Government of **Western Australia**
Department of **Environment and Conservation**

LICENCE FOR PRESCRIBED PREMISES
Environmental Protection Act 1986

LICENCE NUMBER: L7407/1998/9 **FILE NUMBER** DEC10269

LICENSEE
Shire of Plantagenet
PO Box 48
Mount Barker WA 6324
ACN: 29 054 782 574

PREMISES
Great Southern Regional Cattle Saleyards
Lot 3 on Plan 19319, Albany Highway
Mount Barker WA 6324
(as depicted in Attachment 1)

PRESCRIBED PREMISES CATEGORY
Schedule 1 of the Environmental Protection Regulations 1987

CATEGORY NUMBER	CATEGORY DESCRIPTION	CATEGORY PRODUCTION OR DESIGN CAPACITY	PREMISES PRODUCTION OR DESIGN CAPACITY
55	Livestock saleyard or holding pen: premises on which live animals are held pending their sale, shipment or slaughter	10 000 animals or more per year	90 000 animals per year

CONDITIONS OF LICENCE
Subject to the conditions of licence set out in the attached 11 pages.

Officer delegated under Section 20
of the *Environmental Protection Act 1986*

PPMS_TI0604 v1.0

ISSUE DATE Thursday, 23 February 2012
COMMENCEMENT DATE: Saturday, 3 March 2012
EXPIRY DATE: Thursday, 2 March 2017

DEFINITIONS

In these conditions of licence, unless inconsistent with the text or subject matter:

"applicable guidelines and standards" means all standards referred to and defined within this licence, including the following documents:

- Australian and New Zealand Environment and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand 2000, *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*; and
- Department of Environment and Conservation 2010, *Contaminated Sites Management Series Assessment levels for Soil, Sediment and Water;*

"Australian Standard 5667" means the most recent version and the relevant parts of the Australian and New Zealand series of guidance standards on Water Quality Sampling;

"Director" means Director, Environmental Regulation Division of the Department of Environment and Conservation for and on behalf of the Chief Executive Officer as delegated under Section 20 of the *Environmental Protection Act 1986;*

"Director" for the purpose of correspondence means-

Regional Manager, South Coast Region
Department of Environment and Conservation
120 Albany Hwy
Albany WA 6330

Telephone: (08) +61 8 9842 4500
Facsimile: (08) +61 8 9841 7105;

"clean stormwater" means water runoff from precipitation events not contaminated with manure;

"groundwater monitoring bore" means a groundwater monitoring bore installed in accordance with *Department of Environment, Water Quality Protection Note 30, Groundwater Monitoring Bores, June 2005;*

"irrigation area" means the irrigation areas as outlined in Attachment 1;

"licensee" means Shire of Plantagenet;

"loading rate" means the quantity of a particular parameter applied over a specified area for specified period of time, determined according the following formula:

$$\frac{\text{concentration (mg/L)} \times \text{volume per annum (kL/yr)} \div 1000}{\text{area (ha)}} = \text{(?) kg/ha/yr}$$

"low permeability" means material with a permeability or hydraulic conductivity of 10^{-9} metres per second or less at unity hydraulic gradient;

"mg/L" means milligrams per litre;

"NATA" means the Australian National Association of Testing Authorities;

"premises" refers to Great Southern Regional Cattle Saleyards located on the whole of Lot 3 on Plan 19319, Albany Highway, Mt Barker Western Australia, as defined in Attachment 1;

"treated wastewater" means water that has passed through the WWTS;

"WWTS" means wastewater treatment system comprised of the manure screening apparatus, and ponds constructed for the purposes of treating and stabilising Wastewater;

"Standard Methods for Examination of Water and Wastewater" means the most recent edition of the "Standard Methods for Examination of Water and Wastewater" as published by the American Public Health Association (APHA), the American Water Works Association (AWWA) and the Water Environment Federation (WEF), generally abbreviated to APHA-AWWA-WEF;

"storage pond" means the final pond of the WWTS in which treated wastewater is stored and is depicted as SW1 on Attachment 1;

"solid waste" means manure and pond sludges; and

"wastewater" means water that has been contaminated by manure.

GENERAL CONDITIONS

1. The licensee shall ensure that no more than 90 000 cattle are held at the premises per year.

DISCHARGES TO LAND AND WATERS

WASTEWATER TREATMENT SYSTEM

2. The licensee shall ensure that all wastewater generated on the premises is directed to the WWTS.

3. The licensee shall manage the WWTS ponds in a manner such that:
   (a) no wastewater is discharged to the environment from the WWTS ponds (through overtopping or otherwise) other than treated wastewater applied to the irrigation area (as depicted in Attachment 1) in accordance with condition 6;
   (b) a minimum freeboard of 400 millimetres is maintained;
   (c) there is no discernible seepage loss from the WWTS ponds; and
   (d) vegetation (emergent or otherwise) is prevented from growing on the pond embankments.

4. The licensee shall, by 31 March 2012:
   (a) install and thereafter maintain a surveyed freeboard gauge for the storage pond to enable the minimum internal freeboard level of the pond to be visually recorded at any time; and
   (b) notify the Director in writing and provide photographs and any other relevant documentation to support that the gauge has been correctly surveyed and established.

5. The licensee shall, by 31 March 2012:
   (a) permanently block or remove the overflow discharge pipe from the storage pond so that discharge cannot occur through this pipe; and

(b) notify the Director in writing and provide photographs and any other relevant documentation to support that the pipe has been adequately blocked and water can no longer flow through.

