

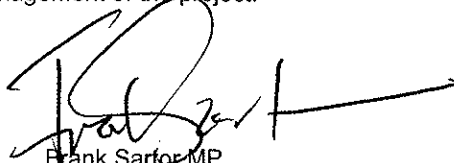
Project Approval

Section 75J of the *Environmental Planning and Assessment Act 1979*

I approve the project application referred to in Schedule 1, subject to the conditions in Schedules 2 to 4.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.



Frank Sartor MP
Minister for Planning

Sydney

21ST Dec

2007

SCHEDULE 1

Application Number:	06_0020
Proponent:	Four Arrows Ethanol Pty Ltd
Approval Authority:	Minister for Planning
Land:	See Appendix 1
Project:	Four Arrows Ethanol and Dairy Project

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DEFINITIONS

AEMR	Annual Environmental Management Report
BCA	Building Code of Australia
Cattle Housing Facility	Facilities include a cattle yard, 4 freestall sheds, a dry pen, a sick shed, and a milking barn
Council	Murrumbidgee Shire Council
DECC	Department of Environment and Climate Change
Department	Department of Planning
Director-General	Director-General of Department of Planning, or delegate
DPI	Department of Primary Industries
DWE	Department of Water and Energy
EA	Environmental Assessment titled <i>Environmental Assessment for an Integrated Ethanol and Dairy Development At Coleambally</i> prepared by Booth Associates Pty Ltd and dated October 2006
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence issued under the <i>Protection of the Environment Operations Act 1997</i>
Minister	Minister for Planning, or delegate
ML	Megalitres (1,000,000 litres)
Preferred Project Report	Preferred Project Report titled <i>Preferred Project Report for a Proposed Integrated Ethanol and Dairy Development at Coleambally New South Wales</i> prepared by Booth Associates Pty Ltd and dated September 2007 and <i>Four Arrows Ethanol Pty Ltd Preferred Project Report Supplementary Document</i> prepared by Booth Associates Pty Ltd and dated October 2007
Project	Construction and operation of an ethanol plant and dairy, and associated infrastructure as described in the EA
Proponent	Four Arrows Ethanol Pty Ltd or its successors
RTA	Roads and Traffic Authority
Site	The land referred to in Schedule 1
Solid Waste	Includes manure, carcasses, and wet distillers grain
Statement of Commitments	The Proponent's commitments in Appendix 3
Water Storages	Refers to all water and waste water storages, including recycling ponds, evaporation basins, sedimentation basins and storm surge.

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

Obligation to Minimise Harm to the Environment

1. The Proponent shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.

Terms of Approval

2. The Proponent shall carry out the project generally in accordance with the:
 - (a) EA as amended by the Preferred Project Report (see conceptual layout in Appendix 2);
 - (b) statement of commitments; and
 - (c) conditions of this approval.
3. If there is any inconsistency between the documents referred to in 2(a) and 2(b) above, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of the inconsistency.
4. The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of:
 - (a) any reports, plans, programs, strategies or correspondence that are submitted in accordance with this approval; and
 - (b) the implementation of any actions or measures contained in these reports, plans, programs, strategies or correspondence submitted by the Proponent.

Limits of Approval

5. Prior to the commencement of construction on site, the Proponent shall submit detailed engineering and architectural plans for all components of the project, including details of the external finishes of buildings, to the Director-General for approval. The Proponent shall not commence construction before the Director-General has approved these plans.
6. The Proponent shall not dispose of any solid waste (including manure, carcasses and wet distillers grain) on site without the written approval of the DWE and DECC and Director-General. In seeking this approval, the Proponent shall submit a detailed solid waste management plan for the disposal and reuse of solid waste on site to the Director-General. This plan must:
 - (a) be prepared in consultation with DECC and DWE, by a suitability qualified and experienced person whose appointment has been endorsed by the Director-General
 - (b) identify the solid waste utilisation areas including a map that clearly delineates the area;
 - (c) include:
 - a soil assessment including both physical and chemical properties throughout the soil profile;
 - a hydrogeological assessment including depth to groundwater, location of any existing wells and groundwater users, details of existing groundwater quality;
 - the properties of waste products and proposed rates of application;
 - a cropping and land management program;
 - a nutrient balance and commentary on the expected lifespan of the utilisation areas based on the soil assessment, properties of the waste products and the cropping and land management program;
 - construction techniques for any solid storage or carcass disposal areas including detail designs of these areas;
 - a soil, surface/and or groundwater monitoring program.
7. The Proponent shall not stock the dairy with more than 10,000 head of cattle without the written approval of the DECC and Director General. Prior to seeking this approval, the Proponent shall:
 - (a) commission an Independent Environmental Audit of the dairy (see Condition 6 of Schedule 4) when it is stocked with at least 9,000 head of cattle;
 - (b) carry out a detailed odour assessment of the proposed increase in stock numbers in accordance with relevant DECC guidelines.

The Proponent shall then submit a copy of the audit report and revised odour assessment to the DECC and Director-General for review.

Following the review, the Proponent shall comply with any revised stock limits set by the DECC and the Director-General.

8. The Proponent shall not produce more than 300ML of ethanol per year on site.

Management Plans/Monitoring Programs

9. With the approval of the Director-General, the Proponent may submit any management plan or monitoring program required by this approval on a progressive basis.

Structural Adequacy

10. The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

Notes:

- *Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.*
- *Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.*

Protection of Public Infrastructure

11. Prior to commencement of construction on site, the Proponent shall:
- (a) prepare a dilapidation report of the public infrastructure in the vicinity of the site (including roads, gutters, footpaths, etc) in consultation with Council; and
 - (b) submit a copy of this report to the Director-General.
12. The Proponent shall:
- (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and
 - (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.

Operation of Plant and Equipment

13. The Proponent shall ensure that all plant and equipment used on site is:
- (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.
-

SCHEDULE 3 SPECIFIC ENVIRONMENTAL CONDITIONS

INFRASTRUCTURE DESIGN

Dairy

1. The Proponent shall design, construct and operate the dairy in accordance with relevant guidelines, code of practices and best management practices. In particular, the Proponent shall ensure that:
 - (a) the floor of dairy housing facilities are compacted to an impermeability equal to or greater than 1×10^{-9} m/s and a clay liner thickness of no less than 600mm, or an equivalent alternative;
 - (b) no cattle housing facility, except the freestall sheds, has a slope less than 3%, or drains into another cattle housing facility;
 - (c) all feed trough, water trough and bin aprons slope away from the trough and bin to facilitate drainage; and
 - (d) water trough drains are constructed so that wash water is always discharged outside the cattle housing facility.
2. Prior to commencement of operations, the Proponent shall demonstrate to the satisfaction of the Director-General that the dairy complies with Condition 1 of Schedule 3.
3. The Proponent shall ensure that the dairy is maintained in accordance with best management practice. In particular, the Proponent shall ensure that:
 - (a) the manure mound in the dry lot does not exceed 25% of the dry lot area;
 - (b) the manure pad depth at the dry lot:
 - does not exceed 50mm above the interface layer;
 - is left intact during pack removal; and
 - is left in a smooth, durable and uniform state following pack removal;
 - (c) manure with moisture content of greater than 35% is not stockpiled;
 - (d) wet patches are eliminated at least weekly;
 - (e) potholes are repaired at least weekly; and
 - (f) feed residues and spilt feed are removed at least weekly.

Solid Waste and Water Management System

4. The Proponent shall ensure that:
 - (a) the floor and walls of all water storages are compacted to an impermeability equal to or greater than 1×10^{-9} m/s and a clay liner thickness of no less than 600mm, or an equivalent alternative;
 - (b) recycling ponds and the evaporation basin include a leakage detection system;
 - (c) sedimentation basins are constructed of reinforced concrete;
 - (a) controlled drainage areas and proposed water storages can accommodate the runoff generated from either a 90 percentile wet year or a 1 in 20 year 24 hour storm event, which ever is greater; and
 - (d) the designated solid waste storage areas are located in controlled drainage areas and are located on impermeable pads.

AIR QUALITY

Odour

5. The Proponent shall not cause or permit the emission of offensive odours from the site, as defined under Section 129 of the *Protection of the Environment Operations Act 1997*.

Note:

- Section 129 of the *Protection of the Environment Operations Act 1997*, provides that the Proponent must not cause or permit the emission of any offensive odour from the site, but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour; and
- Due to potential odour impacts, the dwelling on Lot 112 DP 750896 should be discontinued as a residence.

Air Quality Criteria

6. The Proponent shall ensure emissions generated from the ethanol plant do not exceed the requirements of the EPL and/or the emission limits detailed in the Ethanol Plant Verification Report (see Condition 10 of Schedule 3).

7. The Proponent shall ensure that the dust emissions generated by the project do not cause additional exceedances of the air quality impact assessment criteria listed in Tables 1, 2, and 3 at any sensitive receivers.

Table 1: Long term impact assessment criteria for particulate matter

Pollutant	Averaging period	Criterion
Total suspended particulate (TSP) matter	Annual	90 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	Annual	30 µg/m ³

Table 2: Short term impact assessment criterion for particulate matter

Pollutant	Averaging period	Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	50 µg/m ³

Table 3: Long term impact assessment criteria for deposited dust

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
Deposited dust	Annual	2 g/m ² /month	4 g/m ² /month

Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.

Management

8. The Proponent shall prepare and implement an Air Quality Management Plan to the satisfaction of the DECC and Director-General. This plan must:
- be prepared in consultation with DECC by a suitability qualified and experienced person whose appointment has been endorsed by the Director-General;
 - be submitted for approval prior to the commencement of construction on site;
 - include an
 - Ethanol Plant Verification Report; and
 - Odour Management Plan; and
 - describe the measures that would be implemented to minimise the dust emissions from the construction and operation of the project.
9. The Ethanol Plant Verification Report must:
- include plans showing the final plant design and engineering specification for all plant and pollution control equipment to be installed on site;
 - include a revised air quality assessment of the plant in accordance with DECC's *Technical notes: Assessment and management of odour from stationary sources in NSW*, the *Technical framework: Assessment and management of odour from stationary sources in NSW, 2006*, and *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW*;
 - demonstrate that the predicted emissions from the plant would:
 - be consistent with the prediction in the EA and Preferred Project Report;
 - not generate offensive odour under section 129 of the POEO Act; and
 - comply with the requirements of Part 4 of the *Protection of the Environment (Clean Air) Regulation 2002* and international practice;
 - comply with the DECC impact assessment criteria specified in Section 7 of the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW*;
 - propose emission limits for all air pollutants and odour, based on the revised air quality impact assessment; and

- (e) include a program to monitor the emissions from the plant against the relevant emission limits during operation.
10. The Odour Management Plan must:
- describe in detail what measures would be implemented to ensure the project does not generate offensive odour;
 - demonstrate that these measures are consistent with best practice;
 - include a detailed odour monitor the effectiveness of these measures and the odour impacts of the project; and
 - describe the contingency measures that would be implemented if offensive odour impacts occur.

METEOROLOGICAL MONITORING

11. Prior to the commencement of construction, the Proponent shall establish a permanent meteorological station on site to the satisfaction of the Director-General and DECC. This meteorological station must be capable of measuring the following parameters:

Parameter	Units of measure	Frequency	Averaging period	Sampling method¹
Temperature	°C	Continuous	1 hour	AM-4
Wind Direction	°	Continuous	15 minute	AM-2 & AM-4
Wind Speed	m/s	Continuous	15 minute	AM-2 & AM-4
Sigma theta	°	Continuous	15 minute	AM-2 & AM-4
Rainfall	mm	Continuous	24 hours	AM-4

¹Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DECC)

WATER

Discharges

12. The Proponent shall only discharge water from the site in accordance with the DECC Environment Protection Licence, or in accordance with section 120 of the Protection of the Environment Operations Act 1997.

Water Management

13. All wastewater is to be stored in the approved storage areas and there is to be no irrigation of wastewater on the project site.

Note: This condition does not relate to the:

- re-use or recycling of water from the Category 1 or Category 2 storage, as described in the EA and Preferred Project Report; and
- re-use of Category 3 water for the flushing of freestall sheds, as described in the EA and Preferred Project Report.

14. The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the DECC, DWE and Director-General. The plan must:
- be prepared in consultation with DECC, DWE and Council, by a suitably qualified, experienced and expert/s whose appointment has been approved by the Director-General;
 - be submitted for approval prior to the commencement of construction on site;
 - include plans showing the detailed design of:
 - all water storages on site including the proposed lining, leakage detection and collection systems for the waste water storages; and
 - ground surfaces of all cattle housing facilities and solid waste storage areas;
 - include a copy of the geotechnical assessment that was carried out to support the preparation of plans referred to in (c) and a justification of the location of infrastructure in terms of soil type;
 - describe the measures that would be implemented to ensure all water storages and ground surfaces are constructed, operated and maintained to prevent leakage and failure;
 - include:
 - a Site Water Balance;
 - an Erosion and Sediment Control Plan; and
 - a Water Monitoring Program.

