

STATEMENT OF ENVIRONMENTAL EFFECTS

Proposed Service Centre

495 Coolac road, Coolac NSW 2727

27th July 2017

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1 INTRODUCTION

In accordance with Schedule 1 of the Environmental Planning and Assessment Regulation 2000, a development application (DA) must be accompanied by a Statement of Environmental Effects. This document has been prepared by Allspec and Partners for Lot 100 DP1065752. The document identifies the main environmental effects identified for the DA submission of proposed subdivision of the lots 100, 101 & 102 and the proposed service centre at 495 Coolac Road, Coolac, NSW.

1.1 Location

The proposed development site is in the town of Coolac, NSW. Coolac is a village in the Riverina region of New South Wales, Australia in Cootamundra Gundagai Council. At the 2011 census, Coolac had a population of 365. The place name *Coolac* is derived from the local Aboriginal name for a plant which was abundant in the area and also from the Aboriginal word meaning "native bear". The 11-kilometer section of the Hume Highway at Coolac was the last two-lane section of highway between Sydney and the Sturt Highway interchange. Since 1986, plans had been drawn-up for the Coolac bypass, with a review of environmental factors report completed in 1997 but construction did not commence until May 2007 with the project opening in August 2009 - Under AusLink. In August 2009, the Coolac bypass was officially opened. The development site is situated on Coolac road.

Table 1-1: Location and Property Description

LOCATION AND PROPERTY DESCRIPTION			
Unit No:	House No:	Street:	Suburb:
NA	NA	495 Coolac Road	Coolac
Lot and DP or SP:			Post Code:
Lot 100, 101, 102 & DP 1065752			2727

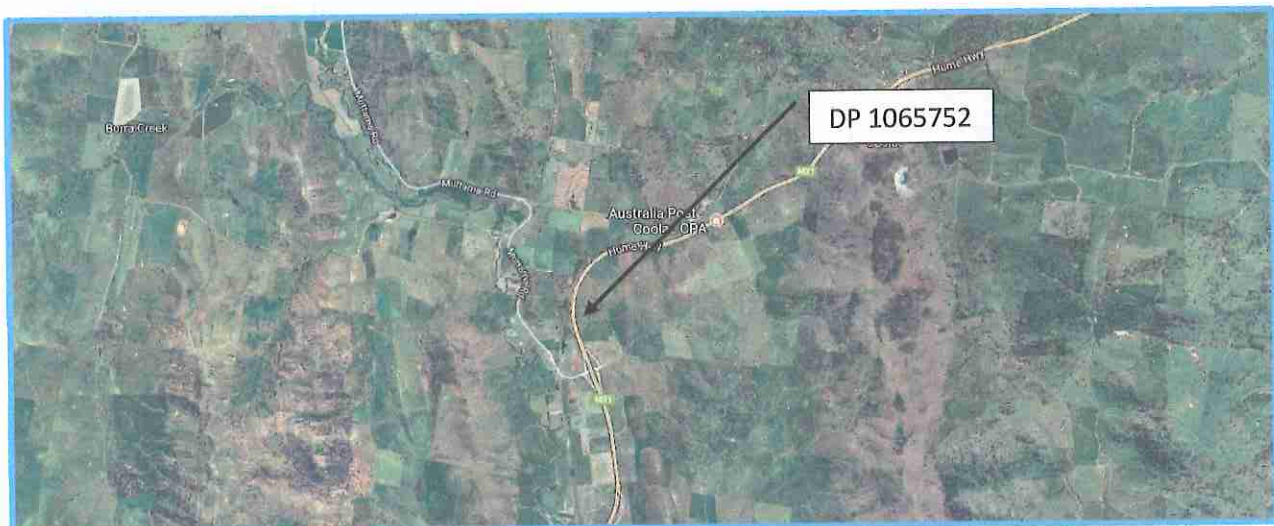


Figure 1-1 Location Map of Lot 100 DP 1065752

1.2 Clients Details

Table 1-2 below provides the clients details. The (DA) submission has been submitted on behalf of the client by Allspec and Partners: 58 Fitzroy Street, Tumut NSW 2720. (Phone: +61 410 659 795).

Table 1-2: Clients Details

CLIENTS DETAILS	
Name or Company: Xpress Fuels	
Address: P.O.Box 807 Ingleburn, NSW	Post Code: 1890
Phone: 0416 340 340	
Email: Mark@xpressgroup.com.au	

1.3 Description of Proposal

The subject site is located with its primary frontage to Coolac Road and secondary on Muttama Road & Hume Highway. The site would hold the Service Centre comprising fuel facilities for heavy and light vehicles, Convenience store, restaurant, dog park, outdoor eating, children's playground and parking spaces for cars and trucks. One entrance & one exit to the site from the Coolac road exist. No traffic hazard report has been noted to date. However, for public safety one-way vehicular movement has been proposed. An aerial photo of the subject site is shown in **Figure 2** below.



Figure 2-1 Location Map of Lot 100 DP 1065752

1.4 Surrounding Land use

The land uses adjacent to the 495 Coolac road, Coolac, NSW, 2727 were as follows:

North – farming land

East – Hume Highway

West – Coolac Road, Beehive Hotel

South – Muttama Road, Agricultural Land.

The service centre will be located on the Coolac road providing valuable service to the road users of Hume Highway, Muttama Road and Coolac area.

2 PROPOSED DEVELOPMENT

The proposed development will involve the construction of a service Centre and will include the following:

- A Convenience Store with
 - i. One serving counter
 - ii. Manager's room
 - iii. Storage room
 - iv. Additional storage
 - v. Cool room
 - vi. Accessible toilet for staff & customers
- A Restaurant with
 - i. Min 3 tenancies
 - ii. Food court accommodating 252 seats, 72 outdoor 180 indoors
 - iii. Toilets for male & female
 - iv. Services area for truck drivers
- No of Parking spaces
 - i. 100 for light vehicles
 - ii. 27 for heavy vehicles
 - iii. 9 for caravan
- fuel pumps for
 - i. light vehicles
 - ii. heavy vehicles
- dog park with facilities of
 - i. dog waste disposal points
 - ii. water fountain
 - iii. dog harness points, etc.
- electronic car charging points.
- Other facilities
 - i. Air hose for heavy and light vehicles
 - ii. Water refilling for caravans
 - iii. Dumping points for caravans
 - iv. Horse unload area
 - v. Children play area

vi. Outdoor picnic area

The redevelopment of the site will comprise the following but not be limited by:

- Earthworks and Site Preparation;
- Storm water calculations and management system
- Stormwater Diversion and spill purceptor discharge to Stormwater retention dam;
- Hydraulic studies
- Traffic Impact Assessment by Caldwell & Kent Consulting. The report has been attached in the appendix of this report.
- Sewerage design and management
- Installation of four underground fuel tanks. Three fuel tanks and one adBlue (Since January 2011, all new heavy vehicles using diesel in Australia, have been fitted with systems to limit the pollution coming from their exhaust. The most popular system uses DEF or diesel exhaust fluid. In practice this means new heavy diesel vehicles now have two tanks- one for the diesel, and one for the DEF (Diesel exhaust fluid). The DEF tank inlet is blue because the most popular brand of DEF is AdBlue. AdBlue is not a diesel fuel additive. It is used to treat the exhaust, not the diesel fuel) The location of the tanks can be seen on the development plan attached in the appendix
- Installation of new 4 double sided multi-hose bowzers for light vehicles.
- Installation of 4 double sided multi-hose bowzers for heavy vehicles.
- Pipework from proposed underground storage tanks (UST's) to bowzers;
- Construction of canopies for both heavy and light vehicles
- development works to proposed convenience store and restaurant including;
 - building work as per proposed building plans
 - electrical and plumbing works for the building
 - Continue suspended ceiling throughout the store;
 - Installation of various shelving displays and storage areas throughout the convenience store;
 - Installation of in store ATM;
- Landscaping works to the site as shown in the proposed landscape plan. which includes saving the only tree on the site and planting new decorative local plants shrubs and trees. (refer to landscape plan)
- Separate air and water facilities to the south of the site;
- 100 car parking spaces to the west of the site and 22 truck parking spaces on the east of the site.
- Construction of the paved roads as shown on the site plan for the one-way traffic flow throughout the site.
- Concrete paving for the proposed parking areas
- Installation of kerbs along the proposed roads on the site
- Line markings to be painted on concrete paved parking lots along with the suitable signage for the better traffic flow management.
- Electrical pole and substation for the electrical supply of the proposed building and the site.
- Booster station and fire water tanks on the north-west side of the site.
- Installation of site identification signage on the east and west of the site.

A full set of design plans can be viewed at the end of this report along with any other information to support this statement of environmental effects.

2.1 Convenience Store

The main building will contain a convenience store with total floor area approximately 330 m², within which the control panel for the fuel pumps, sales counter, display area containing a range of ancillary and convenience products for sale, cool room, office, store room and toilet facilities will be housed. The display area and sales counter will consist of a raised cashier area with both wall mounted and free-standing shelving

units. The remainder of the floor area is taken up by a staff area including the office. A computer fitted in the office will also control the electronic pump system for the fuel tanks. All Underground fuel storage systems information will be contained within this office, including loss monitoring records and integrity testing reports for each UPSS on site.

2.2 Restaurant:

The main building will contain 3 restaurants with floor area approximately 241 m². The restaurant will house min 3 tenancies with food court accommodating 252 seating capacity (72 outdoor and 180 indoor) it will have toilets for male & female along with accessible toilet. The truckies would have 2 toilets and 2 urinals along with the 2 shower rooms. The services yard on the east side of the site will have the bins and would facilitate the deliveries and supplies for the restaurant.

The restaurant would have a drive thru pay / pick up windows allowing more options for the drive-thru customers. We are still currently working on a possible 2 drive thru

2.3 Other services

2.3.1 Kids play area /outdoor picnic area:

The proposed development will have an outdoor play area for kids and the picnic area on the south side of the restaurant to facilitate the customers.

2.3.2 Dog park

Dog park has been designed to facilitate the customers travelling with pets on the east side of the site with dog harness points, water fountain for the animals and the waste disposal point.

2.3.3 Horse unload area

Horse unload area has been provided on the north-east side of the site to facilitate the customers. This area will have a stock fence around it and water trough for the animals.

2.3.4 Electric car charging points

Electric car charging points would be provided to encourage the users of electronic cars use Hume Highway and it will also help in reducing the carbon emission produced by the petrol/diesel cars. This not really viable at this point in time but with the advancements in battery technology we anticipate that electric cars will be common in the near future this far away from urban centres.

2.3.5 Caravan Parking

9 caravan parking spaces have been provided along with the waste disposal points and the water refilling points for the caravan riders. This site will be RV friendly encouraging the grey nomad to take a rest.

2.4 Operation

The proposed service centre will provide a full range of fuel products, including but not limited to e10, ulp, premium and diesel, 24 hours a day, seven days a week. The service centre will also be utilised for the sale of convenience goods and restaurant. No mechanical repairs will be undertaken on site under this approval. The service centre will be operated by at least one person always during opening hours.

