed ERA.

The approval for this development is sought under the now superseded Burdekin IPA Planning Scheme.

Refer to the Architectural Package in Appendix C and Section 3 of this report for further details.

Development  
Description

Development Permit for Material Change of Use for Bulk Store and General Industry under the Superseded Planning Scheme

Development Permit for a Material Change of Use for Environmentally Relevant Activity (ERA 7) for Chemical Manufacturing, including the associated Environmental Authority.

Development Permit for a Material Change of Use for Hazardous Chemical Facility.

Defined Land Use  
(Superseded Planning  
Scheme)

Bulk Store and General Industry

Level of Assessment  
(Superseded Planning  
Scheme)

Code Assessment

Assessment Manager

Burdekin Shire Council

Referral Agencies

State Assessment and Referral Agency

Public Notification

N/A

Applicant

Nutrien Ag Solutions

## Consultant

Nicole Boulton, Principal  
Mewing Planning Consultants  
GPO Box 1506, Brisbane Qld 4001  
nicole.boulton@mewing.com.au  
0403 155 291

## Supporting Material

Appendix A – Burdekin Shire Code Assessment  
Appendix B – Certificate of Title  
Appendix C – Proposed Site Plan  
Appendix D – Draft Site Based Management Plan\*  
Appendix E – Traffic Impact Assessment  
Appendix F – Stormwater Management Plan  
Appendix G – Draft Hazard Assessment Report\*

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Appendix H – ERA 7 Assessment Report

\* The Site Based Management Plan and Hazard Assessment Report will both be finalised upon receipt of the Environmental Authority

Town Planning Assessment – July 2023

Development Application – 39 – 57 Home Hill Road, Ayr

## 1. Introduction

This Town Planning Assessment accompanies a development application made by Nutrien Ag Solutions (the Applicant) over land at 39-57 Home Hill Road, Ayr (the site). The Applicant proposes a retrospective development application to the existing fertiliser storage, distribution and blending facility located at the site. The site has existing car parking and landscaping features. It is also proposed to construct a new warehouse building near the southern boundary and relocate the chemicals currently stored in a smaller shed on-site into the new warehouse. The smaller shed will then be demolished. For further details regarding the proposed development refer to Chapter 3 of this report and the Proposed Site Plan is included in Appendix C.

This development application comprises a Development Permit for the following:

- 

Material Change of Use for Bulk Store and General Industry;

- 

Material Change of Use for Environmentally Relevant Activity (ERA 7) for Chemical Manufacturing, including the associated Environmental Authority; and

- 

Material Change of Use for Hazardous Chemical Facility.

The development application is subject of assessment pursuant to the Planning Act 2016 (the Planning Act). The planning scheme under which this approval is sought is the Burdekin Shire IPA Planning Scheme 2011 (Superseded Planning Scheme).

The proposal is assessable development pursuant to the Planning Act and the Superseded Planning Scheme. A Code Assessable development application is triggered, with Burdekin Shire Council (Council) being the assessment manager for the application.

The same application under the 2022 Burdekin Planning Scheme would trigger an impact assessable development application.

The applicant is seeking retrospective approval for the on-site activities, which have operated over the site for many years and, as such, there is little benefit from proceeding with an impact assessable process compared with the code assessment, given the community would be aware of the site operations.

This Town Planning Assessment provides a comprehensive assessment of the proposed development having regard to the Planning Act and the Superseded Planning Scheme. Key components of the Town Planning Assessment comprise:

- 

An overview of the site details and local context (Chapter 2);

- 

A description of the proposed development (Chapter 3); and

- 

An assessment against the applicable town planning framework (Chapter 4)

The Town Planning Assessment is supported by specialist reports and other material including:

- 

Code Assessment (Appendix A);

- 

Certificate of Title and Owner's Consent (Appendix B);

- 

Proposed Site Plan prepared by Nutrien Ag Solutions (Appendix C);

- 

Draft Site Based Management Plan prepared by Stantec (Appendix D);

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Development Application – 39 – 57 Home Hill Road, Ayr



- 

Traffic Impact Assessment prepared by PSA Consulting (Appendix E)

- 

Stormwater Management Plan prepared by Northern Consulting Engineers (Appendix F);

- 

Draft Hazard Assessment Report prepared by Stantec (Appendix G); and

- 

ERA 7 Application Report (prepared by Stantec (Appendix H).

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Development Application – 39 – 57 Home Hill Road, Ayr

## 2. Site Details and Local Context

### 2.1

#### Site Details

##### 2.1.1

#### Address and Real Property Description

The subject site is located at 39-57 Home Hill Road, Ayr, and is properly described as Lot 1 on RP718903. The extent of the existing facility is outlined in Figure 1 below.

Figure 1:  
1: Subject  
in yellow)  
and surrounding  
(Queensland  
Globe, 2023)  
Figure  
Subject site  
site (shown  
area of concern  
(shown  
in red) and area  
surrounding  
area (Queensland  
Globe, 2023)

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Development Application – 39 – 57 Home Hill Road, Ayr

## 2.1.2

### Location

The site is approximately 3km south of the Ayr Town Centre and is bound by Home Hill Road to the east and the North Coast Railway to the west.

## 2.1.3

### Shape and Size

The lot is triangular in shape with a site area of 12,140m<sup>2</sup> and a frontage to Home Hill Road of approximately 210m.

## 2.1.4

### Ownership and Encumbrances

The registered owner of the site is Nutrien Ag Solutions Limited (A.C.N. 008 743 217).

## 2.1.5

### Current Use

The site receives and stores bulk granular fertiliser. Some of the fertiliser products are blended together to produce mixed products. The site contains several large buildings/sheds with associated outdoor storage, as well as loading/unloading areas and an ancillary administration component.

## 2.1.6

### Employee numbers

The existing facility has a total of 26 full time equivalent (FTE) employees. This is not proposed to change.

## 2.1.7

### Hours of Operation

The hours of operation for the development are 7:00am – 5:00pm. This is not proposed to change.

## 2.1.8

### Vehicle Access

The site is currently provided with vehicular access from Home Hill Road via two site access points on Home Hill Road, with the southern driveway providing access into the site and the northern driveway providing only egress from the development.

## 2.1.9

### Car Parking

A total of 18 car parking spaces are provided on site, including 1 Persons with Disability (PWD) parking space. 14 of these spaces are located near the site entry and the remaining four (4) are provided near the site exit. In addition to the 18 formal parking spaces, several unmarked spaces are also provided on-site.

## 2.1.10 Infrastructure Networks

The site is currently connected to water, sewer, telecommunication, and electricity.

#### 2.1.11 Topography

The site is relatively flat in topography and low lying ranging from 12m Australian Height Datum (m AHD) to 13m AHD.

#### 2.1.12 Vegetation

The site is clear of native vegetation, with some minor landscaping at the frontage and street trees located sporadically along the site frontage.

#### 2.1.13 Flooding

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A review of the Burdekin Shire Council Flood Hazard Overlay Map (in the Current Planning Scheme) indicates that the site is mapped as having a low flood hazard near the Home Hill Road frontage and in the north-eastern corner. Refer to Figure 2.

Figure 2: Flooding mapping over the subject site (2022 Burdekin Planning Scheme, 2023)

#### 2.1.14 Approval History

Without having evidence that confirms the existing land use was lawfully established as 'accepted development' or granted under a development approval, this development application seeks retrospective approval for existing and ongoing operations on the site. The site history shows the following previous and current development approval/s over the site:

- 1965 - 1037 - Bld - Storage Facilities
- 977 - 1975 - Bld - 5m Vertical Height Rise to Shed
- 1977 - 2294 - Bld - Alter Amenities - New Office
- 1981 - Letter - Town Planning - Extension to Present Facilities
- 1982 - 4090 - Bld - New Bulk Storage Shed

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- 1984 - 5255 - Bld - New Storage Shed
- 1991 - 9700 - Bld - Re-site Storage Shed
- 1991 - 9724 - Bld - New Storage Shed
- 1991 - 9776 - Bld - Partial Re-roof of Building
- 1994 - 11746 - Bld - New Storage Shed
- 1999 - 52/99 - Bld - New Office
- 2002 - 108/02 - Bld - Removal of Aqua-Ammonia Tank
- 2002 - 171/02 - Bld - Extension to Warehouse & Office
- 2014 - BLD14/0901 - Class 7b New Storage Shed
- 2020 - BLDPA20/0191 - Class 7 New Storage Shed & Skillion Roof

It appears there is no original development approval issued for the establishment of the land use but there is a letter issued the Council of the Shire of Ayr on the 27 April 1981 which authorised a proposed extension to the facilities (at that time described as 'Mirrigan Depot' which was presumably described so due to the site's proximity to Mirrigan Road) and was subject to compliance with several development conditions. The applicant is listed as 'Consolidated Fertilizers Limited'. The existing activities for dangerous goods storage and fertiliser blending may have lawfully established as accepted development (without needing planning approval) prior to 1981, with building approvals over the site dating back to 1965, and Consolidated Fertilisers Limited identified as the owner of the site.

However as there is no confirmation of the use of the site having either an approval or an exemption/accepted development path, approval is now sought to ensure all approvals are in place. Nevertheless, there is ongoing acknowledgement of the use over an extended period of time.

## 2.2 Site Surrounds

The site is situated 3km south of the town of Ayr (refer to Figure 4) with Home Hill Road to the east, which is a state-controlled road, North Coast rail line to the north and west, The area consists of established industrial activities (Visy Boxes and More and Goodyear Autocare Ayr) to the south, low density residential land uses to the east and rural land uses to the west and north.

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Ayr Town Centre

The Site

Figure 3: The site (shown in yellow) and surrounding area (Queensland Globe, 2023)

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### 3. Proposed Development

#### 3.1 Approvals sought

The primary use of the existing facility is for the storage of processed fertiliser ingredients (premanufactured fertiliser granules) and involves the mixing of the individual ingredients to create custom fertiliser blends. The blends are bagged on site and distributed to customers.

The fertiliser ingredients

are delivered in separate packets, and the facility does not undertake manufacturing of the fertiliser

granules. The process of combining the various fertiliser products has the potential to produce off-site

impacts, however the site operations are conducted to reduce and minimise the release of excess dust

and odour emissions. A draft Site Based Management Plan (SBMP) has been prepared by Stantec and

is attached in Appendix D. This document will be finalised once the

Environmental Authority is

received.

In accordance with Section 115(1)(a) of the Environmental Protection Act 1994, this development

application for a Material Change of Use under the Planning Act is also taken to be an application for

an environmental authority for the prescribed ERA. An Application Report has been prepared for the

ERA 7 Application and is included in Appendix H.

The facility also involves the storage and mixing of liquid fertilisers, and the storage of other chemicals,

including both dangerous and hazardous goods (i.e. combustible liquids and poisons). Given that a

significant quantity of fertiliser and secondary chemicals are being stored and/or blended on site, it is

critical to ensure that proper management procedures are in place to prevent environmental impacts.

A draft Hazardous Assessment Report has been prepared by Stantec and is attached in Appendix G.

This document will be finalised once the Environmental Authority is received.

Nutrien Ag Solutions primarily operate a "direct to farm" business model. This involves loading goods

into the warehouse / storage areas on site, undertaking the mixing of fertiliser components on site, and

delivering products direct to farms. The site operations also includes

approximately 150m<sup>2</sup> of ancillary

sales area for direct retail sales to the public.

Table 3 provides a summary of the development application land uses and category of assessment.

Table 3 – Land Use and Category of Assessment (Superseded Planning Scheme)

Land Use and

Definition

Level of Assessment and Definition

Assessment

Benchmarks

Assessment

Bulk Store:

Premises used for the storage and handling of goods in bulk whether or not such goods are stored within a building or buildings, prior to their distribution and subsequent use elsewhere. The term does not include the treatment, processing or packaging of any kind of such goods to be stored.



Industry Zone  
Code

Please refer to  
Chapter 4 of this  
report.

Industry Zone  
Code

Please refer to  
Chapter 4 of this  
report.

Code Assessment  
General Industry

Premises used for any industrial activity such as the manufacturing, processing, fabrication, packaging, repair, storage or maintenance of any item, machine or product, which activity involves one or more of the following:

- (a) the intense emission of noise, light, heat, waste material or by-products of any kind;
- (b) the generation of high traffic flows in the context of the locality or the road network; and

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Development Application – 39 – 57 Home Hill Road, Ayr

Table 3 – Land Use and Category of Assessment (Superseded Planning Scheme)  
Land Use and  
Definition

Level of Assessment and Definition

Assessment  
Benchmarks

Assessment

SDAP Code 22:  
Environmentally  
relevant  
activities

Please refer to  
Chapter 4 of this  
report.

SDAP Code 21:  
Hazardous  
Chemical  
Facilities

Please refer to  
Chapter 4 of this  
report.

(c) an elevated demand for services such as treated  
water, sewerage and solid waste disposal,  
electricity, roads, stormwater drainage and the like.  
Code Assessment  
Chemical  
Manufacturing  
(ERA 7)

Chemical manufacturing (the relevant activity)  
consists of any of the following activities–  
(a) manufacturing a total of 200m<sup>3</sup> or more of  
coating, food additives, industrial polish, sealant,  
synthetic dye, pigment, ink, adhesives or paint in a  
year;  
(b) manufacturing a total of 200t or more of  
chemicals, other than chemicals mentioned in  
paragraph (a), in a year;  
(c) using in the manufacturing process a total of 200t  
or more of chemicals as feedstock in a year.  
Code Assessment

Hazardous  
Chemical Facility

Hazardous chemical facility means the use of  
premises for a facility at which a prescribed  
hazardous chemical is present or likely to be  
present in a quantity that exceeds 10 percent of the  
chemical's threshold quantity under schedule 15 of  
the Work Health and Safety Regulation 2011.  
Code Assessment

A summary of each of these component is provided below.

3.1.1 Material Change of Use for Bulk Store and Industry

This application is seeking approval for the existing Bulk Store and General

Industry activities on site.

The Bulk Store component applies to the component of the operations involving storage of the individual fertiliser ingredients and liquid fertilisers on site and the subsequent storage of the bagged fertiliser mixtures after the combining process. The use also applies to the sale of the bagged fertiliser mixtures and other products to customers.

The storage of goods does not meet the definition of a Storage Depot under the planning scheme as

the storage of goods on site exceeds a capacity of 1 tonne, and therefore the scale of the storage

operations is such that the appropriate land use definition is Bulk Store.

General Industry applies to the component of the operations for the combining of granular fertiliser

components to form custom fertiliser blends.

As part of these uses, there will be some building work proposed comprising demolition of an existing

chemical shed located on the western boundary and construction of a new warehouse building on the

southern boundary of the site (refer to Figure 4).

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Figure 4: Proposed site plan (Nutrien Ag Solutions, 2023)

### 3.1.2 Material Change of Use for Chemical Manufacturing (ERA 7)

The solid granular fertiliser products blended and stored on site comprise:

- Mono-ammonium phosphate (non-dangerous good, non-hazardous substance);
- Dibasic ammonium phosphate (non-dangerous good, non-hazardous substance);
- Urea (non-dangerous good, non-hazardous substance); and
- Trace element - blends of metals, salts other ingredients used to alleviate micronutrient deficiencies

in soil (non-dangerous goods, but classified as a hazardous substance).

The liquid fertiliser products blended and stored on site consist of blends of nitrogen, phosphorus and

potassium (NPK) containing compounds with a small amount of zinc included.

The quantities of fertiliser blended on site meet the threshold for an

Environmentally Relevant Activity

(ERA) as per Schedule 2 of the Environmental Protection Regulation 2019.

Particularly, ERA 7 sub

item 4b, for manufacturing >5000 tonnes of fertiliser. As a result, an

application for an Environmental

Authority (EA) must be obtained from the Queensland Government.

The annual volume output for the site is 16,000 tonnes mixed fertiliser products and 120,000 litres of

liquid fertiliser products. The operations on site do not involve the mixing of the abovementioned premanufactured fertiliser products with any natural fertilisers (such as organic products / waste).

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Development Application - 39 - 57 Home Hill Road, Ayr

The site involves the storage of 120,000 litres (120m<sup>3</sup>) of liquid fertiliser. Blending of liquid fertilisers is also undertaken on site. The operations do not involve any mixing of the above dangerous goods. These goods are received to site and stored in individual bottles and sold to customers. The dangerous goods are not manufactured, mixed or bottled on site. Individually these chemicals are low in volume, but combined are sufficient in volume to be listed on the Hazardous Goods register. In accordance with Section 115(1)(a) of the Environmental Protection Act 1994, this development application for a Material Change of Use under the Planning Act is also taken to be an application for an environmental authority for the prescribed ERA. An Application Report has been prepared for the ERA 7 Application and is included in Appendix H.

3.1.3 Material Change of Use for Hazardous Chemical Facility

Hazardous Chemical Facility applies to the component of the operations at which a prescribed hazardous chemical is present or likely to be present in a quantity that exceeds 10% of the chemical's threshold quantity under Schedule 15 of the Work Health and Safety Regulation 2011 (WHS Regulation).

As the site operations include storage of a prescribed hazardous chemical in a quantity that exceeds 10% of the chemical's threshold quantity under schedule 15, this aspect of the site operations is also defined as a Hazardous Chemical Facility and triggers assessment by the State under Schedule 10, Part 7, Division 3 of the Planning Regulation. To assist in the assessment and regulation of the Hazardous Chemical Facility, a draft Hazardous Assessment Report is provided in Appendix G.

### 3.2 Application Particulars

Table 4 provides a summary of the key development parameters.

Table 4: Proposed Development Parameters

Site Area

12,417m<sup>2</sup>

Proposed Uses

Bulk Store, General Industry, Chemical Manufacturing (ERA 7),  
Hazardous Chemical Facility and Environmental Authority  
Existing

Proposed

Height

One (1) Storey

No change

Site Cover

20%

23%

Gross Floor Area

2,563m<sup>2</sup>

2,858m<sup>2</sup>

Number of Tenancies

One (1)

No change

Setbacks

Eastern boundary (Home Hill Road) - 1m (PS4)

Eastern boundary (Home Hill Road) - no change)

Southern boundary - 3m (PS8 and PS6)

Southern boundary - 3m (PS9, PS8 and PS6)

Western boundary (Railway) - 3m (Warehouse Store 3)

Western boundary (Railway) - 3m (Warehouse Store 3)

Northern boundary - 106m (measured from the triangular point to Warehouse Store 3)

Northern boundary - no change

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Development Application - 39 - 57 Home Hill Road, Ayr

Table 4: Proposed Development Parameters  
Landscaping

Existing turf of between 7m-22m,  
within the south-eastern corner of  
the site

No change

Some street trees located within  
Home Hill Road road reserve near  
the northern end of the site  
Access

Via two (2) separate crossovers to  
Home Hill Road

No change

Car Parking

18 formal parking spaces, several  
unmarked spaces

No change

Design Vehicle Type

AV Design Service Vehicle

No change

Infrastructure Networks

Connected to the existing water,  
sewer, telecommunication,  
electricity

No change

3.2.1

Landscape

The site and verge contains some landscaping in the form of street trees and  
turf areas.

3.2.2

Transport

A Traffic Assessment has been prepared by PSA Consulting and is included in  
Appendix E of this  
assessment. A summary of the report is provided in the following sections.

3.2.2.1 Carparking

The Burdekin Shire IPA Planning Scheme 2011, Schedule 2 specifies the parking  
requirement for

'Industry' (non-Extractive) as 1 space per 100m<sup>2</sup> gross floor area or 1 space per  
2 employees, whichever  
is the greater. Based on the number of employees (26), the development requires  
a total of 13 parking  
spaces. Based on the total gross floor area of the development (2,910m<sup>2</sup>), the  
number of parking  
spaces required is 29.

Therefore, the maximum of these two requirements is 29 parking spaces. A total of 18 car parking spaces are provided on site, including 1 Persons with Disability (PWD) parking space. 14 of these spaces are located near the site entry and the remaining four (4) are provided near the site exit. In addition to the 18 formal parking spaces, several unmarked spaces are also provided on-site. In addition to the 18 formal parking spaces, several unmarked spaces are also provided on-site. Considering there are no parking issues experienced currently on site, the onsite parking provision is sufficient.

It is recommended that the line marking for the available on-site parking be in accordance with

AS2890.1 standard requirements for general parking.

#### 3.2.2.2 Vehicular Access

Access to the site is currently gained directly from Home Hill Road. There are two site access points on Home Hill Road the southern driveway serves as an entry and the northern driveway serves as an exit.

#### 3.2.2.3 Servicing

The relevant design vehicles for the proposed development are 26m B-Double vehicle (as the largest vehicle type having access to the development) entering and exiting.

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The full swept path assessment for access to/from the site off Home Hill Road is contained in Appendix

E. Swept path analysis has demonstrated that the largest vehicle having access to the development, a 26m B-Double vehicle, is able to enter, exit and manoeuvre through the site satisfactorily.

#### 3.2.2.4 Traffic Generation

The existing operation of the facility generates in the order of 38 vehicle trips in the AM and PM peak hours, where trip refers to a one way movement (either to the site or from the site).

#### 3.2.3

#### Waste Management

An assessment of the existing waste management activities was prepared by Stantec and is included in Appendix E of this assessment. It is noted that control measures and monitoring of the generated waste is provided in the assessment.

The following types of waste are generated on site: Sump and washdown water, Solid Granular fertiliser sweepings, Cardboard, Waste Oil stored on site; and General waste unrelated to site operations. A

summary of the assessment is provided below:

- 

Sump and washdown water will be regularly pumped out into storage tanks, from which a local farmer will collect the water and use it as a nutrient supplement on their field;

- 

Solid granular fertiliser sweepings will also be collected by local farmers for re-use;

- 

Cardboard is emptied four (4) times a year in a dedicated cardboard recycling skip bin;

- 

Two (2) wheelie bins are located on site for general waste which are emptied on a regular basis, taken to a landfill facility near the site; and

- 

Waste oil is stored on site and will be disposed of in accordance with the SBMP.

#### 3.2.4

#### Stormwater Management Plan

A Stormwater Management Plan has been prepared by Northern Consulting Engineers and is included in Appendix F of this assessment. A summary of the report is provided in the following sections.

##### 3.2.4.1 Stormwater Quantity

An assessment of the change in run-off due to the construction of the new warehouse will result in a 0.7% increase to the existing impervious area (74.2%). A range of runoff

scenarios were assessed for annual exceedance probabilities and found there is no increase in peak flow and therefore no impact to the run-off characteristics as a result of the development.

#### 3.2.4.2 Stormwater Quality

Stormwater quality is addressed in section 7.4 of the SBMP. The control measures to ensure that

water quality objectives are met are as follows:

- 

Wastewater generated from toilets, general staff facilities, etc, must be directed to the site sewerage connection;

- 

Any trade wastes (i.e. cleaned up chemical spills, oils etc) must be disposed of via an appropriately licenced; waste disposal contractor. These must not be discharged to site sewerage or the site stormwater collection system;

- 

Stormwater from the fertiliser storage and bagging area is directed via bunding and drainage to a sump. Water which collects in the sump is to be pumped into the storage tanks where it can be drawn from and dispersed to land at an offsite location on an as needs basis.

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•

The daily operation and maintenance of the sump and associated drains and storage tanks is the carried out by a suitably trained, experienced or qualified person.

•

Any defects found within the sump/drainage tank system are to be repaired as soon as possible.

#### 3.2.4.3 Flood Assessment

The Current Planning Scheme Flood Hazard Overlay Map identified the site as only having a small portion of the site (north-eastern corner) as being constrained by a low flood hazard. The remaining site is not included within the flood hazard overlay. This is supported by the flood extents, illustrated in Figure 4 of Appendix F, which shows isolated flooding within the north-eastern portion of the site.

As the development will generally imitate the existing site levels to maintain positive fall towards the eastern boundary, there will be not impediment to flow paths or loss of flood storage in areas shown to experience flooding. It is anticipated that the construction of the new sump will slightly increase storage capacity. Therefore, as the development will not impact the on-site storage of flood water or existing flow paths, there will be no impact to the flood characteristics outside the development extents and no impacts upstream or downstream.

Furthermore, the mapped flooding area is clear of hazardous goods.

#### 3.2.4.4 Water and Sewer Connections

The site has existing access to the Council's water and sewer infrastructure and the proposed development will not result in an increase in capacity to Council's infrastructure.

#### 3.2.5

##### Site Based Management Plan

A draft Site Based Management Plan (SBMP) has been prepared by Stantec and is included in

Appendix D of this assessment. A summary of the report is provided in the following sections.

##### 3.2.5.1 Air (Odour and Dust)

The activities associated with the ERA 7 have the potential to generate air borne dust primarily from the loading and unloading of fertilisers and other products and site vehicle movements. As

demonstrated in the SBMP the existing operations can continue to be conducted in a way that will not

impact the surrounding sensitive environments. Objectives and Control measures have been provided

as part of the SBMP. These can be conditioned as part of a development approval.

##### 3.2.5.2 Noise

Site operation activities may include the operation of machinery resulting in noise emissions impacting

on nearby sensitive receptors. As demonstrated in the SBMP the existing operations can continue to

be conducted in a way that will not impact surrounding sensitive environments.

Objectives and

Control measures have been provided as part of the SBMP. These can be conditioned as part of a

development approval.

#### 3.2.5.3 Water, Land and Stormwater

Surface waters, groundwater and water quality have the potential to be impacted by the ERA 7

activity through the runoff from hardstand areas and other exposed areas of the site used for the

activity. Additionally, the potential exists for spills of hydraulic oil and fuels from plant, equipment, and

vehicles. Fertiliser also contains substantial amounts of nutrients which can be quite harmful to both

aquatic and terrestrial ecosystems.

As demonstrated in the SBMP the continued operations at the site can be conducted in a way that will

not impact surrounding sensitive environments. Objectives and Control measures have been provided

as part of the SBMP. These can be conditioned as part of a development approval.

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#### 3.2.5.4 Hazardous Materials Handling and Storage

The major findings demonstrated in the Hazardous Assessment Summary found that the risks from the existing dangerous goods storage or handling system have been minimised to as low as reasonably practical to people, property, and the environment. After the implementation of the mitigation measures detailed in Section 6.2 the residential risk assessment identified 5 low risks and 13 medium risks but there was a decrease from 12 high risks to 0 high risks. Compliance with the State Development and Assessment Provisions – State Code 21: Hazardous Chemicals is presented in Section 6. Furthermore, the site can be managed in accordance with the SBMP. Objectives and Control measures have been provided as part of the SBMP. These can be conditioned as part of a development approval.

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4.

## Statutory Town Planning Framework

### 4.1 Introduction

This Chapter of the Town Planning Assessment identifies the applicable components of the statutory town planning framework and provides an assessment against those components. A summary of the proposed development's compliance with the statutory town planning framework is provided at the conclusion of this Chapter.

### 4.2

## State Planning Framework

### 4.2.1

## Planning Act 2016

The Planning Act is the statutory instrument for the State of Queensland under which, amongst other matters, development applications are assessed by local governments.

### 4.2.2

## Application for assessment under the Superseded Planning Scheme

Under section 29 of the Planning Act, an applicant is able to request an assessment manager to apply a superseded planning scheme to a proposed development application.