Site Water Balance

15. The Site Water Balance must:
- (a) include details of:
 - sources and security of water supply;
 - water use on site;
 - water management on site;
 - reporting procedures;
 - (b) describe measures to minimise water use by the project; and
 - (c) be reviewed and recalculated each year in the light of the most recent water monitoring data.

Erosion and Sediment Control

16. The Erosion and Sediment control Plan must:
- (a) be consistent with the requirements of Landcom's (2004) *Managing Urban Stormwater: Soils and Construction*;
 - (b) identify the activities on site that could cause soil erosion and generate sediment; and
 - (c) describe what measures would be implemented to:
 - minimise soil erosion and the transport of sediment to downstream waters, including the location, function and capacity of any erosion and sediment control structures; and
 - maintain these structures over time.

Water Monitoring Program

17. The Water Monitoring Program must include:
- (a) detailed baseline data to benchmark the natural variation in groundwater levels and quality at the site and solid waste utilisation area;
 - (b) groundwater impact assessment criteria;
 - (c) a program to monitor the impact of the project on groundwater levels and quality ;
 - (d) a program to monitor, (by the use of shallow piezometers/lysimeters), detect, and quantify any leakage from the site's water storages;
 - (e) a contingency plan for potential groundwater contamination, and
 - (f) procedures for reporting the results of this monitoring.

WASTE MANAGEMENT

18. Except as expressly permitted by an EPL, the Proponent shall not cause, permit or allow any waste generated outside the site to be received at the site for storage, treatment, processing, reprocessing or disposal, or any waste generated at the site to be disposed of at the site.
19. The Proponent shall prepare, and implement a Waste Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be submitted to the Director-General prior to construction;
 - (b) be prepared in consultation with DWE, DECC and Council;
 - (c) identify the types and quantities of waste that would be generated during construction and operation, and the standards and performance measures for dealing with this waste;
 - (a) detail procedures to monitor the amount of waste generated by the project;
 - (b) outline measures to minimise the production and impact of all wastes generated by the project, including details of how this waste would be reused, recycled, and if necessary, appropriately treated and disposed of in accordance with the DECC's guidelines on the *Assessment, Classification & Management of Liquid and Non-Liquid Waste*;
 - (c) describe how the effectiveness of these actions and measures would be monitored over time;
 - (d) describe what procedures would be followed to ensure compliance if any non-compliance is detected; and
 - (e) detail the contingency measures that would be implemented should the production of wet distillers grain exceed on and offsite demand.

NOISE

20. The Proponent shall ensure that noise from the project at all residences not located on site does not exceed:
- (a) 40 dB(A) L_{A10} (15 minute) at all times during the construction phase; and
 - (b) 35 dB(A) L_{Aeq} (15 minute) at all times during operation.

Notes:

- a) Noise from the development is to be measured at the most affected point or within the residential boundary, or at the most affected point within 30 metres of a dwelling where the dwelling is more than 30 metres from the

boundary, to determine compliance with noise level limits in the above table. Where it can be demonstrated that direct measurement of noise from the premises is impractical, the Department and the DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.

- b) The noise emission limits identified in the above table apply under meteorological conditions of:
- wind speeds of up to 3 m/s at 10 metres above ground level; and
 - under "non-significant weather conditions" (see Chapter 5 and Appendix E of the Industrial noise Policy).

21. The Proponent shall comply with the restrictions in Table 4, unless otherwise agreed with the Director-General.

Table 4: Construction and Operation Hours for the Project

Activity	Day	Time
Construction	Monday – Friday	7:00am to 6:00pm
	Saturday	8:00am to 1:00pm
	Sunday and Public Holidays	Nil
Operation	All days	Any time

Note: Construction activities may be conducted outside the hours in Table 1 provided that the activities are not audible at any residence beyond the boundary of the site.

SAFETY AND RISK MANAGEMENT

22. Prior to commencing the construction of the ethanol plant on site, the Proponent shall prepare and submit for the approval of the Director-General, the following:

- a Fire Safety Study prepared in accordance with the Department of Planning's *Hazardous Industry Planning Advisory Paper No. 2 - Fire Safety Study Guidelines*, the NSW Government's *Best Practice Guidelines for Contaminated Water Retention and Treatment Systems*, and to the satisfaction of the Commissioner of the Rural Fire Service;
- a Hazard and Operability Study, undertaken by an independent qualified person approved by the Director-General. The study shall be carried out in accordance with Department of Planning's *Hazardous Industry Planning Advisory Paper No. 8 - HAZOP Guidelines*. The study report shall be accompanied by a program for the implementation of all recommendations made in the report. If the Proponent proposes to defer the implementation of a recommendation, full justification must be included; and
- a Final Hazard Analysis prepared in accordance with the Department of Planning's *Hazardous Industry Planning Advisory Paper No. 6 - Guidelines for Hazard Analysis*. Separation distances between the various tanks and process plant should be adequate to minimise the escalation of fire.

Construction, other than of preliminary works, shall not commence until approval is given to the studies listed in (a) – (c). The Proponent shall consider and implement, as appropriate, all recommendations arising out of the studies and/or shall comply with all reasonable requirements of the Director-General in respect of the implementation of any measures presented in the Report. Any such works shall be completed within such time as the Director-General may require.

Pre-commissioning

23. Prior to the commencement of operation of the ethanol plant on site, the Proponent shall prepare and submit for the approval of the Director-General, the following:

- transport arrangements for hazardous materials including details of routes to be used for the movement of vehicles carrying hazardous materials to and from the proposed project. The routes shall be selected in accordance with the Department's draft *Route Selection* guidelines. Suitable routes identified in the study shall be used except where departures are necessary for local deliveries or emergencies;
- an Emergency Plan and detailed emergency procedures prepared in accordance with the Department of Planning's *Hazardous Industry Planning Advisory Paper No. 1 - Industry Emergency Planning Guidelines*. The plan shall include detailed procedures for the safety of all people outside of the project who may be at risk from the project; and
- a Safety Management System prepared in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 9 - Safety Management*. The System must include details of on-site operations and associated transport activities involving hazardous materials; measures to ensure nominated transport routes are being followed; and details of safety related procedures, responsibilities and policies and measure to ensure compliance with these procedures and policies.

Records shall be kept on-site and shall be available for inspection by the Director-General or nominee.

The Proponent shall consider and implement, as appropriate, all recommendations arising out of the studies to the satisfaction of the Director-General.

24. One month prior to the commencement of operation of the ethanol plant on site, the Proponent shall submit to the Director-General, a report detailing compliance with conditions 22 and 23 of Schedule 3, including:
- (a) dates of study/plan/system completion and commencement of construction and commissioning of plant;
 - (b) actions taken or proposed to implement recommendations made in the studies/plans/systems; and
 - (c) responses to each requirement imposed by the Director-General in respect of the implementation of any measures arising from recommendations of the studies or reports referred to in conditions 22 and 23 above and the hazards-related conditions of this approval, within such time as the Director-General may agree.

Post-commissioning

25. Three months after the commencement of operation of the ethanol, the Proponent shall submit to the Director-General, a report verifying compliance with condition 23 of Schedule 3, including:
- (a) that transport routes are being followed;
 - (b) the Emergency Plan is in place and at least one emergency exercise has been conducted; and
 - (c) the Safety management System has been fully implemented and that records required by the system are being kept.

Dangerous Goods

26. The Proponent shall store and handle all dangerous goods, as defined by the Australian Dangerous Goods Code, strictly in accordance with:
- (a) all relevant Australian Standards;
 - (b) a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and
 - (c) the DECC's Environment Protection Manual Technical Bulletin *Bunding and Spill Management*.

TRAFFIC AND TRANSPORT

Access

27. The Proponent shall:
- (a) ensure all access locations on Kidman Way have a Safe Intersection Sight Distance in either direction in accordance with RTA's *Road Design Guide* for the prevailing speed limit;
 - (b) ensure that the swept path of the largest vehicle entering/exiting the site and manoeuvrability through the site is in accordance with the relevant Australian Standard and to Council's satisfaction.
 - (c) construct all driveways with a minimum entry width of 6 metres and exit width of 4.6 m in accordance with the latest version of the Australian Standard AS 2890.1 for a class 1 parking facility and category 3 access driveway. The access driveways shall be constructed to accommodate the largest size vehicles likely to service the site;
 - (d) construct an Auxiliary Right Turn and Auxiliary Left Turn treatments at the access location off Kidman Way. Detail designs of the Auxiliary Right Turn and Auxiliary Left Turn and acceleration treatments shall be submitted to the RTA for approval prior to carrying out any development on site;
 - (e) construct separate acceleration lanes for both north and southbound vehicles at the junction of the access driveway for the site and the Kidman Way in accordance with RTA's *Road Design Guide* for the prevailing speed limit and as indicated in the EA;
 - (f) sign a *Works Authorisation Deed* with the RTA before undertaking any design of road works or carrying out any development on site; and
 - (g) implement a "No Stopping" restriction along the Kidman Way frontage of the site prior to carrying out any development on site.

Internal Roads and Parking

28. The Proponent shall ensure that:
- (a) all car parking on the site is constructed in accordance with the relevant requirements in the latest version of Australian Standard AS 2890.1 and AS 2890.2 and to Council's satisfaction;
 - (b) facilities for pedestrians within the car park are provided to facilitated safe pedestrian movements throughout the car park;

- (c) the internal road network can accommodate the largest vehicles that would be used on site in accordance with the relevant requirements of the latest version of the Australian Standard AS 2890.2 and to Council's satisfaction; and
- (d) no vehicles from the project park, queue or stand in any of the road reserves outside the site.

Intersection Upgrades

- 29. Prior to carrying out any development on site, the Proponent shall prepare a report on the impact of the project on the intersection of the Willbriggie Rail siding and the Kidman Way in accordance with the RTA's *Road Design Guide* and to RTA's satisfaction. The Proponent must seek approval from Council and/or RTA for any upgrades required and implement any requirements prior to the commencement of operations at the site.

Transport Code of Conduct

- 30. Prior to the commencement of construction on site, the Proponent shall prepare a Transport Code of Conduct for the project in consultation with the Council and RTA, and to the satisfaction of the Director-General. The Code shall include, but not necessarily be limited to:
 - (a) details of traffic routes to be used by heavy vehicles associated with the project;
 - (b) measures to be implemented to minimise traffic generated by the project, such as car pooling and flexible working hours;
 - (c) minimum requirements for vehicle maintenance to address noise and exhaust emissions, particularly along roads in close proximity to residences;
 - (d) speed limits to be observed along routes to, from and within the site; and
 - (e) details of the expected behavioural requirements for vehicle drivers travelling to, from and within the site.

GREENHOUSE GAS EMISSIONS

- 31. The Proponent shall prepare and implement an Energy Savings Action Plan for the project to the satisfaction of the Director-General. This plan must be prepared in accordance with the requirements and guidelines of DWE, and submitted to the Director-General for approval prior to starting operations on site.

Monitoring and Reporting

- 32. The Proponent shall, to the satisfaction of the Director-General:
 - (a) monitor the greenhouse gas emissions generated by the project;
 - (b) investigate ways to reduce greenhouse gas emissions generated by the project; and
 - (c) report on greenhouse gas monitoring and abatement measures and energy efficiency measures identified in the Energy Savings Action Plan.

VISUAL IMPACT

Signage and Fencing

- 33. Prior to installing any signage on the site, the Proponent shall submit detailed plans of this signage to the Director-General for approval. These plans must be prepared in consultation with Council. Following approval, the Proponent must ensure that the signage is installed in accordance with the approved plans.
- 34. Prior to installing any fencing on the site, the Proponent shall submit detailed plans of this fencing to the Director-General for approval. These plans must be prepared in consultation with Council. Following approval, the Proponent must ensure that the fencing is installed in accordance with the approved plans.

Landscaping

- 35. During construction, the Proponent shall:
 - (a) minimise the vegetation clearing on the site; and
 - (b) implement suitable measures to protect the vegetation that is scheduled to be retained on the site.
- 36. During the project, the Proponent shall:
 - (a) provide effective screening along the boundary of the site;
 - (b) ensure that the landscaping on the site does not impede driver sight distance of vehicles entering or leaving the site; and
 - (c) maintain the landscaping on the site to the satisfaction of the Council.

Lighting

37. The Proponent shall ensure that all external lighting associated with the project:
- (a) does not create a nuisance to surrounding properties or roadways; and
 - (b) complies with latest version of the Australian Standard AS 4282.

