JOINT REGIONAL PLANNING PANEL (Western Region)

JRPP No	2013WES012
DA Number	13/044
Local Government Area	Wentworth Shire Council
Proposed Development	Extractive Industry-Gravel
Street Address	Rufus River Road Rufus River NSW 2648
Location Address	Lot 1 DP 709627
Applicant/Owner/Lessee	SA Water Corporation/South Australian Minister for Water Resources
Number of Submissions	Nil
Recommendation	Approval with Conditions
Report by	Anderson Group Building Surveyors and Consultants

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Assessment Report and Recommendation

1.0 INTRODUCTION

1.1 Executive Summary

The SA Water Corporation is the proponent for the proposed extraction of gravel. The proposal is for a quarry, known as Salt Flat Gravel Pit located approximately 65 kilometres west of Wentworth at Rufus River.

The site is currently predominately used for a salt interception and evaporation scheme, operated by the proponent. Historically the site has been used for sheep grazing.

The development is an extractive industry as defined under the Wentworth Local Environmental Plan 2011 and is designated development pursuant to Schedule 3 (Clause 19b) of the Environmental Planning and Assessment Regulation 2000 and Clause 18A of the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007. In accordance with Schedule 4A (Clause 8) of the Environmental Planning and Assessment Act 1979 the Western Region Joint Regional Planning Panel (WRJRPP) is the consent authority.

The development application has been assessed in accordance with S79(c) of the *Environmental Planning and Assessment Act 1979* (EPAA) and the relevant state and local environmental planning instruments.

The application was notified for a period of thirty (30) days, concluding on the 25 June 2013. No submissions were received as a result of the public notification. Referrals were sent to external agencies and internal departments for comments.

Based on the Section 79C assessment detailed in this report, the development application is recommended for approval subject to the conditions provided in draft format for the consideration of the WRJRPP.

1.2 Scope of this report

This report has been prepared to firstly provide an overview of the proposal and the statutory assessment procedure used during the processing of the development application. An assessment of the key environmental issues of the development is then provided which culminates in the recommendation to the JRPP.

1.3 The Development

The proposal is for the operation of an extractive Industry – gravel. The following summarizes the proposal:

Total extraction of 60,000m³ of gravel.

Expected lifespan – up to ten (10) years.

Access to the site is via Rufus River Road.

Haulage will be via Internal tracks and Rufus River Road

The gravel is to be used exclusively in the vicinity of the extraction site, therefore there will be no haulage via local roads.

Estimated traffic generation is up to 50 vehicle movements per day (when maintenance is being carried out).

The method of extraction is by dozer and a front end loader which will load directly onto tip truck and

Crushing and screening will occur within the first stage.

End use is for ongoing repair and maintenance work to existing water management bunds, levees and access roads on SA Water maintained assets.

The proposal is otherwise described in written and graphical form in the EIS.

A site map is attached to this report (see Appendix A)

1.4 Site description and surrounding land use and development context

The site of the quarries is approximately 65 kilometres west of Wentworth. The nearest water body is Lake Victoria, 1.9km to the east of the proposed quarry. Access to the site is from Rufus River Road.

The land tenure is stated as freehold in the EIS, a title search revealed that 'Title Reference Not Held' by Land Titles Office. The vegetation is predominately Pearl Bluebush and Grey Bluebush, a full list of the vegetation is in Table 5 in the EIS, listed in Section 4.1 of this report. The nearest residences are workers accommodation approximately 3.5kms away.

LOCALITY PLAN



SOURCE: Map info MGA94 Zone 54.

Disclaimer:

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2.0 STATUTORY DEVELOPMENT ASSESSMENT FRAMEWORK

2.1 Legislation

Environmental Planning and Assessment Act 1979

Pursuant to section 77A of the EP&A Act the proposal is identified as designated development as defined in Schedule 3 of the EP & A Regulations being an extractive industry, that:

- Obtain or process for sale, or reuse, more than 30,000 cubic metres of extractive material per year, or
- Disturbance of a total surface area of more than 2 hectares of land (total area approximately 6.0 hectares).

In accordance with Section 79 and 79A of the EP&A Act the development application was publicly exhibited for a period of thirty (30) days.

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007

Pursuant to Clause 18A the proposal is identified as designated development as it is:

- Extractive industry located in the Western Division, and
- Obtain or process for sale, or reuse more than 40,000 cubic metres in total.

2.2 Chronology of events and public notification and statutory referrals

Basic chronology of events concerning public notification and statutory referral of the DA.