### 4.2.3

## Decision Rules

This development proposal involves assessable development under the superseded Burdekin Shire IPA Planning Scheme and is subject to a Code Assessable development application to be made to the Assessment Manager, in this case Burdekin Shire Council. According to Section 45(3) of the Planning Act:  
(3) A code assessment is an assessment that must be carried out only—

(a) against the assessment benchmarks in a categorising instrument for the development;  
and

(b) having regard to any matters prescribed by regulation for this paragraph. Assessment benchmarks for Code Assessment are described in Section 26 of the Planning Regulation 2017 (Planning Regulation):

"(1) For section 45(3)(a) of the Act, the code assessment must be carried out against the

assessment benchmarks for the development stated in schedules 9 and 10.

(2) Also, if the prescribed assessment manager is the local government, the code assessment

must be carried out against the following assessment benchmarks—

(a) the assessment benchmarks stated in—

(i) the regional plan for a region, to the extent the regional plan is not identified in the

planning scheme as being appropriately integrated in the planning scheme; and

(ii) the State Planning Policy, part E, to the extent part E is not identified in the planning

scheme as being appropriately integrated in the planning scheme; and

(iii) any temporary State planning policy applying to the premises;

(b) if the local government is an infrastructure provider—the local government's LGIP

(3) However, an assessment manager may, in assessing development requiring code assessment, consider an assessment benchmark only to the extent the assessment benchmark is relevant to the development."

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At the time of the lodgement of the development application, the common material comprises the application material only. The application material includes an assessment of the proposed development against the relevant assessment benchmarks. Information arising from the Information Request Stage (if applicable) will also form part of the common material to be accessed by Council.

#### 4.2.4

#### Public Notification

Pursuant to Section 53 of the Planning Act, the notification stage of the development assessment

process applies to an application if either of the following applies –

“(a) any part of the application requires impact assessment; or

(b) the application includes a variation request.”

As the development application requires Code Assessment and does not require a variation request,

public notification is not required pursuant to the Planning Act.

#### 4.2.5

#### State Planning Policy

The State Planning Policy was released on 3rd July 2017. It is a State planning instrument made under

Chapter 2 Part 2, Section 10 of the Planning Act.

As prescribed in Section 26(2)(a)(ii) of the Planning Regulation, the State Planning Policy represents

an assessment benchmark, and the assessment manager must have regard to State Planning Policies

if it is not identified as being appropriately reflected in the planning scheme.

The Burdekin Shire IPA planning Scheme 2011 (superseded) predates the State Planning Policy 2017.

The proposed development is for a retrospective development application to the existing fertiliser

storage, distribution and blending facility.

Part E of the State Planning Policy identifies agriculture as essential to Queensland’s economic

productivity and employment. The proposed development is consistent with the following State interest

– agriculture, as follows:

(d) facilitating opportunities for co-existence with development that is complementary to

agricultural uses that do not reduce agricultural productivity (e.g. on-farm processing, farm

gate sales, agricultural tourism etc)

(e) considering the provision of infrastructure and services necessary to support a strong

agriculture industry and associated agricultural supply chains

#### 4.2.6

#### Referral Jurisdiction and State Development Assessment Provisions

Section 55(2) of the Planning Act states that:

“For any other referral agency, a regulation may prescribe the matters the referral agency–

(a) may, must or must only assess a development application against; and

(b) may, must, or must only have regard to for the assessment. ”

Part 4, Section 22(1) of the Planning Regulation states that:

“Schedules 9 and 10 prescribe–

(a) for section 54(2)(a) of the Act, the referral agency for the development applications

stated in the schedules; and



(b) for section 55(2) of the Act, the matters the referral agency–  
(i) may or must assess the development application against; and  
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(ii) may or must assess the development application having regard to.”  
The proposed development triggers referral to State Assessment and Referral Agency (SARA), due to:

- 

Proximity to the State Controlled Road;

- 

Proximity to the State Controlled Rail Corridor;

- 

The use including an Environmentally relevant activities (ERA 7) for a Chemical Manufacturing;  
and

- 

The use including a Hazardous Chemical Facility.

#### 4.2.7

##### North Queensland Regional Plan

The North Queensland Regional Plan (the Regional Plan) has been prepared to support the established and emerging industries in the region and to address changes expected to occur in the region. Most notably the Regional Plan looks to strengthen established industries and the already-diverse regional economy.

As prescribed in Section 26(2)(a)(i) of the Planning Regulation, the regional plan represents an assessment benchmark, and the assessment manager must have regard to regional plan if it is not identified as being appropriately reflected in the planning scheme.

The Burdekin Shire IPA Planning Scheme 2011 pre-dates the North Queensland Regional Plan (2020).

It is noted that the existing development has been identified as a use consistent with Goal 1: A leading economy in regional Australia of the North Queensland Regional Plan. Established and emerging industry

Regional Outcome

##### 1.1

Facilitate the growth of new and established industries in appropriate locations and protect their ongoing function.

Regional Policies

1.1.1 Ensure the sufficient long-term supply of suitably located and serviced land to meet

the requirements of existing and emerging industries within the region.

1.1.2 Ensure existing and new industrial areas remain appropriately buffered from

incompatible land uses and that the functionality of connecting infrastructure corridors is protected.

The proposed development is consistent with the North Queensland Regional Plan as the continuation

of the existing fertiliser blending facility provides a key resource to the surrounding agriculture pursuits.

There are no assessment benchmarks for the proposed development in the regional plan. Nonetheless, the proposed development and existing are consistent with the State interest as

the continuation of the existing fertiliser manufacturing (blending) facility provides a key resource to the surrounding agriculture pursuits.

#### 4.3

##### Local Planning Framework

##### 4.3.1

##### Assessment against the Burdekin Shire IPA Planning Scheme 2011

The Planning Scheme commenced on 4 March 2011 and has since been superseded by the Burdekin Shire Council Planning Scheme 1 March 2023.

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#### 4.3.2

##### Defined Land Use

The proposed development comprises the following land use, which defined in Schedule 1 of the

Superseded Planning Scheme, with the relevant definitions reproduced below:

**Bulk Store** - Premises used for the storage and handling of goods in bulk whether or not such goods

are stored within a building or buildings, prior to their distribution and subsequent use elsewhere.

The term does not include the treatment, processing or packaging of any kind of such goods to be

stored. The term also does not include "Produce Store".

**General Industry** - Premises used for any industrial activity such as the manufacturing, processing,

fabrication, packaging, repair, storage or maintenance of any item, machine or product, which

activity involves one or more of the following:

(a) the intense emission of noise, light, heat, waste material or by-products of any kind;

(b) the generation of high traffic flows in the context of the locality or the road network; and

(c) an elevated demand for services such as treated water, sewerage and solid waste disposal,

electricity, roads, stormwater drainage and the like. The term does not include the use of land for

the purpose of any other industry defined in this sub-section.

#### 4.3.3

##### Category of Assessment

Table 5 sets out the applicable category of assessment triggers for the development.

Table 5: Category of Assessment

Zone

Application Triggers

Level of Assessment

Assessment Benchmarks

Industry

MCU within the

Industry Zone

Code Assessment

Industry Zone Code

Bulk Store

MCU within the

Industry Zone

Code Assessment

Industry Zone Code

Not Applicable

Not Applicable

Not Applicable

Overlays (IPA)  
Natural Features or  
Resources Map Overlay  
Map 9: Low Bushfire  
Hazard

#### 4.3.4

##### Zone

The Burdekin Planning Scheme includes the site in the Industry Zone.  
The overall outcomes are the purpose of the Industry Zone and are follows:  
(a) provide for a range of activities to facilitate sustainable economic development in the shire, including alternative forms of industrial development, particularly those industries which value add to the shire's natural resources;  
(b) establish and operate extractive industrial uses preferably within the Extractive Industry sub area;  
(c) protect any adjoining residential use from the effects of industrial development;  
(d) protect preferred industrial areas from inappropriate non-industrial development; and

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(e) maintain the quality of the surrounding environment by reaching acceptable environmental management standards for both the construction and operation phases of the use in respect of:

#### 4.3.5

(i)

management of soil erosion and sedimentation control and possible contaminated land;

(ii)

management of environmental and operational risks and hazards; and

(iii)

the protection of air quality, water quality and the acoustic environment

#### Overlays

The Burdekin Shire IPA Planning Scheme includes several overlays which provide additional information in relation to state and local interests. The site is located within the Natural Features and Resource Overlay Map 9 Low Bushfire Hazard of the Bushfire Overlay, which does not change the level of assessment or apply any assessment benchmarks to the site.

#### 4.3.6

#### Temporary Local Planning Instruments

There are no Temporary Local Planning Instruments applicable to the site.

#### 4.3.7

#### Applicable Assessment Benchmarks

Having regard to the sections above, the following are the assessment benchmarks applicable to the assessment of the proposed development:

- 

Burdekin Shire IPA Planning Scheme Industry Zone Code;

- 

State Code 1: Development in a state-controlled road environment (P015, P016, P025, P026);  
and

- 

State Code 2: Development in a Railway environment (P035 – P038)

- 

State Code 21: Hazardous chemical facilities

- 

State Code 22: Environmentally relevant activities

#### 4.3.8

## Compliance Summary

The following sections comprise a summary of compliance against the assessment benchmarks of the applicable codes that apply to the proposed development.

### 4.3.8.1

#### Industry Zone Code

The proposed development complies with the applicable Acceptable Solutions and Specific Outcomes of the Industry Zone Code.

A detailed response to the industry Zone Code and overall outcomes is included in Appendix A.

### 4.3.8.2

#### State Code 1: Development in a state-controlled road environment

For a response to the State Development and Assessment Provisions (SDAP) State Code 1 please

refer to the Traffic Assessment prepared by PSA Consulting (Appendix E).

The proposed development complies with the Performance and Acceptable Outcomes of the State code

1: Development in a state-controlled road environment.

### 4.3.8.3

#### State Code 2: Development in a Railway environment

For a response to the SDAP State Code 2 please refer to the Traffic Assessment prepared by PSA

Consulting (Appendix E).

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The proposed development complies with the Performance and Acceptable Outcomes of the State code

2: Development in a railway environment.

4.3.8.4

State Code 21: Hazardous chemical facilities

For a response to the SDAP State Code 21, please refer to the draft Site Based Management Plan

prepared by Stantec (Appendix D) and the draft Hazardous Assessment Report prepared by Stantec

(Appendix G).

The proposed development complies with the Performance and Acceptable Outcomes of the State code

21: Hazardous chemical facilities.

4.3.8.5

State Code 22: Environmentally relevant activities

For a response to the SDAP State Code 22 please refer to the draft Site Based Management Plan

prepared by Stantec (Appendix D).

The proposed development complies with the Performance and Acceptable Outcomes of the State code

22: Environmentally relevant activities.

An Assessment Report for ERA 7 is also provided in Appendix H.

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5.

## Conclusions and Recommendations

This report accompanies an application by Nutrien Ag Solutions seeking approval of a Development

Permit for Material Change of Use for Bulk Store, General Industry, Chemical Manufacturing (ERA 7),

associated Environmental Authority and Hazardous Chemical Facility located at land on 39-57 Home

Hill Road, Ayr formally described as Lot 1 on RP718903.

An assessment has been undertaken with regard to both the existing and proposed development in

order to assess the application against the applicable assessment benchmarks, including relevant

Planning Scheme codes, used by Council to assess the proposed development.

The information provided in this proposal report (and accompanying material) demonstrates that the

proposed development complies with all relevant and applicable provisions of the statutory town

planning framework.

We therefore recommend that Council favourably consider the development and approve the

development application, subject to reasonable and relevant conditions.

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DA Form 1 – Development application details

Approved form (version 1.3 effective 28 September 2020) made under section 282 of the Planning Act 2016.

This form must be used to make a development application involving code assessment or impact assessment, except when applying for development involving only building work.

For a development application involving building work only, use DA Form 2 – Building work details.

For a development application involving building work associated with any other type of assessable development (i.e. material change of use, operational work or reconfiguring a lot), use this form (DA Form 1) and parts 4 to 6 of

DA Form 2 – Building work details.

Unless stated otherwise, all parts of this form must be completed in full and all required supporting information must accompany the development application.

One or more additional pages may be attached as a schedule to this development application if there is insufficient space on the form to include all the necessary information.

This form and any other form relevant to the development application must be used to make a development

application relating to strategic port land and Brisbane core port land under the Transport Infrastructure Act 1994,

and airport land under the Airport Assets (Restructuring and Disposal) Act 2008.

For the purpose of assessing a development application relating to strategic port land and Brisbane core port land, any reference to a planning scheme is taken to mean a land use plan for the strategic port land, Brisbane port land use plan for Brisbane core port land, or a land use plan for airport land.

Note: All terms used in this form have the meaning given under the Planning Act 2016, the Planning Regulation 2017, or the Development Assessment Rules (DA Rules).

PART 1 – APPLICANT DETAILS

1) Applicant details

Applicant name(s) (individual or company full name)

Nutrien Ag Solutions Limited

Contact name (only applicable for companies)

C/- Mewing Planning Consultants  
Nicole Boulton

Postal address (P.O. Box or street address)

GPO Box 1506

Suburb

Brisbane

State

QLD

Postcode

4001

Country

Australia

Contact number

0403 155 291

Email address (non-mandatory)

nicole.boulton@mewing.com.au

Mobile number (non-mandatory)

Fax number (non-mandatory)

Applicant's reference number(s) (if applicable)

22372

2) Owner's consent

2.1) Is written consent of the owner required for this development application?

Yes - the written consent of the owner(s) is attached to this development application

No - proceed to 3)

## PART 2 – LOCATION DETAILS

3) Location of the premises (complete 3.1) or 3.2), and 3.3) as applicable)

Note: Provide details below and attach a site plan for any or all premises part of the development application. For further information, see DA Forms Guide: Relevant plans.

### 3.1) Street address and lot on plan

Street address AND lot on plan (all lots must be listed), or  
Street address AND lot on plan for an adjoining or adjacent property of the premises (appropriate for development in water but adjoining or adjacent to land e.g. jetty, pontoon. All lots must be listed).

Unit No.

a)

b)

Street No.

Street Name and Type

Suburb

37-59

Home Hill Road

Ayr

Postcode

Lot No.

Plan Type and Number (e.g. RP, SP)

Local Government Area(s)

4807

1

RP18903

Burdekin Shire Council

Unit No.

Street No.

Street Name and Type

Suburb

Postcode

Lot No.

Plan Type and Number (e.g. RP, SP)

Local Government Area(s)

3.2) Coordinates of premises (appropriate for development in remote areas, over part of a lot or in water not adjoining or adjacent to land

e.g. channel dredging in Moreton Bay)

Note: Place each set of coordinates in a separate row.

Coordinates of premises by longitude and latitude

Longitude(s)

Latitude(s)

Datum

Local Government Area(s) (if applicable)

WGS84

GDA94

Other:

Coordinates of premises by easting and northing

Easting(s)

Northing(s)

Zone Ref.

Datum

54

55

56

Local Government Area(s) (if applicable)

WGS84

GDA94

Other:

### 3.3) Additional premises

Additional premises are relevant to this development application and the details of these premises have been

attached in a schedule to this development application

Not required

4) Identify any of the following that apply to the premises and provide any relevant details

In or adjacent to a water body or watercourse or in or above an aquifer

Name of water body, watercourse or aquifer:

On strategic port land under the Transport Infrastructure Act 1994

Lot on plan description of strategic port land:

Name of port authority for the lot:

In a tidal area

Name of local government for the tidal area (if applicable):

Name of port authority for tidal area (if applicable):

On airport land under the Airport Assets (Restructuring and Disposal) Act 2008

Name of airport:

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Listed on the Environmental Management Register (EMR) under the Environmental Protection Act 1994

EMR site identification:

Currently notified with DES

Listed on the Contaminated Land Register (CLR) under the Environmental Protection Act 1994

CLR site identification:

5) Are there any existing easements over the premises?

Note: Easement uses vary throughout Queensland and are to be identified correctly and accurately. For further information on easements and how they may affect the proposed development, see DA Forms Guide.

Yes - All easement locations, types and dimensions are included in plans submitted with this development application

No

### PART 3 - DEVELOPMENT DETAILS

#### Section 1 - Aspects of development

6.1) Provide details about the first development aspect

a) What is the type of development? (tick only one box)

Material change of use

Reconfiguring a lot

Operational work

Building work

b) What is the approval type? (tick only one box)

Development permit

Preliminary approval

Preliminary approval that includes a variation approval

c) What is the level of assessment?

Code assessment

Impact assessment (requires public notification)

d) Provide a brief description of the proposal (e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots):

Development Permit for Material Change of Use for Bulk Store and General Industry.

Development Permit for a Material Change of Use for Environmentally Relevant Activity (ERA 7) for Chemical Manufacturing.

Development Permit for a Material Change of Use for Hazardous Chemical Facility.

e) Relevant plans

Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms guide:

Relevant plans.

Relevant plans of the proposed development are attached to the development application

6.2) Provide details about the second development aspect

a) What is the type of development? (tick only one box)

Material change of use

Reconfiguring a lot



Operational work

Building work

b) What is the approval type? (tick only one box)  
Development permit

Preliminary approval

Preliminary approval that includes a variation approval

c) What is the level of assessment?  
Code assessment

Impact assessment (requires public notification)

d) Provide a brief description of the proposal (e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots):

e) Relevant plans

Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms Guide: Relevant plans.

Relevant plans of the proposed development are attached to the development application

6.3) Additional aspects of development

Page 3

DA Form 1 – Development application details

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Additional aspects of development are relevant to this development application and the details for these aspects that would be required under Part 3 Section 1 of this form have been attached to this development application  
Not required

Section 2 – Further development details

7) Does the proposed development application involve any of the following?  
Material change of use

Yes – complete division 1 if assessable against a local planning instrument

Reconfiguring a lot

Yes – complete division 2

Operational work

Yes – complete division 3

Building work

Yes – complete DA Form 2 – Building work details

Division 1 – Material change of use

Note: This division is only required to be completed if any part of the development application involves a material change of use assessable against a local planning instrument.

8.1) Describe the proposed material change of use  
Provide a general description of the proposed use

Provide the planning scheme definition  
(include each definition in a new row)

Number of dwelling  
units (if applicable)

Gross floor  
area (m<sup>2</sup>)  
(if applicable)

Bulk Store

Bulk Store – refer to Section 4.3.2 of the N/A  
Town Planning Report prepared by  
Mewing Planning Consultants.

N/A

General Industry

General Industry - refer to Section 4.3.2 N/A  
of the Town Planning Report prepared  
by Mewing Planning Consultants.

N/A

Chemical Manufacturing (ERA 7)

Chemical Manufacturing – refer to  
Section 4.3.2 of the Town Planning  
Report prepared by Mewing Planning

Consultants.

N/A

N/A

Hazardous Chemical Facility.

Chemical Manufacturing – refer to  
Section 4.3.2 of the Town Planning  
Report prepared by Mewing Planning  
Consultants.

N/A

N/A

8.2) Does the proposed use involve the use of existing buildings on the premises?

Yes

No

Division 2 – Reconfiguring a lot

Note: This division is only required to be completed if any part of the development application involves reconfiguring a lot.

9.1) What is the total number of existing lots making up the premises?

9.2) What is the nature of the lot reconfiguration? (tick all applicable boxes)  
Subdivision (complete 10))

Dividing land into parts by agreement (complete 11))

Boundary realignment (complete 12))

Creating or changing an easement giving access to a lot  
from a constructed road (complete 13))

10) Subdivision

10.1) For this development, how many lots are being created and what is the intended use of those lots:

Intended use of lots created

Residential

Commercial

Industrial

Other, please specify:

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Number of lots created

10.2) Will the subdivision be staged?

Yes – provide additional details below

No

How many stages will the works include?

What stage(s) will this development application apply to?

11) Dividing land into parts by agreement – how many parts are being created and what is the intended use of the parts?

Intended use of parts created

Residential

Commercial

Industrial

Other, please specify:

Number of parts created

12) Boundary realignment

12.1) What are the current and proposed areas for each lot comprising the premises?

Current lot

Lot on plan description

Proposed lot

Area (m<sup>2</sup>)

Lot on plan description

Area (m<sup>2</sup>)

12.2) What is the reason for the boundary realignment?

13) What are the dimensions and nature of any existing easements being changed and/or any proposed easement?

(attach schedule if there are more than two easements)

Existing or  
proposed?

Width (m)

Length (m)

Purpose of the easement? (e.g.  
pedestrian access)

Identify the land/lot(s)  
benefitted by the easement

Division 3 – Operational work

Note: This division is only required to be completed if any part of the development application involves operational work.

14.1) What is the nature of the operational work?

Road work

Drainage work

Landscaping

Stormwater  
Earthworks  
Signage

Water infrastructure  
Sewage infrastructure  
Clearing vegetation

Other – please specify:

14.2) Is the operational work necessary to facilitate the creation of new lots?  
(e.g. subdivision)

Yes – specify number of new lots:

No

14.3) What is the monetary value of the proposed operational work? (include GST,  
materials and labour)

\$

#### PART 4 – ASSESSMENT MANAGER DETAILS

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15) Identify the assessment manager(s) who will be assessing this development application

Burdekin Shire Council

16) Has the local government agreed to apply a superseded planning scheme for this development application?

Yes – a copy of the decision notice is attached to this development application  
The local government is taken to have agreed to the superseded planning scheme request – relevant documents attached

No

#### PART 5 – REFERRAL DETAILS

17) Does this development application include any aspects that have any referral requirements?

Note: A development application will require referral if prescribed by the Planning Regulation 2017.

No, there are no referral requirements relevant to any development aspects identified in this development application – proceed to Part 6

Matters requiring referral to the Chief Executive of the Planning Act 2016:

Clearing native vegetation

Contaminated land (unexploded ordnance)

Environmentally relevant activities (ERA) (only if the ERA has not been devolved to a local government)

Fisheries – aquaculture

Fisheries – declared fish habitat area

Fisheries – marine plants

Fisheries – waterway barrier works

Hazardous chemical facilities

Heritage places – Queensland heritage place (on or near a Queensland heritage place)

Infrastructure-related referrals – designated premises

Infrastructure-related referrals – state transport infrastructure

Infrastructure-related referrals – State transport corridor and future State transport corridor

Infrastructure-related referrals – State-controlled transport tunnels and future state-controlled transport tunnels

Infrastructure-related referrals – near a state-controlled road intersection  
Koala habitat in SEQ region – interfering with koala habitat in koala habitat areas outside koala priority areas

Koala habitat in SEQ region – key resource areas

Ports – Brisbane core port land – near a State transport corridor or future State transport corridor

Ports – Brisbane core port land – environmentally relevant activity (ERA)

Ports – Brisbane core port land – tidal works or work in a coastal management district

Ports – Brisbane core port land – hazardous chemical facility

Ports – Brisbane core port land – taking or interfering with water

Ports – Brisbane core port land – referable dams

Ports – Brisbane core port land – fisheries

Ports – Land within Port of Brisbane's port limits (below high-water mark)

SEQ development area

SEQ regional landscape and rural production area or SEQ rural living area – tourist activity or sport and recreation activity

SEQ regional landscape and rural production area or SEQ rural living area – community activity

SEQ regional landscape and rural production area or SEQ rural living area – indoor recreation

SEQ regional landscape and rural production area or SEQ rural living area – urban activity

SEQ regional landscape and rural production area or SEQ rural living area – combined use

Tidal works or works in a coastal management district  
Reconfiguring a lot in a coastal management district or for a canal  
Erosion prone area in a coastal management district

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Urban design

Water-related development - taking or interfering with water

Water-related development - removing quarry material (from a watercourse or lake)

Water-related development - referable dams

Water-related development - levees (category 3 levees only)

Wetland protection area

Matters requiring referral to the local government:

Airport land

Environmentally relevant activities (ERA) (only if the ERA has been devolved to local government)

Heritage places - Local heritage places

Matters requiring referral to the Chief Executive of the distribution entity or transmission entity:

Infrastructure-related referrals - Electricity infrastructure

Matters requiring referral to:

- The Chief Executive of the holder of the licence, if not an individual
- The holder of the licence, if the holder of the licence is an individual

Infrastructure-related referrals - Oil and gas infrastructure

Matters requiring referral to the Brisbane City Council:

Ports - Brisbane core port land

Matters requiring referral to the Minister responsible for administering the Transport Infrastructure Act 1994:

Ports - Brisbane core port land (where inconsistent with the Brisbane port LUP for transport reasons)

Ports - Strategic port land

Matters requiring referral to the relevant port operator, if applicant is not port operator:

Ports - Land within Port of Brisbane's port limits (below high-water mark)

Matters requiring referral to the Chief Executive of the relevant port authority:

Ports - Land within limits of another port (below high-water mark)

Matters requiring referral to the Gold Coast Waterways Authority:

Tidal works or work in a coastal management district (in Gold Coast waters)

Matters requiring referral to the Queensland Fire and Emergency Service:

Tidal works or work in a coastal management district (involving a marina (more than six vessel berths))

18) Has any referral agency provided a referral response for this development application?

Yes - referral response(s) received and listed below are attached to this development application

No

Referral requirement

Referral agency

Date of referral response

Identify and describe any changes made to the proposed development application that was the subject of the referral response and this development application, or include details in a schedule to this development application (if applicable).

#### PART 6 - INFORMATION REQUEST

19) Information request under Part 3 of the DA Rules

I agree to receive an information request if determined necessary for this development application

I do not agree to accept an information request for this development application

Note: By not agreeing to accept an information request I, the applicant, acknowledge:





•

that this development application will be assessed and decided based on the information provided when making this development application and the assessment manager and any referral agencies relevant to the development application are not obligated under the DA Rules to accept any additional information provided by the applicant for the development application unless agreed to by the relevant parties

•

Part 3 of the DA Rules will still apply if the application is an application listed under section 11.3 of the DA Rules.  
Further advice about information requests is contained in the DA Forms Guide.

#### PART 7 – FURTHER DETAILS

20) Are there any associated development applications or current approvals? (e.g. a preliminary approval)

Yes – provide details below or include details in a schedule to this development application

No

List of approval/development application references

Reference number

Assessment manager

Date

Approval

Development application

Approval

Development application

21) Has the portable long service leave levy been paid? (only applicable to development applications involving building work or operational work)

Yes – a copy of the receipted QLeave form is attached to this development application

No – I, the applicant will provide evidence that the portable long service leave levy has been paid before the

assessment manager decides the development application. I acknowledge that the assessment manager may

give a development approval only if I provide evidence that the portable long service leave levy has been paid

Not applicable (e.g. building and construction work is less than \$150,000 excluding GST)

Amount paid

Date paid (dd/mm/yy)

QLeave levy number (A, B or E)

\$

22) Is this development application in response to a show cause notice or required as a result of an enforcement notice?

Yes – show cause or enforcement notice is attached

No

23) Further legislative requirements

Environmentally relevant activities

23.1) Is this development application also taken to be an application for an environmental authority for an

Environmentally Relevant Activity (ERA) under section 115 of the Environmental Protection Act 1994?

Yes – the required attachment (form ESR/2015/1791) for an application for an environmental authority accompanies this development application, and details are provided in the table below

No

Note: Application for an environmental authority can be found by searching “ESR/2015/1791” as a search term at [www.qld.gov.au](http://www.qld.gov.au). An ERA requires an environmental authority to operate. See [www.business.qld.gov.au](http://www.business.qld.gov.au) for further information.