ANIMAL WELFARE

Cattle Welfare

38. Prior to the commencement of operations, the Proponent shall prepare (and following approval) implement an Animal Care Statement for the project in consultation with Murrumbidgee Shire Council, the RSPCA (contact Steve Coleman from the Yagoona Office in Sydney) and DPI, and to the satisfaction of the Director-General. This statement must:
- (a) be prepared in accordance with the relevant codes of practice, including the *Australian Model Code of Practice for the Welfare of Animals – Cattle* and the *Australian Model Code of Practice for the Welfare of Animals – Land transport of cattle*; and
 - (b) address all issues associated with the welfare of the cattle, particularly health, housing, watering, feeding and handling.

Disease Management

39. Prior to the commencement of operations, the Proponent shall prepare and following approval implement an Emergency Disposal and Bio-security Protocol for the project in consultation with the Murrumbidgee Shire Council and DPI, and to the satisfaction of the Director-General. This protocol must:
- (a) address all issues associated with the management procedures to maintain biosecurity and other emergency situations including the potential outbreak of disease during the operation of the project; and
 - (b) demonstrate how the disposal of carcasses off-site considers quarantine issues.

ABORIGINAL HERITAGE

40. The Proponent shall not destroy any Aboriginal objects on the site without the written approval of the Director-General.
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SCHEDULE 4 ENVIRONMENTAL MANAGEMENT, MONITORING, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT STRATEGY

1. The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy must be submitted to the Director-General prior to carrying out any development on site, and:
 - (a) provide the strategic context for environmental management of the project;
 - (b) identify the statutory requirements that apply to the project;
 - (c) describe in general how the environmental performance of the project would be monitored and manage;
 - (d) describe the procedures that would be implemented to:
 - keep the local community and relevant agencies informed about the operation and environmental performance of the project;
 - receive, handle, respond to, and record complaints;
 - resolve any disputes that may arise during the course of the project;
 - respond to any non-compliance;
 - manage cumulative impacts; and
 - respond to emergencies; and
 - (e) describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the project.

ENVIRONMENTAL MONITORING PROGRAM

2. The Proponent shall prepare and implement an Environmental Monitoring Program for the project to the satisfaction of the Director-General. This program must consolidate the various monitoring requirements in schedule 3 of this approval into a single document, and be submitted to the Director-General concurrently with the submission of the relevant monitoring programs/plans.

REPORTING

Incident Reporting

3. Within 24 hours of detecting an exceedance of the limits/performance criteria in this approval or the occurrence of an incident that causes (or may cause) harm to the environment, the Proponent shall notify the Department and other relevant agencies of the exceedance/incident.
4. Within 6 days of notifying the Department and other relevant agencies of an exceedance/incident, the Proponent shall provide the Department and these agencies with a written report that:
 - (a) describe the date, time, and nature of the exceedance/incident;
 - (b) identify the cause (or likely cause) of the exceedance/incident;
 - (c) describe what action has been taken to date; and
 - (d) describe the proposed measures to address the exceedance/incident.

Annual Reporting

5. Within 12 months of this approval, and annually thereafter, the Proponent shall submit an AEMR to the Director-General and relevant agencies. This report must:
 - (a) identify the standards and performance measures that apply to the project;
 - (b) describe the works carried out in the last 12 months;
 - (c) describe the works that will be carried out in the next 12 months;
 - (d) include a summary of the complaints received during the past year, and compare this to the complaints received in previous years;
 - (e) include a summary of the monitoring results for the project during the past year;
 - (f) include an analysis of these monitoring results against the relevant:
 - impact assessment criteria/limits;
 - monitoring results from previous years; and
 - predictions in the EA;
 - (g) identify any trends in the monitoring results over the life of the project;
 - (h) identify any non-compliance during the previous year; and
 - (i) describe what actions were, or are being, taken to ensure compliance.

INDEPENDENT ENVIRONMENTAL AUDIT

6. Within 12 months of the commencement of operations, and every 3 years thereafter, unless the Director-general directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
 - (a) be conducted by a suitably qualified, experienced, and independent team of experts that includes both an odour and water management expert, whose appointment has been endorsed by the Director-General;
 - (b) be undertaken in consultation with DECC, DWE and Council;
 - (c) include a Hazard Audit in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 5 – Hazard Audit Guidelines*. The audit shall include a review of the Safety Management System and a review of all incidents recorded;
 - (d) assess whether the project is being carried out in accordance with industry best practice;
 - (e) assess the environmental performance of the project, and its effects on the surrounding environment and sensitive receivers;
 - (f) assess whether the project is complying with the relevant standards, performance measures, and statutory requirements including the ;
 - (g) review the adequacy of any strategy/plan/program required under this approval; and, if necessary,
 - (h) recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval.
7. Within 6 weeks of completing this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General with a response to any recommendations contained in the audit report.
8. Within 3 months of submitting an audit report to the Director-General, the Proponent shall review and if necessary revise the strategy/plans/programs required under this approval to the satisfaction of the Director-General.

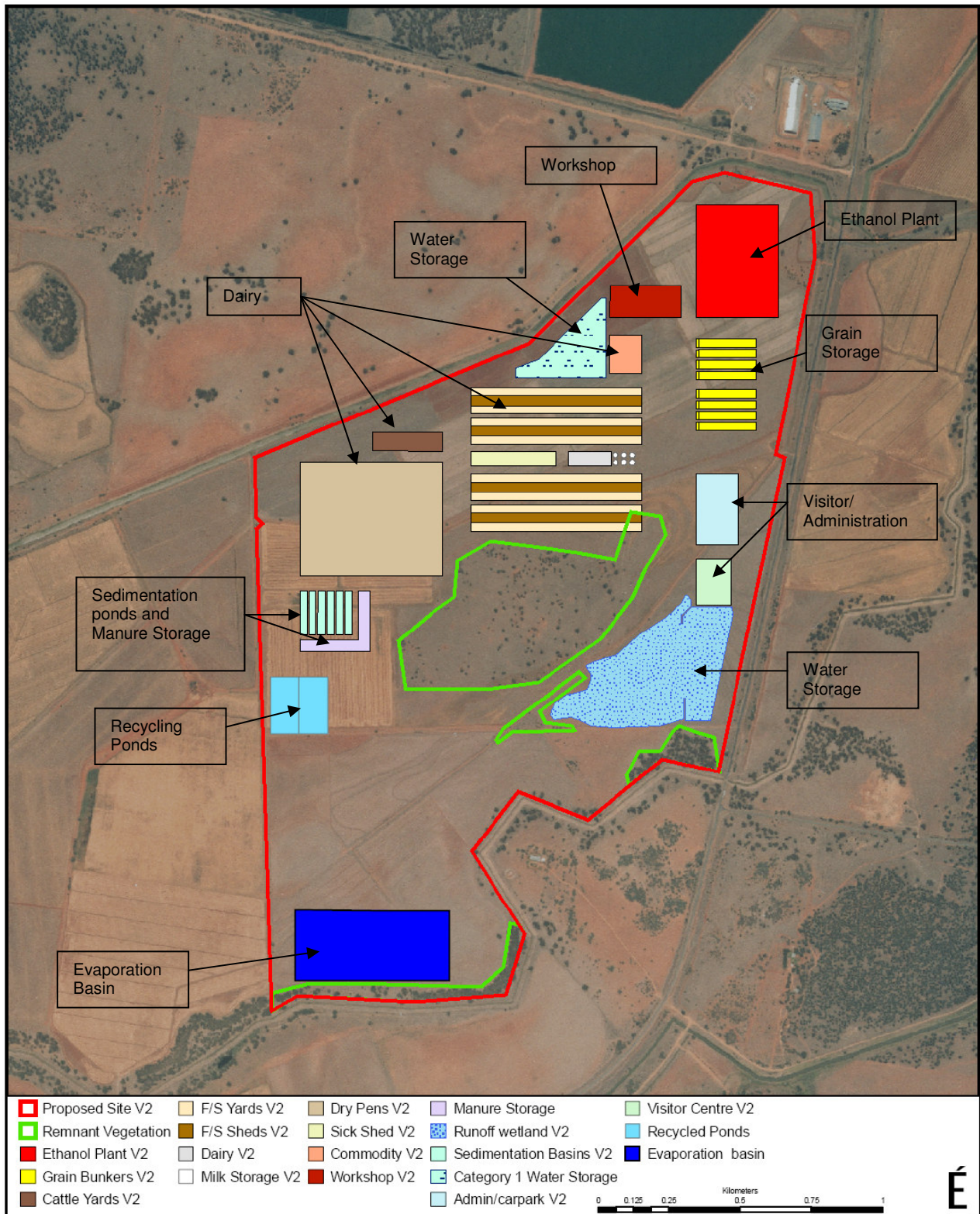
ACCESS TO INFORMATION

9. Within 3 months of the approval of any strategy/plan/program required under this approval (or any subsequent revision of these strategies/plans/programs), or the completion of the audits or AEMRs required under this approval, the Proponent shall provide a copy of the relevant document/s to:
 - (a) the relevant agencies, and
 - (b) any interested party upon request.
-

**APPENDIX 1
SCHEDULE OF LAND**

Lot	DP	Owner
78, 79, 80 and 112	750896	Four Arrows Group
1, 2, 3, 4, 6, 7, 8, 9, 10, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 41, 42, 43, 44, PT45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 73, 74, 75, 76, 80, and 81	750873	Four Arrows Group
PT27, PT28, PT29, PT30, PT46, and PT59	750883	Four Arrows Group
PT20, 21, 83, 84, 85, 89, 90, 91, 92, 100, 101, 102, 103, 110, 111, 112, 113, 116, 117, 156, and 157	750885	Four Arrows Group
31, 32, 33, 34, 35, 36, 37, 39, 71, 72, 73, and 74	750898	Four Arrows Group
2	519450	Four Arrows Group

APPENDIX 2 CONCEPTUAL LAYOUT OF THE PROJECT



APPENDIX 3
STATEMENT OF COMMITMENTS

Integrated Statement of Commitments

The Environmental Assessment (EA) process has resulted in a number of identified and predicted issues in relation to the Four Arrows' development and all have been examined in detail through expert investigation and consultation. The results of these actions have been included within the original EA document and further additions have also been made and included with the Preferred Project Report (PPR).

These findings have translated into the Statement of Commitments (SOC) that are contained within each of the submitted documents. This is a legislative requirement however they contain the guarantees that a proponent intends to pursue once project approvals have been obtained.

Although these have been completed for both the EA document and the PPR submission the DoP have requested that the two relevant sections from the two documents be merged in order to complete their review and compile conditions of consent for this application. This has been completed as follows being an aggregation of the two containing a total of 298 guaranteed commitments which the proponent proposes to pursue upon approval.

Although the resultant table is a combination of the two separate submissions the purpose remains the same being:

"A Statement of Commitments has been included as part of this EA as per requirements of Part 3A of the EP & A Act 1997 [Division 2, 75F (6)]. The following sections detail the proponent's intent to address those issues identified throughout the development of this Environmental Assessment (EA) including those proposed by relevant agencies and stakeholders. The process has been comprehensive to ensure that all potential issues have been identified and addressed however not restricted to those included within the Director General's (DG) specifications.

Upon approval the proponent will commission the formulation of an Environmental Management Plan (EMP) that will include a Construction Environmental Management Plan (CEMP) and an Operational Environmental Management Plan (OEMP), to achieve a state of maintained and/or improved environmental integrity initiated by the EA process. The detailed commitments described within the following sections will form the basis of these plans."

The table spread over the following pages is from the original EA document with introduction of the appropriate PPR commitments. Attention is drawn to the following points:

- Applicable EA and PPR section numbers are listed along side each commitment as well as their corresponding commitment number. Commitment numbers 1-250 are from the original EA document whilst number 251-298 are merged commitments from the PPR document.
- The PPR commitments are either reaffirmed, expanded, inclusions or amended the definitions of which are explained in Section 6.0 of that document.
- Reaffirmed commitments in the table are denoted by two commitment numbers as they have been included in the original EA and for the purpose of conformation been revisited in the PPR document. Those that contain only one commitment number are more specific and may refer to several commitments in that section so have been given a unique ID.
- Expanded and inclusive commitments are listed separate by in their appropriate sections. Some may apply to a number of sections however they have only been included once in this SOC to alleviate confusion and repeated conditions of consent.

- Any amended commitments are included within the same commitment box as the original to reveal this amendment.
- Any superfluous commitments have been highlighted in white to indicate that they no longer specifically apply due to the revised proposal as contained within the PPR submission.

There have been other slight modifications to the original table including project phases. It is suggested that this final SOC submission supersedes those supplied in the EA and PPR when being utilised to formulate conditions of consent for this project.