2.5 Site Design

There is one entry driveway on Coolac road and one exit driveway on Coolac road, allowing efficient movement of vehicles to enter and exit the site in a forward direction and easy access to fuel dispensers, restaurant drive thru and available car parking for customers who wish to use the service centre. The fuel Dispensers will be arranged lineally to ensure simple movement throughout the site. The heavy vehicle drivers would also have the facility to have fuel, pull over in the truck parking and have food in their designated space and could get fresh by taking shower in the shower areas provided for the truckies.

Other public amenities have also been provided, dog park, horse unload area, outdoor picnic area, kids play area, the water refilling points for caravans along with waste disposal points. The site has been designed to facilitate the users of the Hume Highway, residents of Coolac and surrounding area.

2.6 Fuel Deliveries

Fuel deliveries will be made by 26m articulated vehicles, up to three or four times per week, generally outside of peak times. There is adequate room within the development site for the delivery tankers to manoeuvre into and out of the site in a forward direction, entering from Coolac road and exiting to Coolac road. At no time is there a need to reverse a tanker. An aerial photo of the subject site is shown in **Figure 2** above.

2.7 Underground Fuel Storage Regulations

To meet the EPA guidelines the Fuel tank selection has been done keeping in mind the EPA guidelines for the underground Petrol Storage System.

UPSS Under Ground Petrol Storage System:

The proposed Service Centre will have four 100000L Double wall fibreglass underground fuel storage tanks. Three of these would be for fuel and one for the adBlue. ADR 80/03 —Emission Control for Heavy Vehicles The function of this Australian Design Rule is to prescribe exhaust emission requirements for heavy vehicles to reduce air pollution, the new emissions regulations introduced on 1 January 2011 by the federal government, impose strict standards on Australia's truck companies. To meet the ADR80/03 legislation, nitrogen oxide (NOx) in vehicle exhaust must be extremely low (2.0 grams per kilowatt hour). To meet this Euro 5 international standard, all new heavy vehicles are fitted with a treatment unit. The unit is fitted to the exhaust and uses a mist of aqueous urea (AUS32) and a catalytic reactor chamber to convert the emissions to nitrogen and water.

Double Wall Fibreglass Tanks offer a full 360-degree secondary containment with a variety of monitoring devices, which can be installed in the interstitial space between the two walls. Due to the unique integral rib design, Double Wall Fibreglass Tanks are the strongest, most robust underground tanks available. They are rust-proof, maintenance free and formulated to be compatible with all petroleum fuel products, alcohols and alcohol-gasoline mixtures. By choosing a Tank Solutions Double Wall Fibreglass Storage Tank, you can be assured of maximum protection in the unlikely event of a leak in the primary wall therefore preventing ground water contamination. Capacities range from 2,000 litres to 110,000 litres. Double Wall Multi-Compartment tanks are also available in a wide variety of sizes and feature a choice of two or three completely separate compartments within one tank. This enables the storage of multiple products within the same tank with the following features

- Suitable for a wide range of liquids: Petroleum, Petrochemical and Chemical applications
- Strength, Durability and Safety
- All Tank Solutions Fibreglass Tanks are constructed of virgin resin and glass fibre reinforcement
- All Tank Solutions Tanks incorporate integral ribs for maximum strength
- All Tank Solutions Fibreglass Tanks undergo stringent testing during manufacture
- All Tank Solutions Tanks carry a 30-year warranty against structural failure, internal and external corrosion
- A standard of consistent quality:
- Manufactured to meet or exceed industry and statutory requirements:
 - a. UL 1316
 - b. AS1692

Double Wall Fibreglass Reinforced Plastic (FRP) Underground Storage Tanks as shown on the drawings. Sizes and fittings shall be as shown. The tanks will be fibreglass tanks as manufactured by Tank Solutions, under licence to ZCL Corporation of USA. Tanks will be tested and installed with crushed stone or pea gravel as specified in the current installation instructions provided with the tank.

Governing Standards as applicable:

1. AS1692 CAT.4 TANKS
2. Underwriters Laboratories Inc. (UL) Standard for safety 1316. File MH 9061 (N) for storage of flammable liquids.

The technical data sheet, back fill guidelines, specifications, buoyance calculations, hydrostatic monitoring and installation method for the storage tanks are attached in the appendix of this report

LINE:

Fuel suction lines would be installed to connect the fuel bowzers to the underground storage tanks. The selection and installation of the lines would be according to the Australian standards. Regular line tests would be conducted to make sure their functionality and loss detection.

The Automatic Tank Gauges will be installed on the tanks for loss detection systems to automate wet stock management, environmental control and risk management across the network allowing centralised data management to optimise operational profitability.

All the tanks, bowzers and the fuel suction lines would be installed by the qualified persons.

2.8 Signage

The proposed signage will consist of statutory service centre signage and individual franchise signage and will be placed off the canopy as shown in the elevation drawings of the proposed building (refer to development drawings in the appendix). The signage will be modernised and illuminated at night while the service centre is open.

A proportion of the sign will be designated to statutory required pricing signage, as required under *Division 3 Fuel price signs* of the *Fair-Trading Regulation 2012*, which states as follows:

10 Product information standards

The product information standard for prescribed fuel supplied to retail customers at a petrol station is that information in relation to the types of prescribed fuel so supplied at the petrol station must be displayed in accordance with the requirements of clauses 11 and 12.

11 Product information standards

(1) The price of prescribed fuel supplied to retail customers at the petrol station must be displayed at the petrol station on one or more signs that are so positioned and lit that any price and other matter that the signs display will be readily seen by motorists approaching the petrol station at any time that the petrol station is open for business for the supply of prescribed fuel.

(2) All signs at the petrol station (including signs required by subclause (1)) that display information in relation to the price of prescribed fuel supplied to retail customers at the petrol station may display only the normal price of the prescribed fuel and no other price for that fuel.

The proposed signage is not part of current Development application and will be covered in future.

2.9 Landscaping

Landscaping has been considered for many reasons while making the development plans for the service centre at the subject residual lot. Since the proposed lot 11 would be used for the agricultural purposes more

considerations have been given on providing green spaces in the planning of the service centre at proposed Lot 12.

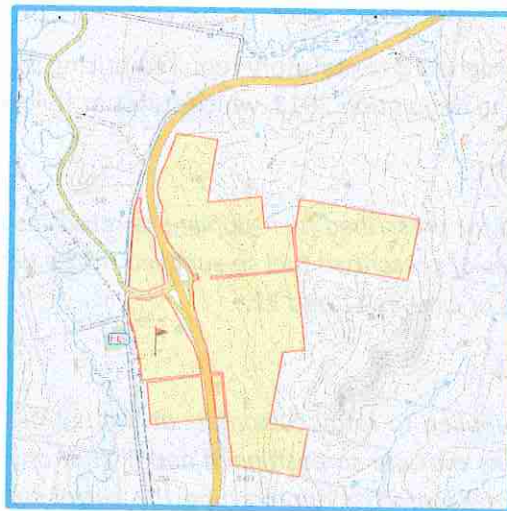
Landscaping on proposed Lot 12: There is an existing tree on the south side of the site which would be kept and has been planned to make it the central element of the picnic area and the kids play area. The areas have been designed to keep the public min 12m away from the tree to avoid the future probable danger of getting hurt by the falling of branches. The trees on the north & east side of the site would be low height to increase the visibility of the service centre from the Hume Highway. South side of the site facing the Muttama Road would be the ideal place for the native tree screen planting to provide the visual barrier to the site.

The selective native trees would be planted on the west side facing Coolac road to provide the visual feature and sound barrier between the Coolac Road and the site. Native shrubs, grasses and ground cover would be provided along the kerb of the entrance and exit of the site. Tall native shrub screen planting has been proposed to provide the visual barrier between the truck parking and the kids play area. Native grass would be planted along with the decorative native planting in the picnic and kids play area especially and other non-paved area on the site.

The details of all above described landscaping proposals can be seen in the development plans along with the concept landscaping specifications and plant species schedule in the appendix of this report.

2.10 Stock Movement

Since the subject lot has been used for agriculture purposes the stock movement was through Muttama Road from one paddock to another. The image below shows the Hume highway dividing the subject lot hence the stock movement needs to be considered closely.



We have considered the following three ways for stock movement:

1. Using an underpass
2. Shearing shed
3. Construction of small yard with ramp to load the stock to the heavy rigid stock truck

The more suitable one would be to have shearing shed and moving the stock in heavy rigid truck from one paddock to another across the road using Muttama Road. Most likely going with the heavy ridged truck moving stock from paddocks on the north to shearing sheds and yards.

2.11 Waste Management

No waste would be generated in the subdivision process. The development of the Lot 12 would be managed as following

Waste will be collected by a licensed contractor. The waste bin will be located within a structure adjacent to the east side of the building during operational hours. Operationally a contractor is engaged to manage the removal from site of recyclable and putrescible wastes.

Minor fuel spills will be managed by the staff members on duty using local spill kits to Control, Contain and Clean Up any spillages. The Spill kits will be strategically located next to the fuel bowsers and will be checked weekly and replenished as required.

The project manager when appointed will be contracted to manage the site activities including waste removal. Accordingly, they will be disposing and/or recycling where practicable to authorised facilities if required.

2.12 Storm Water Management:

The objective of the storm water management system is to conserve the water as much as possible and to discharge rainwater not exceeding the natural discharge of the undeveloped site. To achieve this and to make the downstream creeks conditions unchanged different techniques of retention and detention of rainwater have been adopted. One of the first step taken is to conserve the rainwater for use in the building and all the roof runoff will be stored in storage tanks. A large area of site is kept green and it absorbs and slowdown the runoff to natural flow. Furthermore, infiltration trenches have been provided at places to infiltrate runoff into ground and add to water table. To ensure the quality of runoff in the fuelling area oil-water separator/spill preceptor is installed and treated water will be disposed-off into the drainage system.

In the last but not the least to ensure that the run-off leaving the site isn't more than the undeveloped site conditions for the recommended storm events a detention dam has been proposed at the lower end of the site.

Initial estimation has been made as follows.

Detention Volume (m³) = (Q 20 dev - Q 5 und) x tc 20 dev x 0.06 (Lake Macquarie Handbook)

Which yields a requirement of less than 200m³ detention volume. Guidelines as set forth by AS/NZS 3500.3 2015 will be used as nutshell for the design process and further guidance will be acquired from Lake Macquarie handbook. Storm water management plan is attached in the appendix of this report.

2.13 Portable Water Supply

we have reviewed the available groundwater information and geology in the area of the proposed Coolac service centre with respect to locating a groundwater supply.

The site is located either in mafic metavolcanic rocks (Ej) of the Jindalee Group or slate and siltstone of the eastern belt of the Blowering Formation (Sbl). In fractured rock aquifers water supplies are obtained from the fractures and joints within the rock and the potential yield is dependent of the size, concentration and connectivity between the fractures and joints.