Proposed ERA number:

7

Proposed ERA name:

Chemical manufacturing

Proposed ERA threshold:

More than 5,000 tonnes

Multiple ERAs are applicable to this development application and the details have been attached in a schedule to this development application.  
Hazardous chemical facilities

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23.2) Is this development application for a hazardous chemical facility?  
Yes - Form 69: Notification of a facility exceeding 10% of schedule 15 threshold  
is attached to this development  
application

No

Note: See [www.business.qld.gov.au](http://www.business.qld.gov.au) for further information about hazardous  
chemical notifications.

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#### Clearing native vegetation

23.3) Does this development application involve clearing native vegetation that requires written confirmation that the chief executive of the Vegetation Management Act 1999 is satisfied the clearing is for a relevant purpose under section 22A of the Vegetation Management Act 1999?

Yes - this development application includes written confirmation from the chief executive of the Vegetation

Management Act 1999 (s22A determination)

No

Note: 1. Where a development application for operational work or material change of use requires a s22A determination and this is not included, the development application is prohibited development.

2. See <https://www.qld.gov.au/environment/land/vegetation/applying-for-further-information-on-how-to-obtain-a-s22a-determination>.

#### Environmental offsets

23.4) Is this development application taken to be a prescribed activity that may have a significant residual impact on a prescribed environmental matter under the Environmental Offsets Act 2014?

Yes - I acknowledge that an environmental offset must be provided for any prescribed activity assessed as

having a significant residual impact on a prescribed environmental matter

No

Note: The environmental offset section of the Queensland Government's website can be accessed at [www.qld.gov.au](http://www.qld.gov.au) for further information on environmental offsets.

#### Koala habitat in SEQ Region

23.5) Does this development application involve a material change of use, reconfiguring a lot or operational work which is assessable development under Schedule 10, Part 10 of the Planning Regulation 2017?

Yes - the development application involves premises in the koala habitat area in the koala priority area

Yes - the development application involves premises in the koala habitat area outside the koala priority area

No

Note: If a koala habitat area determination has been obtained for this premises and is current over the land, it should be provided as part of this development application. See koala habitat area guidance materials at [www.des.qld.gov.au](http://www.des.qld.gov.au) for further information.

#### Water resources

23.6) Does this development application involve taking or interfering with underground water through an artesian or subartesian bore, taking or interfering with water in a watercourse, lake or spring, or taking overland flow water under the Water Act 2000?

Yes - the relevant template is completed and attached to this development application and I acknowledge that a relevant authorisation or licence under the Water Act 2000 may be required prior to commencing development

No

Note: Contact the Department of Natural Resources, Mines and Energy at [www.dnrme.qld.gov.au](http://www.dnrme.qld.gov.au) for further information.

DA templates are available from <https://planning.dsdmip.qld.gov.au/>. If the development application involves:

- 
- 
- 

Taking or interfering with underground water through an artesian or subartesian bore: complete DA Form 1 Template 1

Taking or interfering with water in a watercourse, lake or spring: complete DA Form1 Template 2  
Taking overland flow water: complete DA Form 1 Template 3.

#### Waterway barrier works

23.7) Does this application involve waterway barrier works?

Yes – the relevant template is completed and attached to this development application

No

DA templates are available from <https://planning.dsdmip.qld.gov.au/>. For a development application involving waterway barrier works, complete DA Form 1 Template 4.

#### Marine activities

23.8) Does this development application involve aquaculture, works within a declared fish habitat area or removal, disturbance or destruction of marine plants?

Yes – an associated resource allocation authority is attached to this development application, if required under the Fisheries Act 1994

No

Note: See guidance materials at [www.daf.qld.gov.au](http://www.daf.qld.gov.au) for further information.

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Quarry materials from a watercourse or lake

23.9) Does this development application involve the removal of quarry materials from a watercourse or lake under the Water Act 2000?

Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development

No

Note: Contact the Department of Natural Resources, Mines and Energy at [www.dnrme.qld.gov.au](http://www.dnrme.qld.gov.au) and [www.business.qld.gov.au](http://www.business.qld.gov.au) for further information.

Quarry materials from land under tidal waters

23.10) Does this development application involve the removal of quarry materials from land under tidal water under the Coastal Protection and Management Act 1995?

Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development

No

Note: Contact the Department of Environment and Science at [www.des.qld.gov.au](http://www.des.qld.gov.au) for further information.

Referable dams

23.11) Does this development application involve a referable dam required to be failure impact assessed under section 343 of the Water Supply (Safety and Reliability) Act 2008 (the Water Supply Act)?

Yes – the 'Notice Accepting a Failure Impact Assessment' from the chief executive administering the Water Supply Act is attached to this development application

No

Note: See guidance materials at [www.dnrme.qld.gov.au](http://www.dnrme.qld.gov.au) for further information.

Tidal work or development within a coastal management district

23.12) Does this development application involve tidal work or development in a coastal management district?

Yes – the following is included with this development application:  
Evidence the proposal meets the code for assessable development that is prescribed tidal work (only required if application involves prescribed tidal work)

A certificate of title

No

Note: See guidance materials at [www.des.qld.gov.au](http://www.des.qld.gov.au) for further information.

Queensland and local heritage places

23.13) Does this development application propose development on or adjoining a place entered in the Queensland heritage register or on a place entered in a local government's Local Heritage Register?

Yes – details of the heritage place are provided in the table below

No

Note: See guidance materials at [www.des.qld.gov.au](http://www.des.qld.gov.au) for information requirements regarding development of Queensland heritage places.

Name of the heritage place:

Place ID:

Brothels

23.14) Does this development application involve a material change of use for a brothel?

Yes – this development application demonstrates how the proposal meets the code for a development

application for a brothel under Schedule 3 of the Prostitution Regulation 2014

No

Decision under section 62 of the Transport Infrastructure Act 1994

23.15) Does this development application involve new or changed access to a state-controlled road?

Yes - this application will be taken to be an application for a decision under section 62 of the Transport

Infrastructure Act 1994 (subject to the conditions in section 75 of the Transport Infrastructure Act 1994 being satisfied)

No

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Walkable neighbourhoods assessment benchmarks under Schedule 12A of the Planning Regulation

23.16) Does this development application involve reconfiguring a lot into 2 or more lots in certain residential zones (except rural residential zones), where at least one road is created or extended?

Yes - Schedule 12A is applicable to the development application and the assessment benchmarks contained in schedule 12A have been considered

No

Note: See guidance materials at [www.planning.dsdmip.qld.gov.au](http://www.planning.dsdmip.qld.gov.au) for further information.

#### PART 8 - CHECKLIST AND APPLICANT DECLARATION

##### 24) Development application checklist

I have identified the assessment manager in question 15 and all relevant referral requirement(s) in question 17

Yes

Note: See the Planning Regulation 2017 for referral requirements

If building work is associated with the proposed development, Parts 4 to 6 of DA Form 2 -

Building work details have been completed and attached to this development application

Yes

Not applicable

Supporting information addressing any applicable assessment benchmarks is with the development application

Note: This is a mandatory requirement and includes any relevant templates under question 23, a planning report and any technical reports required by the relevant categorising instruments (e.g. local government planning schemes, State Planning Policy, State Development Assessment Provisions). For further information, see DA Forms Guide: Planning Report Template.

Yes

Relevant plans of the development are attached to this development application

Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms Guide: Relevant plans.

Yes

The portable long service leave levy for QLeave has been paid, or will be paid before a development permit is issued (see 21)

Yes

Not applicable

##### 25) Applicant declaration

By making this development application, I declare that all information in this development application is true and correct

Where an email address is provided in Part 1 of this form, I consent to receive future electronic communications

from the assessment manager and any referral agency for the development application where written information is required or permitted pursuant to sections 11 and 12 of the Electronic Transactions Act 2001

Note: It is unlawful to intentionally provide false or misleading information.

Privacy – Personal information collected in this form will be used by the assessment manager and/or chosen assessment manager, any relevant referral agency and/or building certifier (including any professional advisers which may be engaged by those entities) while processing, assessing and deciding the development application.

All information relating to this development application may be available for inspection and purchase, and/or

published on the assessment manager's and/or referral agency's website.

Personal information will not be disclosed for a purpose unrelated to the Planning Act 2016, Planning

Regulation 2017 and the DA Rules except where:

- such disclosure is in accordance with the provisions about public access to documents contained in the Planning Act 2016 and the Planning Regulation 2017, and the access rules made under the Planning Act 2016 and

Planning Regulation 2017; or

- required by other legislation (including the Right to Information Act 2009); or

- otherwise required by law.

This information may be stored in relevant databases. The information collected will be retained as required by the

Public Records Act 2002.

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PART 9 – FOR COMPLETION OF THE ASSESSMENT MANAGER – FOR OFFICE  
USE ONLY

Date received:

Reference number(s):

Notification of engagement of alternative assessment manager

Prescribed assessment manager

Name of chosen assessment manager

Date chosen assessment manager engaged

Contact number of chosen assessment manager

Relevant licence number(s) of chosen assessment  
manager

QLeave notification and payment

Note: For completion by assessment manager if applicable

Description of the work

QLeave project number

Amount paid (\$)

Date paid (dd/mm/yy)

Date receipted form sighted by assessment manager

Name of officer who sighted the form

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6.2.5.2 Industry zone code  
Overall Outcome

Response

(2) The overall outcomes sought for the Industry Zone Code are the following:

(a) provide for a range of activities to facilitate sustainable economic development in the shire, including alternative forms of industrial development, particularly those industries which value add to the shire's natural resources.

Complies with Overall Outcomes

The proposal is seeking a retrospective development application for an existing facility used for the blending and storing of both solid granular fertiliser and liquid fertiliser products that supports the surrounding agricultural activities. Accordingly, the use of the site incorporates a range of activities that facilitate economic development in the shire and are industrial activities that add value to the shire's natural resources (agriculture).

(b) establish and operate extractive industrial uses preferably within the Extractive Industry sub area;

Not applicable

The proposed development does not involve an extractive industrial use.

(c) protect any adjoining residential use from the effects of industrial development

Complies with Overall Outcomes

(d) protect preferred industrial areas from inappropriate non-industrial development; and

Complies with Overall Outcomes

The proposed development is for a retrospective development application to an existing facility used for the blending and storing of both solid granular fertiliser and liquid fertiliser products that is an existing industrial use in an established industrial area.

(e) maintain the quality of the surrounding environment by reaching acceptable environmental management standards for both the construction and operation phases of the use in respect of:

Complies with Overall Outcomes

Please refer to the Site Based Management Plan (Appendix E) prepared by Stantec for further details on the air and noise impacts associated with the site.

Please refer to the Site Based Management Plan (Appendix E) prepared by Stantec for further details on the air and noise impacts associated with the site. It is noted that the site has an existing facility used for the blending and storing of both solid granular fertiliser and liquid fertiliser products.

## Overall Outcome

- (i)
- (ii)
- (iii)

## Response

management of soil erosion and sedimentation control and possible contaminated land;  
management of environmental and operational risks and hazards; and  
the protection of air quality, water quality and the acoustic environment.

## Specific outcomes

### Acceptable solutions

## Response

01

The site is of a size suitable for the intended use.

S1

The site has a minimum site area and frontage of 1000m<sup>2</sup> and 20m respectively except where for the purpose of a noxious or offensive industry or a general industry where a minimum site area of 4000m<sup>2</sup> and a frontage of 20m is provided.

### Complies with Acceptable Solutions

The site has an area of 12,140m<sup>2</sup> and site frontage of 216m.

02

Development and the impacts of development can be accommodated within the site, including:

- (a) industrial processes and activities;
- (b) vehicle parking and access areas; and
- (c) appropriate buffer and landscape areas.

S2

Development has the following:

- (a) a maximum site coverage of 75%;
- (b) a maximum setback of 10m from the road frontage;
- (c) road frontage to the allotment is at least 20m with a carriageway of at least 12m, sealed; and
- (d) vehicle parking and access and manoeuvring areas are provided in

### Complies with Acceptable Solutions

- The existing fertiliser facility has a site coverage of 2,823m<sup>2</sup> and does not exceed the maximum site coverage of 75%.
- Existing Warehouse 3 is the closest building to Home Hill Road, as such has a setback of 7m from the road meeting the maximum setback of 10m.

## Assessable Development Site Suitability



## Specific outcomes

Acceptable solutions  
accordance with Schedule 2 – Vehicle  
Parking Rates & Standards.

### Response

-

The Traffic Impact Assessment  
(Appendix F) prepared by PSA  
Consulting in accordance with Schedule  
2 – Vehicle Parking Rates and Standards  
identifies that the site consists of 18  
formal parking spaces and several  
unmarked spaces. Considering there are  
no parking issues experienced currently  
on site, the onsite parking provision is  
sufficient.

### Lighting Nuisance

03

The operation of the activity does not cause  
undue disturbance to any person or activity  
because of the light it emits.

S3

The vertical illumination resulting from direct,  
reflected or incidental light coming from a site  
does not exceed 8 lux when measured at any  
point 1.5m outside of the boundary of the  
property at any level from ground level up.

### Complies with Acceptable Solutions

The site contains an existing facility used for the  
blending and storing of both solid granular  
fertiliser and liquid fertiliser products. The existing  
facility does not result in direct reflected or  
incidental light coming from the site and does not  
exceed 8 lux. Please refer to the Site Based  
Management Plan (Appendix E) prepared by  
Stantec for further details on light emissions.

S4.1

Window and skylight placement and internal  
layout favours prevailing breezes and cross  
ventilation and allows natural light access into the  
building.

### Complies with Specific Outcomes

The site contains an existing facility used for the  
blending and storing of both solid granular  
fertiliser and liquid fertiliser products The existing  
buildings represents an appropriate alternative

### Energy Efficiency

04

Buildings are designed and sited to:  
(a) maximise indoor climatic comfort;



## Specific outcomes

### Acceptable solutions

- (b) minimise energy requirements for cooling during the summer months by minimising the need for air-conditioning;
- (c) have adequate access to breezes and daylight in habitable rooms;
- (d) incorporate lighting to meet usage requirements while minimising energy usage; and
- (e) minimise the climatic environmental impact on adjoining properties.

### Response

outcome for the site and complies with S4.1 for the reasons set out below:

- The existing fertiliser facility is well ventilated and insulated to ensure climatic comfort is achieved. It is noted that the facilities include airconditioned and heated areas for optimum climatic comfort.
- The site has existing solar panels to assist in energy consumption.
- The site has access to adequate ventilation and is well lit.
- The existing fertiliser facilities are subject to the best climatic environmental designs.

### S4.2

Buildings do not cast a shadow over more than 30% of an adjoining residential lot between the hours of 9am and 3pm on 22 June.

### Complies with Acceptable Solution

The existing facility is located approximately 60m from the nearest residential lot and does not result in any overshadowing to these residential lots.

### S5

Premises incorporate landscaping as follows:

- (a) landscaped area along the entire frontage of the site, with a minimum width of 3m; and

### Complies with Specific Outcome

The site contains an existing facility used for the blending and storing of both solid granular fertiliser and liquid fertiliser products that has established landscaping features. It is noted that

### Landscaping

#### 05

Landscaping is provided to:

- (a) soften the visual impact of the land use and/or associated building(s) from the street and adjoining land;

#### Specific outcomes

(b) reduce radiant heat and glare to adjoining properties.

#### Acceptable solutions

(b) species that mature to at least 10m are included where there are buildings and structures of 2 or more storeys in height.

#### Response

the frontage of the site is used for drainage purposes. The existing landscaping represents an appropriate alternative outcome for the site and complies with 05 for the reasons set out below:

The site has existing landscaped features at the front of the site including small hedges and a street tree that creates a positive interface to the site.

The site consists of large industrial sheds made of non-reflective material.

Conditions for increased landscaping is at Councils discretion.

#### Infrastructure Provisions

##### 06

Premises have an appropriate level of infrastructure for the efficient functioning of the use while not impacting on adjoining land uses or the environment.

##### S6.1

Premises are connected to a reticulated water supply or a reliable supply of potable water.

Complies with Acceptable Solutions.

The premises is connected to the existing water mains.

##### S6.2

Premises are either:

(a) connected to reticulated sewerage system where one exists in the locality of the site; or

(b) provided with an on-site sewerage treatment and disposal system.

Complies with Acceptable Solutions

The premises is connected to Council's reticulated sewerage system.

##### S6.3

All stormwater drainage is conveyed across the site to a legal point of discharge.

Complies with Acceptable Solutions

Please refer to the Stormwater Management Plan (Appendix F).

Specific outcomes

Acceptable solutions

Response

S6.4

The premises has frontage to a sealed road with kerbing and channelling.

Complies with Acceptable Solutions

The site has frontage to Home Hill Road that is a sealed road that contains kerb and channelling.

S7

Activities are provided with:

- (a) adequate physical measures for removing pollutants from emissions prior to discharge to the atmosphere;
- (b) adequate physical measures for reducing the temperature gradient between emissions and the atmosphere prior to discharge; and
- (c) effective operational systems, including monitoring systems for industry, which maintain emissions within ANZECC guideline standards.

Complies with Acceptable -Outcomes

The site contains an existing facility used for the blending and storing of both solid granular fertiliser and liquid fertiliser products. Please refer to the Site Based Management Plan (Appendix D) prepared by Stantec for further details on air quality.

S8.1

Premises:

- (a) with activities which involve the handling of water-borne pollutants are provided with bunded, impervious surfaces linked to an integrated drainage and treatment system;
- (b) with activities which involve the storage of waste water are provided with properly

Complies with Acceptable Solutions

The site contains an existing facility used for the blending and storing of both solid granular fertiliser and liquid fertiliser products. Please refer to the Site Based Management Plan (Appendix D) and Stormwater Management Plan (Appendix F) for further detail on the water quality and treatment associated with the site.

Air Quality

07

All activities maintain the air quality and consequently, public health standards, including:

- (a) minimising emission and odour levels; and
- (b) preventing the generation of dust.

Water Quality

08

All activities maintain the water quality of Burdekin Shire's groundwater, waterways and surface water storages.

6

Specific outcomes

Acceptable solutions

Response

designed and constructed, secure, sealed storage facilities; and  
(c) contain all liquid wastes and discharge them to a sewer or removed from the site for treatment and disposal to an approved facility.

O9

Development has adequate provision for managing stormwater, to ensure that the environmental values of the surface and ground water resources are not diminished.

S8.2

Development is set back:

- 25 metres for stream orders 1 or 2;
- 50 metres for stream orders 3 or 4;
- 100 metres for stream orders 5 or greater.

With stream orders determined by 1:100,000 DNRM topographic mapping (or 1:250,000 where 1:100,000 is unavailable).

Complies with Acceptable Solutions

The site contains an existing facility used for the blending and storing of both solid granular fertiliser and liquid fertiliser products please refer to the Site Based Management Plan (Appendix D) prepared by Stantec for further details.

S9

Premises have:

- (a) Adequate physical measures for intercepting and treating surface water drainage and spilled substances prior to their release to the waterways.
- (b) Bunding of sites or areas within sites or integrated drainage systems which include waste water treatment measures, where chemicals, fuels lubricants and other soluble pollutants are being handled on site; and

Complies with Acceptable Solutions

Please refer to the Site Based Management Plan (Appendix D) and Stormwater Management Plan (Appendix G) for further details on stormwater distribution.

Specific outcomes

Acceptable solutions

Response

(c) Banks and channels constructed to divert stormwater runoff.

O10

Development prevents erosion occurring on the site or to allow sediments to leave the site.

S10

Development incorporates soil erosion and sedimentation management by:

- (a) avoiding extensive land clearing and earthworks of land with a slope steeper than 15% (1:5)
- (b) minimising the extent of disturbance on slopes steeper than 10% (1:10);
- (c) managing and controlling surface drainage by using natural flow paths wherever possible; and
- (d) incorporating sediment traps to prevent the movement of sediment off site.

Complies with Acceptable Solutions

The site contains an existing facility used for the blending and storing of both solid granular fertiliser and liquid fertiliser products. The proposed development is for a retrospective development application and includes the following:

- No land clearing and earthworks are proposed.
- The site does not contain slopes steeper than 10%
- There will be no impediment to flow paths or loss of flood storage in areas shown to experience flooding. It is anticipated that the proposed sump will slightly increase storage. Therefore, as the development will not impact the on-site storage of flood water or existing flow paths, there will be no impact to the flood characteristics outside the development extents and no impacts upstream or downstream.

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ESTATE AND LAND  
Estate in Fee Simple  
LOT 1

REGISTERED PLAN 718903  
Local Government: BURDEKIN

REGISTERED OWNER  
Dealing No: 720539524

21/01/2021

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NUTRIEN AYR  
Site Based Management Plan

24 May 2023

Prepared for:  
Nutrien Ag Solutions  
Prepared by:  
Mark Farrey  
Project Number:  
304500701

Nutrien Ayr

Revision

Description

Author

Date

Quality  
Check

01

Project Number: 304500701

Date

Independent  
Review

Date

Nutrien Ayr

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Prepared by:

Signature

Printed Name

Reviewed by:

Signature

Printed Name

Approved by:

Signature

Printed Name

Project Number: 304500701

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Nutrien Ayr  
1 Introduction

1

Introduction

Nutrien Ag Solutions Limited (Nutrien) blend and store both solid granular fertiliser and liquid fertiliser products at the Ayr site, located within Lot 1 on Plan (RP) 718903 at 39-57 Home Hill Road, Ayr, QLD (the site). Figure 1-1 presents the site location. The solid granular fertiliser products blended and stored on site include:

- Mono-ammonium phosphate (non-dangerous good, non-hazardous substance).

- Dibasic ammonium phosphate (non-dangerous good, non-hazardous substance).

- Urea (non-dangerous good, non-hazardous substance).

- Trace element - blends of metals, salts other ingredients used to alleviate micronutrient deficiencies in soil (non-dangerous goods, but classified as a hazardous substance).

The liquid fertiliser products blended and stored on site consist of blends of nitrogen, phosphorus and potassium (NPK) containing compounds with a small amount of zinc included. The quantities of fertiliser blended on site meet the threshold for an Environmentally Relevant Activity (ERA) as per Schedule 2 of the Environmental Protection Regulation 2019. Particularly, ERA 7 sub item 4b, for manufacturing >5000 tonnes of fertiliser. As a result, an application for an Environmental Authority (EA) must be obtained from the Queensland Government (pending Appendix A).

Secondary chemicals are stored and sold on site. These consist of various pesticides/herbicides etc which are stored in small containers which are sold "off the shelf" to customers. Many of these chemicals are classed as both dangerous goods and hazardous chemicals, Some of these chemicals

are listed in Schedule 15 of the Work Health and Safety Regulation, and the collective volumes of these listed chemicals exceeds the 10% threshold, therefore the site is classified as a Hazardous

Chemical Facility under Schedule 10 Part 7 of the Planning Regulation 2017. Please see Appendix B for the Form 69 - notification of a facility exceeding 10% of schedule 15 threshold.

Given that a significant quantity of fertiliser and secondary chemicals are being stored and/or blended on site, it is critical to ensure that proper management procedures are in place to prevent environmental impacts. The instrument by which this can be achieved is this Site Based Management Plan (SBMP).

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Nutrien Ayr

Figure 1: Site Location  
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Nutrien Ayr  
Dangerous Goods Manifest Summary

1.1

Objectives

The objectives of this SBMP are to:

- 

Avoid minimise and mitigate any impacts to the environment resulting from site operations or unforeseen emergency situations.

- 

Ensure the operations comply with EA conditions for the site (EA pending).

- 

Ensure that all parties (management, staff, contractors) are aware of their respective responsibilities.

1.2

Scope

The SBMP covers the daily operations of the site, providing a structured framework to:

- 

Identify and address all environmental objectives and standards for the site;

- 

Identify and minimise the risk of contamination at the site which may occur during the site's normal operations;

- 

Ensure proper storage and containment management measures are documented;

- 

Establish contingency and/or response plans for potential extraordinary factors which may occur as part of the site's operations;

- 

Ensure a system is in place to have all site personnel are trained and aware of the sites environmental risks, and ensure site personnel are competent in the application of contingency and response plans detailed in this SBMP;

- 

Implementation of environmental performance monitoring to ensure effectiveness of environmental measures and contingency plans, as required;

- 

Implement reliable and accurate record keeping systems to assist in the communication of internal and external environmental performance; and

- 

Ensure that periodic review of the SBMP is undertaken to measure and guide continual improvement.

This SBMP is intended to be a preliminary document, and will be updated to reflect changes in site operations as they arrive or as an EA prescribes.

### 1.3

#### Associated Documents

The following documents are relevant to the Nutrien Ayr operations:

- 

ERA Environmental Authority (Appendix A once obtained)

- 

Form 69 – Notification of a facility exceeding 10% of schedule 15 threshold (Appendix B)

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Dangerous Goods Manifest Summary

- 

Hazardous Chemicals Site Plan (Appendix C)

- 

Hazardous Chemicals Risk Assessment (Appendix D)

- 

Nutrien Incident, Hazard & Near Miss Reporting Procedure (Appendix E)

- 

Nutrien Investigation & Corrective Actions Procedure (Appendix F)

- 

Nutrien Weekly Inspection Checklist (Appendix G)

- 

Nutrien Hygiene Dust Prevention Checklist (Appendix H)

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Nutrien Ayr  
Dangerous Goods Manifest Summary

2

Site Description

2.1

Cadastral Details

The site is located within Lot 1 on RP 718903, 39 - 57 Home Hill Road, Ayr, QLD, 4807 (refer to Figure 1 for site locality plan).  
Table 1: Cadastral Description  
Site Attributes

Details

Lot Plan

Lot 1 on Registered Plan (RP) 718903

Area

1.214 ha

Locality

Ayr

Local Government

Burdekin Shire

Tenure

Freehold

2.2

2.2.1

Operations/Activities

SOLID FERTILISER BLENDING

The site receives and stores bulk granular fertiliser. Some of the fertiliser products are blended

together to produce mixed products. The blending process is as follows:

1. Individual solid fertiliser pellets products are received by truck delivery at the unloading area

(orange location in Figure 2).

2. Trucks are unloaded using a multiveyor to transfer the solid fertiliser pellets into storage

bunkers within warehouse 3 (yellow shed in Figure 2). (Photos 2 and 3)

3. The multiveyor transfers the fertiliser pellets from storage bunkers to weigher and blender.

4. A coarse screen over the final multiveyor to remove lumps of solid fertiliser pellets. The

residue may be collected and sold separately.

5. The fertiliser pellets are mixed in the blender. The blender has a vent for the minor traces of

dust discharged in the process.

6. Blended pellets are transferred to the bagging unit by the multiveyor (purple area in Figure 2)

(Photo 4) and then packed into 1 tonne bags. A small amount is sold in bulk.  
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Dangerous Goods Manifest Summary

7. Blended pellets in 1 tonne bags are stored on concrete slab for same day collection.

In order to prevent fertiliser runoff into watercourses the above operations are to take part on a sealed concrete surface which drains into a site collection system, including a sump and storage tanks. The current drain and sump system can be seen in Figure 2 however upgrades are proposed to this system and are described in Section 2.2.5 and Figure 3.

#### 2.2.2

##### LIQUID FERTILISER BLENDING

The site receives and stores liquid fertiliser in silos within a bunded area.

The blending of the fertilisers all takes place within the bunded area and consists of the following process:

1. Liquid fertiliser products are received via trucks and pumped into their respective silo's.
2. As requests for blends arise the liquid fertiliser from each silo is pumped into a mixing tank.

Sometimes trace element granular fertiliser is also added into the mix.

3. The blended product is then pumped into a bulk transport tank or intermediate bulk containers (IBC's) for delivery to customers.