Table of Merged Commitments

Air Quality					
Issue	EA Section No.	PPR Section No.	Commitment	Ref No.	Project Phase
General	4.2 5.1.1 5.1.2 5.2		Four Arrows commits to the development of a Construction Environmental Management Plan (CEMP) and an Operational Environmental Management Plan (OEMP) that addresses recommendations made by the Department of Planning (DOP) and other relevant agencies, and the grievances of stakeholders through the consultation process, that contains air quality monitoring and management strategies that will address the sources of air quality impacts and detail mitigation measures that will achieve air quality goals.	1	Post approval
		2.3.6	Four Arrows reaffirms its commitment to develop an <i>air quality management plan</i> .	256	Post approval
		2.3.7	Four Arrows includes a commitment within its air quality management plan and this is to <i>use on-site weather data for modelling purposes</i> , once a sufficient sample database has been retrieved.	258	Design
Dairy Sheds	3.3.2 3.4.2 5.2.1		Four Arrows commits to the design and the placement of dairy cattle sheds in order to minimise the drift of particulate and odours from the development site.	2	Design Construction
Distillers Grain	3.3.2 3.4.1 5.2.1		Four Arrows commits to the design of holding and storage facilities that minimises the drift of odours from wet distillers grain awaiting transport.	3	Design Construction
	4.1.2 5.2.1		Four Arrows commits to an ethanol production volume that will ensure that all by-product, which includes wet distillers grain, will not be over and above that which results in the unnecessary storage of derivatives on site.	4	Operation
	4.1.2 5.2.1	3.5.5	Four Arrows commits to secure contracts that will ensure the expeditious movement of unrequired wet distillers grain offsite and develop strategies that make provision for unexpected dropouts or terminations of agreements.	5 270	Ongoing
	4.1.2 5.2.1		Four Arrows commits to the suspension of ethanol production in the event that mechanisms for the collection of wet distillers grain are interrupted or negatively affected until other disposal arrangements can be implemented.	6	Operation
		3.5.5	Four Arrows expands upon its commitment to an air quality management plan to include <i>the incorporation of excess WDG not consumed by general markets</i> also into the soils of "Tubbo" as worst case commercial scenario but still a responsible environmental scenario.	271	Operational
Dust	5.2.2		Four Arrows commits to conducting construction activities that minimises the affects of dust on surrounding areas particularly towards the Kidman Way.	7	Construction
	5.2.2		Four Arrows commits to the operation of water trucks, and various sedimentation and dust capture systems, to ensure that the generation of dust is kept to a minimum as not to affect surrounding areas particularly towards the Kidman Way.	8	Construction
	4.11.1 5.2.2		Four Arrows commits to the installation of misting and sprinkler type systems within cattle yards, dry pens and exercise yards etc. to minimise the drift of dust to surrounding areas.	9	Operation
	5.2.2		Four Arrows commits to the installation of hooded augers and screened areas at grain transfer sites to capture and minimise the amount of dust drifting from the project site.	10	Operation
	4.11.1 5.2.2 5.5.1.10		Four Arrows commits to the sealing of all appropriate surfaces including roads, paths, yards and pens that may be the potential sources of dust.	12	Design Construction
		2.3.6	Four Arrows reaffirms its commitment to develop an air quality management plan that <i>specifically targets the generation and management of dust</i> throughout the site.	257	Post approval

Ethanol Plant	4.1.2 4.2.3.1 4.2.3.2 5.2.1		Four Arrows commits to the design and placement of the ethanol plant and associated infrastructure in order to minimise the drift of gaseous and particulate emissions from the project site.	13	Design Construction
		3.5.2.4 3.5.2.5	Four Arrows expands upon its commitment to an air quality management plan to include the installation of air pollution control equipment and operational procedures at the ethanol facility as described.	264	Design Construction Operation
Manure	4.1.4 4.8.4 5.5.2.13		Four Arrows commits to the design and construction of a manure collection system involving flood wash-down channels and sedimentation basins that minimises the production and drift of odours from the development site.	14	Design Construction
	4.1.5 4.1.6 5.5.2.14 5.5.2.15		Four Arrows commits to the design and construction of anaerobic and aerobic ponds to facilitate the rapid breakdown of effluent produced by the dairy enterprise and to minimise the amount of odours that drift from the development site.	15	Design Construction
	4.1.4 4.8.4 4.14 5.5.2.18		Four Arrows commits to the regular removal of manures from sedimentation basins, and the dry down and cleaning of anaerobic ponds when required, in order to minimise the drift of odours from the development site.	16	Operation
		3.5.3	Four Arrows reaffirms its commitment to an air quality management plan and this includes the regular removal of manures from sedimentation basins to "Tubbo" irrigation to minimise the drift of odours from the project site.	266	Operation
	4.1.4 4.1.8 4.8.4 5.5.1.8		Four Arrows commits to the regular removal of manures from open penned areas to reduce the drift of odours from the development site.	17	Operation
	4.1.4 4.1.8 4.8.1 5.5.1.8 5.5.2.18		Four Arrows commits to the acceptance of all manures onto its neighbouring Tubbo Station property and the expeditious incorporation of these manures into the soil profile to minimise the drift of odours from this source.	18	Operation
		3.5.3	Four Arrows includes a commitment within its air quality management plan and this is the composting of short term stored manures prior to spreading .	269	Operation
		3.5.3	Four Arrows includes a commitment within its air quality management plan and this is the gravelling of the road into "Tubbo" Station to ensure all weather daily access for the transportation of manures. The intended plan continues to include all applicable strategies described therein, accompanied by all monitoring and review, reporting and auditing commitments.	267	Construction Operation
Monitoring and Review	4.2.2, 5.2.1 5.2.2		Four Arrows commits to the installation of sensors and additional equipment including anemometers etc. to allow for the monitoring and modelling of particulate and odour movements to ensure that air quality goals are being achieved	19	Construction Operation
		3.5.2.5	Four Arrows expands upon its commitment to an air quality management plan to include key testing methodologies and record keeping requirements at the Ethanol facility as described.	265	Operation
	4.2.2, 5.2.1 5.2.2		Four Arrows commits to appointing designated officers/consultants to monitor air quality and to implement improvements necessary to ensure ongoing compliance to air quality standards.	20	Construction Operation
	4.2.2 5.1.2 5.2.2		Four Arrows commits to providing a process where grievances regarding air quality can be registered and addressed in an effective and expeditious manner.	21	Operation
Reporting	4.2 5.1.2		Four Arrows commits to environmental performance reporting that will be forwarded as required to relevant agencies and allow for the updating of CEMP's and OEMP's	22	Construction Operation

			Air Quality		
Issue	EA Section No.	PPR Section No.	Commitment	Ref No.	Project Phase
Auditing	4.2.2 5.1.2		Four Arrows commits to allowing third parties to audit air quality records and review management strategies in order to ensure compliance to air quality standards	23	Construction Operation
	5.1.1		Four Arrows commits to the upgrading of structures to mitigate odours and if necessary the relocation of affected residents currently inhabiting the company's neighbouring property; Farm 641	24	Construction Pre-operation
Mitigation	4.2.6 5.2.1 5.2.2		Four Arrows commits to implementing all mitigation measures in relation to the management of air quality identified throughout the EA process.	25	Design Construction Operation

Nutrients					
Issue	EA Section No.	PPR Section No.	Commitment	Ref No.	Project Phase
General	4.1.8 5.1.1 5.1.2 5.5		Four Arrows commits to the development of a CEMP and an OEMP that addresses recommendations made by the Department of Planning (DOP) and other relevant agencies, and the grievances of stakeholders through the consultation process, that contains nutrient monitoring and management strategies that will address the sources of nutrient impacts and detail mitigation measures that will achieve minimal movement of nutrients produced by the development into the environment.	26	Post approval
	4.1.8 5.5		Four Arrows commits to a site design and management strategy that will result in minimal net losses of nutrients into the environment from sources including runoff which will contaminate the environment and in particular groundwater systems.	27	Operation
	4.1.5 4.1.8		Four Arrows commits to a management strategy that ensures that all liquid waste is collected and contained in ponds with the removal of residue solids once alternate ponds are dried out.	28	Operation
	4.1.8		Four Arrows commits to a management strategy that ensures that no high nutrient laden water will be used for the purposes of irrigation unless prior concurrence of the relevant agency is obtained in writing.	29	Operation
	4.1.8 4.8.1 4.14 5.5.1.8 5.5.2.18		Four Arrows commits to maintaining ownership of farms throughout the CIA; the land area and suitability of which can accommodate volumes of manure produced by the dairy enterprise and damaged grain unable to be utilised in ethanol production.	30	Ongoing
	4.1.8		Four Arrows commits to promoting the use of manures on affiliate company owned irrigation enterprises throughout the CIA in order to create a demand for manure from other producers.	31	Operation
Monitoring & Review	4.1.8		Four Arrows commits to regularly conduct soil nutrient status testing, and modelling comparisons to nutrient export data, to ascertain soils potential to continue to bind nutrients for further crop exploitation at Tubbo Station.	32	Operation
	4.1.8		Four Arrows commits to appointing designated officers/consultants to monitor nutrient movements throughout the system, and to assist with implementation of any improvements necessary in order to ensure minimal nutrient movement into the environment.	33	Operation
	4.1.8		Four Arrows commits to working closely with relevant agencies to design and implement monitoring programmes that will assist with the detection of the leaching of nutrient into the environment.	34	Design Operation
Reporting	5.1.1		Four Arrows commits to environmental performance reporting that will be forwarded as required to the relevant agencies and allow for the updating of CEMP's and OEMP's.	35	Operation

Auditing	5.1.1		Four Arrows commits to allowing third parties to audit nutrient monitoring records and review management strategies in order to ensure minimal nutrient movement into the environment.	36	Operation
Mitigation	5.1.1		Four Arrows commits to implementing all mitigation measures in relation to the management of nutrient movements identified throughout the EA process.	37	Design Construction Operation

Noise/Vibration					
Issue	EA Section No.	PPR Section No.	Commitment	Ref No.	Project Phase
General	4.3 5.1.1 5.1.2 5.3		Four Arrows commits to the development of a CEMP and an OEMP that addresses recommendations made by the Department of Planning (DOP) and other relevant agencies, and the grievances of stakeholders through the consultation process, that contains noise and vibration monitoring and management strategies that will address the sources of noise impacts and detail mitigation measures and will achieve noise and vibration goals.	38	Post approval
	4.3.2.4		Four Arrows commits to construction periods that will result in the least possible noise impact on surrounding receptors.	39	Construction
	4.3.2.4 5.3.1		Four Arrows commits to taking all possible steps towards mitigating construction noise that will impact on surrounding receptors.	40	Construction
	4.3.3.1 4.3.3.2 5.3.2		Four Arrows commits to taking all possible steps to mitigate the noise produced by plant and equipment associated with the development through acoustic dampening.	41	Design Operation
	4.3.3.1 5.4		Four Arrows commits to reducing noise impacts created by increased vehicle movements on access and egress roadways servicing the development, by encouraging car pooling, maximizing the back loading of heavy vehicles, and supplying group transportation if assessed to be a viable option and/or encouraging local bus companies to provide a transportation service.	42	Operation
	4.4.4 5.4		Four Arrows commits to reducing noise impacts created by increased vehicle movements on access and egress roadways servicing the development by limiting heavy transport movement to daylight hours (7.00am – 10.00pm).	43	Operation
	4.3.1 5.3.1		Four Arrows commits to the design and construction of a sound proofing barrier to mitigate the affect of noise on the companies neighbouring property Farm 641.	44	Design Construction
	4.3.1 5.3.1		Four Arrows commits to the upgrading of structures to mitigate noise and if necessary the relocation of affected residents currently inhabiting the companies neighbouring property Farm 641.	45	Design Construction
Monitoring & Review	4.3.2 5.3.2		Four Arrows commits to the installation of sensors and additional equipment, to allow for the monitoring and modelling of noise levels and types, to ensure that noise goals are being achieved.	46	Construction Operation
	4.3.2		Four Arrows commits to appointing designated officers/consultants to monitor noise and vibration levels, and to implement any improvements necessary to ensure ongoing compliance to noise and vibration standards.	47	Construction Operation
	4.3.2.2 5.4		Four Arrows commits to working closely with relevant agencies to monitor variations in noise levels in neighbouring townships, particularly Darlington Point, from increased vehicle movements.	48	Design Construction Operation
	4.3.2 5.1.2		Four Arrows commits to providing a process where grievances regarding noise and vibration levels can be registered and addressed in an effective and expeditious manner.	49	Operation
Reporting	5.1.2		Four Arrows commits to environmental performance reporting that will be forwarded as required to the relevant agencies and allow for the updating of CEMP's and OEMP's.	50	Construction Operation
	4.3.2		Four Arrows commits to allowing third parties to audit noise and vibration level	51	Construction