The boundary of these units is fault bound and occurs in close proximity to the site. The mafic metavolcanics of the Jindalee Group are likely to be a more solid rock with less fracturing and potential groundwater yield than the slate and siltstone of the Blowering Formation. An existing bore GW031117

located to the south of the proposed site is described as being constructed in the Blowering Formation sourcing a yield of 1.28 L/s (0.1 ML/d) from a water bearing zone at approximately 20m. the location of the bores can be seen in the figure below.



Figure 2-1 The Location of existing bores in the vicinity of the proposed service centre site

If the Blowering Formation does underlie the site there is no guarantee that an equivalent supply would be obtained due to the nature of fractured rock aquifers. If your client was to proceed with constructing a bore on site, it would need to be drilled potentially up to a depth of about 60 to 80 metres. However, this is subject to intersecting sufficient water bearing zone(s) to meet the water supply requirements of the proposed service centre. There is also the potential that either an insufficient yield is obtained or that no water bearing zones are intersected.

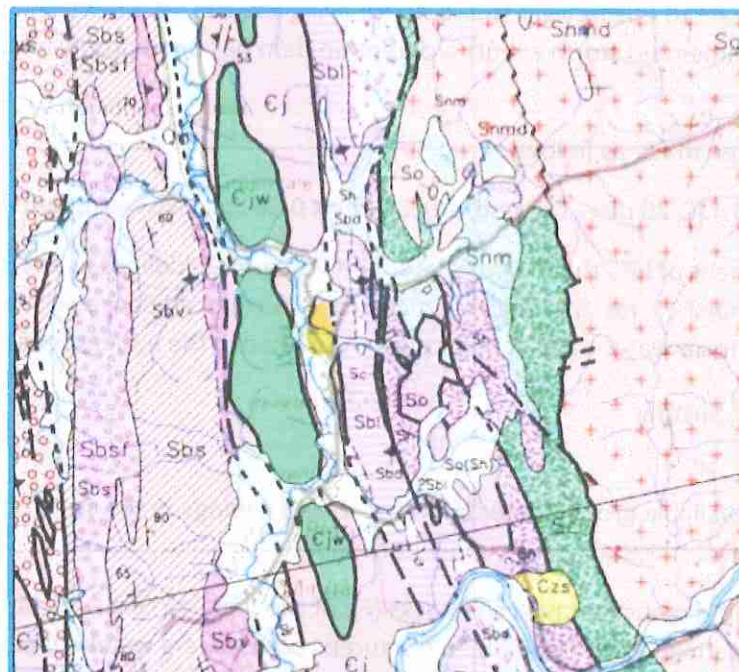


Figure 2-2 Geology in the vicinity of the propose Coolac service centre (Yellow highlighted area is the location of the proposed service centre)

An alternative source of groundwater may be obtained from the unconsolidated alluvial sediments associated with Muttama Creek. There are a number of bores to the east of the proposed site that indicate

that they have obtained a sufficient yield to potentially meet the requirements of the proposed service centre e.g., GW403155.

There are a couple of potential alternative options for your client to consider in sourcing a water supply, these include:

- Drilling their own bore on-site, that may or may not find a sufficient yield for the proposed development,
- Obtain access to a site on the Muttama Creek flood plain where it is likely that a suitable sand aquifer could be found to supply the development, or
- Obtain access to use one of the existing bores constructed on the Muttama Creek flood plain.

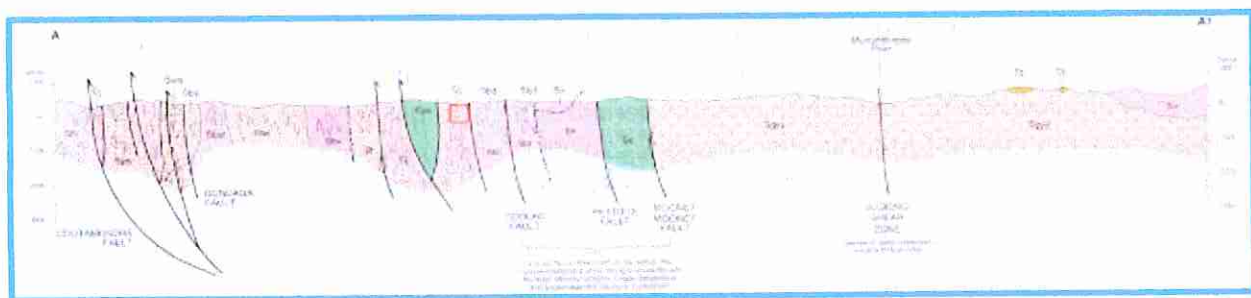


Figure 2-3 A geological cross section of the area of the proposed service centre, with the approximate location of the service centre shown in the red box.

If we elected to construct our own bore on site, we would need to obtain a works and use approval from Water NSW for the construction of the bore. The construction of a bore on the Muttama Creek floodplain would either require them entering into an agreement with the landholder to access the site. This maybe a lease agreement, easement or an alternative arrangement. If it was a lease or easement arrangement they could apply for a works approval for the construction of the bore. If it is an alternative arrangement the applicant for the works approval would need to be the landholder.

If we chose to obtain access from one the existing bores constructed on the Muttama Creek floodplain the existing works approval would need to be amended to reflect the change in use. The more significant issue would be ensuring security of access to the works which would require a legal agreement between your client and the landholder.

In addition to the works and use approval we would require a water access licence for the take of water. The fractured rock and the alluvial sediments of the Muttama Creek are all part of the Lachlan Fold Belt MDB groundwater source. Their alternatives to obtaining access to water include:

- The annual purchasing of allocation through an allocation assignment. To achieve this, they would need to apply for a zero-share water access licence.
- Purchasing an existing water access licence in the water source.
- Leasing the entitlement from an existing licence holder
- Purchasing the required shares from an existing licence holder. In this circumstance, they would initially need a zero-share water access licence to be able to transfer the entitlement. In purchasing or leasing entitlement your client needs to be aware that this gives them a share of the resource and not an allocation. Allocations are only made to shareholders at the start of each water year (1 July).

- The purchase of the shares through a controlled allocation release by DPI Water. The controlled allocation release for 2017 has closed and will not occur again until May 2018. If we pursue this option, it is unlikely that we would have access to any allocation until at least the 2019/2020 water year.

2.14 Sewage treatment system

Sewage Treatment Plant would be installed to achieve both standard secondary and advanced secondary effluent quality provided the incoming wastewater parameters that are cost effective, ease of future extension, minimised waste slug collection and automation and reliability.

In accordance with the original floor layout required we calculated 65x4 chair tables for patrons to be seated and this equates to 252 equivalent persons. We have used the rate of 50 litres/person /day to calculate a minimum daily volume of 12,600LPL.

However, to this total must be added the volume created by patrons using the convenience services and this is unknown. Therefore, we suggest the average working volume be calculated at 20,000LPD. There should also be an allowance for special high intensity periods such as school holidays. On this basis, we recommend that a treatment system capable of treating 30,000LPL be considered. We recommend that a biological treatment system with the capability to remove nutrients to low levels be installed.

Sewage Collection and Delivery: A typical sewage collection and delivery system consists of a sewer system and a pump station. The raw sewage is collected through the sewer lines and flows by gravity into the pump station(s).

Preliminary Treatment: Screening. The screening device consists of a manual or automatic bar screen (8 mm spacing for manual, 5 mm spacing for automatic). The raw sewage is pumped onto the bar screen from the pump station and then drops into the balance tank.

Flow and organic loading balancing: The balance tank controls the incoming flow of raw sewage enabling balancing of both flow and organic loading to a subsequent stage of the process. The excess volume of incoming sewage during the peak hours will be stored in the balance tank for treatment during low flow periods.

Secondary Treatment: After preliminary treatment, the sewage enters the secondary treatment process. Sewage enters the aeration tank and treated in the "Bioreactor" containing a suspended growth activated sludge using a cyclic extended aeration process with intermittent decanting. The sewage is treated in a series of batch phases within the Bioreactor to achieve the desired effluent quality. The raw sewage in the balance tank is only pumped into the bioreactor during the aeration cycle. The treatment operation in the bioreactor is automatically controlled by the PLC in a pre-determined cycle. The treatment can be operated at different cycle times to enable operational flexibility. For normal operation, the operation consists of the following cycles:

(1) Aeration Cycle: Sewage is pumped from the transfer pump/s in the balance tank and diverted into the bioreactors via the flow splitting system designed to the SBR working level and mixed with the biomass held in the aeration tank. This is aerated and oxygenated by diffused air supplied from the air blower as influent enters the aeration tank. Aeration is provided to meet the process oxygen demand for carbonaceous oxidation, nitrification and for mixing. As aeration takes place, an ideal aerobic environment is formed for microorganisms and a humus type activated sludge is formed. With this balanced aeration and a good healthy activated sludge, digestion and oxidation of the organic waste occurs. A balance of aeration in relation to the organic/hydraulic load is maintained for a good steady reliable treatment process.

(2) Settling Cycle: Immediately after the aeration, a settling condition is created to provide solids-liquid separation, which is a quiet period where the biomass has time to settle. As the biomass is settling, it acts as a filter blanket trapping all the waste that is in suspension in the mixed liquor of the aerobic biomass and settles it to the floor. This provides for further carbonaceous oxidation (anoxically), clarification, and denitrification. A zone of clear water is generated at the surface of the aeration tank.

(3) Decant Cycle: After a predetermined settling period, the decanting cycle takes place. The floating decanter/siphon draws off surface water to a predetermined level from an inverted pipe manifold. During the decanting cycle, the anoxic treatment denitrification process continues as the system automatically decants treated clarified effluent. The decanting cycle continues drawing off effluent until either the liquid level in the aeration tank reaches the standard operation level or the electronic process control puts the system back into the aeration cycle. At the end of the aeration cycle which follows the decant cycle, the blower on timer starts again causing air pressure to create an airlock in the floating decanter/siphon which stops any flow of water and the decant cycle.

(4) Automatic Sludge Wasting and Storage: Waste sludge is pumped from the bioreactors at the beginning of each aeration cycle by the PLC controlled sludge pumps into the sludge thickening tank. The sludge that is wasted from the aeration tanks moves on to the sludge tank where further digestion takes place. As sludge is settling and thickening a separation of water and sludge occurs. The concentrated solids (waste sludge) are eventually pumped out for disposal, and the supernatant from the sludge tank flows into a sump tank which is then pumped back to the balance tank via a sump pump. The sludge wasting program will not need to be activated until there is sufficient biomass which would be determined at the time of each service.

(5) Basket Strainer: The decanted effluent from the aeration tanks will flow through a basket strainer to remove the scum.