IRRIGATION OF WASTEWATER

6. The licensee shall manage the irrigation of treated wastewater within the irrigation area such that;
   (a) no surface ponding of irrigated wastewater occurs;
   (b) surface runoff or spray drift of irrigated wastewater shall not cross the premises boundary; and
   (c) vegetation cover is maintained over the irrigation area.

7. The licensee shall ensure that the application of treated wastewater to the irrigation area does not result in the exceedance of the loading rate limits specified in Column 2 for the parameters specified in Column 1 of Table 1.

Table 1: Irrigation Loading Rate limits

COLUMN 1	COLUMN 2
Treated Wastewater parameter	**Loading Rate limit**
Total Nitrogen	180 kilograms per hectare per year
Total Phosphorus	20 kilograms per hectare per year
5 day Biochemical Oxygen Demand	30 kilograms per hectare per day

STORMWATER RUN-OFF

8. The Licensee shall direct uncontaminated stormwater run-off away from stock holding paddocks and facilities and the WWTS (including ponds).

CONTAMINATED RUN-OFF CONTROL

9. The Licensee shall ensure that contaminated run-off and wastewater from all stock holding operations and sheds is drained to the WWTS.

WASTE MINIMISATION / REMOVAL / STORAGE

SOLID WASTE STORAGE

10. The licensee shall ensure that all solid waste is stored on a low permeability hardstand which:
    (a) is adequately bunded to effectively contain all wastewater and solid waste; and
    (b) is designed to return all wastewater from the storage area back to the WWTS ponds.

DISPOSAL OF CARCASSES

11. The Licensee shall dispose of any dead animals within 24 hours of becoming aware of their death to a premises licensed for the receival of animal carcasses.

MONITORING CONDITIONS

FLOW MONITORING

12. The licensee holder must maintain a continuous flow measure and record the cumulative monthly volume (in cubic metres) of treated wastewater discharged to the irrigation area, such that:
    (a) the flow measure is installed, maintained and calibrated to the manufacturer's specifications;
    (b) records in relation to the maintenance and calibration of the flow meter are maintained; and
    (c) cumulative monthly volumes of treated wastewater applied to the irrigation area are presented in tabular form in the annual environmental report required by condition 19.

MONITORING OF ANIMAL NUMBERS

13. The licensee shall maintain monthly record of animal numbers held at the premises. The Licensee shall provide a copy of this record to the Director in the annual environmental report in a tabular format.

WATER MONITORING

14. The Licensee shall, at the sampling frequencies stated in Column 3 of Table 2, collect and analyse for the listed parameters described in Column 2 of Table 2, representative water samples from the sampling locations listed in Column 1 of Table 2.

Table 2: Sampling locations, parameters and sampling frequencies

Column 1 **Sampling location**	Column 2 **Parameters to be analysed**[1]	Column 3 **Sampling frequency**
Storage Pond (SW1), Down Gradient Soak (SW2) and Stormwater Dam (SW3) as depicted in Attachment 1.	Total Nitrogen; Ammonium-Nitrogen; Nitrate + Nitrite-Nitrogen; Total Phosphorus; pH; Biochemical Oxygen Demand (BOD); Total Suspended Solids; Total Dissolved Solids; Electrical Conductivity.	Quarterly, in December March June September
Monitoring bores MB1, MB2, MB3, MB4, MB5, MB6 and MB7, as depicted in Attachment 1.	Total Nitrogen; Ammonium-Nitrogen; Nitrate + Nitrite-Nitrogen; Total Phosphorus; pH; Standing Water Level (SWL); Total Suspended Solids; Total Dissolved Solids; Electrical Conductivity.	Biannually, in June and December

[1] With the exception of pH and Electrical Conductivity, all measurements are to be reported in mg/L.

15. The licensee shall ensure that all water samples required by condition 14 are collected, handled and preserved in accordance with Australian Standard 5667.

16. The licensee shall ensure that all water samples are analysed in accordance with the current "Standard Methods for Examination of Water and Wastewater," APHA-AWWA-WEF

17. The licensee shall ensure that all water samples are analysed:
    (a) in a laboratory holding NATA accreditation; and
    (b) by an analyst with NATA accreditation for the parameters specified in column 2 of Table 2.

CALCULATION OF CONTAMINANT LOAD

18. The licensee shall, using the data collected in accordance with conditions 12 and 14, determine the contaminant loads discharged over the irrigation area for the parameters stated in Column 1 of Table 3 at the frequency stated in Column 2 of Table 3 and in the corresponding units stated in Column 3 of Table 3.

Table 3: Calculation of contaminant load

Column 1	**Column 2**	**Column 3**
Parameters	**Calculation frequency**	**Units**
(i) Total Nitrogen; (ii) Total Phosphorus; (iii) Biochemical Oxygen Demand; (iv) Total Dissolved Solids; and (v) Total Suspended Solids.	Monthly and Annual Loads	Kilograms per day
(i) Total Nitrogen; (ii) Total Phosphorus; and (iii) Biochemical Oxygen Demand.	Annual Load	Kilograms per hectare per year

REPORTING CONDITIONS

ANNUAL ENVIRONMENTAL REPORT

19. The licensee shall provide the Director, by 31 January each year, an Annual Environmental Report containing data collected for 1 January in the previous year to 31 December of that year. The report shall contain, but not necessarily be limited to:
    (a) the total number of animals held on site on a monthly basis;
    (b) monitoring data or other collected data required by any condition of this licence (data should be provided in tabular and in graphical format);
    (c) an assessment of the data collected against all limits set in this licence;
    (d) an explanation of the data in comparison with past data collected over the previous three years, and known applicable guidelines and standards;
    (e) a discussion of the operation of the project, compliance with conditions, and environmental performance to date;
    (f) any issues raised from inspections or incident responses during the reporting period together with details as to how these have been addressed or, if the required work has yet to be completed, how and when they will be completed; and
    (g) any changes to site boundaries, location of groundwater monitoring bores, surface drainage channels and on-site or off-site impacts or pollution.