Auditing	5.4.2		records and review management strategies in order to ensure compliance to noise and vibration level standards.		Operation
Mitigation	5.1.1		Four Arrows commits to implementing all mitigation measures in relation to the management of noise and vibration identified throughout the EA process.	52	Design Construction Operation

Traffic/Transport					
Issue	EA Section No.	PPR Section No.	Commitment	Ref No.	Project Phase
General	4.4 5.1.1 5.1.2 5.4		Four Arrows commits to the development of a CEMP and an OEMP that addresses recommendations made by the Department of Planning (DOP) and other relevant agencies, and the grievances of stakeholders through the consultation process, that contains traffic monitoring and management strategies that will address the sources of traffic impacts and detail mitigation measures and which will achieve traffic management goals.	53	Post approval
		2.3.5	Four Arrows expands upon its commitment to a traffic management plan to include adherence to all RTA conditions of development consent that are included once reviewed by the DoP.	255	Design Construction Operation
	4.4.3.4 5.4		Four Arrows commits to operational periods that will result in the least possible traffic impact to achieve a high level of safety and reduce traffic delays (7.00am – 10.00pm).	54	Operation
	4.4.3.4 4.4.3.5		Four Arrows commits to encouraging safety and alleviating delays created by increased vehicle movements, by supporting car pooling, maximising the back loading of heavy vehicles, and supplying group transportation if assessed to be a viable option and/or encouraging local bus companies to provide a transportation service.	55	Operation
	4.4.5 5.4		Four Arrows commits to contributing towards a road upgrade, adjacent to the development site on the Kidman Way that will provide safe and efficient access and egress for heavy transport, staff and support vehicles.	56	Design Construction
	4.4.5 5.4		Four Arrows commits to the design and construction of an internal road structure that will allow for the safe and efficient movement of all vehicles onto, around and off of the development site.	57	Design Construction
	4.4.5 5.4		Four Arrows commits to a site design and construction standard that will be sufficient to allow off street parking for trucks waiting to unload and pick-up and to cater for high volume periods.	58	Design Construction
	4.4.5 5.4		Four Arrows commits to a site design and construction that will accommodate the parking of all staff vehicles and any ancillary vehicles that may be present during normal operations of the development.	59	Design Construction
	4.4.5 5.4		Four Arrows commits to incorporating into the internal roadway system, road crossings and pathways that will allow for safe pedestrian movement.	60	Design Construction
	4.4.4 5.4	3.12	Four Arrows commits to continuing its support for the upgrading and re-opening of the Willbriggie railhead to reduce the need for long distance transportation of resources and the potential transportation of product.	61 293	Ongoing
		3.12	Four Arrows includes a commitment within its traffic/transport management plan and this is to continue to negotiate with CICL for the upgrade of Eulo Road bridges to support B-Double traffic.	294	Post Approval
Monitoring & Review	4.3.2 5.4		Four Arrows commits to the installation and maintenance of sensors to maintain accurate records of vehicle movements and class.	62	Construction Operation
	5.4		Four Arrows commits to appointing designated traffic officers/consultants to monitor vehicle movements onto, around and off of the development site, and to implement any improvements necessary to ensure the effective and efficient movement of vehicles and the safety of personnel and livestock.	63	Construction Operation
	4.4.4			64	Design

	5.4		Four Arrows commits to working closely with relevant agencies to monitor traffic impacts in neighbouring townships, particularly Darlington Point and at the Willbriggie rail crossing, from increased vehicle movements.		Construction Operation
	5.1.2		Four Arrows commits to providing a process where grievances regarding traffic and vehicle movements can be registered and addressed in an effective and expeditious manner.	65	Operation
Reporting	5.1.2		Four Arrows commits to environmental performance reporting that will be forwarded as required to the relevant agencies and allow for the updating of CEMP's and OEMP's.	66	Construction Operation
Auditing	4.3.2 5.1.2		Four Arrows commits to allowing third parties to audit traffic records and vehicle movement records, and review management strategies in order to ensure efficiencies, safety and amenity.	67	Construction Operation
Mitigation	5.1.1		Four Arrows commits to implementing all mitigation measures in relation to the management of traffic/transport identified throughout the EA process	68	Design Construction Operation

Water Dynamics					
Issue	EA Section No.	PPR Section No.	Commitment	Ref No.	Project Phase
General	4.5 5.1.1 5.1.2 5.5		Four Arrows commits to the development of a CEMP and an OEMP that addresses recommendations made by the Department of Planning (DOP) and other relevant agencies, and the grievances of stakeholders through the consultation process, that contains water monitoring and management strategies that will address the sources of water impacts and detail mitigation measures and will achieve water management goals.	69	Post approval
		3.10.2	Four Arrows reaffirms its commitment to an integrated water management plan and this will include stormwater, drainage and all waste water treatments in consultation with Coleambally Irrigation Cooperative Ltd to ensure full integration with the CIA LWMP.	291	Post Approval
	5.5.2.13		Four Arrows commits to a project land and water management plan that includes contingencies for surface and stored water management in the event of an unlikely extreme rainfall period, being of the order of 150mm in a 24 hour period that will endeavour to minimise the escape of contaminated water into the CICL drainage system.	70	Design Operation
	4.5.1.1	3.10	Four Arrows commits to continue to secure water sources beyond existing entitlements to ensure adequate and consistent supplies.	71 290	Ongoing.
		5.4.12	Four Arrows includes a commitment within its water management plan (also affecting waste management plans) and this is the construction of infrastructure including recycling ponds and evaporation basins plus operational procedures to accommodate the revised water management strategy as described.	297	Design Construction Operational
Ground Water	4.1.5 to 4.1.7. 4.5.3.1 to 4.5.3.6. 5.5.2.4 5.5.2.8 5.5.2.13 5.5.2.14 5.5.2.15 5.6		Four Arrows commits to the design, placement and construction of water collection and storage systems to be consistent with the objectives of the Coleambally Land & Water Management Plan and as not to affect groundwater levels and/or quality, including the use of a 3 tier storage treatment (geosynthetic membrane liner, leakage, monitoring and capture system and compacted clay liner) for Category 3 storage areas.	72	Design Construction
	4.5.3.6 5.5.2.2 5.6		Four Arrows commits to conducting further field testing prior to construction to ensure that the design and placement of water collection and storage systems will prevent water from across the development site, both from natural and manipulated flows, from accessing the local and regional groundwater sinks.	73	Design Pre-construction
		3.3.1 3.4.1	Four Arrows includes a commitment within its water management plans and this is to supply further hydro-geotechnical data if required once a specific brief of needs and justification has been forwarded by the authority concerned.	259	Pre-design

	5.5.2.2 5.5.2.17 5.6		Four Arrows commits to the design and placement of water storages to be upon the most appropriate soil types available at the proposed site, or where not possible, to provide engineered solutions to mitigate potential risks.	74	Design Construction
	5.5.2.2 to 5.5.2.15.	3.4.4	Four Arrows commits to applying engineering methods and other technologies upon areas that are to be utilised for infrastructure including water storages, dairy free-stall sheds and heifer drylot pens, to mitigate accessions to groundwater.	75 263	Design Construction
	5.5.2.2 to 5.5.2.16. 5.5.2.18		Four Arrows commits to the bunding of all Category 2 and 3 areas so as to contain spillages and contaminated runoff escaping into the environment and accession to groundwater.	76	Design Construction
	5.5.2.3		Four Arrows commits to the design and construction of the ethanol plant that will capture, isolate and categorise water from rainfall events, mitigating accessions to groundwater.	77	Design Construction
	5.5.2.5		Four Arrows commits to the design and construction of grain bunkers that will capture, isolate and categorise water from rainfall events mitigating accessions to groundwater	78	Design Construction
	5.5.1.6 5.5.2.6		Four Arrows commits to the design and construction of truck wash down bays that will capture, isolate and categorise water from rainfall events, mitigating accessions to groundwater.	79	Design Construction
	5.5.2.7		Four Arrows commits to the design and construction of administration buildings that will capture, isolate and categorise water from rainfall events, mitigating accessions to groundwater.	80	Design Construction
	5.5.2.9		Four Arrows commits to the design and construction of the commodity shed, milking barn and milk storage that will capture, isolate and categorise water from rainfall events, mitigating accessions to groundwater.	81	Design Construction
	5.5.2.10		Four Arrows commits to the design and construction of free stall sheds, maternity, and hospital sheds that will capture, isolate and categorise water from rainfall events, mitigating accessions to groundwater.	82	Design Construction
	5.5.2.11		Four Arrows commits to the design and construction of heifer dry lot pens that will capture, isolate and categorise water from rainfall events, mitigating accessions to groundwater.	83	Design Construction
	5.5.2.12		Four Arrows commits to the design and construction of cattle yards that will capture, isolate and categorise water from rainfall events, mitigating accessions to groundwater.	84	Design Construction
		3.5.3	Four Arrows includes a commitment within its water management plans and this is the construction of a bunded compacted clay pad for the short term storage of manures at "Tubbo".	268	Design Construction
		3.7.1.2	Four Arrows includes a commitment within its water management plans and this is to adhere to a best management waste water quality programme in order to maintain waste water quality above that of current groundwater conditions, to ensure that any unpredictable or unforeseen accession will not be detrimental to existing groundwater supplies.	279	Operation
	5.5.2.4 5.5.2.8 5.5.2.14 5.5.2.15 5.5.2.17	3.7.2	Four Arrows commits to the engagement of an experienced geotechnical engineer for the design, construction commissioning and operation of storages, and other activities, which requires expert knowledge for the abatement of negative groundwater effects. Four Arrows amends its commitment to a water management plan this includes the engagement of an experienced geotechnical engineer to also partake in the assessment and selection of appropriate mortality disposal sites of which will also be included within waste management plans.	85 283	Design Construction Operation
	5.5.2.6 5.5.2.7 5.5.2.16 5.7.1 5.9.1		Four Arrows commits to landscaping and the planting of deep rooted, indigenous native flora, to assist with evapotranspiration of groundwater, and excess water which would otherwise percolate into aquifers.	86	Design Construction

Surface Water	4.5.1.1		Four Arrows commits to the inclusion of buffer storages within its development design to ensure constant supply in the event that CICL closes delivery channels for maintenance or in periods of emergency repairs to the delivery system.	87	Design Construction
	4.5.2.1				
	5.5.1.1				
	5.5.1.7				
	4.5.2.2		Four Arrows commits to the design and construction of drainage systems that will collect the maximum possible volumes of surface water runoff to be utilised by the production and support processes so as to not overburden or contaminate CICL drainage channels.	88	Design Construction
	4.5.2.3				
	4.5.2.4				
	5.5.1.11				
	4.5.2.4		Four Arrows commits to the design and construction of water capture systems that collect the maximum possible volumes of precipitation from roofs and hard surfaces to be reused onsite.	89	Design Construction
	5.5.1.1 to 5.5.1.11				
	4.5.2.4				
	5.5.1				
	5.5.1.2		Four Arrows commits to maximizing the recycling of water from all processes including ethanol and dairy production and the associated support infrastructure.	90	Design Construction Operation
	5.5.1.2		Four Arrows commits to the appropriate design and construction of structures and infrastructure to accommodate the storage and handling of chemicals and hazardous materials as not to contaminate or affect the quality of surface water runoff.	91	Design Construction
	5.5.1.2		Four Arrows commits to the design of procedures and protocols, and the training of staff, in the handling of chemicals and hazardous materials particularly spillage management to alleviate the risk of affecting the quality of surface water runoff.	92	Operation
	5.5.1.3		Four Arrows commits to the design and construction of workshop areas that will contain any fuel spillages, which excludes inflows from other site sources allowing for the appropriate isolation, collection and categorisation of runoff from these areas.	93	Design Construction
	5.5.1.6		Four Arrows commits to the appropriate design and construction of truck wash down bays to collect contaminants and exclude inflows from other site sources allowing for the appropriate isolation, collection and categorisation of runoff from these areas.	94	Design Construction
	5.5.2.6				
	5.5.1.4		Four Arrows commits to the dewatering of distillers grain and the recycling of the water back through the ethanol system as not to create unnecessary burdens on the integrated water collection systems.	95	Operation
	5.5.1.5		Four Arrows commits to the design and construction of grain storages that limits the contamination of runoff and excludes inflows from other site sources allowing for the appropriate isolation, collection and categorisation of runoff from these areas.	96	Design Construction
	5.5.2.5				
	5.5.1.4		Four Arrows commits to the design and construction of appropriate facilities to store wet distillers grain awaiting transport from the development site, which contains and captures gravitational water losses.	97	Design Construction
	5.5.1.1		Four Arrows commits to the design and construction of a substantial bund or containment bank, which could be used as a site access road, encompassing the entire dairy enterprise area and its associated waste treatment facilities, which also excludes inflows from other site sources allowing for the appropriate isolation, collection and categorisation of runoff from these areas.	98	Design Construction
	5.5.1.7				
	5.5.1.8		Four Arrows commits to the design and construction of bundled areas that are collection points for manure scrapings, which also excludes inflows from other site sources allowing for the appropriate isolation, collection and categorisation of runoff from these areas.	99	Design Construction
	5.5.2.13				
	4.8.4		Four Arrows commits to the application of manures on its Tubbo Station at a rate that will result in minimal nutrient losses to the environment from the action of surface water.	100	Operation
	5.5.1.8				
	5.5.2.18				
	5.5.1.9		Four Arrows commits to landscaping that will assist with the flow of drainage water, that will minimise contamination due to erosion, and that will not allow free water to remain within the project site.	101	Design Construction
	5.7.1				
	5.9.1				
	5.5.1.10		Four Arrows commits to the sealing of all possible surfaces including the internal roadway system to assist with the capture of surface water and to reduce contamination due to erosion.	102	Design Construction
	5.5.2.3				
	5.5.2.5				
	5.5.2.7				
	5.5.2.9				
	5.5.2.12				