#### 2.2.3

##### WASTE ACTIVITIES

The following types of waste are generated on site:

- 

Sump and washdown water (discussed in Section 2.2.5);

- 

Solid Granular fertiliser sweepings.

- 

Cardboard;

- 

Waste Oil stored on site; and

- 

General waste unrelated to site operations.

Solid granular fertiliser sweepings are taken by a local farmer on a regular basis. Cardboard is

emptied four (4) times a year in a dedicated cardboard recycling skip bin. Two

(2) wheelie bins are

located on site for general waste which are emptied on a regular basis, taken to a landfill facility near the site.

#### 2.2.4

## SECONDARY CHEMICALS

Secondary chemicals are stored on site. These consist of various Dangerous Goods including pesticides/herbicides etc which are stored in small containers which are sold "off the shelf" to customers. Some of these chemicals are listed under Schedule 15 of the Work Health and Safety Regulation 2011, and the collective volumes of these listed chemicals exceeds the 10% threshold. Accordingly, the site is classified as a Hazardous Chemical Facility under Schedule 10 Part 7 of the Planning Regulation 2017 (refer to Appendix B for details regarding the subject chemicals and volumes).

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Dangerous Goods Manifest Summary

The chemicals are stored in the clearly defined chemical storage locations (refer to Figure 2-1):

1. Building PS1 (which will be replaced by PS9) stores Dangerous Goods including Flammable liquids. This building is banded with the capacity to hold 7000 L. The band drains to underground sumps which have capacity to store another 7000 L.
2. Building PS2 stores Dangerous Goods. This portion of the admin shed has its own banding system which has the capacity to hold 25,000 L.
3. Building PS7 consists of a 40-foot-long container which stores Dangerous Goods. The container is banded with capacity to hold 4,070 L.
4. Building PS8 stores Dangerous Goods. This portion of the building has its own banding system which has the capacity to hold 4,500 L.
5. Building PS9 will store Dangerous Goods including Flammable liquids. The building will have its own banding system.

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Dangerous Goods Manifest Summary

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Dangerous Goods Manifest Summary

Figure 2: Site Layout  
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2.2.5

SOLID GRANULAR FERTILISER HANDLING AREA STORMWATER CAPTURE  
SYSTEM

Currently the solid granular fertiliser storage shed and surrounding catchment drain towards a small 3000 L subsurface sump (as per Figure 3). Upgrades are proposed to improve the drainage and capture system in accordance with the concept design in Figure 3. An additional spoon drain will be constructed which will service the fertiliser bagging/unloading area and the receiving sump will be significantly expanded in order to capture a "first flush (15mm)" from the catchment (catchment outlined in broken red line). The sump will be 6m x 12m x 1m (deep) and capable of capturing 72m<sup>3</sup> of water before it overflows. The sump will be regularly pumped out into storage tanks, from which a local farmer will collect the water and use it as a nutrient supplement on their field. Refer to Section 3.3 regarding End of Waste Code fertiliser wash water and slurry registration.

Figure 3: Fertiliser Handling Area Stormwater Capture System

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Dangerous Goods Manifest Summary

2.3

Land Use, Zoning and Tenure

The zoning, land use and land tenure of the site is detailed in Table 2: Zoning, Land Use and Land Tenure. Residential properties are located to the east of the site, commercial properties located immediately south and rural properties are located southwest, further south and west of the site.

Table 2: Zoning, Land Use and Land Tenure  
Property Description

Zoning

Lawful Land Use

Land Tenure

Lot 1 on RP 718903

Industry Zone

Bulk Store / General  
Industry

Freehold

2.4

Climate

The climate zone, as defined by the Bureau of Meteorology (BOM), for the site locality is a typical tropical climate characterised by hot humid summers. Climate data collected from the Ayr DPI Research STN weather station (033002) from 1951 to 2022 provided some indicative weather patterns. The Ayr DPI Research STN weather station (033002) is approximately 2.9km southwest of the site. The mean maximum temperatures ranged from 32.1°C in December to 25.3°C in July. The mean minimum temperatures from 1951 to 2022 ranged from 24.1°C in December to 12.4°C in June (BOM, 2022) (refer to Figure 4). Average annual rainfall from the weather station 033002 is 937mm, with the wet season extending over the summer months. The highest mean monthly rainfall recorded is in February (231.2mm) and the lowest mean monthly rainfall recorded is in September (9.6mm) (BOM, 2022) (refer to Figure 5). Wind conditions in January are predominantly north easterly with predominant wind speeds of  $\geq 10$  to  $< 20$ km/hr in the morning and are south westerly with predominant wind speeds of  $\geq 10$  to  $< 20$ km/hr in the afternoon (refer to Figure 6). Winter winds (July) are predominantly north to north westerly with predominant speeds of  $\geq 0$  to  $< 20$ km/hr in the morning and range from westerly to south westerly with predominant speeds of  $\geq 0$  to  $< 10$ km/hr in the afternoon (refer to Figure 6).

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Figure 4: Mean Maximum and Minimum Temperature – Ayr DPI Research STN Weather  
Station  
(033002)

Figure 5: Mean Rainfall

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Dangerous Goods Manifest Summary

Figure 6: Wind Roses – Summer (January 9am and 3pm) and Winter (July 9am and 3pm)  
Averages at the Ayr DPI Research STN Weather Station

2.5  
2.5.1

Topography, Geology and Soils  
TOPOGRAPHY

The site is relatively flat in topography and low lying ranging from 12m Australian Height Datum (m AHD) to 13m AHD (Figure 7). Given that site is <20m AHD, it is mapped within the Burdekin Shire Council Acid Sulfate Soil Overlay, however as per Section 2.5.3 the likelihood of acid sulfate soils occurring is low.

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The majority of the site is concrete hardstand and buildings, with the entrance at the south-western corner, southern boundary and the northern portions of the site having exposed surfaces of sand / clay fill material.

2.5.2

GEOLOGY

A review of QLD Globe's detailed 1:100k Geological Map indicated the site's regional surface geology is quaternary alluvium (Qa-QLD) as detailed in Table 3.

Table 3: Surface Geology  
Surface

Dominant Rock

Rock Type

Lithological  
Summary

Age

Qa-QLD

Alluvium

Stratified unit  
(including  
volcanic and  
metamorphic)

Clay, silt, sand  
and gravel; floodplain alluvium

Quaternary

2.5.3

SOILS

A review of the Australian Soil Resource Information System (ASRIS) revealed that the Australian Soil Classification for the site is Tenosols to the south and Dermosols to the north of the site. These are soil types with minimal texture contrast and are not highly prone to issues such as sodicity/dispersion. ASRIS also indicated that there is extremely low probability of acid sulfate soils.

2.6

Surrounding Surface and Groundwater

Local topography and drainage are presented below in Figure 7. The site is relatively flat in topography and low lying and approximately 10 m AHD. The site drains gently in a west to east direction towards the Bruce Highway. Runoff from the site exits into the table

drain on the western side of the Bruce Highway. From here the table drain flows southwards into what appears to be drainage line approximately 90 m south of the site. The drainage line would rarely experience flow and appears to eventually terminate into a pond. It is assumed that following substantial rainfall events/flooding the pond would overtop and then eventually flow into Plantation Creek.

A review of QLD Globe's registered water bores layer indicated that there are seventeen (17) registered groundwater bores within a 500 m radius from the site. The closest registered groundwater bore (RN 175936) is located approximately 90m southwest of the site, the standing water level at this bore is 10.10m below ground level (bgl) and indicates that the water quality is potable. The depth of the groundwater well is 30m bgl.

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Dangerous Goods Manifest Summary

Figure 7: Topography and Drainage  
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## 2.6.1

### ENVIRONMENTAL VALUES AND WATER QUALITY OBJECTIVES

The Site is located within the Haughton drainage basin, the Barratta Creek drainage sub-basin and the Lower Burdekin Catchment (QLD Globe).

As described above site runoff eventually flows into a drain approximately 90m south of the site. The drain terminates in a pond. It is assumed when the pond overflows it would make its way towards

Plantation Creek which forms part of the Burdekin River within the Haughton drainage basin.

There are currently no specific water quality objectives for the Haughton drainage basin as they are currently under development, however Draft environmental values and water quality guidelines:

Burdekin Basin fresh and estuarine waters (DES, 2017) contain draft environmental values and water quality objectives for this catchment. According to Figure 9 in the DES 2017 Draft guidelines, the site is located within lowland fresh waters. The Environmental Values for the site are as per the below:

- 

Aquatic ecosystems.

- 

Irrigation.

- 

Farm supply.

- 

Stock water.

- 

Aquaculture.

- 

Human consumption.

- 

Primary recreation.

- 

Secondary recreation.

- 

Visual recreation.

-



Industrial use.

- 

Cultural and spiritual values.

The Water Quality guidelines (80th percentile assuming a moderately disturbed system) suggested to protect the above Draft Environmental Values of the Lower Burdekin River are listed as follows:

- 

Ammonium (N) <20 µg/L.

- 

Oxidised nitrogen <55 µg/L.

- 

Total nitrogen: <650 µg/L.

- 

Filterable reactive phosphorus <20 µg/L.

- 

Total phosphorus <60 µg/L.

- 

Chlorophyll a: <4 µg/L.

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- 

Dissolved oxygen: 85 – 110% saturation.

- 

Turbidity: <100 NTU.

- 

Suspended solids: <40 mg/L.

- 

pH 6.5 – 8.5.

- 

Conductivity: <300 µS/cm.

- 

Sulfate: 37 mg/L as SO<sub>4</sub><sup>2-</sup>.

Given that the lower Burdekin catchment is a major contributor of water and contaminants to the Great Barrier Reef (GBR) , it is critical that the fertilisers (and their associated nutrients) on site are managed carefully.

2.7

#### Surrounding Receivers for Noise, Dust and Air Emissions

The sensitive receptors located adjacent of near the site are as follows:

- 

The several isolated onsite trees and the potential fauna they may use these trees for habitat or foraging.

- 

The onsite workers.

- 

The low-density residential dwellings located approximately 42m east of the site, with the closest residential dwelling approximately 58m from where the ERA 7 activities would occur.

- 

The rural properties to the north/west, approximately 24m, with the closest dwelling approximately 305m from the site.

- 

The rural properties to the southeast, approximately 75m, with the closest

dwelling  
approximately 115m from the site.

- 

The residential village located approximately 80m north of the site.

- 

The unmapped watercourse / wetland line approximately 95m south of the site.

The closest dwellings are shown in Figure 8.

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Figure 8: Proximity to Sensitive Receptors

2.8

#### Flora and Fauna

A review of the QLD Globe layers, undertaken on 10 May 2022, identifies

- 

The site is mapped as Category X (non-remnant) vegetation under the Vegetation Management Act 1999. During a site visit a few isolated trees were identified, with the remainder of the site predominantly hardstand or cleared.

- 

The site is mapped within the following biosecurity zones:

- 

0

State grape phylloxera risk zone

0

Sugar cane biosecurity zone 2

0

Cattle tick infested area.

The site is not mapped as containing:

0

Essential habitats

0

Protected plants

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2.9

o

Wetlands of high or general ecological significance

o

Waterways for waterway barrier works

o

Fish Habitats

Natural Hazards

A review of Shire of Burdekin Planning Scheme maps indicates the following:

- 

The site is mapped within a Low Bushfire Hazard area as per the Natural Features or Resources Overlays Burdekin Shire Natural Features Map 9.

Searches on Queensland Globe reveal the following:

- 

The site is not mapped within a flood hazard area as per the Qld Globe overlay maps or the Burdekin Shire Council Flood Hazard Overlay Map.

- 

Of note is that the general surrounding area is subject to flooding, with Plantation Creek to the north, and the Burdekin River to the south both being mapped in the extreme flood hazard area.

- 

The site is not mapped as being within a bushfire prone area under the current State Planning Policy mapping.

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3

Environmental Regulatory Requirements

3.1

Environmentally Relevant Activities

Operations currently being undertaken at the site is classified as triggering the following ERA under the Environmental Protection Regulation 2019:

ERA 7 – Chemical Manufacturing at threshold 4(b) manufacturing, in a year, more than 5000 tonnes

of fertiliser

Item

Storage type  
& number

Description

Solid  
granular  
fertilisers

Bays/Bunkers



Mono-ammonium phosphate



Blends of nitrogen, phosphorus and potassium (NPK) containing compounds with small amount of zinc included.

Liquid  
fertiliser

Silos

On site  
capacity  
(tonnes)

Annual volume blended /"  
manufactured" (tonnes)

500 Tonne

12,612

120 Tonne

220 - 260

Dibasic ammonium phosphate  
Urea  
Trace elements

The site must operate in accordance with the ERA 7 Environmental Authority conditions. (Appendix A – pending).

### 3.2

#### Hazardous Chemical Facility

Some of the chemicals stored on site are listed under Schedule 15 of the Work Health and Safety Regulation 2011, and the collective volumes of these listed chemicals exceeds the 10% threshold, . Accordingly, the site is classified as a Hazardous Chemical Facility under Schedule 10 Part 7 of the Planning Regulation 2017. (Refer to Appendix B for details regarding the subject chemicals and volumes).

### 3.3

#### End of Waste Code – Fertiliser Wash Water and Slurry

The EOW code states when the fertiliser wash water and slurry become a resource and any relevant requirements and/or conditions for its use Waste Reduction and Recycling Act 2011. If the resource is not being used in accordance with the relevant requirements and/or conditions of the EOW code, or another type of permit that allows for its use, it is considered a waste under section 13 of the Environmental Protection Act 1994 (EP Act) and must be lawfully transported and disposed of appropriately at a facility that is lawfully able to receive the waste. Nutrien are registered to provide the fertiliser wash water to a local farmer as a nutrient supplement. This is provided the water:  
i.

Does not contain more than the maximum permissible concentration of impurities for fertiliser in accordance with the Biosecurity Regulation 2016; and  
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ii.

Does not contain more than the following levels of Total Petroleum Hydrocarbons (TPH) on a volumetric basis:

- a. C6 – C9 – 100 mg/L
- b. C10 – C15 – 100 mg/L
- c.

C16 – C34 – 300 mg/L

- d. C34 – C36 – 500 mg/L

3.4

#### Notifiable Activities

Notifiable activities are defined in Schedule 3 of the Environmental Protection Act 1994. These are activities considered to have potential to cause land contamination. If a parcel of land caters for a notifiable activity it is then listed on the QLD government Environmental Management Register (EMR) for potentially contaminated land.

At this point in time the site is carrying out Notifiable Activity 7 – the land parcel is therefore listed

on the EMR for this activity. The rationale is provided below in Table 4.

Nutrien must carry out an annual review of operations to ensure Table 4 remains valid. Should the operations, chemical classes or quantities change upon annual review, and any breach any of the thresholds occurs, Nutrien has a duty to notify the Department of Environment and Science (refer to Section 3.4 item 3).

Table 4: Assessment of Notifiable Activities  
Notifiable Activity

Description

Relevance to site

Fertiliser

Not applicable

Number

Notifiable Activity 16

manufacture

The site only blends fertiliser. The definition of Notifiable Activity 16 specifically excludes blending of fertilisers. It is intended only for manufacturing fertilisers.

Notifiable Activity 6

Chemical  
manufacture or



Notifiable Activity 7

Not applicable.

formulation

The site does not blend dangerous goods. Notifiable activity 6 is only relevant

Chemical storage

Applicable

(other than  
petroleum

if dangerous goods are being blended on site.

>10 tonnes of chemicals that are dangerous goods are being stored on site  
products or oil)

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Notifiable Activity 29

Petroleum  
product or oil  
storage

Not applicable

Only applicable if storing petroleum products or oil at quantities greater than those described below:

a)

In underground tanks with more than 200L capacity; or

b)

In above ground tanks with

- 

For petroleum products or oil in class 3 in packaging groups 1 and 2 of the dangerous goods code – more than 2,500 L capacity; or

- 

For petroleum products or oil in class 3 in packaging groups 3 of the dangerous goods code – more than 5,000 L capacity; or

- 

For petroleum products that are combustible liquids in class C1 or C2 in Australian Standard AS 1940 – more than 25,000 L capacity.

A small above ground diesel tank is present on the site to the side of Warehouse 3. However, its volume is far lower than the quantities listed above.

### 3.5

#### Duty to Notify: Site Contamination

Sections 320 to 320G of the Environmental Protection Act 1994 details the duty to notify regarding contaminated land. An owner or occupier, a contaminated land auditor or a local government should

notify the administering authority (Department of Environment and Science):

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 under 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 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 harm.

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3. Within 20 business days of becoming aware for the first time of a notifiable activity (as listed under Schedule 3 of the Act) (the most relevant of which are listed in Table 3-1); 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.

Refer to the duty to notify for contaminated land for further guidance.

[https://environment.des.qld.gov.au/\\_\\_data/assets/pdf\\_file/0028/90676/contam-land-guideline-duty-to-notify.pdf](https://environment.des.qld.gov.au/__data/assets/pdf_file/0028/90676/contam-land-guideline-duty-to-notify.pdf)

### 3.6

#### Duty to Notify: Off Site Release

Sections 320 to 320G of the Environmental Protection Act 1994 details the duty to notify regarding

environmental harm. A person is obligated to notify the Department of Environment and Science

(DES) within 24 hours of pollution incidents and activities (not authorised under the Act) that cause or threaten to cause serious environmental harm or material environmental harm. Material environmental harm is environmental harm:

- 

that is not trivial or negligible in nature, extent or context;

- 

that causes actual or potential loss or damage to property of an amount of, or amounts

totalling more than the threshold amount (\$5,000), but less than the maximum amount (\$50,000); or

- 

that results in costs of more than the threshold amount (\$5,000) but less than the maximum

amount (\$50,000) being incurred in taking appropriate action to:

o

Prevent or minimise the harm; and

o

Rehabilitate or restore the environment to its condition before the harm.

Serious environmental harm is environmental harm (other than environmental nuisance):

- 

that is irreversible, of a high impact or widespread;

- 

caused to an area of high conservation value or special significance, such as the Great

Barrier Reef World Heritage Area;

- 

that causes actual or potential loss or damage to property of an amount of, or amounts totalling, more than the threshold amount (\$50,000); or

- 

that results in costs of more than the threshold amount (\$50,000) being incurred in taking appropriate action to:  
o

prevent or minimise harm; and  
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0

rehabilitate or restore environment to its condition before harm.

Refer to the duty to notify for environmental harm for further guidance.  
[https://environment.des.qld.gov.au/\\_\\_data/assets/pdf\\_file/0027/90666/cm-gl-duty-notifyenvironmental-harm.pdf](https://environment.des.qld.gov.au/__data/assets/pdf_file/0027/90666/cm-gl-duty-notifyenvironmental-harm.pdf)

3.7

Internal Nutrien Notification Procedures

Refer to Section 5.

3.8

External Notification Procedures

Refer to Section 6.

4

Workplace Health and Safety Regulatory  
Requirements

4.1

Hazardous Chemicals

Many of the secondary chemicals (the “off the shelf” bottles of pesticides, herbicides, poisons) are hazardous chemicals. Hazardous chemicals are substances, mixtures and articles that can pose a health or physical hazard to humans. Health hazards are the properties of a chemical that cause adverse health effects. Examples of chemicals with health hazards include poisonous (toxic) chemicals, chemicals which cause skin corrosion (such as acids) and carcinogens (chemicals that cause cancer). Exposure to these chemicals usually occurs through inhalation, ingestion or skin contact.

Hazardous chemicals are classed according to their hazard class and their associated hazard category. The hazard classes are split into:

- 

Physical Hazards: i.e. explosives, flammables, oxidising agents, reactive substances etc.

- 

Health Hazards: i.e. acute toxicity, skin and eye irritants, carcinogens, mutagens, reproductive toxicity, aspiration toxicity, target organ systemic toxicity (single and repeated exposure).

- 

Environmental Hazards: i.e. Acute and chronic aquatic toxicity.

## 4.2

### Hazardous Chemicals Codes of Practice

Codes of Practice are practical guides to achieving the standards of health, safety and welfare required under the WHS Act and the WHS Regulation. A code of practice applies to anyone who has a duty in the circumstances described in the code. In most cases, following an approved code of practice would achieve compliance with the health and safety duties in the WHS Act, in relation to the subject matter of the code. Like regulations, codes of practice deal with particular issues and do not cover all hazards or risks which may arise. The health and safety duties require duty holders to consider all risks associated with work, not only those for which regulations and codes of practice

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exist. The Workplace Health and Safety Queensland Code of Practice 2021: Managing risks of hazardous chemicals in the workplace covers issues associated with storing and handling hazardous chemicals. In general, the code provides advice on:

- 

Ensuring safe design, location and installation of storage and handling systems (e.g. racking systems, tanks).

- 

Separating incompatible substances to prevent reactive chemicals interacting.

- 

Controlling potential ignition sources around flammable substances.

- 

Having appropriate safety signage and placards.

- 

Being prepared for spill containment and having clean up systems.

- 

Having emergency plans in place to deal with an incident involving the hazardous chemicals.

- 

Having the appropriate personal protective equipment (PPE) and store it correctly.

- 

Having firefighting equipment that is easily accessible.

- 

Securing chemicals from unauthorised access.

#### 4.3

##### Hazardous Chemical Management Practices on Site

Practices are in place on site to manage the risk of hazardous chemicals. Such measures include:

- 

The storage of chemicals in an isolated and secured shed with appropriate signage and Safety Data Sheets (SDS's).

- 

A bunding/containment system which holds runoff from the chemical storage sheds and



fertiliser storage areas.

- 

An emergency shower and eye wash facilities within the solid granular fertiliser storage shed.

A first aid kit is provided within the lunch room.

- 

Provision of a suitable fire extinguisher (dry chemical powder) within the solid granular fertiliser storage shed, with a further ten dry chemical powder extinguishers provided throughout the rest of the site. A further two carbon dioxide extinguishers, one foam

extinguisher and four fire hose reels are also provided across the site.

- 

Provision of an emergency information box at the front entrance to the site.

4.4

#### Combustible Materials

The site contains class C1 and class C2 combustible liquids on site. The majority of the combustible liquid is of C2 classification with a flash point of above 93 degrees Celsius.

The management and storage of these chemicals must be compliant with the WHS Act and the WHS Regulations associated with dangerous goods.

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Specific control measures for the prevention of fires must be in place in accordance with Section 355 of the Work Health and Safety Regulation 2011. Persons on site must ensure that an ignition source is not introduced into areas which store combustible materials deemed as hazardous spaces. Unavoidable introduction of ignition sources into hazardous spaces is deemed a hazardous atmosphere if the concentration of flammable gas, vapour, mist, or fumes exceeds 5% of the lower explosive limit for the substances within the hazardous space. Once hazardous atmospheres are identified, control measures should be put in place to reduce the likelihood of a safety incident. Key control measures for managing these risks include

- 

Having hazardous areas identified and managed;

- 

Putting control measures for flammable vapours, gases and mists;

- 

Controlling emissions of flammable vapours, gases and mists (see below);

- 

Installing ventilation systems to control vapours of normal and abnormal conditions;

- 

Eliminating ignition sources in hazardous areas;

- 

Employ the use of intrinsically safe or flame proof equipment;

- 

Look for substitutes of flammable materials;

- 

Reducing the amount of flammable materials kept on site;

- 

Ensure that equipment used to manage flammable or explosive material are maintained and up to date in accordance with manufacturer specifications; and

- 

Adopting good housekeeping practices to minimise the accumulation of flammable dust.

Conducting "hot work", defined as grinding, welding, brazing, oxy cutting, heat treatment or any other

similar process that generates heat or continuous streams of sparks, should be strictly prohibited in hazardous atmospheres.

#### 4.5

##### Hazardous Chemicals Site Plan

The Hazardous Chemicals Site Plan attached in Appendix C provides an aerial view of the site. It indicates where hazardous chemicals are stored as well as associated bunding, storage, fire extinguishers, spill kits etc.

#### 4.6

##### Hazardous Chemicals Risk Assessment

In order to comply with the performance outcomes of State Code 21: Hazardous Chemical Facilities a risk assessment for the Schedule 15 chemicals stored on site has been completed. The risk assessment determines the potential to cause adverse effects to human health and the environment and ensures that applicable control measures are in place. The key component, the risk assessment register, is attached in Appendix D. The greater document is referenced as Hazardous Assessment Report: 39-57 Home Hill Road, Ayr, QLD 4807, May 2023.

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5

Nutrien Internal Notification, Reporting and  
Investigation Procedures

5.1

Incident, Hazard and Near Miss Reporting Procedures  
(Internal Hotline 1300 751 764)

Refer to Appendix E for a copy of the Nutrien Incident, Hazard and Near Miss Reporting Procedure.

The procedure outlines the requirements and responsibilities for the reporting of incidents and issues on site.

The procedure includes a classification system for incidents and the corresponding requirement for escalation:

- 

Level one "red": serious incident - escalation will be immediate.

- 

Level two "amber" significant incident - escalation within 2 hours.

- 

Level three "yellow" moderate incident/issue - escalation within 24 hours.

- 

Property maintenance issue "green" - escalation within 24 hours.

5.2

Incident Investigation and Corrective Actions Procedure

Refer to Appendix F for a copy of the Nutrien Investigation and Corrective Actions Procedure. The procedure provides instructions on:

- 

Appointing an investigation team.

- 

Gathering the facts.

- 

Determining a sequence of events.

- 

Determining the immediate cause.

- 

Developing an investigation outcome summary.

- 

Identifying preventative and corrective actions.

- 

Responsibilities.

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6

General Responsibilities under Environmental  
Authority (EA Pending)

Note: Once an EA has been granted for the Ayr site, the following section will be updated according to the general conditions the EA contains. The following sections are currently primarily reflective of Nutriens Maryborough EA.

6.1

Compliance with Environmental Authority

Contaminants must not be released to the environment other than in accordance with the environmental authority

The holder of this environmental authority must:

- 

Install and operate all work and control equipment, and

- 

Take all measures perform all acts and do all things, necessary to ensure compliance with the conditions of this environmental authority.

6.2

Display of Environmental Authority

A copy of the environmental authority must be kept in a location readily accessible to personnel carrying out the activity.

6.3

Records

Any record required to be kept by a condition of this environmental authority must be kept at the licensed place and be available for examination by an authorised officer. Copies of any record required to be kept by a condition of the environmental authority must be provided to any authorised person or the Administering Authority on request.

6.4

Alterations

No change, replacement or operation of any plant or equipment is permitted if the change, alteration or operation of the plant or equipment increases, or is likely to substantially increase, the risk of environmental harm or environmental nuisance.

6.5

Incident Recording

A record must be maintained of events including but not limited to:

- 

The time date and duration of equipment malfunctions;

- 

Any releases from the stormwater bunding/sump system; and

- 

The hours of operation of the plant.

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The record required by condition number (AS-1) shall be maintained for a period of not less than 5 years.

6.6

Notification of Emergencies and Incidents

As soon as practicable after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with the conditions of this environmental authority, the holder of this environmental authority must notify the administering of the release by telephone or facsimile. The notification of emergencies or incidents as required by condition (6-1) must include but not be limited to the following:

- 

The holder of the environmental authority;

- 

The location of the emergency or incident;

- 

The number of the environmental authority;

- 

The name and telephone of the designated contact person;

- 

The time of the releases;

- 

The time the holder of the environmental authority became aware of the release;

- 

The suspected cause of the release;

- 

The environmental harm and or environmental nuisance caused, threatened, or suspected to be caused by the release; and

- 

Actions taken to prevent further any release and mitigate any environmental harm and or environmental nuance caused by the release.