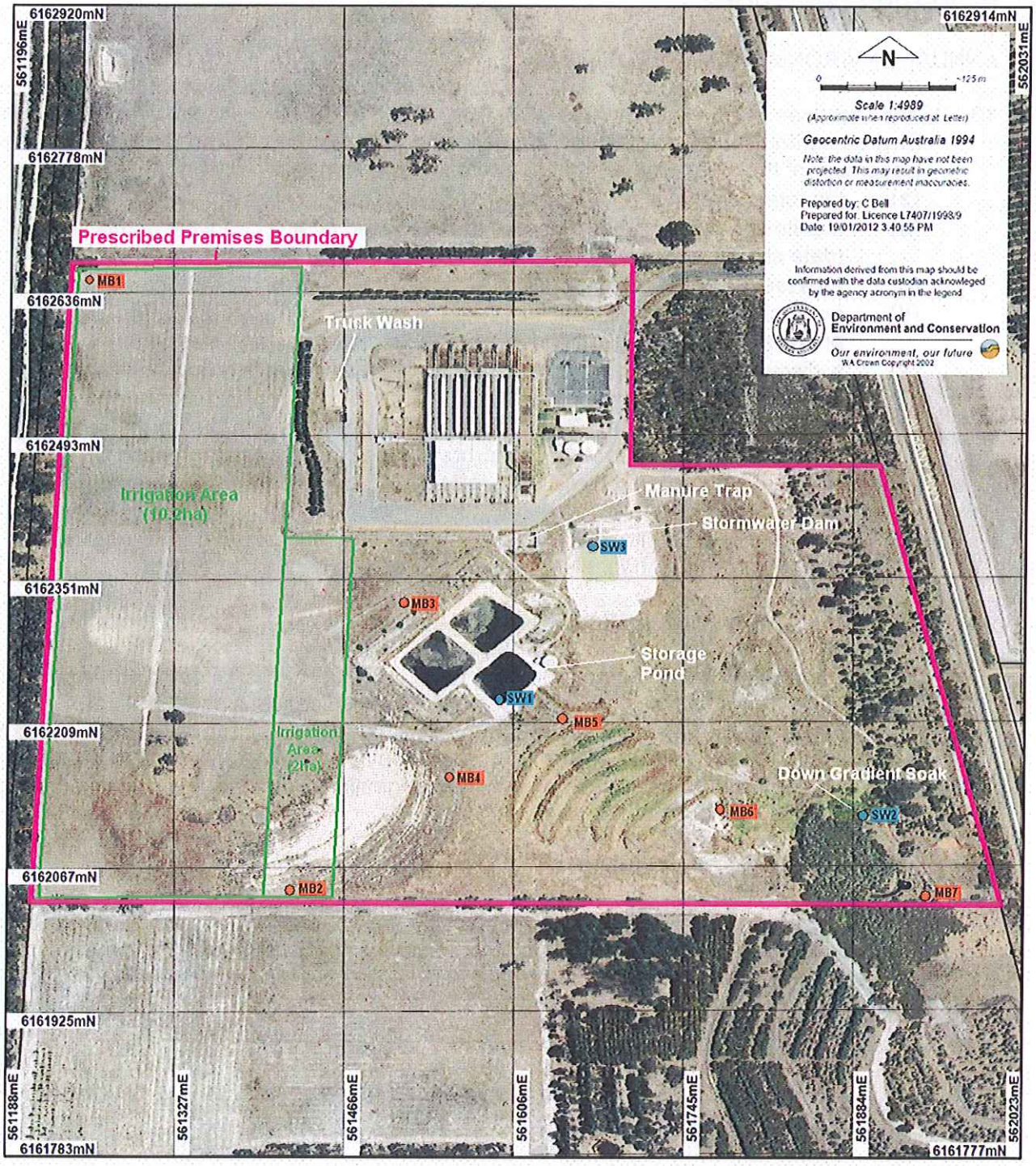
ANNUAL AUDIT COMPLIANCE REPORT

20. The licensee shall by 31 January in each year, provide to the Director an Annual Audit Compliance Report in the form in Attachment 2 to this licence, signed and certified in the manner required by Section C of the form, indicating the extent to which the licensee has complied with the conditions of this licence, and any previous licence issued under Part V of the Act for the premises, during the period beginning 1 January the previous year and ending on 31 December in that year.

NUTRIENT IRRIGATION MANAGEMENT PLAN

21. The licensee shall by 30 June 2012, provide to the Director an up to date Nutrient Irrigation Management Plan (NIMP) in accordance with *Water Quality Protection Note 33: Nutrient and Irrigation Management Plans* (Department of Water 2010) including (but not limited to):
    (a) watering schedules and nutrient application rate and frequency;
    (b) site environmental factors;
    (c) proximity to surface or ground water, including potential pathways for any leached contaminants or eroded soils;
    (d) value and importance of local water resources to the community ;
    (e) site history (animal usage, fertiliser applications and waste disposal to land);
    (f) contaminant contributions from surrounding land areas;
    (g) present quality of local waters and their sensitivity to harm;
    (h) protection measures employed onsite such as contaminant barriers, buffers and drainage controls; and
    (i) monitoring programs and/or measures employed onsite to detect impact to the environment as a result of irrigation.