DA lodged	14 May 2013
DA advertised, site signposted	1 June 2013, 25 May 2013
Newspaper notices	01/06/2013;08/06/2013;15/06/2013;
Period of public notification	25 May 2013 to 25 June 2013
Referral agency letters	Office of Environment and Heritage (OEH); Department of Primary Industries (NOW); Roads and Maritime Services (RMS). Environment Protection Authority (EPA)
Responses received	OEH-20/06/2013;RMS-26/06/2013;NOW- 03/07/2013; EPA-24/06/2013.

3.0 SECTION 79C ASSESSMENT

Section 79C (a)(i) Environmental Planning Instruments 3.1 Wentworth Local Environmental Plan 2011

3.1 Wentworth Local Environmentary lan 2011

The site is located within the SP2 Infrastructure (Water Supply System). The development is defined as

'Extractive Industry" and is a development permitted with consent.

extractive industry means:

the winning or removal of extractive materials (otherwise than from a mine) by methods such as excavating, dredging, tunneling or quarrying, including the storing, stockpiling or processing of extractive materials by methods such as recycling, washing, crushing, sawing or separating, but does not include turf farming.

extractive material means:

sand, soil, gravel, rock or similar substances that are not minerals within the meaning of the *Mining Act 1992*.

The following provisions apply:

• Clause 1.2: Aims of plan

• Clause 2.3: Zone objectives and land use table

Clause 2.3 subclause 1: Land use table

Clause 5.10 Heritage conservation
 Clause 7.4 Terrestrial biodiversity

Clause 1.2 Aims of plan This plan aims to make local environmental planning provisions for land in Wentworth in accordance with the relevant standard environmental planning instrument under section 33A of the act.	
(a) To encourage and manage ecologically sustainable development within Wentworth.	The EIS has identified impacts and assessed for its potential threat to the environment and shown how mitigation measures will minimise impacts at the quarry site throughout the six stages of the life of the quarry. Detailed assessment in section four of this report.
(b) To encourage the retention and enhancement of land that supports the primary economic activities within Wentworth for productive agriculture and other primary production purposes	The gravel is to be used for ongoing repair and maintenance work to existing water management bunds, levees and access roads on South Australian Water Corporation (SA Water) maintained assets.
(c) To conserve and protect items of European and Aboriginal cultural heritage	The nearest European heritage items as identified in Schedule 5 of the Wentworth Local Environmental Plan are Noola Homestead and Lake Victoria Homestead approximately 2.6 and 7 kilometres from the quarry. Further assessment regarding Aboriginal Cultural Assessment us in section four of this report.
(d) To conserve and protect area of environmental significance, particularly conservation parks, reserves and the Murray and Darling River systems.	The sites are not identified as areas of environmental significance. Source: Wentworth Local Environmental Plan maps, 2011.

Clause 2.3 Zone objectives and land use tables The consent authority must have regard to the objectives for development in a zone when determining a development application in respect of land within the zone	The development has been assessed in accordance with the relevant SP2 Infrastructure objectives detailed below. The following assessment considers that the development is consistent with the SP2 objectives.
Clause 2.3 subclause 1 Objectives of zone Objectives are as follows:	
To provide for infrastructure and related uses	The EIS states the gravel is to be used for ongoing
	repair and maintenance to existing water management bunds, levees and access roads on South Australian Water Corporation maintained assets
To prevent development that is not compatible with or that may detract from the provision of Infrastructure.	The development provides for the ongoing use of existing infrastructure which provides for future work to be undertaken as required.
Clause 5.10 Heritage conservation	
The objectives of this clause are as follows:	
To conserve the environmental heritage of Wentworth.	Proposal consistent with the objectives detailed below.
To conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views. To conserve archaeological sites	The nearest European heritage item identified in Schedule 5 of the Wentworth Local Environmental Plan 2011 is Lake Victoria Homestead and Noola Homestead approximately 2.5 and 7 respectively from the subject site.
To conserve Aboriginal objects and aboriginal places of heritage significance.	See section four of this report for further detail.
Clause 7.4 Terrestrial biodiversity The objective of this clause is to maintain terrestrial biodiversity by:	Proposal consistent with the objectives detailed below.
Protecting native fauna and flora, and	The EIS details that clearing will be required at the site. Mitigation measures are detailed in section four of this report. Detail of the types of vegetation at this site is in this report in section four.
Protecting the ecological processes necessary for their continued existence, and	The Environmental Management and Rehabilitation Plan (EMRP) details revegetation processes. See section four.
Encouraging the conservation and recovery of native fauna and flora for their habitats. The consent authority must consider if the development: (a) Is likely to have any adverse impact on the condition, ecological value and significance of the fauna and flora on the land, and	Fauna and Flora assessments detailed in the EIS, including seven part test of significance. The EIS has addressed any impacts and mitigations Details are included in this report in section four.