	5.5.1.11 5.5.2.13 5.5.2.14 5.5.2.15		Four Arrows commits to the design and construction of water storages that will accommodate waste water from production processes and increased surface water runoff in the event of high rainfall periods or repetitive storm events.	103	Design Construction
	3.3.2 3.4.3 4.1.7		Four Arrows commits to the integration of a wetlands area within the development design as part of the integrated surface runoff collection system, the water of which can be reused for dairy operations or limited landscape irrigation.	104	Design Operation
Monitoring and Review	4.5.3.6 5.5.1.1		Four Arrows commits to the installation of piezometers throughout the site prior to final design to assist with the design and placement of water collection and storage systems.	105	Pre-design
	4.5.3.6 5.5.1.1 5.5.2.4 5.5.2.8 5.5.2.14 5.5.2.15		Four Arrows commits to the installation of piezometers throughout the site to provide data to assess impacts on groundwater levels and quality.	106	Pre-construction
		3.4.4	Four Arrows expands upon its commitment to water management plans to include the installation of piezometers , at specific locations being one at each corner of the new enhanced waste water management system, one at each corner of the combined free-stall and dry lot pen areas, and a single piezometer at the north section of the ethanol plant.	262	Construction
	4.5.3.6		Four Arrows commits to appointing designated officers/consultants to monitor surface water movements and quality, and groundwater levels and quality, and to implement any improvements necessary to ensure adverse effects on groundwater levels and/or quality are not occurring.	107	Construction Operation
	5.5.1.1		Four Arrows commits to working closely with CICL and other relevant agencies to maintain and/or improve groundwater levels and quality through performance based monitoring and best management practice.	108	Construction Operation
	5.1.2		Four Arrows commits to providing a process where grievances regarding surface water runoff and quality, and groundwater levels and/or quality, can be registered and addressed in an effective and expeditious manner.	109	Construction Operation
Reporting	5.1.2		Four Arrows commits to environmental performance reporting that will be forwarded as required to the relevant agencies and allow for the updating of CEMP's and OEMP's .	110	Construction Operation
Auditing	5.1.2		Four Arrows commits to allowing third parties to audit groundwater records and review management strategies, in order to ensure that the development is not contributing adversely to surface runoff, and groundwater levels and quality.	111	Construction Operation
Mitigation	5.1.1		Four Arrows commits to implementing all mitigation measures in relation to the management of water dynamics identified throughout the EA process.	112	Design Construction Operation

Hazards and Risks					
Issue	EA Section No.	PPR Section No.	Commitment	Ref No.	Project Phase
General	4.6 5.1.1 5.1.2		Four Arrows commits to the development of a CEMP and an OEMP that addresses recommendations made by the Department of Planning (DOP) and other relevant agencies, and the grievances of stakeholders through the consultation process, that contains hazard and risk monitoring, and risk analysis and management strategies, which will address the sources of hazards and risks and detail mitigation measures that will achieve the highest levels of abatement.	113	Post approval
	4.6.1 4.6.2 5.5.1.2 5.5.1.3 5.5.1.5 5.5.1.6 5.5.2.5		Four Arrows commits to the design of buildings, structures and infrastructure, which will mitigate the hazards and risks associated with ethanol production and the dairy enterprise.	114	Design Construction
	4.6.1 5.5.1.2		Four Arrows commits to management and procedural practices that will mitigate the hazards and risks associated with ethanol production and the dairy enterprise.	115	Operation

	5.5.1.3 5.5.1.5 5.5.1.6 5.5.2.5				
	4.6.1 4.6.2		Four Arrows commits to ensuring that potentially hazardous events are contained within the development site and do not result in injury or harm to off-site individuals and/or the environment.	116	Design Construction Operation
	4.6.2 4.6.3 4.8.6 5.5.1.2		Four Arrows commits to a quality assurance program that ensures the responsible and safe storage, application, and disposal of chemicals used throughout the ethanol and dairy enterprises.	117	Operation
		3.11	Four Arrows includes a commitment to a hazard and risk management plan and this is the implementation of standard best management practice and operating procedures as part of a working policy document to ensure that appropriate HazMat and HazChem standards will be applied to all transport of product onto and off site where appropriate.	292	Operation
	4.6.2 4.6.3		Four Arrows commits to the training of relevant staff in the use of chemicals and safety procedures.	118	Operation
	4.6.3		Four Arrows commits to adherence to OH&S and other legislative requirements to ensure the safety of employees, support staff and contractors.	119	Construction Operation
Monitoring & Review	4.6.2		Four Arrows commits to the installation of sensors and early warning systems throughout the site to detect undesirable levels of dust, vapour and toxins that may give rise to and/or present as a hazardous event.	120	Construction Operation
	4.6.3		Four Arrows commits to appointing designated officers/consultants to monitor hazard reports, safety reports, processes, procedures etc. and to implement any improvements necessary to ensure the welfare of visitors and staff, the health of the environment, and continued economic security.	121	Operation
	4.6.2		Four Arrows commits to working closely with relevant agencies to ensure best management practice is being implemented and benchmarks are being achieved.	123	Construction Operation
	5.1.2		Four Arrows commits to providing a process where grievances regarding hazards and risks can be registered and addressed in an effective and expeditious manner.	124	Construction Operation
Reporting	4.6.2 5.1.2		Four Arrows commits to environmental performance reporting that will be forwarded as required to the relevant agencies and allow for the updating of CEMP's and OEMP's.	125	Construction Operation
Auditing	4.6.2 5.1.2		Four Arrows commits to allowing third parties to audit hazard and safety reports and to review processes, procedures and management strategies.	126	Construction Operation
Mitigation	4.6.2 5.1.2		Four Arrows commits to implementing all mitigation measures in relation to the management of hazards and risk identified throughout the EA process.	127	Design Construction Operation

Soils					
Issue	EA Section No.	PPR Section No.	Commitment	Ref No.	Project Phase
General	4.7 5.1.1 5.1.2 5.6		Four Arrows commits to the development of a CEMP and an OEMP that addresses recommendations made by the Department of Planning (DOP) and other relevant agencies, and the grievances of stakeholders through the consultation process, that contains soil monitoring and management strategies that will maintain and improve soil condition, and prevent erosion throughout the site.	128	Post approval
	4.7.1 5.5.2.2 5.6	3.4.1	Four Arrows commits to the design, placement and construction of buildings, structures and infrastructure only upon suitable soil types and topography, and to exclude areas deemed inappropriate for development.	129 260	Design Construction
	4.7.2 5.5.2.2 5.6	3.4.2	Four Arrows commits to conducting further soil testing including chemical analysis and geophysical assessment as part of a detailed design investigation following approval	130 261	Post approval

			of the EA.		
Monitoring & Review	4.7.6 4.7.7 5.6		Four Arrows commits to the close monitoring of soils for variations to expected types, including chemical and physical features, which may require appropriate modification to the design or layout of buildings, structures and infrastructure.	131	Design Construction
	4.7.7 5.6		Four Arrows commits to appointing designated officers/consultants to monitor soils and to implement any improvements necessary to ensure the maintenance and/or enhancement of soil condition	132	Construction Operation
	5.6		Four Arrows commits to working closely with relevant agencies to ensure soils are being managed appropriately thus avoiding negative effects including erosion.	133	Construction Operation
	5.1.2		Four Arrows commits to providing a process where grievances regarding soils and erosion can be registered and addressed in an effective and expeditious manner.	134	Construction Operation
Reporting	5.1.2		Four Arrows commits to environmental performance reporting that will be forwarded as required to the relevant agencies and allow for the updating of CEMP's and OEMP's .	135	Construction Operation
Auditing	5.1.2		Four Arrows commits to engaging third parties to audit soil monitoring records and review management strategies in order to ensure that the development is designed, constructed and managed according to soil characteristics and capability.	136	Construction Operation
Mitigation	5.1.1		Four Arrows commits to implementing all mitigation measures in relation to soil health and erosion identified throughout the EA process.	137	Design Construction Operation

Waste Management					
Issue	EA Section No.	PPR Section No.	Commitment	Ref No.	Project Phase
General	4.8 5.1.1 5.1.2		Four Arrows commits to the development of a CEMP and an OEMP that addresses recommendations made by the Department of Planning (DOP) and other relevant agencies, and the grievances of stakeholders through the consultation process, that contains waste production monitoring and management strategies that will ensure effective and efficient management of waste streams, resulting in negligible impact on society and the environment.	138	Post approval
	4.8.1 4.8.2		Four Arrows commits to attracting viable and responsible markets for wastes and derivatives created from production.	139	Ongoing
Chemical	4.6.2 4.8.6		Four Arrows commits to the use of returnable chemical containers to reduce the risk of environmental contamination.	140	Design Construction Operation
CO ₂	4.8.2		Four Arrows commits to the maximised capture and sale of CO ₂ from ethanol production and to secure long term and diverse contracts to purchase the by-product.	141	Operation
Damaged grain	4.8.3 5.5.1.5 5.5.2.5		Four Arrows commits to the design, construction and operation of effective grain storage facilities to ensure that damaged grain is kept to a minimum.	142	Design Construction
	4.8.3 5.5.1.5 5.5.2.5		Four Arrows commits to the responsible disposal and application of damaged grain onto dryland areas of surrounding company properties at a rate that will result in no nutrient losses into the environment or accession to groundwater sinks.	143	Operation
Distillers grain	4.8.2 5.5.1.4		Four Arrows commits to the expeditious removal of excess wet distillers grain to what already is a ready and keen market and to secure long term and diverse contracts to purchase the by-product.	144	Operation
	4.8.2 5.5.1.4		Four Arrows commits to the recycling of excess water collected from wet distillers grain back through the ethanol production process.	145	Operation
Effluent management	4.8.4 5.5.1.7 5.5.1.8 5.5.2.9 to 5.5.2.15.		Four Arrows commits to the design and construction of an effluent management system consisting of sediment basins and anaerobic and aerobic ponds that will be sufficient in volume to accommodate both the total effluent production and extreme rainfall events.	146	Design Construction