(6) Chlorination: The decanted effluent from the aeration tanks will be disinfected through the chlorinator and passes into the chlorine contact tank. Although the effluent is treated, it contains many types of human enteric organisms that are associated with various waterborne diseases. Disinfection can selectively destruct the disease-causing organisms in the treated effluent. The effluent disinfection process is carried out using chlorination equipment that treats the final water before discharge. The chlorinator uses tablet chlorine (TICA Trichloroisocyanuric Acid) and is self-compensating for variations in flow giving a dose rate residual chlorine in the effluent of between 0.5-to 2.0 mg/l of free chlorine prior to being delivered to the effluent storage tank or irrigation system. A chlorine contact time (minimum 30 minutes) during peak flow is used in the system design. After decanting, the effluent is disinfected and stored in the chlorine contact tank for a short period to ensure the disinfection of pathogenic organisms. Chlorination is done through a tablet chlorinator located alongside the chlorination chamber. The bottom tablet is submerged at all times to ensure sufficient chlorine is released during periods of low flow. During periods of high flow, the water level in the chlorinator increases and more tablets are exposed. As these dissolve, more chlorine is released in sufficient quantities to ensure disinfection.

(7) Dissolved Oxygen Controller: The dissolved oxygen controller for dissolved oxygen (DO) monitoring and control plays an important role in optimising the aeration process and thus saving energy. It maintains the DO level in the aeration tank within predetermined set points optimising the treatment such as nitrification/denitrification which reduces the air blower operation time. Along with providing blower control, the controller will provide a continuous reading of the dissolved oxygen level within the aeration tank for metering purposes. During maintenance or in the event of dissolved oxygen controller failure, the control operation of the controller can be bypassed so that the system operates in a manual cycle mode. This is carried out by switching the "Dissolved Oxygen Meter By-pass Selector" to the "ON" position. In this

mode, the air blowers will operate continuously during the “Blower on” cycle regardless of the dissolved oxygen levels.

Once the system is installed by the qualified person on the site the training of the staff would be conducted. Service and maintenance will be provided by the company and no future manpower will be required to function the system efficiently.

Refer to 6042-HYD-SK01 – Site plan indicating equipment and plant layout, including design parameters SC150 – Process Flow Diagram – Schematic layout of process flow and Technical Specification – Ozzi Clean Sewerage treatment system in the appendix.

Grease trap: Wastewater from food preparation areas, floor wastes, kitchen sinks, dishwashers and garbage areas will all flow to the grease trap.

Grease traps would be installed as close to the source of grease as possible, so that pipes between the kitchen and the grease trap don't clog with grease. If you can't avoid long pipe runs, such as in shopping centres, you can use a heat trace or increase the grade. Grease traps must be at least 1,000 litres, because this is the minimum size to capture grease efficiently. The maximum size is 5,000 litres to ensure ease of pump outs and clean outs. Kitchen wastewater should preferably drain by gravity to the grease trap and then by gravity to the sewer. Other possibility would be to connect a grease trap to drain to a pump well, and pump wastewater to the sewer from there. Any pump well or pump unit must be accessible for maintenance. Connect a pumped line into the inlet to the grease trap, above the double junction inlet, laying at least the last meter horizontally. For reference, based on the seating capacity here for Restaurant food court the tank would size at 2,000 litres, however with location and travel for cleaning contractors we have indicated a 5,000-litre grease interceptor pit, to increase the intervals between the clean out visits

A licenced plumber would be hired who could provide a certificate of compliance for the installation of grease traps. The details of inlet and outlet pipe work, installation and management of grease trap has been provided in the appendix of this report.

2.15 Subsurface Waste Water Disposal & Re-use Drip Irrigation System:

The water is dispersed through a network or grid of 16 mm polyethylene dripline. The emitters are pre-inserted and spaced along the entire dripline at 60 cm spacing. The emitters have an output of 2.4 (PC) or 4.0 litres per hour. The dripline is buried 15 - 20 cm under the ground surface. Other drip lines (laterals) are buried 0.6 - 1.0 m apart. The entire network or grid must be pressurised to a minimum of 100 kPa (10 m HD).

Advantages: Waste water is applied and dispersed uniformly over the entire area for even absorption, distribution and transpiration.

- Nutrient take-up by the surrounding vegetation is maximized as the water is utilized for irrigation.
- Health risks are eliminated as bacteria, viruses and pathogens are not applied to the surface. Soil microbes consume any residual bacteria and organic matter.

For more details please refer to the appendix.

2.16 Water within the Servicing Area

All stormwater discharging from the operational forecourts area will be treated through the spill purceptor. There is no Australian Standard for oil/water separators. There are only guidelines for hydrocarbon discharge limits for stormwater discharge. All State and territory regulating environmental authorities (or EPA) have guidelines with varying terminology stating that hydrocarbons are not to be visible (10ppm) in stormwater and receiving waters. In the absence of an Australian Standard, the European British Standard BSEN 858-1:2002 applies when compliance is the regulating issue. It is the world's most stringent standard for hydrocarbons separation for the use of oil/petrol separators in surface water drainage systems. Prevents the emission of petrol odours. The Australian Runoff Quality A Guide to Water Sensitive Urban Design (Engineers Australia) ISBN 0 85825 852 8 Chapter 9 'Hydrocarbon Management' refers to The Standard and the European Agency UK Oil Separator Selection and Design for petrol stations.

Key features of the Purceptor:

- **Automatic Closure Device:** The Automatic Closure Device (A.C.D.) is precisely engineered to be sensitive to any change in water density, as a consequence of light liquids build up. This automatically activates a process of depressing the A.C.D. to shut off the separator, preventing pollutants from discharging to drains and waterways
- **Full Retention:** All liquid is treated. There is no by-pass operation.
- **Coalescer Equipped:** Provides a coalescing process for the separation of smaller globular light liquid pollutants to reduce the light liquid content in the outlet to 5mg/liter or less.
- **Inlet Dip Pipe-Flame Trap:** This provides minimum turbulence and prevents fire and inflammable vapors passing through to the drainage system.
- **Two Chamber:** A non-turbulent flow, through two horizontal treatment chambers, utilizes the underflow principle to retain light liquids in all flow conditions.
1-Containment chamber: Where Total Suspended Solids (TSS) silt, sediments, sludge and gross pollutants are trapped and settle on the chamber floor and where light liquids are contained.
2-Coalescer chamber: Where light liquids separation is enhanced reducing it to 5mg/liter or less prior to discharge.
- **Gravity Operated:** Will function in the event of power failure and fits into existing pipe drainage systems or new sites.
- **Maintenance:** Easy and safe, with no entering of the tank required.

How Purceptor works:

From a range of possible treatment options, the proposed technology investigated is a gravity-type, passive, full retention system that treats all flows through two chambers. Low velocity laminar flow provides quiescent conditions in the separator enabling the entrained hydrocarbons to separate due to the difference in density and length of retention time. Water passes from the primary chamber via a submerged outlet into the secondary chamber and finally via underflow through a coalescing filter mounted in the invert of the secondary chamber. The coalescer filter media is an oleophilic polyethylene sponge-like material that filters and subsequently repels hydrocarbons from water. The treatment technology is sized to treat a maximum design treatment flowrate from the catchment and capture hydrocarbon spills. The auto-closure device (ACD) in the first chamber has been designed and fabricated to float at the oil/water interface in a specific gravity of 1 and is sensitive to liquid density change. Should an emergency spill occur, the increasing hydrocarbon level on the water surface will displace the ACD and seal off the first chamber, preventing release of captured hydrocarbons via the device outlet into the downstream stormwater network. Spills are then retained in the first chamber of the device and upstream drainage network. Annual maintenance of the coalescing filter is recommended to ensure optimal operation.

The coalescer filter media is an oleophilic polyethylene sponge-like material that filters and subsequently repels hydrocarbons from water. The treatment technology is sized to treat a maximum design treatment flowrate from the catchment and capture hydrocarbon spills. The auto-closure device (ACD) in the first chamber has been designed and fabricated to float at the oil/water interface in a specific gravity of 1 and is

sensitive to liquid density change. Should an emergency spill occur, the increasing hydrocarbon level on the water surface will displace the ACD and seal off the first chamber, preventing release of captured hydrocarbons via the device outlet into the downstream stormwater network. Spills are then retained in the first chamber of the device and upstream drainage network. Annual maintenance of the coalescing filter is recommended to ensure optimal operation. Refer to Figure spatially and temporally variable. Further the catchment area treated is unique to each site. Often the device is sized to capture a design spill volume (e.g., 10,000 L) and a specific maximum flow rate expected from the refuelling catchment.

Under all circumstances “Control, Contain, Clean Up” is to be practiced.

2.17 Natural Hazards

2.17.1 Bush fire Prone Land:

The proposed lots 100,101 and 102 are in the bush fire prone zones as shown in the figure bellow.

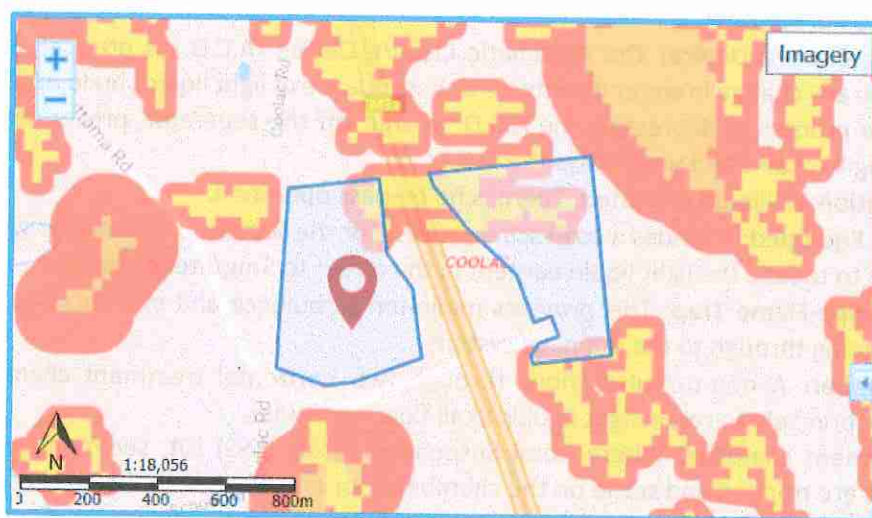


Figure 2-4 Bush Fire Prone Land Map. Image Source: Planning Portal NSW

Since the subdivided land would be used for the agricultural purposes hence Allspec and partners believe that the preparation of fire hazard assessment report is not necessary. The lot 100 on which the proposed development of the service centre would be carried out is out of the bush fire prone land and the development will not cause any effect on the bush fire prone land. Moreover, building will not have legislative restrictions regarding fire zoning. The land is not located within flood prone area nor does it exist within a natural asbestos zone.