(b) Is likely to have any adverse impact on	The EIS has addressed any impacts and
the importance of the vegetation on the land to the	mitigations. Details are included in this report in
habitat and survival of native fauna, and	section four.
(c) Has any potential to fragment, disturb or	The quarry is located in the Murray Darling
diminish the biodiversity structure, function and	Depressions Bioregion and Darling Depression
composition of the land, and	sub region of the Lower Murray-Darling Catchment.
	Due to the size of this bioregion, being
	8,026,156ha in NSW, covering 10.3 per cent of
	the State (EOH website, 2013) it is considered the
	disturbance will not impact on the biodiversity
	structure, function and composition. The ERMP
	details site rehabilitation.
(d) Is likely to have any adverse impact on	The habitats have been addressed in the seven
the habitat elements providing	part test of significance in the EIS and detailed in
connectivity on the land.	section four of this report.
The consent authority must be satisfied that:	The quarry was assessed by Green
(a) The development is designed, sited and will	Edge Environmental P/L against alternatives and
be managed to avoid any significant adverse	was chosen as the preferred option. Further
environmental impact, or	details in section four of this report.
(b) If that impact cannot be reasonably	Impact to the amenity of the site will be managed
avoided-the development is designed, sited and will	
be managed to minimise that impact, or	EMRP.
(c) If that impact cannot be minimized-the	The EMRP details rehabilitation of the site and is
Development will be manage to mitigate that	detailed in section four of this report.
impact.	

3.2 State Environmental Planning Policies

SEPP (Mining, Petroleum Production and Extractive Industries) 2007

The proposed development is defined as an Extractive Industry and therefore this policy applies to the assessment of the development. The clauses of the SEPP relevant to the assessment of the application are outlined below, with comments provided as to how the development satisfies the requirements.

Clause 12: Compatibility of proposed mine, petroleum or extractive industry with other land uses	
Before determining an application for consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must: (a) consider	
to have a significant impact on the uses that, in the opinion of the consent authority having regard to land use trends, are likely to be the preferred uses	The land is zoned SP2 Infrastructure under Wentworth Local Environmental Plan 2011. The use is permitted in the zone as it meets the objectives.

(iii) any ways in which the development may be incompatible with any of those existing, approved or likely preferred uses, and (b) evaluate and compare the respective public benefits of the development and the land	The development is compatible with the salt interception water evaporation and disposal area in that it will provide for the maintenance of infrastructure ancillary to that use. The EIS has suitably identified the public benefit in that the resource will be used to upgrade and
referred to in paragraph (a) (i)(ii).	maintain infrastructure ancillary to the existing use. The proposed use is permissible with consent.
(c) evaluate any measures proposed by the applicant to avoid or minimise any incompatibility, as referred to in paragraph (a)(iii).	The EIS identified that the quarry/salt interception water evaporation and disposal area uses do not require any measures imposed due to the size of Lot 1 in DP 709627, being 214.1ha.
13 Compatibility of proposed development wit industry	h mining, petroleum production or extractive
This clause applies to an application for consent for development on land that is, immediately before the application is determined:	
(a) In the vicinity of an existing mine, petroleum production facility or extractive industry, or	There is no evidence of extractive industries in the vicinity. Council records indicate that no other extractive industries have operated from Lot 1 DP 709627. The EIS states that the DPI have undertaken an extractive industry licence search to determine other similar operations in the area. The search did not reveal any previous or existing operations in the vicinity.
(b) Identified on a map (being a map that is approved and signed by the Minister and copies of which are deposited in the head office of the Department and publicly available on the Departments website) as being the location of State or regionally significant resources of minerals, petroleum or extractive materials, or	Not identified on any mapping
(c) Identified by an environmental planning instrument as being the location of significant resources of minerals, petroleum or extractive materials.	Not identified by an EPI.
(2) Before determining an application to which this clause applies, the consent authority must (a) consider:	
(i) The existing uses and approved uses of Land in the vicinity of the development, and	Existing uses in the area are predominately dryland grazing. The site is used for the Salt interception water evaporation and disposal area.
(ii) Whether or not the development is likely to have a significant impact on current or future extraction or recovery, and	The development is unlikely to have a significant impact on current or future recovery of resources. The impacts will be mitigated by revegetation and ongoing rehabilitation throughout the life of the extraction.