	4.8.8.1 5.5.1.7		Four Arrows commits to the recycling of wastewater for use in the flushing of effluent from free-stall dairy sheds.	147	Operation
	4.8.5 5.5.1.9 5.5.2.7	3.7.4	Four Arrows commits to the installation of an effluent treatment system to accommodate grey water etc, produced from staff amenities and associated support sources, which can be recycled and used to irrigate gardens etc. which results in minimal losses into the environment or accession to groundwater. Four Arrows amends its commitment to a waste management plan and this includes the segregation of grey and black water for treatment that is captured by the effluent management system within administration areas.	148 286	Design Construction Operation
	4.1.8 4.8.1 4.8.4 4.14 5.5.2.18	5.4.10	Four Arrows commits to the incorporation of manure into the soils of its properties in the vicinity of the development particularly the adjoining Tubbo Station.	149 296	Operation
		5.4.8	Four Arrows includes a commitment within its waste management plan and this is the cleaning/scraping of heifer pens and freestall loafing pens no less than monthly and the cleaning of freestall flush lanes prior to flushing .	295	Operation
Truck wash-down	4.8.7 5.5.1.6 5.5.2.6		Four Arrows commits to the segregation of materials produced from the truck wash-down areas and their responsible disposal according to best practice ruling at the time.	150	Design Construction Operation
		3.7.3	Four Arrows expands upon its commitment to waste management plans to include the capture as much truck wash material as possible (as described) and carted direct to "Tubbo" station for spreading on agricultural lands.	284	Design Operation
		3.7.3	Four Arrows reaffirms its commitment to a waste management plan and this includes the capture of truck wash waste material that will be carted direct to "Tubbo" on a regular basis for spreading upon irrigation and/or other suitable agricultural lands.	285	Design Operation
Dead Stock		3.7.2	Four Arrows includes a commitment within its waste management plans and this is to secure contracts with the "Barnawartha" biodiesel plant to accept Four Arrows deceased stock for rendering as opposed to burial at "Tubbo" station.	280	Ongoing
		3.7.2	Four Arrows includes a commitment within its specifically assessed by an experienced independent geotechnical engineer waste management plan and this includes the burial of dead stock only in suitable soils and at sites with limited life spans as described and approved by the appropriate agencies.	281	Operation
Tailings		5.4.16	Four Arrows includes a commitment within its waste management plans and this is to manage tailings after a predetermined period (10 years) by either one or a combination of methods as described.	298	Operation
Monitoring & Review	5.1.2		Four Arrows commits to the monitoring of each waste management stream using whatever methods and technologies are considered appropriate and applicable.	151	Design Operation
	5.1.2		Four Arrows commits to appointing designated officers/consultants to monitor each waste management stream to achieve optimum efficiencies and minimise impacts on the environment and society.	152	Operation
	5.1.2		Four Arrows commits to providing a process where grievances regarding wastes can be registered and addressed in an effective and expeditious manner.	153	Operation
	5.1.2		Four Arrows commits to working closely with relevant agencies including primarily the EPA to improve monitoring and review efficiencies and to minimise impacts of each identified waste management stream.	154	Design Operation
Reporting	5.1.2		Four Arrows commits to environmental performance reporting that will be forwarded as required to the relevant agencies and allow for the updating of CEMP's and OEMP's .	155	Operation
Auditing	5.1.2		Four Arrows commits to engaging third parties to audit waste production and management records and to review management strategies in order to ensure that the developments ongoing processes are not adversely affecting the environment or society.	156	Operation

Mitigation	5.1.1		Four Arrows commits to implementing all mitigation measures in relation to the management of waste streams identified throughout the EA process	157	Design Construction Operation
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Visual Impacts					
Issue	EA Section No.	PPR Section No.	Commitment	Ref No.	Project Phase
General	4.9 5.1.1 5.1.2 5.7		Four Arrows commits to the development of a CEMP and an OEMP that addresses recommendations made by the Department of Planning (DOP) and other relevant agencies, and the grievances of stakeholders through the consultation process, that contains specific details pertaining to the design and management that will maintain and improve visual impacts including amenity of the site.	158	Post approval
Landscape values	4.9.1 5.5.1.9 5.7.1 5.9.1		Four Arrows commits to the maintaining remnant vegetation and enhancement, through the establishment of a 50 metre wide perimeter planting, consisting of a mosaic groundcover with understorey and over-storey species, with additional areas of habitat restoration and wetland creation onsite.	159	Design Construction Operation
Lighting	4.9.2 5.7.2		Four Arrows commits to the design of an outdoor lighting system consistent with Australian Standard (AS4282-1977) and which considers the effects of the lighting on occupants of surrounding properties and on vehicles in the vicinity of the installation.	160	Design Construction Operation
Monitoring and Review	5.1.2		Four Arrows commits to monitoring of visual impacts to maintain and/or enhance amenity.	161	Design Construction Operation
	5.1.2		Four Arrows commits to appointing designated officers/consultants to monitor visual impacts and to implement any improvements necessary to maintain and/or enhance visual amenity.	162	Construction Operation
	5.1.2		Four Arrows commits to working closely with relevant agencies to improve the effects of visual impacts to offsite receptors.	163	Design Construction Operation
	5.1.2		Four Arrows commits to providing a process where grievances regarding visual impacts can be registered and addressed in an effective and expeditious manner.	164	Construction Operation
Reporting	5.1.2		Four Arrows commits to performance reporting that will be forwarded as required to the relevant agencies and allow for the updating of CEMP's and OEMP's .	165	Construction Operation
Auditing	5.1.2		Four Arrows commits to allowing third parties to audit any identified visual impact issues resulting from the development and the mitigation actions and strategies applied to alleviate these.	166	Construction Operation
Mitigation	5.1.1		Four Arrows commits to implementing all mitigation measures in relation to managing visual impacts and amenity identified throughout the EA process.	167	Design Construction Operation

Security					
Issue	EA Section No.	PPR Section No.	Commitment	Ref No.	Project Phase
General	4.10 5.1.1 5.1.2		Four Arrows commits to the development of a CEMP and an OEMP that addresses recommendations made by the Department of Planning (DOP) and other relevant agencies, and the grievances of stakeholders through the consultation process, that contains specific details pertaining to security and the management of the factors that affect security from a physical, site, environment, chemical/biological, economic and political perspective.	168	Post approval
Chemical-biological	4.6.2 4.6.3 4.8.6 4.10		Four Arrows commits to best management practice in relation to production, handling, storage and distribution of all chemical/biological products on site.	169	Construction Operation
	4.6.2 4.6.3 4.10		Four Arrows commits to the strict adherence of operating procedures, manuals and guidelines in reference to all chemical and biological process, procedures and operations.	170	Construction Operation

	4.6.2 4.6.3 4.10		Four Arrows commits to the constant inventory audits of chemical and biological material to ensure accidents have been reported, chemicals have not been misused, or theft has occurred.	171	Construction Operation
Economic	4.8.2 4.10 4.15 5.11.2		Four Arrows commits to continue to strengthen markets for all its products and derivatives particularly ethanol in light of the federal governments support to move away from the use of fossil fuels.	172	Ongoing
Environmental	4.10		These commitments are covered by Commitment Reference Nos 201 to 211.	173	Design Construction Operation
Political	4.6.1.6 4.10		Four Arrows commits to the development of operational and management strategies that will address the threat of terrorism and bio-hazard abuse, which may result in catastrophic events endangering staff, neighbouring communities and individuals, and the environment.	174	Construction Operation
	4.6.1.6 4.10		Four Arrows commits to the development of management strategies that address the security of intellectual property including production techniques etc that may be used in an adverse fashion to endanger society and the environment.	175	Operation
Site	4.10		Four Arrows commits to securely fencing necessary sections of the property as required to prevent access from unauthorized personnel.	176	Construction Operation
	4.10		Four Arrows commits to limiting access and egress to two main points that will be staffed 24 hours a day, supported by a monitoring system and secured by boom gates.	177	Design Construction Operation
Monitoring and Review	5.1.2		Four Arrows commits to the monitoring of security measures and procedures to ensure the safety of the facility, staff, neighbouring properties and individuals, and the environment.	178	Construction Operation
	5.1.2		Four Arrows commits to appointing designated officers/consultants to monitor security measures and procedures and to implement any improvements necessary to ensure the ongoing safety and welfare of the development, community and environment.	179	Construction Operation
	5.1.2		Four Arrows commits to working closely with state and federal agencies, including anti-terrorist organisations, to develop and implement the highest security measures and procedures, to ensure the ongoing safety and welfare of the development, community and environment.	180	Design Construction Operation
	5.1.2		Four Arrows commits to providing a process where grievances regarding security can be registered and addressed in an effective and expeditious manner.	181	Construction Operation
Reporting	5.1.2		Four Arrows commits to reporting security performance that will be forwarded as required to the relevant agencies and allow for the updating of CEMP's and OEMP's.	182	Construction Operation
Auditing	5.1.2		Four Arrows commits to engaging third parties to audit security breaches and/or abuse reports and to review management strategies in order to ensure that security measures and procedures are adequate to maintain the present and ongoing safety of the development, neighbouring properties and individuals, community and the environment.	183	Construction Operation
Mitigation	5.1.1		Four Arrows commits to implementing all mitigation measures in relation to security including site, environmental, chemical/biological, economic and political aspects identified throughout the EA process.	184	Design Construction Operation

Animal Welfare					
Issue	EA Section No.	PPR Section No.	Commitment	Ref No.	Project Phase
General	4.11 5.1.1 5.1.2 5.8		Four Arrows commits to the development of a CEMP and an OEMP that addresses recommendations made by the Department of Planning (DOP) and other relevant agencies, and the grievances of stakeholders through the consultation process, that contains livestock monitoring and management strategies that will ensure the dairy herd's constant vitality and vigour.	185	Post approval
	3.4.2 4.11.1		Four Arrows commits to a state of the art dairy design that includes features and infrastructure that provides for the comfort of cattle.	186	Design Construction
	4.11.2.1		Four Arrows commits to the design of dairy and freestall facilities that will mitigate the occurrence of disease.	187	Design Construction
	4.11.2.1		Four Arrows commits to the use of operating and biodiversity procedures based upon HACCP methods targeting metabolic disease, acidosis, lameness, mastitis and respiratory disease, as well as the concurrent use of recognized and approved protocols.	188	Operation
	4.11.2.2 4.8.4 5.5.2.17	3.7.2	Four Arrows commits the expeditious removal of dead stock to adjacent Tubbo Station where burial/incineration will be carried out in a manner that results in no significant impact to neighbours or the surrounding environment.	189 282	Operation
	3.4.2 5.8		Four Arrows commits to engaging a project veterinarian who shall work to best dairy management practice protocols.	190	Operation
	5.8		Four Arrows commits to undertake the regular training of staff for strict adherence to procedures and protocols.	191	Operation
	4.11.2.1 5.8		Four Arrows commits to a management program which maintains a herd with a genetic predisposition for health and vigour.	192	Operation
	5.8		Four Arrows commits to a management program that continually monitors individual beasts for injury or disease and immediately isolates them from the herd.	193	Operation
		3.6	Four Arrows commits to the following specific strategies to ensure the management of fly numbers: - The regular collection of manures and spilt feed which accumulates in areas that are rarely trampled. - The reduction of moisture content in manures. - The use of chemical knockdown methods. - The use of electrical eradication equipment.	272	Operation
		3.8	Four Arrows includes a commitment within its animal welfare management plan, which will be based upon cattle nutrition and is to provide feeding rations as described to minimize the loadings of nutrients and salts within waste water repositories, thus also being an aspect of an integrated waste water management plan.	287	Operation
Monitoring and Review	5.1.2		Four Arrows commits to the continual monitoring of individual beasts and the herd, through physical and technological means, to ensure health, vigour and vitality.	194	Operation
	5.8		Four Arrows commits to appointing designated officers/consultants to monitor plant, equipment and procedures, and to implement any improvements necessary to ensure the welfare of the dairy herd.	195	Operation
		3.6	Four Arrows commits to appointing a fly management officer/consultant to monitor fly numbers and implement knockdown strategies.	273	Operation
		3.6	Four Arrows commits to the setting of fly traps in order to monitor fly numbers in and around the site and production areas.	274	Operation

	5.1.2		Four Arrows commits to working closely with relevant agencies including DPI to maintain and/or improve the welfare of the dairy herd.	196	Design Construction Operation
	5.1.2		Four Arrows commits to providing a process where grievances regarding animal welfare can be registered and addressed in an effective and expeditious manner.	197	Operation
		3.6	Four Arrows commits to providing a process where <i>grievances regarding fly numbers</i> can be registered and addressed in an effective and expeditious manner.	275	Operation
Reporting	5.1.2		Four Arrows commits to herd performance reporting that will be forwarded as required to the relevant agencies and allow for the updating of CEMP's and OEMP's .	198	Operation
		3.6	Four Arrows commits to <i>performance reporting</i> that will be utilised to assess the success of operational and knockdown strategies, by management and external agencies, which will allow for the updating of environmental management plans.	276	Operation
Auditing	5.1.2		Four Arrows commits to engaging third parties to audit herd performance records, including calving and mortality statistics and injury reports, to ensure that best management practices are being pursued.	199	Operation
		3.6	Four Arrows commits to allowing third parties to <i>audit fly number records</i> to ascertain adherence to management practices and to assist with recommendations for updated strategies.	277	Operation
Mitigation	5.1.1		Four Arrows commits to implementing all mitigation measures in relation to the management of animal welfare identified throughout the EA process.	200	Design Construction Operation
		3.6	Four Arrows commits to <i>implementing all mitigation measures</i> in relation to managing fly numbers identified throughout the EA and PPR development process.	278	Operation