Not more than 44 days following the initial notification of an emergency or incident, the holder of the environmental authority shall provide written advice regarding:



- 

Proposed actions to prevent a recurrence of the emergency or incident;

- 

Outcomes of actions taken at the time to prevent or minimise environmental harm and or environmental nuisance; and

- 

The results of any environmental monitoring performed.

6.7

#### Report Submission

The holder of this environmental authority must ensure that the results of all monitoring performed in accordance with this environmental authority are submitted with the initial annual return. Each subsequent annual return must include details of the results of monitoring performed during the 12 months preceding that annual return.

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6.8

External Notification Contact Details

6.8.1

INCIDENT REPORTING

The following table displays options for contacting the DES Pollution Hotline in the event of an incident.

Table 1-1

Incident Reporting Information for the Pollution Hotline

Method

Contact Methods

Details

Email

[pollutionhotline@des.qld.gov.au](mailto:pollutionhotline@des.qld.gov.au)

Include "Duty to notify of environmental harm" in the subject line and include details of the event, its nature and the circumstances in which the event happened or attach a completed copy of the Duty to Notify of Environmental Harm notice; (ESR/2016/2230):  
Line is open 24 hours, 7 days a week for all related matters

Phone (24/7)

1300 130 372

Post

Permit and Licence

Provide written notice including details of the event, its nature and

Management

the circumstances in which the event happened or a completed

Department of Environment and

copy of the form titled "Duty to Notify of Environmental Harm".

Science

GPO Box 2454

Brisbane QLD 4001

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#### Site Based Environmental Controls

According to the site's operational activities, there are several environmental elements that have been identified as requiring risk management.

- 

Element 1: General Operation and Maintenance.

0

- 

Element 2: Air.

0

- 

- 

Noise mostly dominated by vehicle movements on the site.

Element 4: Water and Land.

0

Impacts to the receiving environment (surface waters) from contaminated stormwater runoff and spills.

0

Impacts to groundwater from leakage of underground storage tanks and pipe work and spills on permeable substrates.

0

Potential impacts from release of contaminated firefighting water.

0

Impact of site operations on soil, fauna and flora.

Element 5: Hazardous Materials Handling and Storage

0

- 

Need to consider any fugitive emissions (e.g., loading, unloading, venting).

Element 3: Noise.

0

- 

Consideration of general site operations and how they impact human and environmental health.

Handling and storage of chemicals and fuels on site.

Element 6: Waste Management

0

Handling and disposal of waste on site.

Each element will have details describing:

- 

Impact: details regarding the impact the sites ERA may have on the environment;

- 

Objectives/Targets: a description of clear objectives to be achieved for relevant environmental legislation;

- 

Control Measures: implementation of control measures which would aid in achieving the objectives to ensure impact mitigation;

- 

Monitoring: details for measuring performance indicators relating to compliance, and providing measurement frequencies for monitoring; and

- 

Corrective Actions/Contingency: actions to be taken in the event of non-compliance according to performance indicators occur.

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## 7.1

### Element 1: General Operation and Maintenance

#### Impacts

The operations of the site have the potential to cause human or environmental harm through the release of pollutants.

#### Objectives/Targets

The site is to be operated in a manner that considers the sensitivity of the surrounding environment and the health of the site operators, where the site will actively work to prevent and minimise harm. Additionally, the site is to have compliance with this SBMP, associated management plans and conditions of the site EA.

#### Control Measures

The following control measures are to be implemented at the site:

- A valid EA is held pursuant to the EP Act to lawfully operate the site (pending);
- A copy of the EA, this SBMP, and associated management plans is maintained and available on site;
- Plant and equipment are to be operated, inspected and maintained in appropriate fashion in accordance with manufacturer specifications;
- Operations and maintenance at the site need to be undertaken by appropriately trained persons;
- Daily operations of the site need to be undertaken according to this SBMP and Standard Operating Procedures;
- Only authorised persons are permitted to access the site. All contractors and visitors to the site undergo a site induction. All visitors are to be accompanied by employees when on the site; and
- Appropriately qualified staff need to be available to call 24 hours a day in the event of an emergency.

#### Monitoring

The following monitoring activities should be implemented at the site.

- Inspection of site fencing and gates; and
- Inspection of all infrastructure at the site, including storage area, waste management areas and

processing equipment. Specific details for monitoring will be discussed in the following tables below.

A Nutrien Weekly Environmental Inspection Checklist example has been prepared for this site. Please refer to

Appendix F for details

#### Corrective Actions/Contingency

Nutrien Incident Investigation & Corrective Actions Procedure is attached in Appendix F. This details all of Nutriens internal procedures. Against each element below some additional guidance is also provided.

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## 7.2

### Element 2: Air (odour and dust)

#### Impacts

The activities associated with the ERA 7 have the potential to generate air borne dust primarily from loading and unloading of fertilisers and other products and site vehicle movements. These activities may release dust particles to air, which can impact human health and wellbeing at nearby residents, surrounding agricultural land uses, aesthetics and the health and biodiversity of ecosystems.

#### Objectives/Targets

The site will have its operations conducted in a way that will not impact surrounding sensitive environments, preventing the release of excessive dust and odorous emissions, Specifically the current objectives are (to be updated to reflect EA once obtained):

- That activities must be carried out by such practicable means which may be necessary to prevent or minimise the release of contaminants to the atmosphere;
- No odour determined to be noxious or offensive by an authorised person is to be released beyond the boundaries of the property; and
- No release of contaminants, including but not limited to odour, dust, smoke, fume, particulates and aerosols is to cause or be likely to cause an environmental nuisance beyond the boundaries of the site.

#### Indicator

PM2.5

PM10

#### Environmental Value

#### Air Quality Objectives

#### Period

Days

µg/m3

ppm (volume /  
volume)

#### Health and wellbeing

25

-

24 hours

-

#### Health and wellbeing

-

1 year

-

Health and wellbeing

50

-

24 hours

-

Health and wellbeing

25

-

1 year

-

#### Control Measures

Control measures to be implemented are:

- Site inspection done daily, especially the storage bunkers/bagging area, chemical storage shed, processing areas and transport routes to ensure levels of dust/particulates are not excessive. Inspect sump and storage tanks to ensure nutrient laden water has not stagnated (which can become odorous);
- All bins shall be covered and emptied routinely, before reaching capacity;
- Chemicals on site are to be used in designated areas only that have adequate ventilation to ensure dispersal of fumes;
- Loading and unloading needs to be kept to a minimum if done on non-hardstand areas such as dirt roads and parking spaces. If loading must be done on such non-hardstand areas, clean water may need to be used to suppress dust;
- Loading and unloading to be avoided in high wind conditions;
- Any fertiliser, chemical or fuel leaks will be cleaned up as soon as practicable to prevent odour emissions; and
- Any maintenance tasks identified by the daily inspector needs to be actioned within the nominated time frame.

A Hygiene Dust Prevention Checklist example for the Albany business has been provided in Appendix H. The checklist provides examples of how various items of equipment and machinery can be inspected and cleaned to minimise dust emissions. It can be adapted to suit the requirements of the Ayr site.

Monitoring

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Nutrien Ayr  
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A Nutrien Weekly Environmental Inspection Checklist example has been prepared for this site. Please refer to Appendix G for details.

Some specific advice relating to air emissions includes:

- Focus on locations with highest potential to generated dust. i.e: storage bunkers, bagging area, tanks, bunds and chemical storage areas and waste storage areas.

- Record dates and times that product is blended/bagged along with prevailing wind direction. This information is to be kept on file so that it can be correlated with any potential future dust complaints.

- If requested by DES, dust/particulate monitoring shall be carried out in accordance with either the

Australian Standards (AS3580. 10-1991 or AS3580.9.6-2003, or a method permitted by the DES Air

Quality Sampling Manual at a dust sensitive place downwind from the site as requested by the DES.

Corrective Actions/Contingency

Nutrien Incident Investigation & Corrective Actions Procedure is attached in Appendix F. This details all of

Nutriens internal procedures. Some more specific recommendations relating to air and dust may include:

- Identifying the source(s) of excessive dust and odorous emissions;

- Implementing corrective measures according to the advice of a suitable qualified person, such as an environmental scientist or consultant;

- Undertaking monitoring by a suitably qualified person for air impurity concentrations at nominated locations, if requested by DES; and

- Validating whether relevant monitoring or actions have been effective for reducing dust/odour emissions.

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### 7.3

#### Element 3: Noise

##### Impacts

Site operation activities may include the operation of machinery resulting in noise emissions impacting on nearby sensitive receptors. The site is situated within an area zoned for medium impact industry, with the current background noise levels surrounding the site influenced primarily by current onsite and nearby activities, including medium impact industry to the south, traffic on surrounding roads, specifically the Bruce Highway and the railway line to the west. Using a desktop worst case scenario assessment (assuming trucks, vehicles, tools, forklifts and tubeveyors were operating simultaneously in the same location) 112dB(A) would be emitted and equate to 65 dB(A) when measured at the nearest residential property. This would breach the acoustic quality objectives in Table 1-2

##### Objectives/Targets

The site will have its operations conducted in a way that will not impact surrounding sensitive environments, preventing the release of excessive noise. Specifically, the objectives are (to be updated to reflect EA once obtained):

- That activities must be carried out by such practicable means which may be necessary to prevent or minimise the emission of noise; and
- The emission of noise from the site must not result in levels greater than those specified in Table 1-2.

Table 1-2

#### Acoustic Quality Objectives

##### Sensitive Receptor

##### Time of Day

Residence (for  
outdoors)

Daytime and evening  
(7am – 10pm)

Acoustic quality objectives (measured at the receptor)  
dB(A)

L<sub>Aeq</sub>, adj, 1hr

L<sub>A10</sub>, adj, 1hr

L<sub>A1</sub>, adj, 1hr

50

55

65

##### Control Measures

Control measures to be implemented are:

- Where practicable, noise generating activities must occur outside the hours of 10pm – 7am (i.e. time loading/unloading and blending operations ideally between 7am – 6pm);

- Where practicable undertake a noise generating activity where a site building/structure can be placed between the nearest residential property and the noise generating activity (in order to "shield" the residential property from the noise to some extent);
- Where practicable avoid undertaking noisy activities upwind of the nearest residential properties;
- Where practicable avoid running numerous noisy activities all at once in the same location.
- Machinery to be regularly maintained and moving parts lubricated to minimise friction; and
- Notify neighbouring properties in advance of any unusual highly noisy planned activities.
- Limiting the amount of equipment on site and using the lowest power equipment suitable for the job.
- All plant and equipment not in use is to be turned off.
- Utilise UHF communications where possible.
- Utilise broadband/white noise movement / reverse alarm.
- Care is to be taken when handling equipment, i.e. no dropping or banging of materials.
- Revving of machinery is to be minimised.

#### Monitoring

A Nutrien Weekly Environmental Inspection Checklist example has been prepared for this site. Please refer to

Appendix G for details.

Further specific advice regarding noise include the identification and monitoring need to take note of unusual, offensive and excessive vibration noise which may cause nuisance to surrounding land users. Specific

monitoring for any noise complaint the site receives may need to be undertaken.

Monitoring shall include

- LA10, adjusted to 10 minutes and LA1, adjusted to 10 minutes;

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-

Note of the frequency and level of the noise being emitted;  
Wind speed and direction, among other atmospheric conditions;  
Extraneous factors such as traffic noise; and  
Location, date and time of recording.

All records, methods, measurements and reporting of noise emissions needs to be compliant with the DES

Noise Measurement Manual.

Corrective Actions/Contingency

Nutrien Incident Investigation & Corrective Actions Procedure is attached in Appendix F. This details all of

Nutriens internal procedures. Some more specific recommendations relating to noise may include:

- Visit the location of the complaint for validation and determine appropriate corrective measures;
- Identify the source(s) of excessive noise emissions;
- Implement corrective measures according to the advice of a suitable qualified person, such as an environmental scientist or consultant;
- Undertake monitoring by a suitably qualified person for noise levels at nominated locations, following a complaint; and
- Validate whether relevant monitoring or actions have been effective for reducing noise emissions.

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#### 7.4

##### Element 4: Water and Land

###### Impacts

Surface waters, groundwater and water quality have the potential to be impacted by the ERA 7 activity through run off from hardstand areas and other exposed areas of the site used for the activity. Additionally, the potential exists for spills of hydraulic oil and fuels from plant, equipment or vehicles.

Fertiliser contains substantial amounts of nutrients which can be quite harmful to both aquatic and terrestrial ecosystems. For instance if concentrated fertiliser runs off it causes grass/vegetation to be chemically "burnt" and die. At slightly lower concentrations the nutrients cause eutrophication of waterbodies. Eutrophication describes the process when algal blooms occur (promoted by abundance of nutrients), and once the algae dies off the biodegradation process strips all of the oxygen out of the water (resulting in the death of fish etc).

###### Objectives/Targets

The site will have its operations conducted in a way that will not impact surrounding sensitive environments, preventing the release of contaminated water. The following will be updated to reflect the water specific conditions of the EA once obtained.

###### Release of Contaminants to Waters

Except as otherwise provided by the conditions of the Water Schedule of the EA the environmentally relevant activity must be carried out by such practicable means which may be necessary to prevent or minimise the release of contaminants to waters.

Contaminants must not be directly or indirectly released from the licensed place to any waters or the bed and banks of any waters except as permitted under this schedule or the storm water schedule or to a sewer under a trade waste agreement as approved from time to time by the relevant Local Government.

###### Release Points

Contaminants must not be directly or indirectly released from any source on the licensed place to any waters at any location other than the contaminants and sources at the locations listed below:

- Release point W1- Sump overflow.

###### Quality Characteristics of Release to Waters

The release of contaminants to waters must comply with the following qualitative characteristics:

(a) The release must not have any properties nor contain any organisms or other contaminants which, in the opinion of the administering authority, are capable of causing environmental harm or an environmental nuisance.

(b) The release must not produce any slick or other visible evidence of oil or grease, nor contain visible floating oil, grease, scum, litter or other objectionable matter.

###### Release of Contaminants Caused by Rainfall

Except as provided by the conditions of the of the environmental authority, the environmentally relevant activity must be carried out by such practicable means which may be necessary to prevent or minimise the

contact of incident rainfall and stormwater runoff with wastes or other contaminants, and the release of any such contaminated runoff from the licensed place.

#### Release of Storage Sump Water

The water which collects in the sump shall not be released into watercourses.

The sump shall be pumped into

holding tanks with the intention of land-based disposal at an off-site location.

Resource is to be used by

approved local agricultural operations for irrigation watering of various crops and pastoral land for users with

an approved Reef Plan that permits a resource of this type to be used in accordance with the End of Waste

code for fertiliser wash water and slurry (ENEW07278417).

#### Control Measures

The following control measures will need to be in place as part of this SBMP:

- Wastewater generated from toilets, general staff facilities etc must be directed to the site sewage

connection;

- Any trade wastes (i.e. cleaned up chemical spills, oils etc) must be disposed of via an appropriately

licensed; waste disposal contractor. These must not be discharged to site sewerage or the site

stormwater collection system;

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- Stormwater from the fertiliser storage and bagging area is directed via bunding and drainage to a

sump. Water which collects in the sump is to be pumped into the storage tanks where it can be drawn from and dispersed to land at an offsite location on an as needs basis;

- The intent of the stormwater system and sump is only to collect water which is contaminated by

fertiliser nutrients. This water is to be collected and supplied to a local farmer for distribution on a cane field.

- In the event a rain event is too large for the sump to cater for (greater than the 15mm first flush), overflow will be released at the stormwater discharge point.

- In the event the sump has collected chemical spills, the chemical spills are to be cleaned up or

pumped out and disposed of via an appropriately licenced waste disposal contractor. Chemical spills must not be discharged to land at an offsite location nor via the stormwater discharge point.

- The daily operation and maintenance of the sump and associated drains and storage tanks is to be carried out by a suitable trained, experienced or qualified person. New employees involved in the daily operation or maintenance the system need to have proper training and experience prior to full operational responsibility; and

- Any defects found within the sump/drainage/tank system need to be repaired as soon as practicable.

#### Monitoring

A Nutrien Weekly Environmental Inspection Checklist example has been prepared for this site. Please refer to

Appendix G for details.

In the event sump water overflows, the following details should be recorded:

- The estimated volume of water (estimated based on the volume of the sump).

- The date and duration of the release.

- Include a photograph of the water, so that water quality can be observed (ideally this would provide

evidence that it is free of any oil/chemical sheens etc)

- A sample of the released water should be obtained and analysed for:

- Total Nitrogen (mg/L);

- Total Phosphorus (mg/L); and

- pH.

Nutrien must keep the following records regarding the removal and disposal of sump water. Time and date of the removal;

- Estimated volume removed; and

- Transport details regarding waste water receiving facility or persons.

#### Corrective Actions/Contingency

Nutrien Incident Investigation & Corrective Actions Procedure is attached in Appendix F. This details all of

Nutriens internal procedures. Some more specific recommendations relating to water may include

- Visit the location of the complaint and obtain photos;

- If possible trace the impact upstream to identify if source of the problem is from the Nutrien site, or further upstream;
- If Nutrien site is suspected to be the cause, and the impact on the receiving water body is to an extent that is classified as material or serious environmental harm, notify DES as per Section 5; and
- Undertake an investigation to determine the cause (typically by engaging a suitably qualified consultant/scientist). This may include sampling and analysis of sump water and downstream water bodies to confirm if any unexpected contaminants are being released from the site, tracing the source and rectifying.
- Ensure flood contingency plan is in place for when site is cut off by flood waters. i.e. in the lead up to predicted large rainfall events ensure adequate storage is available to place all fertiliser product indoors in relevant bunkers etc.

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## 7.5

### Element 5: Hazardous Materials Handling and Storage

#### Impacts

The mishandling and storage of hazardous materials on site can have an impact on human health and the environment.

#### Objectives/Targets

The primary objectives and targets of this SBMP are:

- No release of chemicals or hazardous materials due to inappropriate handling and storing procedures;
- Implementing effective storage and handling procedures to prevent exposure of hazardous materials and chemicals to humans and the environment;
- Procedures to be in accordance with the SBMP, standard operating procedures, EA conditions, Applicable safety data sheets, Work Health and Safety regulations (2011) and State Code 21

Hazardous Chemical Facilities; and

- Spillage of chemicals and fuels is managed in a way that prevents harm to humans and the environment.

#### Control Measures

The following control measures need to be implemented as part of this SBMP:

- Dangerous goods or hazardous substances stored in drums shall be located on hardstand containment areas, bunded where the capacity of the bund can hold at least 25% of the maximum design storage volume, preferably undercover;
- Loading and unloading areas involving tankers should be located on impervious hardstand and bunded, where the bund is able to contain 100% of the largest compartment of the tanker on site;
- Smaller amounts of hazardous chemicals shall be stored in fireproof and bunded cabinets above hardstand surfaces;
- Stormwater diversion systems shall be in place to prevent stormwater intrusion to other areas storing hazardous chemicals;
- Chemicals that need to be used on site are to be used in designated areas only, above hardstand and within bunded areas;
- Maintenance of a chemical register specific to the site for all hazardous materials, which should be available onsite at all times;
- Chemical register is to include an emergency contact list;
- Applicable safety data sheets for each hazardous chemical on site should be available at all times;
- Permanently bunded areas should have a collection sump to facilitate the removal of liquids, with the bunded areas flooring graded towards the sump;
- Handling hazardous chemicals should require appropriate PPE as defined by the respective chemical safety data sheet;
- Readily available spill kits and HAZMAT boxes should be accessible at all locations where chemical spills may occur, and shall be restocked after each use;
- Staff on site should be trained in how to use spill kits and HAZMAT boxes; and
- All cleaning of equipment and machinery should be undertaken within designated



areas that are  
located on hardstand and bunded.  
All plant and equipment cleaning and maintenance shall be conducted in  
designated areas which include  
relevant containment systems and controls to prevent contamination.

Reference to

Monitoring

A Nutrien Weekly Environmental Inspection Checklist example has been prepared  
for this site. Please refer to

Appendix G for details. Further specific information relevant to hazardous  
materials handling may include:

- Regular inspections of all hazardous chemical storage areas on site to ensure  
spills or leaks have not

occurred, and to ensure the integrity of the bunding;

- Stormwater diversion and containment areas are to be regularly inspected for  
functionality, integrity,

and signs of contamination; and

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- Regular inspections of all spill kits and HAZMAT boxes on site to ensure they are fully stocked and ready to use.

Corrective Actions/Contingency

Nutrien Incident Investigation & Corrective Actions Procedure is attached in Appendix F. This details all of Nutriens internal procedures. Some more specific recommendations relating to hazardous materials may include:

- Spill kits to ensure fast and effective response times to any incidents;
- Readily available safety data sheets for each chemical on site;
- A HAZMAT box is kept at the site entrance and up to date;
- Bunding of chemical storage areas;
- Chemical spill response procedures;
- Emergency response plans, and staff trained in them; and
- Defects found with any bunded areas, plant equipment, storage tanks or storage drums needs to be repaired as soon as practicable.

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## 7.6

### Element 6: Waste Management

#### Impacts

Improper management of waste can lead to negative environmental and human health impacts

#### Objectives/Targets

The following objectives and targets are to be achieved at the site:

- Avoid, reduce, reuse, recycle, recover, treat and dispose of waste appropriately;
- Effectively manage waste to prevent all forms of pollution including air, water and soil contamination at the site and surrounds; and
- Comply with conditions of the EA (pending) which requires a Waste Management Plan to be in place.

The Waste Management Plan must detail at least the following:

- The quantity and nature of each waste produced;
- The current method of disposal;
- Proposed methods of pre-treatment or disposal;
- Expected reduction in quantity of waste produced; and
- Provisions for carrying out and submitting to DES a waste audit within 2 years from the date of issue of the EA and thereafter every 5 years.

#### Control Measures

The following control measures need to be implemented for waste at the site in accordance with the EA conditions:

- Waste must not be allowed to burn;
  - An area must be set aside for the segregation and storage of recyclable solid wastes.
  - Where a no-cost recycling service is available, recyclable waste must not be deposited in the general waste stream.
  - All storage of raw waste or processed materials must be sealed or covered to prevent loss of contents or exposure of the contents to the atmosphere;
  - All loading/unloading of bulk materials must take place only within designated vehicle loading/unloading areas
  - Waste bags and other contaminated wastes must be stored on the concrete work area or in a roofed area;
  - The development of a Waste Management Plan which details the types and quantities of waste generated on the site, the storage, on site management requirements, transport provisions and disposal of wastes;
  - Regulated Waste needs to have special provisions for disposal;
  - Regulated waste is stored, transported and disposed of as per the requirements of the EA and the Environmental Protection Regulation 2019; and
  - All trackable wastes must have appropriate tracking procedures
- Day to day operations are not expected to generate regulated or trackable waste under Schedule 9 of the Environmental Protection Regulation 2019. On the occasion following accidental chemical spills and clean up, such waste would be disposed of following trackable and regulated waste requirements.

Overall, all waste generated by the site is collected by Remondis, a waste disposal company with necessary authorities to handle standard, recyclable and regulated wastes.

#### Monitoring

A Nutrien Weekly Environmental Inspection Checklist example has been prepared for this site. Please refer to

Appendix G for details. Further specific guidance on monitoring of waste may include:

- Regular inspections of waste receptacles and storage areas to ensure waste is being appropriately stored and handled.
- Regular inspections of site and surroundings to ensure no uncontrolled waste have left the site.

Corrective Actions/Contingency

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Nutrien Incident Investigation & Corrective Actions Procedure is attached in Appendix F. This details all of Nutriens internal procedures.

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Record Keeping

Records that need to be kept on site are:

- 

Inspections, maintenance, calibrations and repairs for all equipment and infrastructure on site  
(Appendix F weekly inspections) (Appendix G hygiene/dust prevention).

- 

Site inductions, employee training and inductions.

- 

All complaints.

- 

Remediation measures and corrective actions (Appendix E), including the results of any air,  
noise or water quality investigations.

- 

Stormwater releases from the sump (as detailed in the monitoring requirements in Section 7.4)

- 

Records of waste removed from site, particularly waste type and volume, needs to be maintained

- 

Copies of Waste Tracking Forms for all trackable regulated waste collected from the site  
needs to be maintained.

All records are to be supplied to DES upon request.

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## References

Environmental Protection (Air) Policy 2019  
(<https://www.legislation.qld.gov.au/view/html/inforce/current/sl-2019-0153>)  
Environmental Protection (Noise) Policy 2019  
(<https://www.legislation.qld.gov.au/view/html/inforce/current/sl-2019-0154>)  
Environmental Protection (Water and Wetland Biodiversity) Policy 2019  
(<https://www.legislation.qld.gov.au/view/html/inforce/current/sl-2019-0156>)  
Burdekin Shire Council – Draft Burdekin Shire Planning Scheme 2021 V1  
(<https://www.burdekin.qld.gov.au/downloads/file/1768/draft-burdekin-planning-scheme>)  
Guideline – Application requirements for activities with impacts to water  
([https://environment.des.qld.gov.au/\\_\\_data/assets/pdf\\_file/0029/87851/era-gl-water-impacts.pdf](https://environment.des.qld.gov.au/__data/assets/pdf_file/0029/87851/era-gl-water-impacts.pdf))  
Guideline – Stormwater and environmentally relevant activities  
([https://environment.des.qld.gov.au/\\_\\_data/assets/pdf\\_file/0028/89119/pr-gl-stormwater-guidelineera.pdf](https://environment.des.qld.gov.au/__data/assets/pdf_file/0028/89119/pr-gl-stormwater-guidelineera.pdf))  
Guideline – The duty to notify of environmental harm  
([https://environment.des.qld.gov.au/\\_\\_data/assets/pdf\\_file/0027/90666/cm-gl-duty-notifyenvironmental-harm.pdf](https://environment.des.qld.gov.au/__data/assets/pdf_file/0027/90666/cm-gl-duty-notifyenvironmental-harm.pdf))  
Guideline – The duty to notify for contaminated land (Guideline - The duty to notify for contaminated land (des.qld.gov.au)  
Workplace Health and Safety Queensland Code of Practice 2021: Managing risks of hazardous chemicals in the workplace  
([https://www.worksafe.qld.gov.au/\\_\\_data/assets/pdf\\_file/0027/72639/managing-risks-of-hazardouschemicals-cop-2021.pdf](https://www.worksafe.qld.gov.au/__data/assets/pdf_file/0027/72639/managing-risks-of-hazardouschemicals-cop-2021.pdf))  
Australian Standard AS 1940: The storage and handling of flammable and combustible liquids.

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Dangerous Goods Manifest Summary

Appendix A Dangerous Goods Manifest Summary

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Nutrien Ayr  
Hazardous Chemicals Site Plan

Appendix B

Hazardous Chemicals Site Plan

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Nutrien Ayr  
Nutrien Incident, Hazard & Near Miss Reporting Procedure

Appendix C Nutrien Incident, Hazard & Near Miss  
Reporting Procedure

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Nutrien Ayr

Nutrien Investigation & Corrective Actions Procedure

Appendix D Nutrien Investigation & Corrective Actions  
Procedure

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Nutrien Ayr  
Nutrien Weekly Inspection Checklist Example

Appendix E Nutrien Weekly Inspection Checklist  
Example

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Nutrien Ayr  
Hygiene Dust Prevention Checklist (Albany Example)

Appendix F Hygiene Dust Prevention Checklist (Albany  
Example)

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MJ2406/01:IG  
22372 (SARA 2212-32557 SPL)

22 February 2023  
Mewing Planning Consultants  
Level 13, 340 Adelaide Street  
BRISBANE CITY, QLD 4001  
Attention: Nicole Boulton  
Email:  
nicole.boulton@mewing.com.au

Dear Nicole,

RE: EXISTING FERTILISER STORAGE DISTRIBUTION & BLENDING SITE AT 39-57 HOME HILL ROAD,

AYR – STORMWATER ASSESSMENT

This letter report has been prepared in support of development application for the site.