GREAT SOUTHERN REGIONAL CATTLE SALEYARDS - PLAN OF PREMISES



PPMS_TI0604 v1.0

LICENCE NUMBER: L7407/1998/9 **FILE NUMBER:** DEC10269

ANNUAL AUDIT COMPLIANCE REPORT

SECTION A

LICENCE DETAILS

Licence Number:	Licence File Number:
Company Name: Trading as:	ABN:
Reporting period: _____ to _____	

STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

1. Were all conditions of licence complied with within the reporting period? (please tick the appropriate box)

Yes □ Please proceed to Section C
No □ Please proceed to Section B

Each page must be initialed by the person(s) who signs Section C of this annual audit compliance report

INITIAL:_____

SECTION B - DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.

Please use a separate page for each licence condition that was not complied with.

a) Licence condition not complied with?	
b) Date(s) when the non compliance occurred, if applicable?	
c) Was this non compliance reported to DEC?	
☐ Yes ☐ Reported to DEC verbally Date _____ ☐ Reported to DEC in writing Date _____	☐ No
d) Has DEC taken, or finalised any action in relation to the non compliance?	
e) Summary of particulars of non compliance, and what was the environmental impact?	
f) If relevant, the precise location where the non compliance occurred (attach map or diagram)	
g) Cause of non compliance	
h) Action taken or that will be taken to mitigate any adverse effects of the non compliance	
i) Action taken or that will be taken to prevent recurrence of the non compliance	

Each page must be initialed by the person(s) who signs Section C of this annual audit compliance report

INITIAL:_____

PPMS_TI0604 v1.0

SECTION C - SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report may only be signed by a person(s) with legal authority to sign it. The ways in which the Annual Audit Compliance Report must be signed and certified, and the people who may sign the statement, are set out below.
Please tick the box next to the category that describes how this Annual Audit Compliance Report is being signed. If you are uncertain about who is entitled to sign or which category to tick, please contact the licensing officer for your premises.

If the licence holder is		The Annual Audit Compliance Report must be signed and certified:
an individual	☐	by the individual licence holder, or
	☐	by a person approved in writing by the Chief Executive Officer of the Department of Environment and Conservation to sign on the licensee's behalf.
A firm or other unincorporated company	☐	by the principal executive officer of the licensee; or
	☐	by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment and Conservation.
A corporation	☐	by affixing the common seal of the licensee in accordance with the Corporations Act 2001; or
	☐	by two directors of the licensee; or
	☐	by a director and a company secretary of the licensee, or
	☐	if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or
	☐	by the principal executive officer of the licensee; or
	☐	by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment and Conservation.
A public authority (other than a local government)	☐	by the principal executive officer of the licensee; or
	☐	by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment and Conservation.
a local government	☐	by the chief executive officer of the licensee; or
	☐	by affixing the seal of the local government.

It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular. There is a maximum penalty of $50,000 for an individual or body corporate.

I/We declare that the information in this annual audit compliance report is correct and not false or misleading in a material particular.

SIGNATURE: _____ SIGNATURE: _____

NAME: (printed) _____ NAME: (printed) _____

POSITION: _____ POSITION: _____

DATE: _____/_____/_____ DATE: _____/_____/_____

SEAL (if signing under seal)

_____

ISSUE DATE Thursday, 23 February 2012
COMMENCEMENT DATE: Saturday, 3 March 2012
EXPIRY DATE: Thursday, 2 March 2017

Government of Western Australia
Department of Environment and Conservation

ENVIRONMENTAL ASSESSMENT REPORT

LICENCE NUMBER: L7407/1998/9
LICENCE FILE NUMBER: DEC10269
APPLICATION DATE: 25/10/2011
EXPIRY DATE: 2/03/2017

PREMISES DETAILS

LICENSEE
Shire of Plantagenet
22-24 Lowood Road
Mt Barker WA 6324

PREMISES
Great Southern Regional Cattle Saleyards
Lot 3 on Plan 19319 Albany Highway
Mount Barker WA 6324

PRESCRIBED PREMISES CATEGORY

Category number*	Category Description*	Category Production or Design Capacity*	Premises Production or Design Capacity#	Premises Fee Component**
55	Livestock saleyard or holding pen: premises on which live animals are held pending their sale, shipment or slaughter	10 000 animals or more per year	90 000 animals per year	More than 50 000 animals per year

* From Schedule 1 of the Environmental Protection Regulations 1987
\# From application
** From Schedule 4 of the Environmental Protection Regulations 1987

This Environmental Assessment Report (EAR) has been drafted for the purposes of detailing information on the management and mitigation of emissions and discharges from the prescribed premises. The objective of the EAR is to provide a risk assessment of emissions and discharges, and information on the management of other activities occurring onsite which are not related to the control of emissions and discharges from the prescribed premises activity. This does not restrict DEC to assessing only those emissions and discharges generated from the activities that cause the premises to become prescribed premises.

Basis of Assessment
The Great Southern Regional Cattle Saleyards (GSRCS) has been assessed as "prescribed premises" category number 55, under Schedule 1 of the *Environmental Protection Regulations 1987* as it is a premises on which live animals (cattle) are held pending their sale. The design capacity of the saleyard enables it to handle 90 000 cattle per year, which is greater than the 10 000 animals per year that would satisfy the criteria for category 54 as listed in Schedule 1 Part 1 of the *Environmental Protection Regulations 1987*.