3 ASSESSMENT OF ENVIRONMENTAL EFFECTS

The following is an assessment of the proposed development in accordance with the relevant matters for consideration listed under Section 79C (1) of the EP&A Act. Section 79C (1) of the EP&A Act states the following;

79C (1) Matters for consideration – general

In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application:

(a) the provisions of:

(i) any environmental planning instrument, and

- (ii) any draft environmental planning instrument that is or has been placed on public exhibition and details of which have been notified to the consent authority (unless the Director-General has notified the consent authority that the making of the draft instrument has been deferred indefinitely or has not been approved), and*
- (iii) any development control plan, and*
- (iiia) any planning agreement that has been entered under section 93F, or any draft planning agreement that a developer has offered to enter under section 93F, and*
- (iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), that apply to the land to which the development application relates,*
- (b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,*
- (c) the suitability of the site for the development,*
- (d) any submissions made in accordance with this Act or the regulations,*
- (e) the public interest.*

3.1 Environmental Planning Instruments

The following Environmental Planning instruments apply to the subject site because of the proposed redevelopment:

- ✓ Gundagai Local Environmental Plan 2011;
- ✓ State Environmental Planning Policy (Infrastructure 2007);
- ✓ State Environmental Planning Policy no.64 Advertising and Signage; and
- ✓ Gundagai Shire Council Development Control Plans
- ✓ Gundagai Shire Council Contribution Plan

3.2 Gundagai Local Environment Plan 2011

The main Environmental Planning Instrument (EPI) which applies to the subject site is the Gundagai Local Environment Plan (LEP) 2011. The following sections undertake an assessment of the relevant provisions in the Gundagai LEP 2011.

3.2.1 Land Use Zones

In accordance with Gundagai LEP 2011 Land Zoning map, the subject site is currently zoned RU1-Primary Production. Under RU1-Primary Production zoning a Service Station is prohibited but a Service Centre is not. A service Centre must have a minimum of 2 food retail outlets and as this development has 3, Allspec believes this is then classed as a Service Centre and is therefore permissible within the RU1 zone.

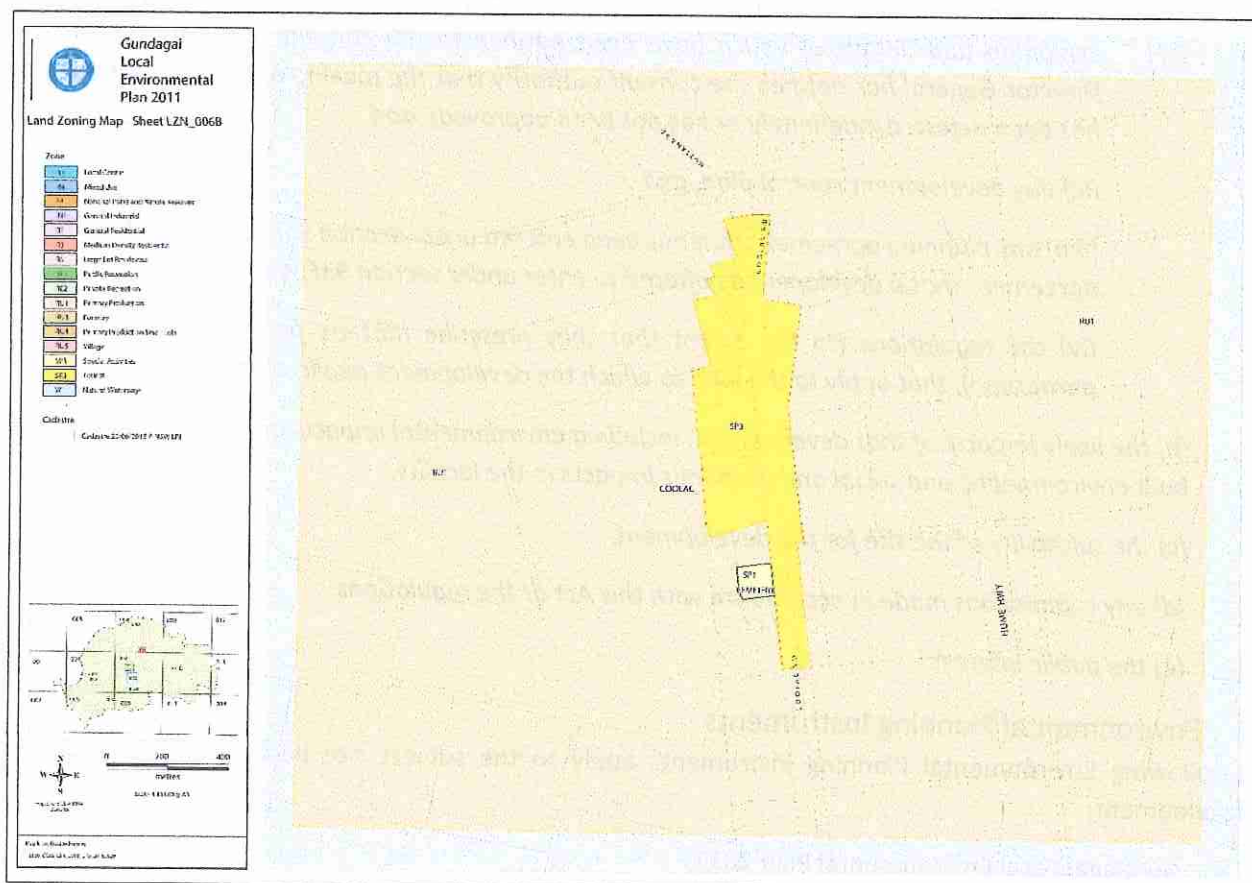


Figure 3-1 Extract from Gundagai LEP 2011 Land Zoning Map-Sheet LZN-006B

3.2.2 Land Use Table

The Land use table of Gundagai LEP 2011 states as follows in relation to RU1-Primary Production zone:

1-Objectives of zone

- To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.
- To encourage diversity in primary industry enterprises and systems appropriate for the area.
- To minimize the fragmentation and alienation of resource lands.
- To minimize conflict between land uses within this zone and land uses within adjoining zones.
- To encourage the efficient use and conservation of water resources.
- To protect significant scenic landscapes.
- To encourage development that does not adversely impact nearby agricultural activities.
- To protect, enhance and conserve the natural environment, including native vegetation, wetlands and wildlife habitat.
- To ensure development prevents or mitigates land degradation.

2-Permitted without consent

Extensive agriculture; Environmental protection works; Home occupations; Intensive plant agriculture

3-Permitted with consent

Dwelling houses; Extractive industries; Farm buildings; Function centers; Intensive livestock agriculture; Open cut mining; Roads; Roadside stalls; Any other development not specified in item 2 or 4

4-Prohibited

Amusement centres; Attached dwellings; Bulky goods premises; Business premises; Cemeteries; Child care centres; Community facilities; Dual occupancies; Eco-tourist facilities; Entertainment facilities; Exhibition homes; Exhibition villages; Hardware and building supplies; Health services facilities; Home occupation (sex services); Industrial retail outlets; Industrial training facilities; Marinas; Mooring pens; Mortuaries; Multi dwelling housing; Office premises; Public administration buildings; Registered clubs; Residential flat buildings; Respite day care centres; Restricted premises; Semi-detached dwellings; Seniors housing; Service stations; Sex services premises; Shop top housing; Storage premises; Timber yards; Vehicle body repair workshops; Vehicle sales or hire premises; Wharf or boating facilities; Wholesale supplies

The proposed development is consistent with the objectives of the zone, in that it will *"To encourage diversity in primary industry enterprises and systems appropriate for the area"*.

The proposed development is also consistent with the definition of "any other development not specified in item 2 or 4" as a "Service Centre" and/or "Convenience store" are not mentioned in the prohibited section.

As such the proposed redevelopment of the site to a modern service centre should be permissible with the consent of Gundagai Shire Council.

3.2.3 Minimum Subdivision Lot Size

According to the Gundagai LEP 2011 the minimum lot size for the subdivision is 40 Ha.

3.2.4 Rural Subdivision:

According to section 4.2 of the Gundagai LEP 2011

- (1) The objective of this clause is to provide flexibility in the application of standards for subdivision in rural zones to allow land owners a greater chance to achieve the objectives for development in the relevant zone.*
- (2) This clause applies to the following rural zones:*
 - (a) Zone RU1 Primary Production,*
 - (b) Zone RU2 Rural Landscape,*
 - (c) Zone RU4 Primary Production Small Lots,*
 - (d) Zone RU6 Transition.*
- (3) Land in a zone to which this clause applies may, with development consent, be subdivided for the purpose of primary production to create a lot of a size that is less than the minimum size shown on the Lot Size Map in relation to that land.*
- (4) However, such a lot cannot be created if an existing dwelling would, as the result of the subdivision, be situated on the lot.*
- (5) A dwelling cannot be erected on such a lot.*

The proposed land to be subdivided is lot 100, 101 & 102. The proposed subdivision would result in creating a bigger lot for agricultural purposes having an area of 41.12 Ha which conforms with the land use objectives of the area along with the minimum lot size area which is above 40 Ha. The Gundagai LEP 2011 is silent about the residual lot which would be 9.4 Ha. Moreover, according to the part 3 of the section 4.2 no dwelling could be part of the lot resulting in the subdivision. The residual lot will have the dwelling on the north-west corner. Since the Gundagai LEP 2011 is silent about the residual lot hence Allspec believes that the proposed subdivision conforms will all the conditions and hence would be allowed with the consent of the Gundagai Shire Council. The plan of the proposed subdivision is attached in the appendix of this report.

3.2.5 Earth Works

The objective of *Clause 6.5 Earthworks* of Gundagai LEP 2011 is to ensure that earthworks for which the development consent is required will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land, and to allow earthworks of a minor nature without requiring separate development consent.

6.5 Earthworks

(1) The objective of this clause is to ensure that earthworks for which development consent is required will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land.

(2) Development consent is required for earthworks unless:

(a) the earthworks are exempt development under this Plan or another applicable environmental planning instrument, or

(b) the earthworks are ancillary to development that is permitted without consent under this Plan or to development for which development consent has been given.

(3) Before granting development consent for earthworks (or for development involving ancillary earthworks), the consent authority must consider the following matters:

(a) the likely disruption of, or any detrimental effect on, drainage patterns and soil stability in the locality of the development,

(b) the effect of the development on the likely future use or redevelopment of the land,

(c) the quality of the fill or the soil to be excavated, or both,

(d) the effect of the development on the existing and likely amenity of adjoining properties,

(e) the source of any fill material and the destination of any excavated material,

(f) the likelihood of disturbing relics,

(g) the proximity to, and potential for adverse impacts on, any waterway, drinking water catchment or environmentally sensitive area,

(h) any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development.

Note. The National Parks and Wildlife Act 1974, particularly section 86, deals with harming Aboriginal objects.