#### Existing Conditions

The site currently has concrete and gravel hardstand areas, existing warehouses, sheds, storage areas and landscaping area.

The site generally drains east from the rail corridor towards Home Hill Road at an average slope of ~1.0%.

In accordance with the Queensland Urban Drainage Manual (QUDM) tests in determining the lawful point of discharge (LPOD), Home Hill Road and the North Coast Line rail corridors are defined as LPOD as they're under the lawful control of the state government being the legal point of discharge.

#### Proposal

The proposed development involves minor changes to the existing development inclusive of relocating an existing shed and a construction of a new shed with approximately 300m<sup>2</sup> footprint. The new shed is proposed to be located over the current PS1 location which includes some landscaping area. Therefore, change in impervious area will only occur where the proposed shed overlays the existing landscaping area. These are illustrated on Figure 1.

An assessment of the change in impervious area associated with the proposed development is only 0.7% due to the minor increase in the footprint of the proposed shed. Although there is 0.7% change in the impervious area, this does not affect the critical time of concentration (tc) since the landscaping area is not on the critical run-off path.

Milton Messer & Associates Pty Ltd ACN 100 817 356 ABN 34 100 817 356  
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Figure 1 39-57 Home Hill Road Proposed Shed Locations (mark-up on M31800-Site Layout Plan)

#### Stormwater Assessment

The existing lawful point of discharge (LPOD) will be maintained, namely Home Hill Road road reserve.

#### Stormwater Quantity

An assessment of the change in run-off due to the minor change in impervious area does not affect the tc as mentioned above. The contributing catchment, defined as 1.214 ha which is the entire lot area. Impervious area is calculated as 74.2% for the existing conditions. Following construction of the additional shed, the impervious area will result in a 0.7% increase. The Friends equation has been adopted for assessment of the critical time of concentration (tc) which was found to be 10-minutes for both existing and developed cases.

IFD's were sort from the BOM website with the pre- and post-development flows being calculated using the

Rational Method. The peak runoff for both existing and developed scenario were assessed for annual

exceedance probability (AEP) of 63.2%, 39%, 18%, 10%, 5%, 2% and 1% events. Due to the minor change

in impervious area, the 10-year discharge coefficient increase from 0.836 to 0.837, resulting in a minor

increase in the run-off coefficient of 0.001 for the 63.2% to 2% AEP events. The 1% AEP event coefficient

remained unchanged at 1.0.

The pre- and post-development peak flows for the events have been summarised and provided in Table 1.

Table 1 Peak Flows Summary

| Q peak<br>flow (m <sup>3</sup> /s) | Pre   | Post  | Difference |
|------------------------------------|-------|-------|------------|
| 63%                                | 0.218 | 0.218 | 0.000      |
| 10%                                | 0.295 | 0.414 | 0.119      |
| 5%                                 | 0.501 | 0.598 | 0.097      |
| 2%                                 | 0.754 | 0.755 | 0.001      |
| 1%                                 | 0.846 | 0.846 | 0.000      |

## Annual Exceedance Probability (AEP) Events

For the frequent and major of the events (63% and 1% AEP), there is no increase in peak flow, therefore no impact to the run-off characteristics as a result of the development. In the 10%, 5% and 2% AEP events, an increase of 0.001 m<sup>3</sup>/s is observed which equates to a 0.1% increase. In our opinion this is a negligible increase which is highly unlikely to result in any impact to the carriageway or functionality of Home Hill Road.

Furthermore, the inclusion of the treatment sump (discussed below) will act as mitigation to the postdevelopment flows. We trust the above demonstrates that the proposed development has negligible impact beyond the site extents.

## Stormwater Quality

Stormwater quality assessment will be undertaken by others which is understood to include a first flush treatment system, which will adopt a new sump located on mid-eastern boundary. This concept is illustrated in Figure 2.

Figure 2 First flush treatment concept (sump shown as brown rectangle)



#### Flood Assessment

The site extent is marked on Figure 3 which is extracted from Burdekin Shire Council Flood Hazard Overlay Map. As seen, only small portion of the site (north-eastern corner) is defined as being constrained by low flood hazard. The remaining site is not in the flood hazard overlay. This is supported by the flood extents, illustrated in Figure 4, which shows isolated flooding within the north-eastern portion of the site.

Figure 3 Burdekin Shire Planning Scheme Flood Hazard Overlay Map (a)

Figure 4 Burdekin Shire supplied flood extents extract

As the development will generally imitate the existing site levels to maintain positive fall towards the eastern boundary, there will be not impediment to flow paths or loss of flood storage in areas shown to experience flooding. It is anticipated that the proposed sump will slightly increase storage. Therefore, as the development will not impact the on-site storage of flood water or existing flow paths, there will be no impact to the flood characteristics outside the development extents and no impacts upstream or downstream.

Yours sincerely,

Approved,

IREM GUNEY  
Civil Engineer

JOHN SINGLE  
Senior Civil Engineer (RPEQ 24378)

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304500701-Nutrien\Ayr\ACAD\304500701-CI-01.dwg

STORMWATER SUMP DESIGN  
AYR SITE

304500701-CI-01  
Drawing Number

A  
Revision

NORTH

DATE PLOTTED: 31 March 2023 3:50 PM BY : LIAM VITALE

SITE OF WORKS

SCHEDULE OF DRAWINGS

XREF's:

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304500701-Nutrien\Ayr\ACAD\304500701-CI-02.dwg

DRAWING No.

DESCRIPTION

304500701-CI-01

COVER SHEET

304500701-CI-02

LOCALITY AND SCHEDULE

304500701-CI-03

EXISTING FEATURES SHEET 1 OF 2

304500701-CI-04

EXISTING FEATURES SHEET 2 OF 2

304500701-CI-05

FINAL SITE LAYOUT

304500701-CI-10

DRAINAGE DESIGN PLAN

304500701-CI-11

SUMP DESIGN PLAN

IMAGE SOURCE: QUEENSLAND GLOBE 2023

LOCALITY PLAN

SCALE A1 - N.T.S.

A3 - N.T.S.

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STORMWATER SUMP DESIGN  
31/03/23  
Date  
AYR SITE  
31/03/23  
Date  
31/03/23 Title  
LOCALITY AND SCHEDULE  
24432

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31/03/23

NUTRIEN AG SOLUTIONS  
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Scale

25/01/2023 AS SHOWN

Drawing Number

304500701-CI-02

Size

A1  
Revision

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JOINS DRAWING 304500701-CI-04

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EXISTING SUMP  
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XREF's: XR-304500701-CI-SURV

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304500701-Nutrien\Ayr\ACAD\304500701-CI-03-04.dwg

11

CO-ORDINATE DATUM:  
LEVEL DATUM  
AS DETERMINED BY  
LEVEL VALUE USED  
MERIDIAN DATUM

Z100

SURVEY CONTROL TABULATION

ARBITRARY  
AHD D  
PSM 5773  
RL 11.23

No.  
Z100  
T3  
T104  
T200  
T201

EASTING NORTHING ELEVATION  
427.555  
303.830  
352.929  
383.254  
331.211

57.374  
175.081  
167.579  
262.137  
226.432

11.230  
11.938  
11.600  
11.357  
11.641

TYPE  
PSM 5773  
PIN  
GI NAIL  
GI NAIL  
PIN

IS265915

11.23

PM5773

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Date Project  
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31/03/23  
Date  
AYR SITE  
31/03/23  
Date  
31/03/23 Title  
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24432

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31/03/23

NUTRIEN AG SOLUTIONS

SHEET 1 OF 2

Status

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DATUM

DATE

AHD

Scale

25/01/2023 AS SHOWN

Drawing Number

304500701-CI-03

Size

A1

Revision

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JOINS DRAWING 30450701-CI-03

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#### SURVEY CONTROL TABULATION

ARBITRARY  
AHD D  
PSM 5773  
RL 11.23

No.  
Z100  
T3  
T104  
T200  
T201

EASTING NORTHING ELEVATION  
427.555  
303.830  
352.929  
383.254  
331.211

57.374  
175.081  
167.579  
262.137  
226.432

11.230  
11.938  
11.600  
11.357  
11.641

TYPE  
PSM 5773  
PIN  
GI NAIL  
GI NAIL  
PIN

IS265915

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NUTRIEN AG SOLUTIONS

SHEET 2 OF 2

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AHD

Scale

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Drawing Number

304500701-CI-04

Size

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Revision

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T2 1.  
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JOINS DRAWING 304500701-CI-04

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SHED

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RT VC  
VE P  
IN 100  
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BUND

DESIGN SUMP

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XREF's: XR-304500701-CI-SURV; XR-304500701-CI-DESIGN; XR-304500701-CI-DESIGN  
CONTOURS  
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20m  
@A1

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31/03/23  
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31/03/23 Title  
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NUTRIEN AG SOLUTIONS  
Status

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DATUM

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AHD

Scale

27/03/2023 AS SHOWN

Drawing Number

304500701-CI-05

Size

A1  
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BUN  
35.703

IP3

35

BEDDING IN COMPACTED  
SUB-BASE COURSE GRAVEL

SL92 MESH  
.3

11

SECTION 1 - CH 0.000

MATCH TO EXISTING  
GROUND

SCALE 1:10

30

11.  
4

11.4

SHED TO BE RELOCATED

265mm

150mm MIN

TRANSITION TO  
EXISTING V-DRAIN

225mm

50mm  
75mm

11.4  
11.3

SHED

0.6m

0.6m

H  
RT  
NO

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VARIES

0.6m

VARIES

CT

0.6m

11

11.8

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TC19.877 20

BATTER TO  
EXISTING SLAB

25

R

IP1

INDICATIVE BATTER TO EXISTING  
SLAB (TO BE CONFIRMED ON SITE)

IP2

11.9

50mm

CT27.952

11.5

1 ON 4 BATTER TO EXISTING

-5

TC

11.

7

11.8

CONCRETE SLAB TO BE  
RELOCATED

SECTION 2 - CH 10.000  
SCALE 1:10

PLAN VIEW - DRAIN RSD01  
SCALE 1:100

0.6m

PT CHAINAGE EASTING NORTHING

0.000  
19.877  
23.914  
27.952  
35.703

334.142  
349.246  
353.217  
356.436  
361.209

198.141  
185.220  
181.823  
185.940  
192.047

A.LENGTH DEFL.ANGLE

11.803  
11.485  
11.420  
11.355  
11.231

8.075

130°32'41.65"  
130°32'41.65"  
R = -5.000

1 ON 4 BATTER TO EXISTING

1 ON 4 BATTER TO EXISTING

92°31'59.35"

38°00'42.30"  
38°00'42.30"

SECTION 3 - CH 20.000  
SCALE 1:10

-1.6%

0.6m

0.6m  
50mm

XREF's: XR-304500701-CI-SURV; XR-304500701-CI-DESIGN; XR-304500701-CI-DRAIN CL;  
XR-304500701-CI-DRAIN TBL; XR-304500701-CI-DESIGN CONTOURS  
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IP 1  
TC  
IP 2  
CT  
IP 3

HEIGHT BEARING RAD/SPIRAL

50mm

C ALIGN DRAIN->RSD01 HORIZONTAL POINTS

0.6m

1 ON 4 BATTER TO EXISTING

1 ON 4 BATTER TO EXISTING

-5.0 R

LONG SECTION - RSD01

SCALE 1:100

SECTION 4 - CH 30.000

SCALE 1:10

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8

SCALE 1:100

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SCALE 1:10

10m

@A1

0.2

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0.6

0.8

1m  
@A1

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Date Project  
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31/03/23  
Date  
AYR SITE  
31/03/23  
Date  
31/03/23 Title  
DRAINAGE DESIGN PLAN  
24432

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31/03/23

NUTRIEN AG SOLUTIONS  
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Drawing Number

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ND

1 ON 4 BATTER TO  
EXISTING SURFACE

26

1 ON 4 BATTER TO  
EXISTING SURFACE

NORTH

1.5m

0.8m

7.7m

9%

25

2.5m

1.8m

SECTION

2

SCALE 1:50

-

"Webforge Safety Barrier 2 Rail" SAFETY RAILING AS PER  
STANDARD DRAWING LKBR-EX-001 FROM WEBFORGE WEBSITE

1 ON 4 BATTER TO  
EXISTING SURFACE

1.385m

1.5m

12m

1

1

3

-

-

-

24

2

5

4

3

21

22

23

8

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D

4

PUMP EXACT LOCATION  
AND SIZING BY OTHERS

20

6.1m

19  
STORAGE TANK EXACT LOCATION  
AND SIZING BY OTHERS

SECTION

3

SCALE 1:50

-

0.2m

7

1 ON 4 BATTER TO  
EXISTING SURFACE

DESIGN RL. 9.730

25%

28

27

0.8m

6.1m

2.9m

6

BATTER AT 0.7% TO  
EXISTING SURFACE

0.2m

2  
DESIGN RL. 10.427

-

3.2m

9

13

10

12

11

18

14 16

5

SECTION

4

-

SCALE 1:50

-

17

15

SECTION OF WALL FOR SUMP TO BE CONSTRUCTED AT A LOWER HEIGHT  
TO ALLOW CURRENT FLOW PATH INTO EXISTING TABLE DRAIN TO BE  
MAINTAINED. REFER SETOUT POINTS AND SECTION 5 FOR DETAILS.

IL 11.230

IL 11.230

PLAN VIEW - SUMP LOCATION

IL 11.100

SCALE 1:75

FOOTING FOR SAFETY RAIL AS PER WEBFORGE  
STANDARD DRAWING LKBR-EX-001.

6.2m

0.2m

MAX OF 1.5m

VERTICAL BARS N12 @ 600mm CENTRES (40mm COVER)  
HORIZONTAL BARS N12 @ 200mm CENTRES

ALL STARTER BAR OVERLAP 300mm  
SL82 MESH WITH 65mm INTERNAL COVER  
N12 @ 200mm EACH WAY, EACH FACE  
65mm TOP COVER, 40mm BOTTOM COVER

50mm COMPACTED CRUSHER DUST

SECTION 1 - REINFORCEMENT DETAIL

MAX OF 1.5m

0.2m

0.25m

XREF's: XR-304500701-CI-SURV; XR-304500701-CI-DESIGN; XR-304500701-CI-DRAIN CL;  
XR-304500701-CI-DRAIN TBL; XR-304500701-CI-DESIGN CONTOURS  
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2.7m

SETOUT POINTS

SECTION

5

SCALE 1:25

-

SETOUT POINTS

SETOUT POINTS

PT No.

EASTING

NORTHING

RL.

PT No.

EASTING

NORTHING

RL.

PT No.

EASTING

NORTHING

RL.

1

2

3

4

5  
6  
7  
8  
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10

371.847  
372.128  
372.257  
372.379  
372.660  
375.836  
376.238  
372.224  
377.655  
378.222

203.519  
204.797  
203.463  
204.222  
205.953  
202.892  
205.374  
203.255  
202.389  
202.481

11.253  
11.235  
11.150  
11.150  
11.230  
10.430  
10.425  
11.230  
11.230  
11.230

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378.538  
379.886  
379.689  
380.004  
380.352  
380.154  
380.281  
379.743  
374.653  
374.147

202.994  
210.690

210.724  
212.584  
213.350  
213.381  
214.341  
214.607  
215.383  
215.238

11.230  
11.100  
11.100  
9.739  
11.100  
11.100  
11.230  
11.230  
11.230  
11.230

21  
22  
23  
24  
25  
26  
27  
28

373.896  
373.893  
372.462  
372.261  
364.386  
361.496  
377.339  
377.775

214.840  
213.516  
205.985  
206.017  
206.327  
210.415  
216.104  
218.962

11.230  
9.731  
11.230  
11.251  
11.266  
11.862  
11.230  
11.231

SCALE 1:20  
0

1.5

3

SCALE 1:75

1  
0  
SCALE 1:50  
0  
A  
Rev.

31/03/23  
Date

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Description

LV  
Des.

BM  
BM  
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SCALE 1:20

2

0.5

6

4.5

4

3

1

1.5

7.5m

@A1

5m

@A1

2m

@A1

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Date Project  
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Date  
AYR SITE  
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31/03/23 Title  
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24432

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FOR CONSTRUCTION  
DATUM

DATE

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Scale

25/01/2023 AS SHOWN

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## Hazardous Assessment Report

Ayr - 39-57 Home Hill Road, Ayr, QLD 4807

Prepared and Submitted by: Nutrien Ag Solutions Limited

Date: May 16, 2023

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1

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## 1. Introduction

Nutrien Ag Solutions Limited (Nutrien) is a manufacturer, distributor and seller of fertilisers. A recent audit of the existing Ayr site by Nutrien, has identified that the Ayr site, located at 39-57 Home Hill Road, Ayr, QLD 4807 is classified as a hazardous chemical facility as per the Planning Regulation 2017. A hazardous chemical facility means the use of premises for a facility at which a prescribed hazardous chemical is present or likely to be present in a quantity that exceeds 10% of the chemical's threshold quantity under the Work Health and Safety Regulation, Schedule 15. The Schedule 15 chemicals which are being stored at >10% of the threshold quantity include:

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Methomyl 225g/L at 11.3%  
Chlorpyrifos 500g/L at 10%  
Paraquat 360g/L at 27%

The other Schedule 15 chemicals which are being stored at <10% of the threshold quantity include:

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Liquified Petroleum Gas (LPG) at 0.4%  
Dimethoate 400g/L at 0.4%  
Abamectin 36g/L at 0%  
Aluminium Phosphide 330g/kg at 0.1%  
Chlorfenvinphos 200g/L at 0.2%  
Chlorothalonil 720g/L at 1.8%  
Chlorothalonil 900g/kg at 6.8%  
Diquat 200g/L at 0.2%  
Paraquat 250g/L at 3.8%  
Paraquat 330g/L at 5.0%  
Paraquat 135g/L  
Diquat 115g/L at 0.1%  
Oxamyl 240g/L at 0.6%

As the Ayr site is classified as a hazardous chemical facility and an application for a Material Change of Use is required, Nutrien has prepared this Hazardous Assessment Summary. Nutrien also operate under a dangerous goods site licence (licence no. POIK-10712) and have advised that no incidents have occurred at the site.

### 1.1. Purpose

The purpose of this Hazard Assessment is to detail the findings (including risk and mitigation measures) of the hazardous assessment undertaken for the Ayr site.

## 1.2. Summary of Major Findings

The risks from this existing dangerous goods storage or handling system have been minimised to as low as reasonably practicable to people, property, and the environment. The risk assessment identified:

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- 
- 

0 extreme risks  
12 high risks  
6 medium risk  
0 low risk.

After the implementation of the mitigation measures detailed in Section 6.2, the residual risk assessment identified:

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- 
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0 extreme risks  
0 high risks  
13 medium risk  
1

- 

5 low risk.

The following limitation, assumptions and uncertainties were identified during the hazard assessment:

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Report is not based on modelling.

### 1.3. Report Structure

This Hazardous Summary Assessment includes:

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A Title Page.

Table of Contents.

Introduction, including purpose and summary of major findings (Section 1).

Site Description, including cadstral details, operational activities and environmental

characteristics (Section 2).

Location (Section 3)

Hazardous Chemicals (Section 4).

Process (Section 5).

Hazard Identification Methods and Hazard Analysis (Section 6).

Code Compliance Statements (Section 7).

Site Manifest (Appendix A).

A Site Based Management Plan which details how the potential impacts from the project and

how these potential environmental impacts will be managed/avoided (Appendix B).

Dangerous goods register, this is included in the site's Hazardous Products

Register which is

provided as Appendix C.

Safety data sheet/s (SDS) All SDS are available in Nutrien's electronic system.

There are more

than 300 products stored and handled on site and it is impractical to provide hard copies of all

SDS, however the SDS for the Schedule 15 chemicals are provided in Appendix D.

Site Emergency Response Plan (Appendix E).

### 1.4. Applicable Standards and Codes of Practice

The following standards and codes of practice are applicable for the Ayr site:

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AS/NZS 1596:2014 The storage and handling of LP Gas

AS/NZS 3833: The storage and handling of mixed classes of dangerous goods in packages and

intermediate bulk containers

Code of practice: The storage and handling of dangerous goods.

Code of practice 2021: Managing risks of hazardous chemicals in the workplace.

## 2. Site Description

### 2.1. Location

The Ayr site is located approximately 3.2km south west of the centre of Ayr, the zoning, land use and land tenure of the site is detailed in Table 2-1. Residential properties are located to the east of the site, commercial properties located immediately south and rural properties are located south west, further south and west of the site (refer to Figure 1 and Figure 7). The population of Ayr is 8,097 (2021).

Table 2-1 Zoning, Land Use and Land Tenure

#### Property Description

Zoning

Land Use

Land Tenure

Lot 1 on RP718903

Medium Impact Industry

Commercial – Chemical Manufacturing, Distributing and Selling

Freehold

### 2.2. Cadastral Details

The Ayr site is described as Lot 1 on RP 718903, and located at 39 – 57 Home Hill Road, Ayr (refer to

Figure 1). The local government area is the Burdekin Shire. The site area is 12,140m<sup>2</sup> and is secured by a

2.1m high fence with barbed wire on top, with the site also having an integrated security system.

#### Figure 1 Site Layout Plan

### 2.3. Operational Activities

The Ayr site's primary operational activity is the sale and distribution of fertilisers, with the main activity undertaken being chemical manufacturing (or fertiliser blending) (refer to Section 5 for further details).

#### 2.3.1. Site Infrastructure

The infrastructure associated for the Ayr site is shown on Figure 1 and incorporates:

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A large solid fertiliser blending / storage shed (Warehouse 3), which is present within the centre of the site. Warehouse 3 is a fully enclosed shed.

A solid fertiliser unloading area, which is located to the north of Warehouse 3.

An existing spoon drain, which is located to the northeast of Warehouse 3.

A solid fertiliser bagging area, which is located to the southwest of Warehouse 3.

Liquid fertiliser tanks, located in the southwest of the site.

Yard storage of 864 L of LPG (site ref. PS5).

12.5 kL of DG 3 in a purpose-built flammable storage shed (PS1).

40 kg of DG 4.3 in a metal box locked in caged area (PS2).

12.65 kL of DG 6.1 toxic substances in packages and IBCs in storage warehouses (PS1 & PS2).

72.5 kL of DG 8 corrosive substances in packages and IBCs in storage warehouses (PS2, PS7 & PS8).

60 kL of combustible liquids in packages and IBCs in storage warehouses (PS1 & PS2).

All dangerous goods storages are static storage.

Currently the solid fertiliser blending / storage shed, and surrounding catchment drain towards a small 3000 L subsurface sump (Figure 1). Upgrades are proposed to improve the drainage and capture system in accordance with the concept design in Figure 1. An additional spoon drain will be constructed which will service the fertiliser bagging/unloading area and the receiving sump will be significant expanded in order to capture a "first flush (15mm) from the catchment (catchment outlined in broken red line). The sump will be 6m x 12m x 1m (deep) and capable of capturing 72m<sup>3</sup> of water before it overflows.

The site also contains an additional four large buildings / storage sheds which are located to the south and east of the site (Figure 1). A small shop is attached to the larger shed, which is located near the site entrance. The sheds are generally used for storing animal feed, general products and small packaged fertilisers. The small, packaged fertiliser products are generally stored on pallets on the concrete floor of the storage areas.

Several areas used for rubbish and storage of empty drums and pallets are located within the southwestern corner and north portion of the site (Figure 1). Diesel fuel storage is located in front of the Warehouse Store 3.

The site also contains various equipment associated with the blending, transport and bagging of mixed fertilisers. The blending activity is addressed further in Section 4 with the equipment detailed in Section 2.3.2.

### 2.3.2. Site Plant and Equipment

The Ayr site operate using mainly the following plant and equipment:

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Truck (semi-trailer).

Site vehicles (uts)

Forklift.

Hand tools.

Tubeveyors (enclosed).

Skid street endloader.

### 2.3.3. Site Operating Hours

The site operations are dependent on the time of the year, however, are generally:

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June to December: 6:00am to 6:00pm.

January to May: 6:00am to 12:00pm.

Site set up works are undertaken during the hours of 6:00am and 7:00am, with full site operations occurring from 7:00am onwards. The maximum number of employees, at any given time, for the Ayr site is 25.

#### 2.3.4. Solid Granular Fertiliser Handling Area Stormwater Capture System

Currently the solid granular fertiliser storage shed and surrounding catchment drain towards a small

3000 L subsurface sump (refer to Figure 2). Upgrades are proposed to improve the drainage and capture

system in accordance with the concept design in Figure 2. An additional spoon drain will be constructed

which will service the fertiliser bagging/unloading area and the receiving sump will be significant

expanded in order to capture a "first flush (15mm)" from the catchment

(catchment outlined in broken

red line). The sump will be 6m x 12m x 1m (deep) and capable of capturing 72m<sup>3</sup> of water before it

overflows.

The sump will be regularly pumped out into storage tanks, from which a local farmer will collect the

water to irrigate their pasture/crops in accordance with the Ed of Waste Code for fertilizer wash water

and slurry (ENEW07278417).

Figure 2 Fertiliser Handling Area Stormwater Capture System

#### 2.4. Climate

The climate zone, as defined by the Bureau of Meteorology (BOM), for the site locality is a typical

tropical climate characterised by hot humid summers.

Climate data collected from the Ayr DPI Research STN weather station (033002) from 1951 to 2022

provided some indicative weather patterns. The Ayr DPI Research STN weather station (033002) is

approximately 2.9km south west of the site. The mean maximum temperatures ranged from 32.1°C in

December to 25.3°C in July (BOM, 2022) (refer to Figure 3). The mean minimum temperatures from

1951 to 2022 ranged from 24.1°C in December to 12.4°C in June (BOM, 2022) (refer to Figure 3).

Average annual rainfall from the weather station 033002 is 937mm, with the wet season extending over



the summer months (BOM, 2022). The highest mean monthly rainfall recorded is in February (231.2mm) and the lowest mean monthly rainfall recorded is in September (9.6mm) (BOM, 2022) (refer to Figure 4). Wind conditions in January are predominantly north easterly with predominant wind speeds of  $\geq 10$  to  $< 20$  km/hr in the morning and are south westerly with predominant wind speeds of  $\geq 10$  to  $< 20$  km/hr in the afternoon (refer to Figure 5). Winter winds (July) are predominantly north to north westerly with predominant speeds of  $\geq 0$  to  $< 20$  km/hr in the morning and range from westerly to south westerly with predominant speeds of  $\geq 0$  to  $< 10$  km/hr in the afternoon (refer to Figure 5).