Flora and Fauna					
Issue	EA Section No.	PPR Section No.	Commitment	Ref No.	Project Phase
General	4.12 5.1.1 5.1.2 5.9.1		Four Arrows commits to the development of a CEMP and an OEMP that addresses recommendations made by the Department of Planning (DOP) and other relevant agencies, and the grievances of stakeholders through the consultation process, that details monitoring and management strategies which include limiting foraging pressure, limiting weedy competition, increasing connectivity and ground cover, and potentially reintroducing a flooding regime to the Black Box depression areas; that protects and enhances the natural environment and does not only include threatened species.	201	Post approval
		2.3.4	Four Arrows reaffirms its commitment to develop a flora and fauna management plan. Specifically, to <i>provide adequate protection for the significant remnants of vegetation</i> and <i>enhancing the species richness of the corridor</i> to provide valuable biodiversity outcomes.	251	Post approval
		2.3.4	Four Arrows includes a commitment within its intended flora and fauna management plan and this is the <i>appointment of a local specialist native vegetation nursery</i> , which can be engaged to collect, germinate, plant out and then independently manage the landscaped areas.	252	Design Construction Operation
		2.3.4	Four Arrows includes a commitment within its intended flora and fauna management plan and this is to <i>involve a representative from the MCMA</i> in the planning of habitat restoration works and suitable species selection and establishment.	253	Design Construction Operation
	5.7.1 5.9.1		Four Arrows commits to the exclusion of the <i>Acacia</i> , <i>Callitris</i> and <i>Eucalypt</i> communities from the site development and the enhancement of these areas which will be maintained through a conservation caveat.	202	Design Construction Operation
	5.7.1 5.9.1		Four Arrows commits to the conservation and enhancement of flora and fauna on the project site by pursuing actions and management strategies that contribute toward the goals of the Coleambally Land and Water Management Plan (CICL – LWMP).	203	Design Construction Operation

	5.9.1		Four Arrows commits to the conservation of flora and fauna on the development site by implementing the actions detailed in sections 5.9.1 that include rabbit management plans, weed management strategies, the construction of exclusion zones and the enhancement of existing areas through extended plantings.	204	Design Construction
Monitoring and Review	5.1.2		Four Arrows commits to the monitoring of flora and fauna through a variety of methods including habitat hectare assessment and targeted species observation.	205	Operation
	5.1.2		Four Arrows commits to appointing designated officers/consultants to monitor ecology on the site with ongoing flora and fauna surveys and to implement any improvements necessary to ensure the conservation of vegetative communities and the habitat of avian species.	206	Construction Operation
	5.1.2		Four Arrows commits to working closely with relevant agencies including the DEC, to ensure protection of the habitat of threatened species and the enhancement of remnant environmental aspects, within and adjacent to the development.	207	Design Construction Operation
	5.1.2		Four Arrows commits to providing a process where grievances regarding flora and fauna conservation and management can be registered and addressed in an effective and expeditious manner.	208	Construction Operation
Reporting	5.1.2		Four Arrows commits to environmental performance reporting that will be forwarded as required to the relevant agencies and allow for the updating of CEMP's and OEMP's.	209	Construction Operation
Auditing	5.1.2		Four Arrows commits to allowing third parties to audit environmental performance reports, the data from flora and fauna studies, and to review management strategies in order to ensure that the developments ongoing processes are not adversely affecting species and communities that inhabit the site.	210	Construction Operation
Mitigation	5.1.1		Four Arrows commits to implementing all mitigation measures in relation to flora and fauna management identified throughout the EA process.	211	Design Construction Operation

Heritage					
Issue	EA Section No.	PPR Section No.	Commitment	Ref No.	Project Phase
General	4.13 5.1.1 5.1.2 5.10		Four Arrows commits to the development of a CEMP and an OEMP that addresses recommendations made by the Department of Planning (DOP) and other relevant agencies, and the grievances of stakeholders through the consultation process, that contains cultural heritage monitoring and management strategies that will ensure the maintenance and preservation of those areas and artefacts identified during the EA, as well as potential areas and artefacts that may be identified during construction and operations.	212	Post approval
		2.3.4	Four Arrows reaffirms its commitment to develop a heritage management plan .	254	Post approval
Indigenous Heritage	4.13.1 5.10.1		Four Arrows will commit to a more detailed indigenous heritage survey if deemed necessary during the pre-construction stage as all potential areas of previous occupation exist within zones that are not proposed to be developed.	213	Pre-construction
	4.13.1 5.10.1		Four Arrows commits to the preservation of indigenous heritage and will protect those areas that have been identified to-date, and areas that may be encountered in the future, during the construction and operation of the development.	214	Construction Operation
	5.10.1		Four Arrows commits to the preservation of indigenous heritage within the identified areas and will conduct no further disturbances including the construction of firebreaks and vehicle access tracks without prior permission from a consent authority.	215	Construction Operation
	4.13.1 5.10.1		Four Arrows commits to a procedure of best management practice should additional sites and artefacts be identified during construction and operations which would include cessation of works affecting the area and the immediate notification of NPWS and the Griffith LALC.	216	Construction Operation
	5.10.1		Four Arrows commits to the recording and reporting of any additional sites of aboriginal heritage that may be found, for entry and registration, with the Department of Environment and Conservation/National Parks and Wildlife Service, Aboriginal	217	Construction Operation

			Heritage Information Management Systems (AHIMS).		
Non-Indigenous Heritage	4.13.2 5.10.2		Four Arrows commits to the preservation of areas, buildings and items of significant non-indigenous heritage value, which may be encountered during the construction and operation of the development.	218	Construction Operation
	5.10.2		Four Arrows commits to management practices and strategies that mitigate any threats to the conservation of sites and dwellings at Tubbo Station, which have been listed on the Register of the National Estate, from activities associated with the development.	219	Operation

Heritage					
Issue	EA Section No.	PPR Section No.	Commitment	Ref No.	Project Phase
Monitoring and Review	5.1.2		Four Arrows commits to monitoring heritage sites to ensure continued maintenance under conservation agreements and that no deterioration occurs due to neglect or abuse caused by the proposed development.	220	Operation
	5.1.2 5.10.1		Four Arrows commits to appointing designated indigenous officers/consultants to monitor existing heritage sites and to identify and verify sites that may be uncovered in the future, and to implement any improvements necessary to secure, preserve and protect these sites.	221	Construction Operation
	5.1.2		Four Arrows commits to working closely with relevant agencies including the Griffith LALC to assist with the identification and conservation of indigenous heritage sites.	222	Construction Operation
	5.1.2 5.10.2		Four Arrows commits to providing a process where grievances regarding the management and conservation of indigenous heritage can be registered and addressed in an effective and expeditious manner.	223	Construction Operation
Reporting	5.1.2		Four Arrows commits to the reporting of management strategies and compliance to conservation agreements and caveats, to ensure that no infringements occur and the maintenance of these areas, buildings and items is ongoing, which will be forwarded as required to relevant agencies and allow for the updating of CEMP's and OEMP's.	224	Construction Operation
Auditing	5.1.2		Four Arrows commits to allowing third parties to audit compliance reviews and management strategies to ensure the ongoing conservation of heritage areas, buildings and items.	225	Construction Operation
Mitigation	5.1.1		Four Arrows commits to implementing all mitigation measures in relation to indigenous heritage identified throughout the EA process.	226	Design Construction Operation

Greenhouse Emissions					
Issue	EA Section No.	PPR Section No.	Commitment	Ref No.	Project Phase
General	4.14 5.1.1 5.1.2		Four Arrows commits to the development of a CEMP and an OEMP that addresses recommendations made by the Department of Planning (DOP) and other relevant agencies, and the grievances of stakeholders through the consultation process, that contains methane gas emission monitoring and management strategies that will pursue efficiencies to mitigate the impact of greenhouse gas production to within desirable emission goals.	227	Post approval
	4.14 4.8.1 4.1.8 5.5.2.18		Four Arrows commits to the expeditious removal of manures from the development site and it's spreading onto and incorporation into the agricultural soils of the company owned Tubbo Station.	228	Operation
	4.1.2 4.14 4.8.2	3.9.4	Four Arrows commits to the use of production processes that capture maximum amounts of CO ₂ gases thus reducing contributions to greenhouse loading. Four Arrows amends its commitment to a GHG emissions management plan to include that an appointed private sector company will implement carbon offset and sequestration strategies as proposed (Commercial In Confidence document), to manage total GHG emission debits produced by the combined enterprises, if a	229 288	Design Operation

			technological capture system is not adopted within the facilities design.		
		3.9.5	Four Arrows includes a commitment to a GHG emissions management plan and amending WMP (commitment 141) and this includes <i>the installation of GHG capture technology should markets for CO2 and methane provide an economically viable alternative</i> to the purchase of carbon offsets post approval.	289	Design Construction Operational
Monitoring and Review	5.1.2		Four Arrows commits to an understanding of the factors that contribute towards greenhouse gas production and the establishment of achievable emission goals.	230	Operation
	5.1.2		Four Arrows commits to the ongoing monitoring of factors that contribute towards greenhouse gas production, the data of which can be utilised to create models and influence management strategies to achieve emission goals.	231	Operation
	5.1.2		Four Arrows commits to appointing designated officers/consultants to monitor by-product and waste streams, which contribute towards the production of greenhouse gases and to implement any improvements necessary to create greater efficiencies and to ensure that emission goals are being achieved.	232	Operation
	5.1.2		Four Arrows commits to working closely with relevant agencies, including primarily the Australian Greenhouse Office, to improve efficiencies and the impact of each identified by-product and waste management stream upon greenhouse gas loading.	233	Design Construction Operational
	5.1.2		Four Arrows commits to providing a process where grievances regarding greenhouse gas production and emissions can be registered and addressed in an effective and expeditious manner.	234	Operation
Reporting	5.1.2		Four Arrows commits to environmental performance reporting, which also includes submitting information and contributing towards such programs as the Greenhouse Challenge Plus, that will be forwarded as required to the relevant agencies and allow for the updating of CEMP's and OEMP's .	235	Operation
Auditing	5.1.2		Four Arrows commits to allowing third parties to audit greenhouse gas production records and to review management strategies in order to ensure that the developments ongoing processes are being managed in such a way as to avoid excess greenhouse gas emissions.	236	Operation
Mitigation	5.1.1		Four Arrows commits to implementing all mitigation measures in relation to greenhouse gas emission management identified throughout the EA process.	237	Design Construction Operational

Economic and Social Effects					
Issue	EA Section No.	PPR Section No.	Commitment	Ref No.	Project Phase
General	4.15 5.1.1 5.1.2 5.11.3 5.11.4		Four Arrows commits to the development of a CEMP and an OEMP that addresses recommendations made by the Department of Planning (DOP) and other relevant agencies, and the grievances of stakeholders through the consultation process, that pursues economic and social benefits for the company and the greater community.	238	Post approval
	4.15 5.11.3		Four Arrows commits where possible to employ local contractors and staff in the daily operations and support of the ethanol and dairy enterprises.	239	Design Construction Operational
	4.15 5.11.3		Four Arrows commits where possible to purchase local grains from the Riverina district the demand for which will provide further commercial activity in the local economy.	240	Operation
	4.8.2 4.15 5.11.3		Four Arrows commits to supply localised intensive livestock industries with distillers grain derivative satisfying a large percentage of the current demand.	241	Operation
	4.15 5.11.4		Four Arrows commits to preferentially investing profits into the expansion of existing Riverina enterprises and the development of further areas providing a boost to the local economy.	242	Ongoing
	3.4.3		Four Arrows commits to the construction and operation of a visitors centre to provide information and education to the public and other interested parties as to the developments management, processes, and benefits to the community and	243	Design Construction Operational

			environment.		
Monitoring and Review	5.1.2 5.11.3 5.11.4		Four Arrows commits to monitoring the social and economic costs and benefits of the development and its activities.	244	Operation
	5.1.2		Four Arrows commits to integrating social and economic costs and benefits information into its ongoing analysis as to the future direction and management of the development's processes and procedures.	245	Design Construction Operation
	5.1.2		Four Arrows commits to working closely with relevant agencies including planning authorities and local councils, to improve the design and management of the development, so as to mitigate the social and economic costs and promote benefits.	246	Design Construction Operation
	5.1.2		Four Arrows commits to providing a process where grievances regarding economic and social costs can be registered and addressed in an effective and expeditious manner.	247	Construction Operation
Reporting	5.1.2		Four Arrows commits to cost and benefit reporting that will be forwarded as required to the relevant agencies and allow for the updating of CEMP's and OEMP's .	248	Construction Operation
Auditing	5.1.2		Four Arrows commits to allowing third parties to audit cost and benefit analysis reports and management records, and to review management strategies, in order to ensure that the developments ongoing processes are not adversely affecting the economy or society.	249	Construction Operation
Mitigation	5.1.1		Four Arrows commits to implementing all mitigation measures in relation to economic and social effects created by the development that have been identified throughout the EA process.	250	Design Construction Operation