The proposed site has slope it goes one metre high in 35 metres on the west side but it becomes a bit steep on the south west side where it goes 1m high in 12-meter distance. Cut and fill would be required to level the earth for the construction work on the site. As the slope on the South-east side to make 12% slope to 3 % slope. For the building and the car parking area levelling of the earth would be required. Excavations would be done in two stages, Bulk excavation and the detailed excavation. The bulk excavation is needed to make the area suitable height and level for the construction purposed by cutting and filling. Detailed excavations will be required for the installation of the underground fuel tanks, underground pipe work to connect bowsers with the underground fuel tanks, sewerage work and the spill purceptor. Stormwater drainage will

require pipe work to be laid in the ground along with a retention drains and dam to be constructed in the south-west corner of the site.

It is not expected that excavated material will be removed off site, and will be used along the north-east and south west boundary for earth filling and to the south of the convenience store to level the yard. The import and export of fill material to and from the site is not expected.

An erosion and sediment control plan to manage potential impacts of earthworks on soil and water would be done in Soil Water Management Plan SWMP and will be implemented during the necessary earthworks on site.

A construction management plan will be prepared by the company handling the construction and development of the site. It will manage potential environmental impacts of construction activities and will address the management of public pedestrian access and safety, construction vehicles, soil and water, dust, noise and waste, incorporating the SWMP

3.2.6 Flood Planning

The objective of *Clause 6.4 Flood Planning* is to maintain the existing flood regime and flow conveyance capacity, to avoid significant adverse impacts on flood behaviour, to limit uses to those compatible with flow conveyance function and flood hazard, and to minimise the risk to human life and damage to property from flooding. The subject site has been identified as a not at risk and not within the flood planning area.

The development of the subject site will not affect the flood planning area of the Gundagai LEP 2013.

3.2.7 Terrestrial Biodiversity

The objective of *Clause 6.1 Terrestrial Biodiversity* is to ensure protection for natural flora and fauna, continued existence of ecological processes, and conservation and recovery of native flora and fauna and their habitats. Natural biodiversity areas are coloured green on the Gundagai LEP 2011 Terrestrial Biodiversity map of which an extract is shown below with the map in its entirety attached to this document.

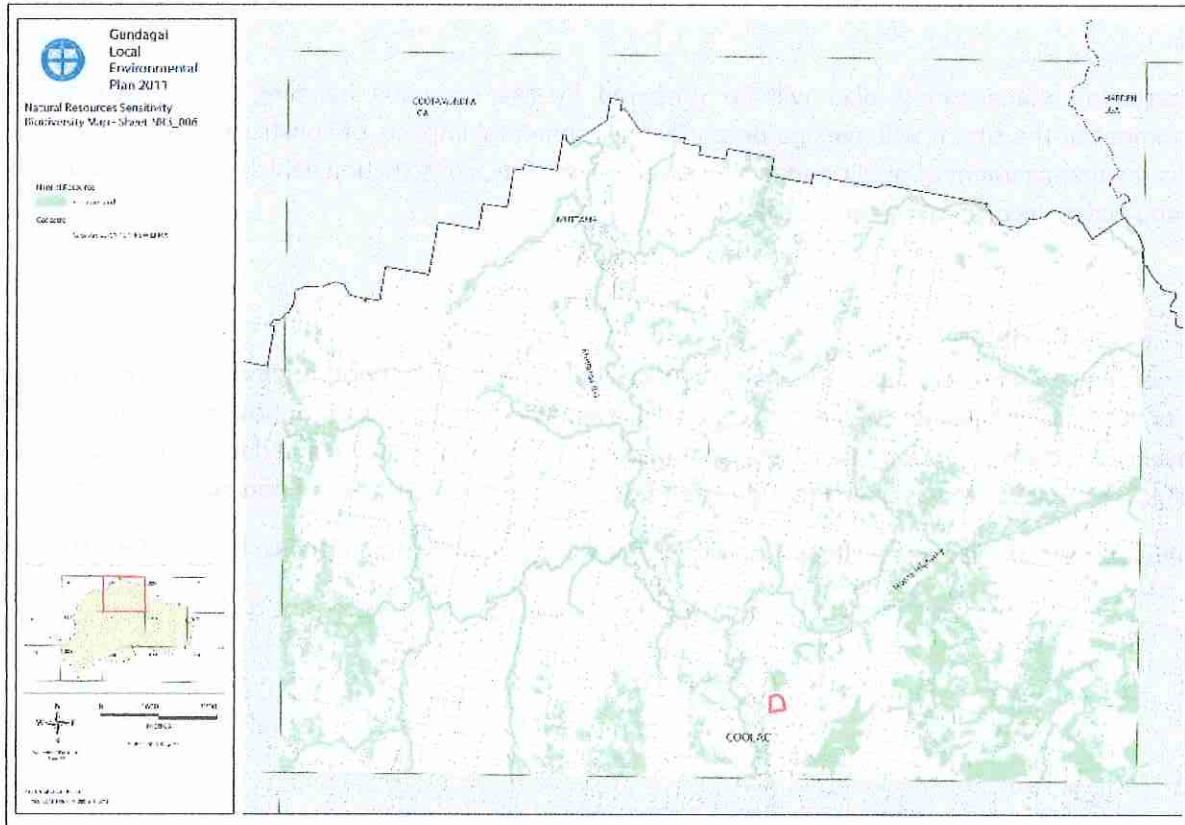


Figure 3-2 Extract from Gundagai LEP 2011 Terrestrial Biodiversity Map-Sheet NRB-006B

The development site of the Coolac Service centre is not within a Terrestrial Biodiverse area and will not have an impact on terrestrial biodiversity during development or once completed.

3.2.8 Water Protection

The objective of *Clause 6.2 Water Protections* is to ensure the protection of hydrological functions of riparian land, waterways and aquifers including protecting the water quality, natural water flows, the stability of the bed and banks of water ways and ground water system. This clause applies to land identified as “sensitive land” on the Natural Resource Sensitivity Water Maps. An extract of the Coolac map shown below demonstrates there is western edge designated sensitive land within the environs of the subject site.

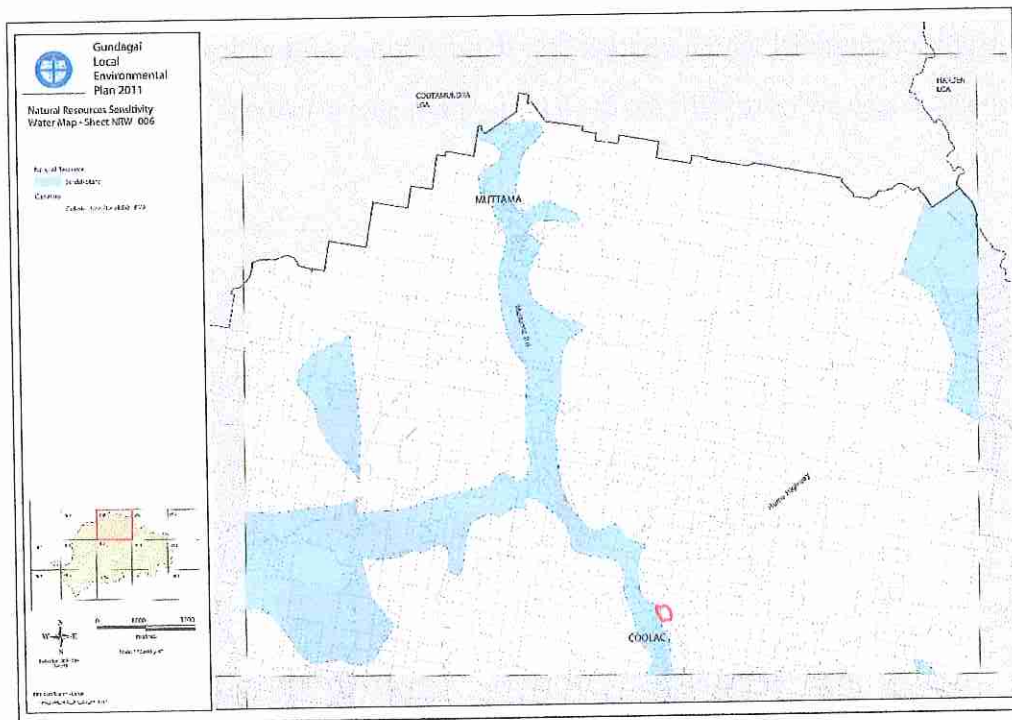


Figure 3-3 Extract from Gundagai LEP 2011 NRS Water Map-Sheet NRW-006

The water shown on the map above touches the western edge of the site. The development would pay close attention to manage and maintain the ground water quality by following the guidelines of EPA for UPSS by putting minimum three ground water bores to test the water on regular basis. These water samples would be tested by a qualified person and if found any discrepancy would be dealt with great care.

The proposed development of the service centre site lies out of groundwater vulnerable area a number of measures will be implemented to ensure Groundwater is not affected. All surface water run off on site, including surrounding fuel pumps/bowzers and tank fill areas which will be bunded, will be redirected to the SPEL System. The SPEL design is based on catchment area to contain maximum anticipated oil spillage which enables it to be fully operational in treating stormwater runoff at all times. A Discharge quality of less than 10mg light liquids / litre with no visible sheen will be achieved prior to water released to stormwater drain.

The proposed development is not anticipated to impact the water table, thus groundwater within the area will not be affected. However, there are three Groundwater Monitoring Wells (GMW) installed on site as part of the UPSS guidelines. Groundwater wells will be monitored on a Biannual Basis as required by the UPSS Regulations. Samples will be tested for the presence of hydrocarbons. The GMW would be installed as part of a Targeted Environmental Site Assessment by Fuel & Infrastructure Management Australia (FIMA).

In accordance with the requirements of the UPSS guidelines a loss monitoring system using a Wet Stock Control Ledger will be utilised on site to detect any losses of petroleum from the UPSS prior to contamination of the soil or groundwater.

This Loss Monitoring Procedure will also form part of the Environmental Protection Plan for the site which is required under the UPSS Guidelines and contains all details of the UPSS's on site.

3.2.9 Land Protection

The objective of *Clause 6.2 Land Protection* is to maintain soil resources and the diversity and stability of landscapes, including protecting the land with steep slopes and shallow soils, land subject to soil salinity, land with high erosion potential soil, land susceptible to other forms of land degradation and land forms.

The subject site is located away from the sensitive land zone as shown in the map below.