1.0 BACKGROUND

1.1 GENERAL COMPANY DESCRIPTION

The construction of this new regional cattle saleyard in 1999 was a joint venture between the City of Albany and the Shire of Plantagenet (SoP). The SoP now currently own and occupy the premises. The premises is located in the southern part of the Great Southern Region of Western Australia and is bordered by the Shires of Denmark, Manjimup, Cranbrook, Gnowangerup and the City of Albany.

1.2 LOCATION OF PREMISES

The Great Southern Regional Cattle Saleyards (GSRS) are located on Lot 3 on Plan 19319 Albany Highway (see Figure 1). This site is approximately 41ha in area, situated 5km south of Mount Barker between the Albany Highway and the Great Southern Railway.

Topography and Drainage

Elevation contours show that the site slopes from north to south with an average fall of 1:80 towards a tributary of the Sleeman Creek, in the south eastern corner of the site. The Sleeman Creek is a minor non-perennial watercourse that drains into the Hay River and is in the Wilson Inlet catchment. Groundwater movement would be expected to occur in a similar direction.

Soils

The site consists of sandy duplex soils overlying weathered granitic basement rock. Alluvial sands occur on the southern side of the site with lateritic soils over shallow bedrock (less than 10m) on the northern side. Kaolinitic clays are found within the soil profile in various parts of the site, at varying depths.

Groundwater

The property is not in a Public Drinking Water Source Area (PDWS) or a Groundwater Protection Area.

Historic information for the site indicates that groundwater commonly occurs as ingress through the base of the caprock or the clayey sand immediately beneath the caprock, at a depth of around 1m below ground level (varying between –1.61m and –1.99m over the irrigation area). There are currently seven monitoring bores on site, all of which encounter water.

Landuse and Vegetation

The properties surrounding the saleyards site to the north, east and west are zoned rural, to the south is special industrial and to the southwest is zoned special use. Properties to the north, east and west are privately owned and used for agricultural purposes and accordingly the saleyards are considered compatible with this land use. Reserve 17396 in the north eastern corner of the saleyards site has been vested to the Shire of Plantagenet for use as a gravel resource. The property to the south of the site is owned by Forest Products Commission and is currently being used as a blue gum plantation. Three residences and associated buildings are located within 800m of the saleyards boundary, with the closest house 280m from the eastern boundary.

Most of the site has been previously cleared of native vegetation, including the entire area in which irrigation occurs. Two small tracks of native vegetation remain on site, one within the gravel reserve and the other at the head of the tributary to Sleeman Creek in the south eastern corner of the site which is dominated by paperbarks and reed species. No native vegetation is intended to be cleared.