Figure 3 Mean Maximum and Minimum Temperature – Ayr DPI Research STN Weather Station (033002)

Figure 4 Mean Rainfall – Ayr DPI Research STN Weather Station (033002)

Figure 5 Wind Roses – Summer (January 9am and 3pm) and Winter (July 9am and 3pm)  
Averages at the Ayr  
DPI Research STN Weather Station

## 2.5. Topography, Geology and Soils

### 2.5.1. Topography

The site is relatively flat in topography and low lying ranging from 12m Australian Height Datum (m AHD) to 13m AHD (Figure 7). Given that site is <20m AHD, it is mapped within the Burdekin Shire Council Acid Sulfate Soil Overlay, however as per Section 2.5.3 the likelihood of acid sulfate soils occurring is low. The majority of the site is concrete hardstand and buildings, with the entrance at the south-western corner, southern boundary and the northern portions of the site having exposed surfaces of sand / clay fill material.

### 2.5.2. Geology

A review of QLD Globe's detailed 1:100k Geological Map indicated the site's regional surface geology is quaternary alluvium (Qa-QLD) as detailed in Table 12-2  
Table 2-2 Surface Geology

Surface Dominant

Rock

QaAlluvium

QLD

Rock Type

Lithological Summary

Age

Stratified unit (including  
volcanic and  
metamorphic)

Clay, silt, sand and gravel;  
flood-plain alluvium

Quaternary

### 2.5.3. Soils

A review of the Australian Soil Resource Information System (ASRIS) revealed that the Australian Soil Classification for the site is Tenosols to the south and Dermosols to the north of the site. These are soil types with minimal texture contrast and are not highly prone to issues such as sodicity/dispersion. ASRIS also indicated that there is extremely low probability of acid sulfate soils.

## 2.6. Surrounding Surface and Groundwater

Local topography and drainage are presented below in Figure 6. The site is relatively flat in topography and low lying and approximately 10 m AHD. The site drains gently in a west to east direction towards the Bruce Highway. Runoff from the site exits into the table drain on the western side of the Bruce Highway. From here the table drain flows southwards into what appears to be a drainage line approximately 90 m south of the site. The drainage line would rarely experience flow and appears to eventually terminate into a pond. It is assumed that following substantial rainfall events/flooding the pond would overtop and then eventually flow into Plantation Creek. A review of QLD Globe's registered water bores layer indicated that there are seventeen (17) registered groundwater bores within a 500 m radius from the site. The closest registered groundwater bore (RN 175936) is located approximately 90m southwest of the site, the standing water level at this bore is 10.10m below ground level (mgl) and indicates that the water quality is potable. The depth of the groundwater well is 30m bgl.

Figure 6 Topography and Drainage

#### 2.6.1. Environmental Values and Water Quality Objectives

The Site is located within the Haughton drainage basin, the Barratta Creek drainage sub-basin and the Lower Burdekin Catchment (QLD Globe).

As described above site runoff eventually flows into a drain approximately 90m south of the site. The drain terminates in a pond. It is assumed when the pond overflows it would make its way towards Plantation Creek which forms part of the Burdekin River within the Haughton drainage basin.

There are currently no specific water quality objectives for the Haughton drainage basin as they are currently under development, however Draft environmental values and water quality guidelines:

Burdekin Basin fresh and estuarine waters (DES, 2017) contain draft environmental values and water quality objectives for this catchment. According to Figure 9 in the DES 2017 Draft guidelines, the site is located within lowland fresh waters. The Environmental Values for the site are as per the below:

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Aquatic ecosystems.  
 Irrigation.  
 Farm supply.  
 Stock water.  
 Aquaculture.  
 Human consumption.  
 Primary recreation.  
 Secondary recreation.  
 Visual recreation.  
 Industrial use.  
 Cultural and spiritual values.

The Water Quality guidelines (80th percentile assuming a moderately disturbed system) suggested to protect the above Draft Environmental Values of the Lower Burdekin River are listed as follows:

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Ammonium (N) <20 µg/L.  
 Oxidised nitrogen <55 µg/L.  
 Total nitrogen: <650 µg/L.  
 Filterable reactive phosphorus <20 µg/L.  
 Total phosphorus <60 µg/L.  
 Chlorophyll a: <4 µg/L.  
 Dissolved oxygen: 85 – 110% saturation.  
 Turbidity: <100 NTU.  
 Suspended solids: <40 mg/L.  
 pH 6.5 – 8.5.  
 Conductivity: <300 µS/cm.  
 Sulfate: 37 mg/L as SO42-.

Given that the lower Burdekin catchment is a major contributor of water and contaminants to the Great Barrier Reef, it is critical that the fertilisers (and their associated nutrients) on site are managed carefully.

### 2.7. Surrounding Land Uses and Zones

The surrounding land uses and zones located adjacent of near the site are as follows:

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The several isolated onsite trees and the potential fauna they may use these trees for habitat or foraging.

The onsite workers.

The low-density residential dwellings located approximately 42m east of the site, with the closest residential dwelling approximately 58m from where the ERA 7 activities would occur.

The rural properties to the north/west, approximately 24m, with the closest dwelling approximately 305m from the site.

The rural properties to the southeast, approximately 75m, with the closest dwelling approximately 115m from the site.

The residential village located approximately 80m north of the site.

The unmapped watercourse / wetland line approximately 95m south of the site. These surrounding land uses and zones are shown in Figure 7.

## Figure 7 Proximity to Sensitive Receptors

### 2.8. Flora and Fauna

A review of the QLD Globe layers, undertaken on 10 May 2022, identified:

The site is mapped as Category X (non-remnant) vegetation under the Vegetation Management Act

1999. During a site visit a few isolated trees were identified, with the remainder of the site

predominantly hardstand or cleared.

The site is mapped within the following biosecurity zones:

- State grape phylloxera risk zone.
- Sugar cane biosecurity zone 2.
- Cattle tick infested area.

The site is not mapped as containing:

- Essential habitats.
- Protected plants.
- Wetlands of high or general ecological significance.
- Waterways for waterway barrier works.
- Fish Habitats.

### 2.9. Natural Hazards

A review of Shire of Burdekin Planning Scheme maps indicates the following:

•

The site is mapped within a Low Bushfire Hazard area as per the Natural Features or Resources

Overlays Burdekin Shire Natural Features Map 9.

Searches on Queensland Globe reveal the following:

•

•

The site is not mapped within a flood hazard area as per the Qld Globe overlay maps or the

Burdekin Shire Council Flood Hazard Overlay Map.

Of note is that the general surrounding area is subject to flooding, with

Plantation Creek to the

north, and the Burdekin River to the south both being mapped in the extreme flood hazard

area.

- 

The site is not mapped as being within a bushfire prone area under the current State Planning Policy mapping.

### 3. Hazardous Chemicals

The hazardous chemicals for the Ayr site are detailed within Table 3-1, with a breakdown provided in Table 3-2 (refer to Appendix D for SDS).

Table 3-1 Hazardous Chemicals Details

UN No.

Class or

Sub risk

Division

1075

Packing

Group

2.1

Name of dangerous good

Quantity

LP Gas

864 L

3

II

Flammable Liquids

10.5 kL

3

III

Flammable Liquids

2 kL

1397

4.3

I

Aluminium Phosphide

40 kg

1486

5.1

II

Oxidising Solids

3,700 kg

5.1

III

Oxidising Solids



48,000 kg

6.1

II

Toxic Substances

500 L

6.1

III

Toxic Substances

12.15 kL

8

II

Corrosive Substances

6.5 kL

8

III

Corrosive Substances

66 kL

C1 Combustible Liquid

60 kL

Table 3-2 Hazardous Chemicals Details  
Product

LPG

Active Constituent  
Petroleum Gases,  
Liquified

Physical  
State

Physical  
Characteristics  
(appearance,  
odour, etc.)

UN  
No.

Gas

Colourless gas  
and slight odour.

UN1  
075

GHS Classification

- 
- 
- 
- 

Agricultural  
Products  
(Various1)

Abamectin 36g/L at  
0%

Liquid

Clear amber  
coloured liquid,  
Distinctive  
sweet odour,  
and Emulsifiable

UN2  
902

- 
- 
- 
- 

Flammable Gases: Category 1A  
Gases Under Pressure: Liquefied  
gas  
Combustible liquid - (Category 4),  
H227  
Acute toxicity, Oral - (Category 3),  
H301  
Skin Irritation (Category 2), H315  
Eye irritation - (Category 2B),  
H320  
Acute toxicity, Inhalation (Category 3), H331  
Specific target organ toxicity (Category 3), Respiratory system,  
H335

Class or  
Division

Sub  
Risk

WHS  
Regulation  
Chemical

Packing  
Group

Quantity  
(units)

Largest

Container  
Size

2.1

-

Yes

None  
allocated

864 L

9.6kg

6.1

-

-

III

350L

10L

12

Product

Active Constituent

Physical  
State

Physical  
Characteristics  
(appearance,  
odour, etc.)

UN  
No.

GHS Classification

- 
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- 
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- 
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- 
- 

Chlorfenvinphos  
200g/L at 0.2%

Liquid

Amber

UN3  
017

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- 
- 

Oxamyl 240g/L at  
0.6%

Liquid

Dark Green,  
Aromatic, and  
Miscible

UN2  
991

- 
- 
- 

Chlorpyrifos - 500g/L  
at 10%

Liquid

Straw colour and

characteristic  
hydrocarbon  
odour

UN3  
018

•  
•

Reproductive Toxicity - (Category 1), H360  
Specific Target Organ Toxicity (Repeated Exposure) - (Category 1), H373  
Chronic aquatic hazard (Category 3), H410  
Flammable Liquid - (Category 3), H226  
Acute toxicity, Oral - (Category 3), H301  
Acute Toxicity - Dermal (Category 4), H311  
Toxicity Inhalation - (Category 2), H330  
Skin Corrosion/ Irritation (Category 2), H315  
Serious Eye Damage/ Irritation (Category 1), H318  
Skin sensitization - (Category 1), H317  
Specific target organ toxicity (Category 2), Nervous system, H371  
Specific target organ toxicity (Category 3), nervous system, adrenal gland, and/or digestive system, H373  
Flammable Liquid - (Category 3), H226  
Acute toxicity, Oral - (Category 2), H300  
Toxicity Inhalation - (Category 2), H330  
Serious Eye Damage/ Irritation (Category 2A), H319  
Short term/ Chronic aquatic hazard - (Category 2), H410  
Acute Toxicity - Oral (Category 3), H301  
Aquatic Acute Hazard - (Category 1), H400

Class or  
Division

Sub  
Risk

WHS  
Regulation  
Chemical

Packing  
Group

Quantity  
(units)

Largest  
Container  
Size

6.1

3

-

III

200L

10L

6.1

-

-

II

400L

20L

6.1  
Toxic  
substan  
ces

-

-

III

1600L

20L

13

Product

Active Constituent

Physical  
State

Physical  
Characteristics  
(appearance,  
odour, etc.)

UN  
No.

GHS Classification

- 
- 
- 
- 
- 

Paraquat - 360g/L at  
27%

Liquid

Green.  
characteristic  
odour, soluble in  
water

- 

UN2  
922

- 
- 
- 
- 
- 

- 
- 
- 

Paraquat - 330g/L at  
5.0%

Liquid

Dark greenbrown/ blue,  
obnoxious  
pyridine odour,  
and Completely  
soluble in water

- 

UN2  
922

- 
- 
-

•

Flammable Liquid (Category 4),  
H227  
Acute toxicity, Oral - (Category 3),  
H301  
Skin Irritation - (Category 3), H311  
Toxicity Inhalation - (Category 2),  
H330  
Organ toxicity - repeated  
exposure (Category 1), H372  
Corrosive to metals - (Category  
1), H290  
Acute aquatic hazard - (Category  
1), H400  
Chronic aquatic hazard (Category 1), H410  
Skin Corrosion/ Irritation  
(Category 2), H315  
Serious Eye Damage/ Irritation  
(Category 2A), H319  
Specific target organ toxicity (Category 3), Respiratory system,  
H335  
Acute toxicity, Oral - (Category 3),  
H301  
Skin Irritation - (Category 3), H311  
Skin Corrosion/ Irritation  
(Category 2), H315  
Serious eye damage/eye irritation  
- (Category 2B), H320  
Toxicity Inhalation - (Category  
1/2), H330  
Specific target organ toxicity (Category 3), Respiratory system,  
H335  
Organ toxicity - repeated  
exposure (Category 1), H372  
Short term/ Chronic aquatic  
hazard - (Category 1), H410

Class or  
Division  
n

Sub  
Risk

WHS  
Regulation  
Chemical

Packing  
Group

Quantity  
(units)

Largest  
Container  
Size

6.1

-

Yes



III

13800

1000L

6.1

-

-

II

20L

45800L

14

Product

Active Constituent

Physical  
State

Physical  
Characteristics  
(appearance,  
odour, etc.)

UN  
No.

GHS Classification

- 
- 
- 

Paraquat - 250g/L at  
3.8%

Liquid

Dark Blue,  
Obnoxious  
odour, Not  
Flammable,  
Completely  
Soluble

- 

UN3  
016

- 
- 
- 
- 
- 

- 
- 
- 

Paraquat - 135g/L

Liquid

Clear dark blue  
liquid,  
Unpleasant  
odour

- 

UN3  
016

- 
- 
- 
- 
-

Methomyl - 225g/L at  
11.3%

Liquid

Blue, Sulfur like  
odour

UN2  
758

- 
- 
- 

Toxicity Inhalation - (Category 2),  
H330  
Organ toxicity - repeated  
exposure (Category 1), H372  
Acute aquatic hazard - (Category  
1), H400  
Chronic aquatic hazard (Category 3), H410  
Acute Toxicity - Oral (Category 4),  
H302  
Acute Toxicity - Dermal (Category  
4), H312  
Skin Corrosion/ Irritation  
(Category 2A), H315  
Serious Eye Damage/ Irritation  
(Category 2A), H319  
Specific target organ toxicity (Category 3), Respiratory system,  
H335  
Acute toxicity, Oral - (Category 2),  
H300  
Toxicity, Dermal - (Category 1),  
H310  
Skin Corrosion/ Irritation  
(Category 2A), H315  
Skin sensitization - (Category 1),  
H317  
Serious eye damage/eye irritation  
- (Category 1), H318  
Toxicity Inhalation - (Category  
1/2), H330  
Specific target organ toxicity (Category 3), Respiratory system,  
H335  
Chronic aquatic hazard (Category 1), H410  
Highly flammable liquid and  
Vapor - (Category 2), H225  
Acute toxicity, Oral - (Category 2),  
H300  
Skin Irritation - (Category 3), H311  
Acute toxicity, Inhalation (Category 3), H331

Class or  
Division  
n

Sub  
Risk

WHS  
Regulation

Chemical

Packing  
Group

Quantity  
(units)

Largest  
Container  
Size

6.1  
Toxic  
substan  
ces

-

Yes

III

4550L

110L

-

-

III

800L

110L

-

Yes

II

4000L

20L

6.1

6.1

15

Product

Active Constituent

Physical  
State

Physical  
Characteristics  
(appearance,  
odour, etc.)

UN  
No.

GHS Classification

- 
- 
- 
- 
- 

Diquat - 115g/L at  
0.1%

Liquid

Clear dark blue  
liquid,  
Unpleasant  
odour , soluble  
in water, not  
flammable.

- 

UN3  
016

- 
- 
- 
- 
- 
- 
- 

Diquat 200g/L at 0.2%

Liquid

Clear dark red to  
brown coloured  
liquid, soluble in  
water, not  
flammable.  
Obnoxious  
odour

- 

UN3  
016

- 
-

•  
•

Dimethoate - 400g/L at  
0.4%

Liquid

Peach coloured  
liquid with  
mercaptan/keto  
ne odour. DG 3

UN1  
993

•  
•

Specific Target Organ Toxicity  
(Single Exposure) - (Category 3),  
H370  
Chronic aquatic hazard (Category 3), H410  
Acute toxicity, Oral - (Category 2),  
H300  
Toxicity, Dermal - (Category 1),  
H310  
Skin Corrosion/ Irritation  
(Category 2), H315  
Skin sensitization - (Category 1),  
H317  
Serious eye damage/eye irritation  
- (Category 1), H318  
Toxicity Inhalation - (Category  
1/2), H330  
Specific target organ toxicity (Category 3), Respiratory system,  
H335  
Chronic aquatic hazard (Category 1), H410  
Acute toxicity, Inhalation (Category 3), H331  
Organ toxicity - repeated  
exposure (Category 1), H372  
Skin Corrosion/ Irritation  
(Category 2A), H315  
Chronic aquatic hazard (Category 3), H411  
Serious Eye Damage/ Irritation  
(Category 2A), H319  
Skin sensitization - (Category 1),  
H317  
Specific target organ toxicity (Category 3), Respiratory system,  
H335  
Acute Aquatic Toxicity (Category  
2), H401  
Acute toxicity, Oral - (Category 3),  
H301  
Potential Toxicity Inhalation/ oral  
- (Category 4), H304

Class or  
Division

Sub  
Risk

WHS  
Regulation  
Chemical

Packing  
Group

Quantity  
(units)

Largest  
Container  
Size

6.1  
Toxic  
substan  
ces

-

-

III

1600L

20L

6.1  
Toxic  
substan  
ces

-

Yes

III

800L

20L

3  
Flamm  
able  
liquids

-

Yes

III

2000L

10L

16

Product

Active Constituent

Physical  
State

Physical  
Characteristics  
(appearance,  
odour, etc.)

UN  
No.

GHS Classification

- 
- 
- 
- 
- 
- 
- 
- 

Chlorothalonil 900g/kg at 6.8%

Solid

Granules light  
brown, slightly  
pungent

UN3  
077

- 
- 
- 
- 
- 
- 

Chlorothalonil - 720g/L  
at 1.8%

Liquid

Smooth creamy  
light grey liquid  
suspension.  
Slightly pungent.  
S6

- 

UN3  
089

- 
- 
- 

Aluminium Phosphide  
- 330g/kg at 0.1%



Solid

Greenish-grey.  
Strong  
characteristic  
odour (garlic,  
carbide or  
decaying fish).

•

UN1  
397

•

•

Skin Irritation - (Category 3), H311

Skin sensitization - (Category 1),  
H317

Eye irritation - (Category 1), H320

Toxicity Inhalation - (Category 4),  
H332

Specific Target Organ Toxicity  
(Repeated Exposure) - (Category  
1), H373

Chronic aquatic hazard (Category 3), H411

Toxicity Inhalation - (Category 2),  
H330

Specific target organ toxicity (Category 3), Respiratory system,  
H335

Serious eye damage/eye irritation  
- (Category 1), H318

Skin sensitization - (Category 1),  
H317

Suspected Carcinogenicity -  
(Category 2), H351

Chronic aquatic hazard (Category 3), H410

Skin sensitization - (Category 1,  
1A, 1B), H317

Toxicity Inhalation - (Category 2),  
H330

Serious eye damage/eye irritation  
- (Category 1), H318

Specific target organ toxicity (Category 3), Respiratory system,  
H335

Suspected Carcinogenicity -  
(Category 2), H351

Acute aquatic hazard - (Category  
1), H400

Acute toxicity, Oral - (Category 2),  
H300

Serious eye damage/eye irritation  
- (Category 1), H318

Toxicity Inhalation - (Category 1),  
H330

Class or  
Division

Sub  
Risk

WHS  
Regulation  
Chemical

Packing  
Group

Quantity  
(units)

Largest  
Container  
Size

9

-

-

III

1800kg

10kg

9  
Miscell  
aneous  
Danger  
ous  
Goods

-

-

III

1800L

10L

4.3

6.1

-

I

5.4kg

5kg

17

Product

Active Constituent

Physical  
State

Physical  
Characteristics  
(appearance,  
odour, etc.)

UN  
No.

GHS Classification

- 
- 
- 

MCPA

Liquid

Brown liquid  
with phenolic  
odour. Can be  
aqueous salt  
soln. or esters in  
hydrocarbons

- 
- 

- 
- 
- 
- 

2,4 D (2,4Dichlorophenoxyacetic  
acid)

Liquid

Brown liquid  
with phenolic  
odour. Can be  
aqueous salt  
soln. or esters in  
hydrocarbons

- 

3077

- 
- 
- 
- 
- 

Metham

Liquid

Amber to yellow  
green liquid.  
Pungent odour.  
DG 8

3267

•  
•  
•

Acute aquatic hazard - (Category 1), H400  
Toxicity Inhalation - (Category 4), H332  
Acute toxicity, Oral - (Category 4), H302  
Serious eye damage/eye irritation - (Category 1), H318  
Chronic aquatic hazard (Category 2), H410  
Skin sensitization -(Category 1), H315  
Skin Corrosion/Irritation (Category 2), H312  
Acute toxicity, Oral (Category 4), H302  
Serious eye damage/eye irritation - (Category 1), H318  
Skin sensitization (Category 1), H317  
Specific target organ toxicity single exposure (Category 3), Respiratory system, H335  
Short-term (acute) aquatic hazard (Category 1), H400  
Acute Toxicity Oral - (Category 4), H302  
Skin Corrosion - (Category 1b), H314  
Skin Sensitisation - (Category 1), H317  
Acute Toxicity Inhalation - (Category 4), H332  
Hazardous to Aquatic Environment Short Term/Chronic (Category 1), H410

Class or  
Division

Sub  
Risk

WHS  
Regulation  
Chemical

Packing  
Group

Quantity  
(units)

Largest  
Container

Size

-

-

-

-

8550L

1000L

-

-

-

III

8550L

1000L

No

II

36000L

1000L

8

Corrosi  
ve  
Substa  
nces

1 Various including Nutrien, Loveland, Nufarm, Sipcam, Syngenta, Crop Care, BASF, Sinochem, etc.

18

#### 4. Process

##### 4.1. Solid Fertilizer Blending

The Ayr site receives and stores bulk granular fertiliser. Some of the fertiliser products are blended to produce mixed products. The blending process is as follows:

1. Individual solid fertiliser pellets products are received by truck delivery at the unloading area (orange location in Figure 1).
2. Trucks are unloaded using a multiveyor to transfer the solid fertiliser pellets into storage bunkers within warehouse 3 (yellow shed in Figure 1).
3. The multiveyor transfers the fertiliser pellets from storage bunkers to weigher and blender.
4. A coarse screen over the final multiveyor to remove lumps of solid fertiliser pellets. The residue may be collected and sold separately.
5. The fertiliser pellets are mixed in the blender. The blender has a vent for the minor traces of dust discharged in the process.
6. Blended pellets are transferred to the bagging unit by the multiveyor (purple area in Figure 1) and then packed into 1 tonne bags. A small amount is sold in bulk.
7. Blended pellets in 1 tonne bags are stored on concrete slab for same day collection.

In order to prevent fertiliser runoff into watercourses the above operations are to take part on a sealed concrete surface which drains into a site collection system, including a sump and storage tanks. The current drain and sump system can be seen in Figure 2 however upgrades are proposed to this system and are described in Section 2.2.4 and Figure 2.

##### 4.2. Liquid Fertiliser Blending

The Ayr site receives and stores liquid fertiliser in silos within a bunded area. The blending of the fertilisers all takes place within the bunded area and consists of the following process:

1. Liquid fertiliser products are received via trucks and pumped into their respective silo's.
2. As requests for blends arise the liquid fertiliser from each silo is pumped into a mixing tank. Sometimes trace element granular fertiliser is also added into the mix.
3. The blended product is then pumped into a bulk transport tank or intermediate bulk containers (IBC's) for delivery to customers.

##### 4.3. Waste Activities

The following types of waste are generated on site:

- 

Sump and washdown water (discussed in Section 2.3.4).

- 

Solid Granular fertiliser sweepings.

- 

Cardboard.

- 

Waste Oil stored on site; and

•

General waste unrelated to site operations.

Solid granular fertiliser sweepings are taken by a local farmer on a regular basis. Cardboard is emptied four (4) times a year in a dedicated cardboard recycling skip bin. Two (2) wheelie bins are located on site for general waste which are emptied on a regular basis, taken to a landfill facility near the site.

#### 4.4. Secondary Chemicals

Secondary chemicals are stored on site. These consist of various Dangerous Goods including pesticides, herbicides, poisons, etc. which are stored in small containers which are sold "off the shelf" to customers. These chemicals are stored in the clearly defined chemical storage locations (refer to Figure 1 and Section 2.2).

## 5. Hazard Identification Methods and Hazard Analysis

### 5.1. Methodology

In order to manage l risk and comply with the relevant legislation, it is important to identify the potential hazards associated with the operational activities, assess the risks involved, and develop controls to eliminate, or minimise, residual risk. In accordance with Australia Standards/New Zealand Standards (AS/NZS) International Organization for Standardization (ISO) 31000:2009 Risk Management – Principles and Guidelines, a hazard identification and risk assessment process has been undertaken in order to assess and adequately manage the risks posed by the operational activities.

The results of this risk assessment process are shown in Section 5.2, in which unmitigated hazards were assessed. In undertaking this risk assessment, likelihood levels, consequence levels and risk criteria based on the requirements of AS/NZS ISO 31000:2009, as shown in Table 5-1 to Table 5-3, were used to assess the risk rating for each identified hazard. The resultant risk rating of identified hazards is presented in Table 5-4. Note that in cases where the likelihood and consequence of risks relating to one hazard varied, the most conservative figure was used.

Nutrien also undertook a review of the hazardous chemicals safety data sheets when undertaking the risk assessment analysis.

Table 5-1 Risk Assessment Criteria Matrix  
Level

Descriptor

Qualitative Description

A

Almost certain

B

Likely

C

Possible

D

Unlikely

E

Rare

The event is expected to occur; event will occur on an annual (or more frequent) basis.  
Probable that it will occur; event has occurred several times before at similar developments.  
May or may not occur; event may occur once during the development.  
The event may occur at some time but is unlikely; heard of happening from time to time at similar developments.  
The event may occur in exceptional circumstances; not heard of at similar developments.



Table 5-2 Consequence Levels  
Level

Descriptor

Qualitative Description

1

Insignificant

2

Minor

3

Moderate

4

Major

Environment: No damage detected.

People: Event does not result in injury (i.e. no medical treatment required).

Property: No damage to property.

Amenity: No detectable impact on amenity.

Environment: Minor impact of short duration or short term damage.

People: Reversible injury or illness.

Property: Minor damage to property (<\$5,000 to repair).

Amenity: Minor, localised and short term amenity impacts, no complaints.

Environment: Short term damage, localised impact.

People: Irreversible disability or impairment (30%) to one or more persons.

Property: Moderate damage to property (<\$50,000 to repair).

Amenity: One or two complaints, impacts extending to several properties and/or lasting for several days.

Environment: Significant impact locally and potential for offsite impacts.

People: Severe injuries or impairment (60%) to one or more persons, single fatality.

Property: Major damage to property (<\$500,000 to repair).

Amenity: Many complaints, impacts extensive and/or lasting for many days, up to 5 properties rendered uninhabitable for more than one day.

Level

Descriptor

Qualitative Description

5

Catastrophic

Environment: Significant impacts to regional ecosystems and threatened species, potential for widespread offsite impacts.

People: Multiple fatalities, or irreversible injuries/impairment (>60%).

Property: Significant loss to property (>\$1,000,000 to repair).

Amenity: Multiple dwellings rendered uninhabitable for >1 day.

Likelihood

Table 5-3 Risk Assessment Matrix

A  
(Almost certain)

B  
(Likely)

C  
(Possible)

D  
(Unlikely)

E  
(Rare)

1  
(Insignificant)

2  
(Minor)

Consequences

3  
(Moderate)

4  
(Major)

5  
(Catastrophic)

Low

Medium

High

Extreme

Extreme

Low

Medium

Medium

High

Extreme

Low

Low

Medium

High

High

Low

Low

Medium

Medium

High

Low

Low

Low

Medium

Medium

## 5.2. Risk Assessment Register

The risk ratings presented in Table 5-4 are to be interpreted as follows:

Low: Risk can be adequately managed by routine procedures and work practices.