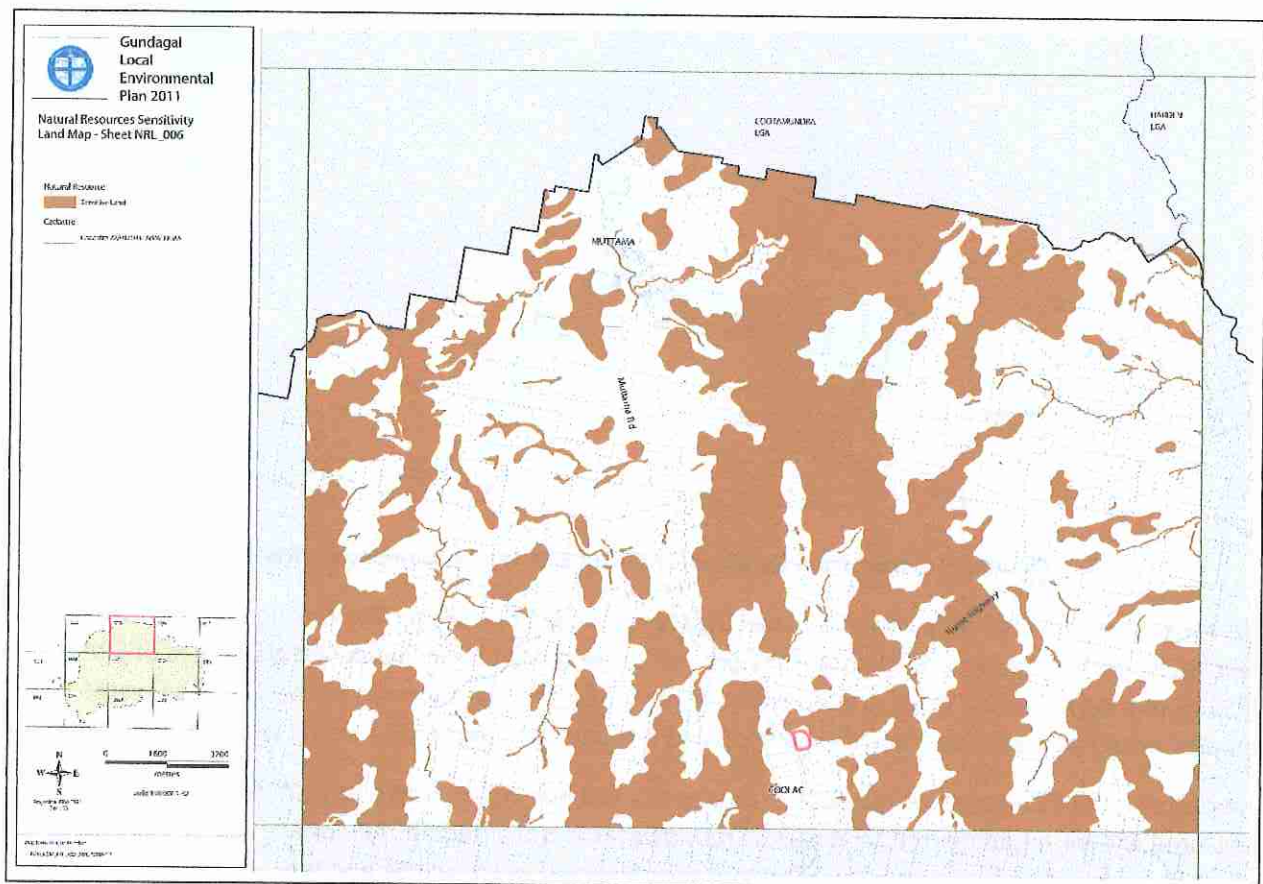


Figure 3-4 Extract from Gundagai LEP 2011 NRS Land Map-Sheet NRL-006

All stormwater on site will be directed to sewer once it has passed the oil water separator, the development works planned for the subject site should not affect riparian lands and waterways in any way.

3.2.10 Essential Services

The objective of *Clause "6.6 Essential Services"* is to ensure development does not take place in areas where essential services such as water, electricity, disposal / management of sewerage, stormwater drainage / management and vehicular access may not be available or made available when required.

The subject site is currently not connected to the essential services since the lots have been used for agricultural purposes only. Lot 100 has a dwelling on the north-west corner and it has the essential services. For the proposed development of the service centre essential services would be provided.

There is no water supply to the site by the local authority and it is proposed to install a bore on the site. The water from the bore will require analytic data to determine suitability for use of purpose and may require Tertiary Filtration and disinfection to meet Standards. Refer to the water treatment systems report at the end of this report.

There would be enough lighting in both heavy and light vehicles parking areas to keep them wet lit and avoid unwanted social behaviours. Disposal bins would be placed around to control rubbish. A Dial Before You Dig (DBYD) survey has been completed to illustrate where main service lines for Gas, Electricity and communications exist surrounding the site. The DBYD documentation is attached to this document at the end of this report.

3.3 State Environmental Planning Policy (Infrastructure 2007)

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) aims to provide for consultation with relevant public authorities about certain development during the assessment process or prior to development commencing.

The *State Environmental Planning Policy (Infrastructure)* applies to state owned land to be used for the supply of services which includes Roads and Traffic.

Services which may be affected by the proposed redevelopment of the subject site back into a service centre include Roads and Traffic. As the site has previously operated as a Service centre these services are currently connected to the existing infrastructure.

Clause 104 Traffic-generating development of the Infrastructure SEPP states:

(1) *This clause applies to development specified in Column 1 of the Table to Schedule 3 that involves:*

(a) *new premises of the relevant size or capacity, or*

(b) *an enlargement or extension of existing premises, being an alteration or addition of the relevant size or capacity.*

(2) *In this clause, **relevant size or capacity** means:*

(a) *in relation to development on a site that has direct vehicular or pedestrian access to any road—the size or capacity specified opposite that development in Column 2 of the Table to Schedule 3, or*

(b) *in relation to development on a site that has direct vehicular or pedestrian access to a classified road or to a road that connects to a classified road where the access (measured along the alignment of the connecting road) is within 90m of the connection—the size or capacity specified opposite that development in Column 3 of the Table to Schedule 3.*

(3) *Before determining a development application for development to which this clause applies, the consent authority must:*

(a) *give written notice of the application to the RTA within 7 days after the application is made, and*

(b) *take into consideration:*

(i) any submission that the RTA provides in response to that notice within 21 days after the notice was given (unless, before the 21 days have passed, the RTA advises that it will not be making a submission), and

(ii) the accessibility of the site concerned, including:

(A) the efficiency of movement of people and freight to and from the site and the extent of multi-purpose trips, and

(B) the potential to minimise the need for travel by car and to maximise movement of freight in containers or bulk freight by rail, and

(iii) any potential traffic safety, road congestion or parking implications of the development.

(4) The consent authority must give the RTA a copy of the determination of the application within 7 days after the determination is made.

Service centre are included in the list at *Schedule 3 Traffic generating development to be referred to the RMS* of the Infrastructure SEPP and are subject to *Clause 104* if the capacity of the service centre (including service centre which have retail outlets) is 200 or more motor vehicles with access to any road or service centre of any capacity which are accessible from a classified road as identified in the Roads and Maritime Services *Schedule of Classified Roads and State & Regional Roads*.

Hume Highway is a major interstate highway which connects southern NSW with Victoria. It follows a north-south alignment, and operates as a major transport route for both tourist and commercial vehicles between Sydney and Melbourne. Within the vicinity of Coolac, the highway is divided and is comprised of two traffic lane in each direction.

Muttama Road is classified as a regional road and follows an east-west alignment. The carriageway is undivided and comprises one traffic lane in each direction. It has a posted speed limit of 60kph with no

on-street parking permitted within the vicinity of the site. The intersection of Muttama Road and the Hume Highway operates as a diamond interchange with motorist along Muttama Road having priority over the vehicles exiting the Highway from the ramp system. The Muttama Road/Hume Highway Interchange was opened in 2009 and is therefore expected to comply with all modern road standards for heavy vehicles - including the ability to accommodate B-doubles within the ramp system. Coolac Road is classified as a local road and follows a north – south alignment. The carriageway is undivided and comprises one traffic lane in each direction. The intersection of Coolac Road with Muttama Road operates as an offset T-intersection with motorist travelling along Muttama Road having priority over the vehicle on Coolac Road.

As such the proposed development, will need to be referred to the RMS for comment in accordance with Clause 104. It should be noted that the traffic to be generated at the subject site can be accommodated safely within the road network, with no requirements for reversing a vehicle for entrance and egress.

The Infrastructure SEPP also states the requirement for the consent Authority, i.e. Gundagai Shire Council, to give written notice of the application to the RTA within 7 Days after the application is made and take into consideration any submissions made by the RTA within 21 days of the submission being made

A detailed traffic assessment report by Caldwell & Kent has been done for the assessment of parking and traffic resulting in the development of the service centre. The detailed report has been attached in the appendix of this report. its summary is as following

- The provision of 126 parking spaces, including 22 truck space, for the proposed development is considered sufficient to manage the project parking demand;

- Based on the information provided, the proposal does not generate any increase in safety risk to pedestrians or drivers as a result of the access and parking configuration;
- The proposed development will not negatively impact the current traffic conditions;
- The existing site configuration is considered adequate allow adequate turning area for a B-Double to enter and exit the Site – 90 degrees to the driveway;
- An assessment of the car park layout, including the circulatory ramp, proposed parking spaces and associated aisle width, indicate the car park layout is compliant with the relevant applicable Standards (AS2890.1-2004, AS2890.2 & AS2890.6).

3.4 State Environmental Planning Policy No 33—Hazardous and Offensive Development

This Policy aims:

- to amend the definitions of hazardous and offensive industries where used in environmental planning instruments, and*
- to render ineffective a provision of any environmental planning instrument that prohibits development for the purpose of a storage facility on the ground that the facility is hazardous or offensive if it is not a hazardous or offensive storage establishment as defined in this Policy, and*
- to require development consent for hazardous or offensive development proposed to be carried out in the Western Division, and*
- to ensure that in determining whether a development is a hazardous or offensive industry, any measures proposed to be employed to reduce the impact of the development are taken into account, and*
- to ensure that in considering any application to carry out potentially hazardous or offensive development, the consent authority has sufficient information to assess whether the development is hazardous or offensive and to impose conditions to reduce or minimize any adverse impact, and*
- to require the advertising of applications to carry out any such development*

According to the clause 4

hazardous industry means a development for the purposes of an industry which, when the development is in operation and when all measures proposed to reduce or minimize its impact on the locality have been employed (including, for example, measures to isolate the development from existing or likely future development on other land in the locality), would pose a significant risk in relation to the locality:

- to human health, life or property, or*
- to the biophysical environment.*

According to the clause 13 Matters for consideration by consent authorities

In determining an application to carry out development to which this Part applies, the consent authority must consider (in addition to any other matters specified in the Act or in an environmental planning instrument applying to the development):

- current circulars or guidelines published by the Department of Planning relating to hazardous or offensive development, and*
- whether any public authority should be consulted concerning any environmental and land use safety requirements with which the development should comply, and*
- in the case of development for the purpose of a potentially hazardous industry—a preliminary hazard analysis prepared by or on behalf of the applicant, and*
- any feasible alternatives to the carrying out of the development and the reasons for choosing the development the subject of the application (including any feasible alternatives for the location of the development and the reasons for choosing the location the subject of the application), and*
- any likely future use of the land surrounding the development.*

According to the **Circular PS 11-008 ISSUED on 23rd Feb 2011** by the department of planning with the title **"Planning and Assessment Guidelines for Hazardous Industry"** it stated that

For development proposals categorized as 'potentially hazardous industry' the policy requires applicants to prepare a preliminary hazard analysis (PHA) to estimate the risk to people, property and the environment at the proposed location. This must be taken into account by the consent authority. Should such risk exceed nominated acceptability criteria, the development is classified as 'hazardous industry', which would not be permissible within most industrial zones in NSW.