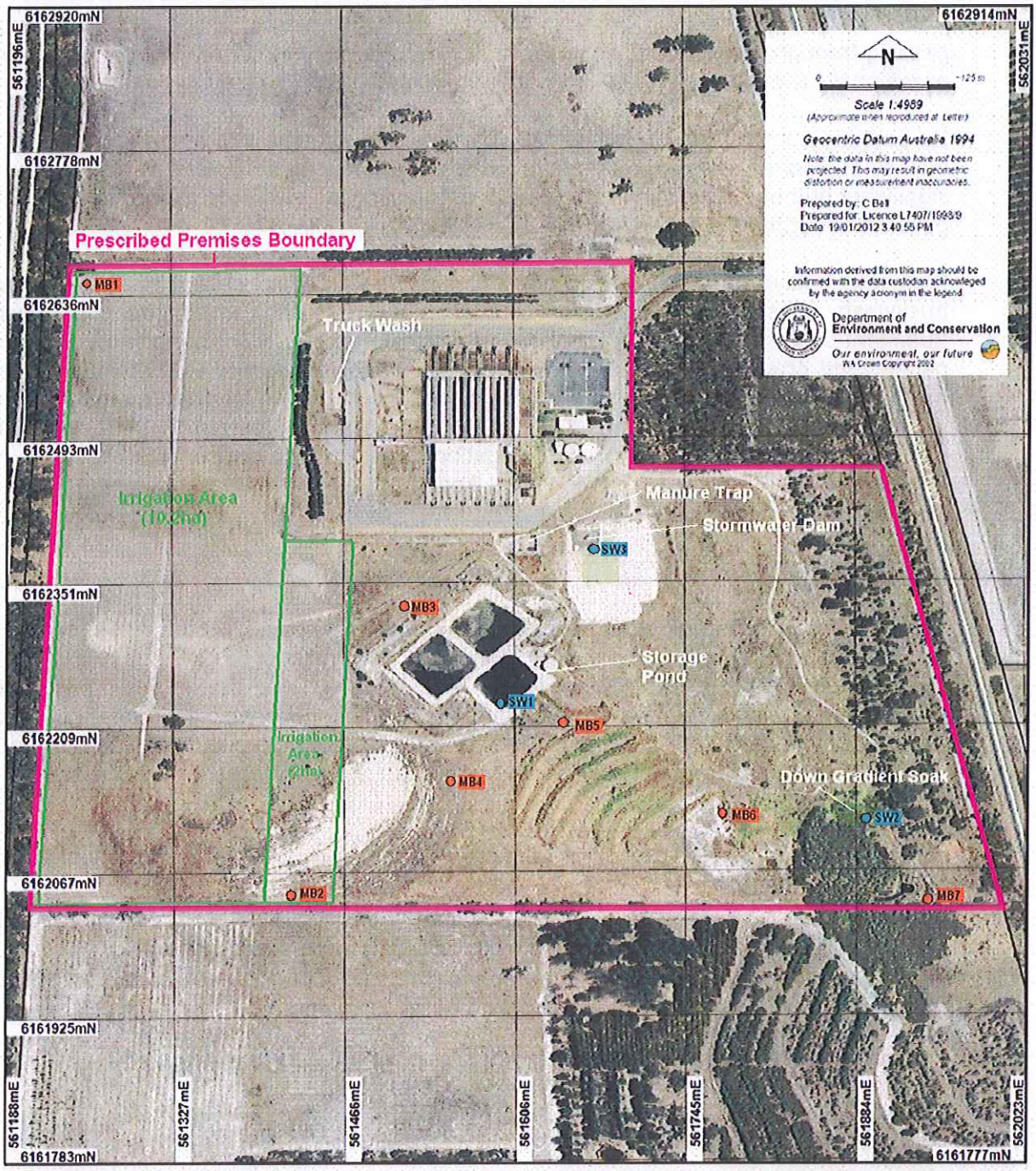


Figure 1: Plan of premises

1.3 PROCESS DESCRIPTION

The facility was constructed at truck level to avoid the need for loading ramps. The selling pens consist of 30 single bull pens and 144 pens capable of holding over 2000 head of cattle with the majority being covered by a roof. The saleyard facility, which includes the pens, truckwash and loading areas, is constructed of an impermeable concrete or bitumen surface.

The premises also includes facilities for the washing of cattle trucks and provides a service for the washing of sheep trucks servicing Fletchers abattoir. Operations include the storage of manure prior to sale or off-site disposal.

Cattle are normally held for less than 24 hours during a sale at the site. The number of cattle passing through the saleyards is greatest through the summer months when there are one or occasionally two sales per week. In winter there is usually a sale every fortnight.

No persons currently reside at the site. There is one full-time site manager, and two casual staff all of whom are based on the site for approximately 40 hours per week. On sale days a significant number of persons visit the site. Domestic wastewater is managed through a local government approved septic system.

From the saleyards a system of gravity pipes are used to collect wastewater from the truckwash, pens and loading areas, through manure screens to a three pond wastewater treatment system. Ponds are clay lined and consist of two 1.2m deep facultative ponds in parallel and one 1.5m deep aerobic pond. Stormwater is directed to a stormwater drainage basin. Water levels in the third (aerobic) pond are managed through evaporation and the irrigation of treated wastewater on the irrigation area in the western part of the site. Treated effluent is currently pumped to the irrigation area in accordance with the sites Nutrient Irrigation Management Plan (NIMP) dated April 2005.

1.4 REGULATORY CONTEXT

1.4.1 Part IV Environmental Protection Act 1986, Environmental Impact Assessment

Assessed by EPA as 'Not Assessed- Manage under Part V of the EP Act 1986.
In determining this level of assessment, the EPA considered that in this particular case, a 500 metre buffer distance from the saleyards to residences was adequate, as opposed to the recommended buffer of 1000 metres for a saleyard (specified in the Department's Guidelines for Environment and Planning)

This reduction was based on the following:

- The Environmental Report undertaken for Alan Tingay & Associates, dated 3 December 1997,
- Departmental experience indicating that there are saleyards closer than 500m to residences in rural locations which do not cause odour concerns; and
- The prevailing winds in the area appear to be from the south-west and east, and residences are not located downwind of these vectors.

1.4.2 Part V Environmental Protection Act 1986, Environmental Management

Licence and Works Approval History

Works Approval

The saleyards were constructed in 1999 under works approval W2310/1998/1 issued June 1998 (expiry 31 December 1999), for which the compliance certificate submitted was dated 20 December 1999.

Licence

The first licence L7407/1998/1 (10 January 2000) intended that all collected wastewater would be recycled and further approvals would be required if irrigation became necessary. By 27 July 2000 a number of operational issues with the treatment system had been identified and overflows from the final treatment pond were occurring. The discharge was considered unacceptable by the then Department of Environment, and upgrades to the wastewater treatment system were required starting with a review of the design and operation of the manure pit and pond system and installation of monitoring bores. Environmental issues identified during this review included:

- Substantially greater overflow than anticipated from the pond system;

- Inadequate screening of solids resulting in poor performance;
- Excessive hydraulic loading of the pond system due to stormwater, resulting in inadequate pond retention time; and
- Re-use of the poor quality wastewater could not occur due to health risks, resulting in discharge from the aerobic pond. An infiltration trench was constructed as a temporary measure to manage the discharge (no longer used).

Annual monitoring reports commenced in 2002 with elevated nutrient levels in surface and groundwater monitoring detected. Elevated levels have continued to be detected in reports since this time, resulting in a request on 7 April 2004 for a Wastewater Improvement Plan (WIP).

Licence amendments

The licence was amended in February 2005 to reflect the cessation of discharges to the temporary infiltration trench and the preparation of a Nutrient Irrigation Management Plan (NIMP) for the proposed irrigation area, in response to an inspection in 2004 which identified a number of environmental issues at the site. The NIMP was submitted 1 April 2005 and included upgrades such as the installation of a travelling irrigator, construction of a new wastewater treatment pond, installation of new hardstand areas for manure storage, truckwash upgrades and site drainage modifications. These were implemented with exception to the new pond and the drainage modifications which were deemed by SoP as not required.