Medium: Control measures other than administrative controls are needed.

High: Significant risk control measures need to be implemented before works commence and must be maintained.

Extreme: Operations are not to be undertaken without extensive risk control and mitigation measures in place prior to

the commencement of works and such measures must be maintained for the duration of the project.

Table 5-4 Risk Assessment Register

Ref.

Hazard

no.

[List the activity, procedure, plant, process or situation that could give rise to a dangerous goods incident]

1

Impact of stored chemicals

Impact of a hazardous event happening

[How big is the risk?]

L

C

R

C

4

H

Proposed risk control measures



2

Chemical spills due to inappropriate transport, storage or handling.

C

3

M



Agricultural products in packages stored in pallet racking.

IBCs are stored in racking or blocked stacked no more than 2 high if dangerous goods.

Only the Nutrien Ag Solutions

forklift enters the warehouses.  
Forklift drivers are trained,  
experienced and licensed.  
The LPG is stored in a cage.  
Procedure for spills at gate to  
property.

Store substances in accordance  
with the relevant Australian  
Standards, including AS/NZS  
1596:2014 The storage and  
handling of LP Gas and AS/NZS  
3833: The storage and handling  
of mixed classes of dangerous  
goods in packages and  
intermediate bulk containers  
and Code of Practices, including  
Code of practice: The storage  
and handling of dangerous  
goods and Code of practice  
2021: Managing risks of  
hazardous chemicals in the  
workplace.

Dangerous goods or hazardous  
substances stored in drums  
shall be located on hardstand  
containment areas, banded  
where the capacity of the bund  
can hold at least 25% of the  
maximum design storage  
volume, preferably undercover.  
Loading and unloading areas  
involving tankers should be

Have the risk  
control  
measures been  
implemented?  
[If "No",  
document this  
in Section 1.2]

Residual risk after  
implementation of the risk  
control measures

Is the  
residual risk  
as low as  
reasonably  
practicable  
(ALARP)?

L

C

R

Yes

D

2

L

Yes

Yes

D

2

L

Yes

22

Ref.  
no.

Hazard  
[List the activity, procedure,  
plant, process or situation  
that could give rise to a  
dangerous goods incident]

Impact of a hazardous  
event happening  
[How big is the risk?]

L

C

Proposed risk control  
measures

R

☞

☞

☞

☞

☞

☞

☞

located on impervious  
hardstand and bunded, where  
the bund is able to contain  
100% of the largest  
compartment of the tanker on  
site.

Smaller amounts of hazardous  
chemicals shall be stored in  
fireproof and bunded cabinets  
above hardstand surfaces.

Stormwater diversion systems  
shall be in place to prevent  
stormwater intrusion to other  
areas storing hazardous  
chemicals.

Chemicals that need to be used  
on site are to be used in  
designated areas only, above  
hardstand and within bunded  
areas.

Permanently bunded areas  
should have a collection sump  
to facilitate the removal of  
liquids, with the bunded areas  
flooring graded towards the  
sump.

Handling hazardous chemicals  
should require appropriate PPE

as defined by the respective chemical safety data sheet. Readily available spill kits and HAZMAT boxes should be accessible at all locations where chemical spills may occur, and shall be restocked after each use.

All cleaning of equipment and machinery should be undertaken within designated

Have the risk control measures been implemented?  
[If "No", document this in Section 1.2]

Residual risk after implementation of the risk control measures

L

C

R

Is the residual risk as low as reasonably practicable (ALARP)?



Ref.  
no.

Hazard  
[List the activity, procedure,  
plant, process or situation  
that could give rise to a  
dangerous goods incident]

Impact of a hazardous  
event happening  
[How big is the risk?]

L

C

Proposed risk control  
measures

R

☞

3

Incidents caused by  
inappropriate separation  
distances

C

4

H

☞

areas that are located on  
hardstand and bunded.  
Defects found with any bunded  
areas, plant equipment, storage  
tanks or storage drums needs  
to be repaired as soon as  
practicable.

Separation distance From AS  
3833:

☞

The required separation to  
any property boundary is  
3m.

☞

PS1 is more than 5m from  
the nearest boundary.

☞

PS2 is more than 12m to  
the nearest boundary.

☞

The gas stand is 3m from  
the nearest boundary.

☞

For PG I products the  
minimum separation  
distance required to an offsite protected place

required is 5m.



PS1 is >20m from the protected place on the neighbouring property to the south.



For 145,000 litres of product (PG III and C1), the required separation to an off-site protected place is 10m.



PS2 is >20m from the protected place on the neighbouring property to the south.



PS6 & PS8 is >10m from the protected place on the neighbouring property to the south.

Have the risk control measures been implemented?  
[If "No", document this in Section 1.2]

Yes

Residual risk after implementation of the risk control measures

L

C

R

D

4

M

Is the residual risk as low as reasonably practicable (ALARP)?

Yes

Ref.  
no.

Hazard  
[List the activity, procedure,  
plant, process or situation  
that could give rise to a  
dangerous goods incident]

Impact of a hazardous  
event happening  
[How big is the risk?]

L

C

Proposed risk control  
measures

R

⌞

⌞

⌞

⌞

⌞

⌞

⌞

⌞

⌞

⌞

⌞

From AS 1596, the  
required separation to an  
off-site protected place is  
8m.

The gas stand is >20 m  
from the protected place  
on the  
Neighbouring property to  
the south.

From table 6.1, the  
required separation to an  
off-site protected place for  
products including some  
PG II product is 5m.

The flammable liquids  
storage is > 5m from the  
protected place on the  
neighboring property to  
the south.

For the PG I product in the  
DG 4.3 cabinet the  
required separation to  
onsite protected places is  
5m.

The cabinet is more than 5m from the office when measured around the intervening wall.  
The cabinet is more than 20m from warehouse 2.  
The cabinet is more than 25m from the flammable liquids shed.  
The cabinet is more than 50m from the gas stand.  
For warehouse 2, the required separation to onsite protected places for 100,000 litres of PG III and C1 product is 10m.

Have the risk control measures been implemented?  
[If "No", document this in Section 1.2]

Residual risk after implementation of the risk control measures

L

C

R

Is the residual risk as low as reasonably practicable (ALARP)?

Ref.  
no.

Hazard  
[List the activity, procedure,  
plant, process or situation  
that could give rise to a  
dangerous goods incident]

Impact of a hazardous  
event happening  
[How big is the risk?]

L

C

Proposed risk control  
measures

R  
The office is >20m from  
warehouse 2.

☞  
The DG 4.3 cabinet is more  
than 20m from warehouse  
2. The gas stand is more  
than 30m from warehouse  
2.

☞  
For the gas stand, the  
required separation to  
onsite protected places is  
8m (AS 1596)

☞  
Warehouse 1, warehouse 2  
and the flammable liquids  
container are more.

☞  
than 20m from the gas  
stand

☞  
From AS 1940, for the  
flammable liquids  
container, the required  
separation is 5m.

☞  
Warehouse 1 and  
warehouse 2 are 7m from  
the flammable liquids  
container.

☞  
The gas stand is more than  
20m from the flammable  
liquids container.  
The flammable liquids storage  
shed (PS1) is fully bunded and  
the volume is adequate for the  
products stored.  
Hazardous areas are identified  
and managed.  
Install ventilation systems to  
control vapours of normal and  
abnormal conditions.



PS2 has low-level wall vents and roof vents.

Have the risk control measures been implemented?  
[If "No", document this in Section 1.2]

Residual risk after implementation of the risk control measures

L

C

R

D

4

M

Is the residual risk as low as reasonably practicable (ALARP)?



4

Fires due to combustible materials or bushfires/ ignition sources in hazardous areas

C

4

H



Yes

Yes

Ref.  
no.

Hazard  
[List the activity, procedure,  
plant, process or situation  
that could give rise to a  
dangerous goods incident]

Impact of a hazardous  
event happening  
[How big is the risk?]

L

C

Proposed risk control  
measures

R  
Flammable liquids shed  
PS1 has high and low wall  
vents in opposite walls.



The aluminium phosphide  
stored in PS2 is stored  
within compliant  
container.  
Eliminate ignition sources in  
hazardous areas.  
Employ the use of intrinsically  
safe or flame proof equipment.  
Substitute flammable materials.  
Reduce the amount of  
flammable materials kept on  
site.  
Ensure toxic chemicals are  
separated from flammable and  
combustible materials.  
Ensure that equipment used to  
manage flammable or explosive  
material are maintained and up  
to date in accordance with  
manufacturer specifications.  
Adopt good housekeeping  
practices to minimise the  
accumulation of flammable  
dust.  
Conduct "hot work", defined as  
grinding, welding, brazing, oxy  
cutting, heat treatment or any  
other similar process that  
generates heat or continuous  
streams of sparks, outside of  
areas within hazardous  
atmospheres.  
Ensure firefighting equipment is  
easily accessible and readily  
available. This includes the  
provision of a suitable fire  
extinguisher (dry chemical

Have the risk

control  
measures been  
implemented?  
[If "No",  
document this  
in Section 1.2]

Residual risk after  
implementation of the risk  
control measures

L

C

R

Is the  
residual risk  
as low as  
reasonably  
practicable  
(ALARP)?





Ref.  
no.

Hazard  
[List the activity, procedure,  
plant, process or situation  
that could give rise to a  
dangerous goods incident]

Impact of a hazardous  
event happening  
[How big is the risk?]

L

C

Proposed risk control  
measures

R







5

C

4

H



6

Information for the occupier of  
site adjacent to the dangerous  
goods site is uninformed of  
potential dangers of an  
emergency  
Security Breaches

C

3

M



7

Incident due to untrained staff

C

3

M



8

Inappropriate storage of hazardous materials causing incident

C

4

H



powder) within the solid granular fertiliser storage shed, with a further ten dry chemical powder extinguishers provided throughout the rest of the site. A further two carbon dioxide extinguishers, one foam extinguisher and four fire hose reels are also provided across the site.

Ensure flammable storage areas have fire detection and suppression measures.

There is no hazardous zone associated with C1 combustible liquids in storage warehouse.

There are no fixed ignition sources within 3m of the warehouses, flammable liquids storage shed or gas storage.

The adjacent property has been notified.

Site is fenced. The warehouses are securely locked when the site is unattended.

Staff on site should be suitably trained in their duties, including in emergency response, in how to use spill kits and HAZAMAT boxes.

Ensure measures in Line 1 are implemented.

Maintenance of a chemical register specific to the site for all hazardous materials, which should be available onsite at all times.

Have the risk control measures been implemented?  
[If "No", document this in Section 1.2]

Residual risk after  
implementation of the risk  
control measures

Is the  
residual risk  
as low as  
reasonably  
practicable  
(ALARP)?

L

C

R

Yes

D

2

L

Yes

Yes

D

2

L

Yes

Yes

D

3

M

Yes

Yes

D

4

M

Yes

28

Ref.  
no.

Hazard  
[List the activity, procedure,  
plant, process or situation  
that could give rise to a  
dangerous goods incident]

Impact of a hazardous  
event happening  
[How big is the risk?]

L

C

Proposed risk control  
measures

R



















9

Release of hazardous chemicals  
into the drainage line

C

3

M







Chemical register is to include  
an emergency contact list.  
Applicable safety data sheets  
for each hazardous chemical on  
site should be available at all  
times.

The LPG is stored in the yard  
and is well separated from  
other dangerous goods.

Flammable liquids are stored in  
dedicated flammable liquids  
shed.

DG 4.3 aluminium phosphide products are stored in a metal box inside a locked caged area in PS2.

Combustible liquids, toxic substances and corrosive toxic substances are stored in Warehouse PS2, PS7 and PS8. A 3m separation is maintained between the classes.

Agricultural products are static storage in packages and IBCs.

Stocks are seasonal and only stocked when required.

Stocks are minimized by frequent deliveries to site and prompt dispatch to customers when possible. The LPG is in cylinders and it is static storage. Refer to the AS 3833 risk assessments.

Ensure measures in Line 1 are implemented.

Notify the Department of Environment and Science.

Investigate cause, including potentially sampling, and review onsite controls.

Have the risk control measures been implemented?  
[If "No", document this in Section 1.2]

Yes

Residual risk after implementation of the risk control measures

L

C

R

D

3

M

Is the residual risk as low as reasonably practicable (ALARP)?

Yes



Ref.  
no.

Hazard  
[List the activity, procedure,  
plant, process or situation  
that could give rise to a  
dangerous goods incident]

Impact of a hazardous  
event happening  
[How big is the risk?]

L

C

Proposed risk control  
measures

R  


10

Human exposure to hazardous  
chemicals

C

4

H





11

Incident due to natural disaster,  
i.e. flooding, etc.

D

3

M





12

LPG is a flammable gas under  
pressure. It can be an asphyxiant.  
Direct contact with the liquefied  
material or escaping compressed  
gas may cause frostbite injury.

C

3

M



Site drainage is towards the sump. If hazardous chemicals enter sump, the water is to be cleaned up or pumped out and disposed of via an appropriately licenced waters disposal contractor. This must not be discharged to land at an offsite location or via stormwater discharge points.

Handling hazardous chemicals should require appropriate PPE as defined by the respective chemical safety data sheet. Ensure staff use the emergency shower and eye wash facilities within the solid granular fertiliser storage shed. A first aid kit is to be provided within the lunch room.

Hazardous materials are stored in self-bunded pallets or within a bunded container within the Site (outside of the flood hazard area).

Immediately after flooding, perform a site audit of all facilities to confirm the extent of any stormwater damage or potential contamination.

If the cylinder is leaking, evacuate area of personnel.

Inform manufacturer/supplier of leak. Use Personal Protective Equipment (PPE) as detailed in Section 8 of the SDS. Ventilate area where possible and eliminate ignition sources.

Stop the flow of material, if this is without risk. If the leak is

Have the risk control measures been implemented?  
[If "No", document this in Section 1.2]

Residual risk after implementation of the risk control measures

Is the residual risk as low as reasonably



practicable  
(ALARP)?

L

C

R

Yes

D

4

M

Yes

Yes

D

3

M

Yes

D

3

M

Yes

Yes

30

Ref.  
no.

Hazard  
[List the activity, procedure,  
plant, process or situation  
that could give rise to a  
dangerous goods incident]

Impact of a hazardous  
event happening  
[How big is the risk?]

L

C

Proposed risk control  
measures

R



13

Paraquat is a DG 6.1 Toxic and  
Schedule 7 Dangerous Poison.  
Stable at normal conditions.  
Avoid strong oxidizing agents.  
Toxic in contact with skin or  
swallowed. Risk of serious eye  
damage.

C

4

H



14

Gramoxone is a DG 8 SR 6.1  
Schedule 7 Dangerous Poison.  
Toxic in contact with skin and if  
swallowed. Avoid aluminium,  
iron, steel. Risk of serious eye

C

4

H



irreparable, move the cylinder to a safe and well-ventilated area, and allow to discharge. Keep area evacuated and free from ignition sources until any leaked or spilled liquid has evaporate.

Cylinders should be stored: upright, prevented from falling, in a secure area; below 45°C, in a dry, well-ventilated area constructed of non-combustible material with firm level floor (preferably concrete), away from areas of heavy traffic and emergency exits.

Handling the hazardous chemical requires appropriate PPE as defined by the respective chemical safety data sheet.

Is to be stored locked up in a cool, dry and well-ventilated area. Kept in original container, tightly closed when not in use. Protected from direct sunlight and kept away from strong oxidising agents.

Eyewash fountains and safety showers are in close proximity to points of potential exposure. Contaminated clothing and other protective equipment are required to be washed before storage or re-use.

Stored in closed, original container in a dry, cool, wellventilated locked room or place away from children, animals,

Have the risk control measures been implemented?  
[If "No", document this in Section 1.2]

Residual risk after implementation of the risk control measures

Is the residual risk as low as reasonably practicable (ALARP)?

L

C

R

Yes

D

4

M

Yes

Yes

D

3

M

Yes

31

Ref.  
no.

Hazard  
[List the activity, procedure,  
plant, process or situation  
that could give rise to a  
dangerous goods incident]

Impact of a hazardous  
event happening  
[How big is the risk?]

L

C

Proposed risk control  
measures

R

damage.



15

Chlorpyrifos is a C1 combustible  
liquid, Schedule 6 poison. May be  
fatal if swallowed. Cholinesterase  
inhibitor.

C

4

H



food, feedstuffs, seed and  
fertilisers.

Appropriate PPE will be  
provided including but not  
limited to: Overalls, face shield,  
elbow length impervious  
gloves, splash aprons and  
rubber boots.

Organic vapour respirator  
meeting the requirements of  
Standards Australia will be  
available.

Ensure firefighting equipment is easily accessible and readily available. Such as appropriate firefighting PPE; full protective clothing and self-contained breathing apparatus. This includes the provision of a suitable fire extinguisher water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Suitable firefighting measures as defined by the respective safety data sheet made available.

Handling the hazardous chemical requires appropriate PPE as defined by the respective chemical safety data sheet.

Spill kits provided and readily available during the movement and use of the product.

Store in a cool, dry and wellventilated area, in original container tightly closed when not in use.

Protect from heat, sparks, open flames, hot surfaces and direct

Have the risk control measures been implemented?  
[If "No", document this in Section 1.2]

Yes

Residual risk after implementation of the risk control measures

L

C

R

D

4

M

Is the residual risk as low as reasonably practicable (ALARP)?

Yes



Ref.  
no.

Hazard  
[List the activity, procedure,  
plant, process or situation  
that could give rise to a  
dangerous goods incident]

Impact of a hazardous  
event happening  
[How big is the risk?]

L

C

Proposed risk control  
measures

R  
sunlight. Keep away from  
strong oxidising agents, strong  
acids and strong bases.

16

Dimethoate is a DG 3 flammable  
liquid. Vapours are heavier than  
air. May be fatal if swallowed.  
Avoid oxidizing agents, strong  
acids and strong bases.  
Combustion produces toxic  
fumes

C

4

H



17

Metham is a DG 8 Corrosive  
Substance. Causes severe skin  
burns and serious eye damage.  
Very toxic to aquatic life. Harmful  
if swallowed. Keep away from  
acids and oxidizing agents

C

4

H







Exposure to the product will be kept to a minimum, along with the quantities kept in work areas. Ventilation systems to control vapours of normal and abnormal conditions. Contact or contamination of product with incompatible materials will be avoided. Ensure firefighting equipment is easily accessible and readily available. Such as appropriate firefighting PPE; full protective clothing and self-contained breathing apparatus. This includes the provision of a suitable fire extinguisher, alcohol-resistant foam, dry chemical or carbon dioxide, water fog.

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours.

Wash contaminated clothing and other protective equipment before storage or re-use.

Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Store in a cool, dry and wellventilated area out of direct sunlight. Keep in original container, tightly closed when not in use. Keep away from

Have the risk control measures been implemented?  
[If "No", document this in Section 1.2]

Residual risk after implementation of the risk control measures

Is the residual risk as low as reasonably practicable (ALARP)?

L

C

R

Yes

D

3

M

Yes

Yes

D

2

L

Yes

33

Ref.  
no.

Hazard  
[List the activity, procedure,  
plant, process or situation  
that could give rise to a  
dangerous goods incident]

Impact of a hazardous  
event happening  
[How big is the risk?]

L

C

Proposed risk control  
measures

R







18

Methomyl is a DG 3 SR 6.1 and  
Schedule 7 Dangerous Poison.  
Highly flammable liquid and  
vapour. Fatal if swallowed. Toxic  
in contact with skin. Very toxic to  
aquatic life

C

4

H











acids, oxidising agents, zinc, tin,  
aluminium and their alloys and  
salts of heavy metals.  
If there is an accidental spill  
Wear appropriate respiratory  
protection and protective  
clothing. Evacuate all nonessential personnel from  
affected area. Do not breathe  
vapours. Ensure adequate  
ventilation.  
Use fire extinguishing methods  
suitable to surrounding

conditions. Water fog or foam are the preferred media for large fires.

The product is non-flammable.

However, contact with acids liberates toxic gas and contact with metals may form flammable hydrogen gas.

Handling the hazardous chemical requires appropriate PPE as defined by the respective chemical safety data sheet.

Suitable firefighting measures as defined by the respective safety data sheet made available.

Use only permitted outdoors or in a well-ventilated area.

Eyewash fountains and safety showers in close proximity to points of potential exposure.

Store in a cool, dry and wellventilated area. Keep in original container tightly closed when not in use.

Have the risk control measures been implemented?  
[If "No", document this in Section 1.2]

Yes

Residual risk after implementation of the risk control measures

L

C

R

D

4

M

Is the residual risk as low as reasonably practicable (ALARP)?

Yes

Ref.  
no.

Hazard  
[List the activity, procedure,  
plant, process or situation  
that could give rise to a  
dangerous goods incident]

Impact of a hazardous  
event happening  
[How big is the risk?]

L

C

Proposed risk control  
measures

R



Protect from direct sunlight,  
heat, sparks, open flames and  
other sources of ignition.  
Keep away from strong bases  
and alkaline materials. Do not  
store with seed, fertilisers or  
food.  
Spill kits provided and readily  
available during the movement  
and use of the product.  
Use of only non-sparking tools.  
Neutralise spill area and tools  
and equipment with a bleach or  
caustic/soda ash solution.

Have the risk  
control  
measures been  
implemented?  
[If "No",  
document this  
in Section 1.2]

Residual risk after  
implementation of the risk  
control measures

L

C

R

Is the  
residual risk

as low as  
reasonably  
practicable  
(ALARP)?

L = likelihood

C = consequence

R = risk rating

Note: Reference to Resources Safety's code of practice for storage and handling of dangerous goods, appendix 4 (example of system for ranking risks)

## 6. Code Compliance Statements

Table 6-1 details the response to State Development and Assessment Provisions - State Code 21: Hazardous Chemical Facilities.

Table 6-1 Table 21.1: Material change of use

Performance outcomes

Off-site impacts- vulnerable land use or land zoned for a vulnerable land use

P01 The hazardous chemical facility does not create a dangerous dose to human health.

Off-site impacts-sensitive land use or land zoned for a sensitive land use

Response

The site is managed in accordance with an SBMP, the SBMP included measures to mitigate impacts associated with spills/ discharges. Section 7 of the SBMP demonstrates compliance with P01.

P02 The hazardous chemical facility does not create a dangerous dose to human health.

The site is managed in accordance with an SBMP, the SBMP included measures to mitigate impacts associated with spills/ discharges. Section 7 of the SBMP demonstrates compliance with P02.

Off-site impacts-commercial or community activity land use or land zoned for a commercial or community activity land use

P03 The hazardous chemical facility does not create a dangerous dose to human health.

Off-site impacts-open space land use or land zoned for an open space land use

The site is managed in accordance with an SBMP, the SBMP included measures to mitigate impacts associated with spills/ discharges. Section 7 of the SBMP demonstrates compliance with P03.

P04 The hazardous chemical facility, does not create:

a. a dangerous dose to human health; or

b. where (a) cannot be achieved, an individual fatality risk level of  $10 \times 10^{-6}$ /year

and the societal risk criteria in figure 21.1.

Off-site impacts-industrial land use or land zoned for an industrial land use

The site is managed in accordance with an SBMP, the SBMP included measures to mitigate impacts associated with spills/ discharges. Section 7 of the SBMP demonstrates compliance with P04.

P05 The hazardous chemical facility, does not create either of the following:

a. a dangerous dose to the built environment; and

b. an individual fatality risk level of  $50 \times 10^{-6}$ /year

Storage and handling areas

The site is managed in accordance with an SBMP, the SBMP included measures to mitigate impacts associated with spills/ discharges. Section 7 of the SBMP demonstrates compliance with P05.

P06 Storage and handling areas for fire risk hazardous chemicals are provided with

a 24-hour monitored fire detection system that has the ability to detect a fire in its

early stages and notify an emergency responder at all times

P07 Storage and handling areas for packages of liquid or solid fire risk hazardous

chemicals are provided with a spill containment system with a working volume capable of containing a minimum of 100 percent of all packages (prescribed hazardous chemicals and/or non-hazardous chemicals) within the area plus the output of any fixed firefighting system provided for the area over a minimum of 90

minutes.

There is a fire detection system located within the main shed. The flammable liquids storage shed (PS1) is fully bunded and the volume is adequate for the products stored. The largest quantity of hazardous chemicals stored in PS1 is 12,600 L. PS1 comprises of a bunded capacity to hold 7000 L. The bund drains to underground sumps which have capacity to store another 7000 L. Therefore, maintaining an overall 14,000 L capacity. Further the site runs on mains water supply and will therefore be able to achieve a minimum of 90 minutes for any bulk tank within the spill compound.



#### Performance outcomes

P08 Storage and handling areas for liquid or solid fire risk hazardous chemicals in

tanks are provided with a spill containment system with a working volume capable of containing a minimum of:

- a. 110 percent of the largest tank within a spill compound or 25 percent of the aggregate where multiple tanks are located within a spill compound, whichever is the greater; and
- b. the output of any fixed firefighting system provided for any bulk tank within a spill compound over a minimum of 90 minutes.

P09 Storage and handling areas for prescribed hazardous chemicals that, if in contact with each other, may react to produce a fire, explosion or other harmful reaction, or a flammable, toxic or corrosive vapour are designed to prevent contact

between the prescribed hazardous chemicals.

P010 Development is designed and sited to mitigate impacts on storage and handling areas from natural hazard including, but not limited to:

- a. flood;
- b. bushfire;
- c. erosion;
- d. storm tide inundation;
- e. landslide;
- f. earthquake;
- g. wind action.

#### All development

P011 Development is designed and sited to mitigate the risks from hazard scenarios

occurring at existing hazardous chemical facilities.

#### Response

The flammable liquids storage shed (PS1) is fully bunded and the volume is adequate for the products stored. The overall 14,000 L capacity achieves the target

of containing a minimum of 110% of the largest tank within the spill compound.

Further the site runs on mains water supply and will therefore be able to achieve a

minimum of 90 minutes for any bulk tank within the spill compound.

The storage and handling requirements of prescribed hazardous chemicals that have the potential to react are adequately met in accordance with P09. DG 4.3 aluminium phosphide products are stored in a metal box inside a locked caged area

in PS2. Combustible liquids, toxic substances and corrosive toxic substances are stored in Warehouse PS2, PS7 and PS8. A 3m separation is maintained between the classes.

a. The site is not mapped within flooding hazard areas as per QLD Globe overlays or Burdekin Shire Council flood hazard overlay map. Measures are included within Section 5.2.

b. The site is not mapped within a bushfire prone area under the State Planning policy mapping. However, the site is within a Low Bushfire Hazard area as per the Natural Features or Resources Overlays Burdekin Shire Natural Features Map 9. Hazardous chemicals are stored in fireproof and bunded cabinets above hardstand surfaces as per 7.5 of the SBMP. Additional fire measures are included within Section 5.2.

c. The site is relatively flat in topography. Mitigation measures are provided in

Section 7 of the SBMP and Section 5.2.

d. As per item a.

e. Not applicable for this location.

f. Not applicable for this location.

g. Loading and unloading is avoided in high wind conditions

Section 5.2 details the mitigation measures in place for the Site. These include

separation distances, segregation requirements and measures for the storage, handling and transportation of hazardous chemicals.







## Appendix D – Safety Data Sheets