It further states;

The assessment processes

The Department has developed an integrated assessment process for development proposals, which are potentially hazardous. The process typically requires:

- a preliminary hazard analysis to support the development application by demonstrating that risk levels do not preclude approval
- a hazard and operability study, fire safety study, emergency plan and an updated hazard analysis undertaken during the design phase of the project
- a construction safety study to ensure facility safety during construction and commissioning, particularly when there is interaction with existing operations
- implementation of a safety management system to give safety assurance during ongoing operation and
- regular independent hazard audits to verify the integrity of the safety systems and that the facility is being operated in accordance with its hazards-related conditions of consent.

The subject site would be serving as a service centre and believed to have 4 underground fuel storage tanks which will be self-bunded and would be installed by the qualified persons. The specifications of the tanks have been attached in the appendix of the report. The spill purceptor would be installed according to the standards to control the oil spillage and keep the ground water safe. Moreover, three ground water monitoring wells would be installed to monitor the ground water quality on biannual basis and would take immediate actions if found any discrepancies.

The proposed development will not cause any harm to the environment.

3.5 Development Control Plans

3.5.1 Gundagai Shire Council Development Control Plan 2007

The relevant provisions of the Gundagai Shire Development Control Plan are addressed in the following sections.

3.5.1.1 Car Parking

The aim of this DCP is to ensure that the needs of users, residents and visitors are met through the provision of safe, convenient, accessible and attractive on and off-street car parking. The purpose of this DCP is to indicate Council's requirements for the provision of adequate on and off-street parking and delivery vehicle facilities in association with development proposals.

Objectives	Response
To ensure sufficient, safe and convenient parking facilities are provided to meet user requirements including pedestrians, cyclists and vehicles.	The proposed development has been designed to ensure that adequate car parking space and service facilities are conveniently located on site to satisfy the reasonable demand created by the development.
To ensure that adequate loading and unloading facilities are provided and do not impact on other parking provision or pedestrian flow	The proposed access and egress points have been designed to accommodate the size and volume of vehicles likely to visit the site.
To ensure that new development does not introduce unnecessary or excessive on-street parking	The proposed development includes the provision of the appropriate number of car parking places in compliance with the Gundagai DCP – at the end of this report and the RMS Guidelines – Guide to Traffic Generating Developments
To ensure a consistent and equitable basis for assessment of parking requirements is provided	
To ensure car parking meets the needs of people with Disabilities.	Minimum 3% of the car parking spaces shall be provided with ease of access to the service centre.
To ensure car parks are safe for all users and contribute to the appearance of development	The parking will not interfere unreasonably with the amenity of the neighborhood.
To ensure access to and movement within car parks is safe and functional	With one entrance/exit allowing safe ingress and egress to the service centre and convenience store the movement of cars is expected to be both safe and functional.

Access from the Street - Design Principle

Access to and from the site shall be located where it causes the least interference to vehicular and pedestrian traffic on a public road.

Acceptable Solution

- a. All driveways shall be located to obtain maximum sight distances*
- b. Driveways shall cross the footpath at right angles to the centre line of the road.*
- c. All developments shall be designed to have the fewest number of driveways possible (preferably one). This allows for a more aesthetically pleasing streetscape and greater opportunity for landscaping. Some developments with a high turnover of traffic, for example service stations and drive-through restaurants may require more than one driveway.*

In the light of the above guidelines parking layout has been shown on the plans at the end of this report.

3.5.1.2 Public Notification

The purpose of this DCP is to establish procedures in identifying those property owners and occupiers affected by the development of land within the Shire of Gundagai and the extent of the notification process required in the development assessment and plan making processes.

The Objectives of this plan are to:

- a) Establish an efficient and effective process for community consultation, which will minimise delays in the processing of development Applications and improve the quality of decisions;*
- b) Maintain the community's right to participate in the development assessment and plan making processes;*
- c) Foster public appreciation and understanding of the development assessment and plan making processes;*
- d) Clarify the circumstances to which a Development Application does not require notification; and*

- e) *Detail the form of and requirements for public notification.*
- f) *Identifies Council's approach to dispute resolution in relation to Development Applications, through conciliation.*

3.6 Section 79C (1)(A)(IIIA) Planning Agreements

There is no Planning Agreement in force relevant to this Development Application.

3.7 Section 79C(1)(A)(IV) Any Matter Prescribed by the regulation

There are no prescribed matters under the Environmental Planning and Assessment Regulation 2000 that are relevant to the proposed development.

3.8 Section 79C(1)(B) Impact on the Environment

Pursuant to Section 79C(1)(B) of the EP&A Act, 'the likely impacts of that development' have been considered below.

The proposed development has been designed having regard to the characteristics, topography and orientation of the site and its relationship to neighbouring land. The design seeks to create an attractive streetscape which adds visual interest and amenity to pedestrian areas and establishes a high quality urban form.

The scale, bulk and height of the proposed service centre is compatible with the building heights near and is consistent with the expectations of the DCP for a service centre on the subject site. The building form, materials and finishes of the proposed development are consistent with its purpose as a service centre.

The proposed development provides an appropriate streetscape presentation along Hume Highway and Muttama road, which includes appropriate signage and landscaped setbacks, and clearly legible pedestrian and vehicles access points in accordance with the DCP.

A construction management plan will be prepared prior to the commencement of works to manage potential environmental impacts of construction activities. It will address the management of public pedestrian access and safety, construction vehicles, soil and water, dust, noise and waste.

3.9 Site Suitability

Section 79C(c) of the EP&A Act requires consideration of the suitability of the site for the proposed development. The primary matters under Section 79C(c) are whether the proposal fits into the locality and if the site attributes are conducive to development. In summary, there are limited constraints on the development of the site and minimal conflicts will occur with surrounding land uses. The site is suitable for the proposed development given its location along the Hume Highway and surrounded by agricultural zoned land as the site had been used for agriculture. In addition, there are no significant physical, ecological, technological or social constraints on the proposed development.

3.10 Public Submissions and the Public Interest

The proposed development of service centre will provide an improved fuel outlet choice for consumers and users of the Hume highway and Muttama Road and would makes use of underutilised land. This service centre will provide not just fuel but a huge range of facilities including convenience store, restaurant, dog park, horse unloading area and the garbage disposal points for caravans and kids play area and outdoor picnic area for the families travelling with the kids. The planning of the development has been done in a way that it will not significantly impact on the environment and is consistent with the applicable planning controls and strategic document for the site. The proposed service centre improves the amenity of the site and is therefore considered to be in the public interest.

4 CONCLUSION

This Statement of Environmental Effects accompanies a Development Application for the proposed redevelopment of a service centre and convenience store at 495 Coolac Road, Coolac. The assessment of environmental effects makes the following findings:

- ✓ The proposed development meets the provisions of relevant planning instruments including the SEPP (Infrastructure), SEPP 55, SEPP 64, Gundagai Shire LEP 2011 and Gundagai DCP and contribution plan;
- ✓ The proposed development is compatible with the character of the locality, streetscape and surrounding land uses, and improves the amenity of the site;
- ✓ The proposed development will not unreasonably impact on the amenity of neighbouring properties in relation to noise, overshadowing or privacy;
- ✓ Proposed vehicle access and parking meets relevant standards;
- ✓ Traffic generated by the operations can be accommodated safely on the road network with minimal impact;
- ✓ The proposed development includes a stormwater concept and erosion and sediment control plan in accordance with the relevant requirements and standards;
- ✓ The proposed development will generate employment during operation and construction;
- ✓ A construction management plan will be prepared prior to commencement of works to manage potential impacts of construction; and
- ✓ The proposed development provides greater choice for consumers of fuel using Hume highway and Muttama road.

Given the above assessment, the proposed development has planning merit and the DA can therefore be supported and granted consent by Council.

I/we declare to the best of my/our knowledge and belief that the particulars stated on this document are correct in every detail and that the information required has been supplied. I/we acknowledge that the development application may be returned to me/us if information is found to be missing or inadequate.

Name: James McMahon

Date: 24/07/17

5 Preliminary Hazzard Analysis:

PHA WORKSHEET 495 COOLAC ROAD COOLAC			
Hazard / potential Accident	Cause	Major Effects	Corrective / Preventive Measures Suggested
Fuel oil spill	<ul style="list-style-type: none"> Oil spill by customers while refilling their tanks Oil spill by the tanker refilling the underground tanks. 	Environmental effect	<ul style="list-style-type: none"> Concrete flooring and concrete Hump Bund around the bowzers area to stop entering that oil into ground or going into storm water. Major Spills will be controlled with the Installation of oil and water separator to stop this to contaminate the soil or ground water. Minor fuel spills will be managed by the staff members on duty using local spill kits to Control, Contain and Clean Up any spillages. The Spill kits will be strategically located next to the fuel bowzers and will be checked weekly and replenished as required.
Underground oil Tanks	Leakage of underground oil tanks	Environmental effect	The tanks would be self-bunded. Moreover, The tank tests would be conducted to control that on regular basis
Underground Fuel Suction Lines		Environmental effect	The Automatic Tank Gauges will be installed on the tanks for loss detection systems to automate wet stock management, environmental control and risk management across the network allowing centralised data management to optimise operational profitability.
Storm Water	Rain water contaminated with oil spills	Environmental effect	All stormwater discharging from the operational forecourt area will be treated through the spill puraceptor.
Waste Management	Operational wastage	Environmental effect	Waste will be collected by a licensed contractor. The waste bin will be located within a structure adjacent to the east side of the convenience store during operational hours. Operationally a contractor is engaged to manage the removal from site of recyclable and putrescible wastes.
Erosion and Sediment	Construction of site	Environmental effect	An erosion and sediment control plan to manage potential impacts of earthworks on soil and water would be prepared and will be implemented during the necessary earthworks on site.
Potential Environmental impacts	Construction of site	Environmental effect	A construction management plan will be prepared by the company handling the construction and development of the site. It will manage potential environmental impacts of construction activities and will address the management of public pedestrian access and safety, construction

			vehicles, soil and water, dust, noise and waste, incorporating the SWMP
Fire	Mishandling of staff or negligence of customers	Life threatening	The site is not in bush fire prone zone but it would be dealing oil or diesel so the staff would be trained and the fire control system would be adopted. Safety measures signs would be posted near bowsers for the awareness of the customers.

6 APPENDICES

Appendix A: Proposed Development plans

Appendix B: Proposed Subdivision plan

Appendix C: Traffic Assessment Report

Appendix D: Under Ground Fuel Tank Details and Specifications

Appendix E: Sewage Management & Control Details & Specifications

Appendix F: Spell Puraceptor Details and Specification

Appendix G: Portable Water Details

Appendix H: Electrical Powerline Design