The licence was amended in 2008 and reissued in 2009, both with administrative changes only.

Current Licence Reissue

An inspection in August 2010 identified that a discharge was still occurring from the final treatment pond into the old infiltration trench (via overflow), irrigation flow meter not operational, and solid waste being stored in a non-bunded area. Overflows are no longer occurring as the licensee has increased irrigation; however DEC does not see this as a long-term solution. As it is now 2012, the licence is due for reissue and DEC intends to review the licence conditions to further strengthen environmental management at the site.

In light of some recent breaches of nutrient loading limits on the licence, the licensee has applied to DEC to have approximately two hectares of additional irrigation area added to the licence in this reissue (see Figure 1) and has committed to submitting a revised NIMP to include the area as well as any other updates required to the 2005 NIMP. On this proviso DEC has agreed to add the irrigation area to the licence as well as a licence condition requiring the submission of the NIMP by agreed date of within 4 months of the licence reissue. If DEC has concerns with the NIMP when submitted which cannot be addressed, DEC may then review the decision to allow the irrigation of the additional area.

Applicable DEC Legislation that applies includes:

- Environmental Protection Regulations 1987;
- Environmental Protection(Unauthorised Discharge) Regulations 2004;
- Environmental Protection (Noise) Regulations 1997;
- Environmental Protection (Controlled Waste) Regulations 2004; and

Codes of Practice and Guidelines that apply include:

- *Water Quality Protection Note 39: "Ponds for stabilising organic matter".* Department of Water, February 2009;
- *Water Quality Protection Note 27: "Liners for containing pollutants, using engineered soils,"* Department of Water, June 2010;

- *Water Quality Protection Note 33: Nutrient and irrigation management plans"* Department of Water, June 2010;
- *Water Quality Protection Note 22: "Irrigation with Nutrient Rich Wastewater",* Department of Water, July 2008;

1.4.3 Other Making Authorities' Legislation which applies

- *Health Act 1911* (Department of Health) – requirements for managing offensive matter including manure, and provisions for local laws to address storage and use of manure
- Stock Diseases (Regulations) Act 1968 and Enzootic Diseases Regulations 1970 (Department of Agriculture and Food) – responsibilities of holding yard operators if animals held for more than 48 hours
- Auction Sales Act 1973 (Department of Commerce) – requirements for auctioning of livestock

1.4.4 Rights in Water Irrigation Act 1914

The property is not within a *Rights in Water Irrigation Act 1914* groundwater area.

1.4.5 Local Government Authority

The Shire of Plantagenet manages the site.

2.0 STAKEHOLDER AND COMMUNITY CONSULTATION

SUBMISSIONS RECEIVED DURING 21 DAY PUBLIC COMMENT PERIOD

The Application for Licence details for this facility were advertised in the West Australian newspaper on 28/11/2011 as a means of advising stakeholders and to seek public comments. No submissions were received.

3.0 EMISSIONS AND DISCHARGES RISK ASSESSMENT

The DEC considers that conditions should focus on regulating emissions and discharges of significance. Where appropriate, emissions and discharges which are not significant should be managed and regulated by other legislative tools or management mechanisms.

The following section assesses the environmental risk of potential emissions from the GSRCS. In order to determine the site's appropriate environmental regulation, an emissions and discharges risk assessment was conducted of the GSRCS using the environmental risk matrix outlined in Appendix B. The results of this are summarised in Table 2.

omposition of manure mand (BOD) from nt pond are typically effective chemical or r to irrigation (WQPN t) to avoid excessive o dedicated concrete e is removed on a days). Wastewater is at rates less than rcasses are removed hours of their death	Low - The nearest residence is 280m away. In addition no complaints regarding odour have been received. DEC Officers have not detected odour problems in historical visits to the site.	C = licence condition (setting targets + EMPs - longer timeframes)	WA– LIC– Conditions: - Generic odour condition; - Limit on BOD irrigation (30kg/ha/day)	General provisions of the *Environmental Protection Act 1986*
truck movements and for a few days each pation and sufficient	Low - Nearest residence is 280m away. No complaints have been received by DEC or recorded by the facility regarding noise.	E = No regulation, other management mechanisms	WA– LIC–	Environmental Protection (Noise) Regulations 1997
			WA– LIC–	General provisions of the *Environmental Protection Act 1986*
sk of contamination of of the Sleeman Creek WWTP ponds leak or er the integrity of the inspection in 2010 it scharging via overflow vater contamination is onium nitrogen and	Low - Nearest residence is 280m away.	C = licence condition (setting targets + EMPs - longer timeframes)	WA – LIC – Conditions: - Generic pond management conditions (freeboard, minimise veg, no overtopping, etc) to minimise overflow or leakage; - by 31 March 2012 install and thereafter maintain surveyed freeboard gauge in final pond; - Block or remove overflow pipe by 31 March 2012; - Prevent clean stormwater from entering areas in	Environmental Protection (Unauthorised Discharges) Regulations 2004

n occurs through a l-S. Irrigation typically ise reduced winds to nce for loading (TN /yr). The licensee has t additional irrigation assist with the risk of l area poses little risk date the 2005 NIMP			- Irrigation conditions (e.g. no ponding, etc); - Nutrient loading limits for TN, TP and BOD; - Maintenance of meter for measuring irrigation flows; - Monitoring and reporting of irrigation flows; - Quarterly monitoring and annual reporting of treated wastewater from final pond; - Annual Environmental Report to include assessment of data against relevant enviro guidelines/standards - Calculation of contaminant loads in annual report (for benefit of annual fee submissions) - Submission of an updated NIMP in accordance with WQPN 33	
f cattle in pens, from vater and from the carcasses from cattle moved within 8 hrs of potential to generate h into the ground can from the top screens storage bunkers prior n 2006 and 2010, the s condition.			WA – LIC – Conditions: - Pond sludge to be stored on bunded hardstand; - Leachate from hardstand to be directed to WWTP; - Carcasses to be removed within 24 hours (std condition).	Environmental Protection (Controlled Waste) Regulations 2004
o the site.			WA – LIC –	
the site. Site already			WA – LIC –	
d contaminated site.			WA – LIC	*Contaminated Sites Act 2003*

4.0 GENERAL SUMMARY AND COMMENTS

The assessment is for the reissue of operating licence for the Great Southern Regional Cattle Saleyards (GSRCS) under Category 55: Livestock saleyard or holding pen. The GSRCS was originally assessed to hold up to 90 000 cattle per year. All wastewater generated on the site (from the truckwash, pens and loading areas) discharges through a solids screen and into a pond wastewater treatment system. Wastewater from the third (aerobic) pond is irrigated to land in accordance with a NIMP.

Overall, the premise has been assessed as having a low risk to the environment if managed correctly. The main environmental risks of significance include odour (from storage of manure and other solid wastes) and possible contamination of land and water (namely groundwater) from over irrigation of nutrient rich wastewater and unplanned overflows/leaks from treatment ponds. The licensee has requested additional irrigation area (2ha) be allowed on the licence to assist in the management of nutrient overloading.

It is recommended that the licence be reissued for a further 5 years with conditions to address odour and the management of wastewater (ponds, irrigation, solid sludge management etc). Conditions proposed to be added which were not on the previous licence include:

- General odour condition;
- General condition restricting throughput to that originally assessed (90 000 cattle/yr);
- General pond management conditions (i.e. no overtopping, no discernible seepage, no vegetative growth on banks, etc);
- Condition requiring installation of freeboard level gauges in final treatment pond (and notification when complete);
- Condition requiring blocking or removal of overflow pipe in final treatment pond (and notification when complete);
- Condition requiring recording of animal numbers each month for AER (std condition);
- Condition requiring prevention of clean stormwater from entering areas in which it will become contaminated (std condition);
- Condition requiring all contaminated water to be directed to WWTS (std condition);
- Condition requiring leachate from bunded solid waste hardstand to be directed to WWTP;
- Condition requiring quarterly monitoring of down gradient natural soak (SW2 – previous monitored when premises was temporarily authorised to discharge into infiltration basin);
- Addition of NH4, NO2+NO3 and TDS into monitoring schedule;
- Condition requiring monitoring data to be assessed in accordance with relevant standards and guidelines;
- Condition requiring calculation of contaminant loads (kg/day) to be included in the AER (for benefit of annual fee submissions);
- Addition of further 2 ha irrigation area; and
- Condition requiring updated NIMP to be submitted within 4 months of reissue.

It is also recommended that the licence conditions undergo a general review in terms of standard condition wording as it has not been amended since 2009.

OFFICER PREPARING REPORT

Cassie Bell

Position: Environmental Officer
South Coast Region
Department of Environment and Conservation
+61 8 9842 4500

February 2012

ENDORSEMENT

Caron Goodbourn

Position: Regional Leader
South Coast Region
Department of Environment and Conservation
+61 8 9842 4500

February 2012

APPENDIX B: EMISSIONS AND DISCHARGES RISK ASSESSMENT MATRIX

Table 3: Measures of Significance of Emissions

Emissions as a percentage of the relevant emission or ambient standard		Worst Case Operating Conditions (95th Percentile)			
		>100%	50 – 100%	20 – 50%	<20%*
Normal Operating Conditions (50th Percentile)	>100%	5	N/A	N/A	N/A
	50 – 100%	4	3	N/A	N/A
	20 – 50%	4	3	2	N/A
	<20%*	3	3	2	1

*For reliable technology, this figure could increase to 30%

Table 4: Socio-Political Context of Each Regulated Emission

		Relative proximity of the interested party with regards to the emission				
		Immediately Adjacent	Adjacent	Nearby	Distant	Isolated
Level of Community Interest or Concern*	5	High	High	Medium High	Medium	Low
	4	High	High	Medium High	Medium	Low
	3	Medium High	Medium High	Medium	Low	No
	2	Low	Low	Low	Low	No
	1	No	No	No	No	No

Note: These examples are not exclusive and professional judgement is needed to evaluate each specific case

*This is determined by DEC using the DEC "Officer's Guide to Emissions and Discharges Risk Assessment" May 2006.

Table 5: Emissions Risk Reduction Matrix

		Significance of Emissions				
		5	4	3	2	1
Socio-Political Context	High	A	A	B	C	D
	Medium High	A	A	B	C	D
	Medium	A	B	B	D	E
	Low	A	B	C	D	E
	No	B	C	D	E	E

PRIORITY MATRIX ACTION DESCRIPTORS
A = Do not allow (fix)
B = licence condition (setting limits + EMPs - short timeframes)(setting targets optional)
C = licence condition (setting targets + EMPs - longer timeframes)
D= EIPs, other management mechanisms/licence conditions (monitoring/reporting)/other regulatory tools
E = No regulation, other management mechanisms

Note: The above matrix is taken from the DEC Officer's Guide to Emissions and Discharges Risk Assessment May 2006.