(iii) Any ways in which the development may be incompatible with any of those existing or approved uses or that current or future extraction or recovery, and	The development is not considered to be Incompatible with previous or existing uses on site and in the vicinity.
	The public benefit is considered satisfied as the proposal is permissible with consent within the zone and the recovery material is to be used for maintenance to infrastructure ancillary to the Salt Interception Water Evaporation and Disposal Area.
applicant to avoid or minimise any incompatibility, as referred to in paragraph (a) (iii)	Nil measures proposed or considered necessary.
Clause 14: Natural resource management and envi	ronmental management
(1) Before granting consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider whether or not the consent should be issued subject to conditions aimed at ensuring that the development is undertaken in an environmentally responsible manner, including conditions to ensure the following:	
avoided, or are minimised to the greatest extent practicable.	The EIS has addressed surface and groundwater. There are no creeks, streams or waterways through the site. Water will be used for dust suppression and comes from an existing SA Water water licence. The nearest groundwater wells are between 200m and 500m from the proposed quarry site. The depth to groundwater at the quarry site (bottom of quarry) will be at least 27.3m.
biodiversity, are avoided, or are minimised to the	Section four of this report details potential impacts on biodiversity. No threatened species have been found in the vicinity.
	The EIS identifies the following mitigation measures for management and operational procedures:
	 All machinery and vehicles to be serviced off-site All plant and equipment equipped with fire extinguishers All vehicles to be regularly serviced, be in good working order and emissions to be kept to manufacturers standards

(2) Without limiting subclause (1) in determining a development application for development for the purposes of mining petroleum measures for emissions. It states that the production or extractive industry, the consent authority must consider an assessment of the greenhouse gas emissions (including downstream emissions) of the development, and must do so having regard to any applicable State or national policies, programs or guidelines concerning greenhouse gas emissions.

The EIS has not addressed the extent of green house gas emissions but has included mitigation alternatives to this proposal would increase the incidence of greenhouse gas emissions because of additional distances to transport gravel.

Clause 15: Resource recovery

- (1) Before granting consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider the efficiency or otherwise of the development in terms of resource recovery.
- The efficiency of the proposal for resource recovery has been assessed and the extraction and process methodology is considered acceptable.
- (2) Before granting consent for the development, the consent authority must consider *whether or not the consent should be issued subject* practice methods are to be adopted and the to conditions aimed at optimizing the efficiency or resource recovery and the reuse or recycling of material.

No additional conditions considered necessary to optimize efficiency, the EIS demonstrates that best extraction and haulage process is considered acceptable.

(3) The consent authority may refuse to grant consent to development if it is not satisfied that the development will be carried out in such a way as to optimize the efficiency of recovery of materials, petroleum or extractive materials and to minimise the creation of waste in association with the extraction, recovery or processing of minerals, petroleum or extractive materials.

Not applicable - proposal satisfies provisions for optimal efficiency of removal of materials.

Clause 16: Transport

- (1) Before granting consent for development for the purposes of mining or extractive industry that involves the transport of materials, the consent authority must consider whether or not the consent should be issued subject to conditions that do any of one or more of the following:
- Access to and from the site is only available by public road. There are no alternative transport options available to this site.
- development is not to be by public road, (b) limit or preclude truck movements, in connection with the development, that occur on roads in residential area or on roads near to schools,

(a) require that some or all of the transport

of materials in connection with the

Limitations are not considered necessary as the haulage route is not via residential areas or near schools.

(c) require the preparation and implementation, in relation to the development, of a code of conduct relating to the transport of materials on public roads.	A Code of Conduct is not required. A road safety audit was completed. Best Practice methods will be implemented.
(2) If the consent authority considers that the development involves the transport of materials on a public road, the consent authority must within 7 days after receiving the development application, provide a copy of the application to:	
(a) Each roads authority for the road, and	Roads and Maritime Services were notified of the application.
(b) The Roads and Traffic Authority (if it is not a roads authority for the road).	
(3) The consent authority:	
(a) Must not determine the application until it has taken into consideration any submissions that it receives in response from any roads authority or the Roads and Traffic Authority within 21 days after they were provided with a copy of the application, and	The response from RMS has been considered and relevant conditions will be applied.
(b) Must provide them with a copy of the determination.	Noted
(4) In circumstances where the consent authority is a roads authority for a public road to which subclause (2) applies, the references in subclauses (2) and (3) to a roads authority for that road do not include the consent authority.	Not applicable
Clause 17: Rehabilitation	
(1) Before granting consent for development for the purposes of mining, petroleum, production	Conditions relating to rehabilitation are applied and the EMRP will form part of the approved plans.
the rehabilitation of land that will be affected by the development.	
(2) In particular, the consent authority must Consider whether conditions of the consent should:	
(a) Require the preparation of a plan that identifies the proposed end use and landform of the land once rehabilitated, or	Annual reporting mechanisms will identify any deficiency in rehabilitated land.
(b) Require waste generated by the development or the rehabilitation to be dealt with appropriately, or	Conditions of consent deal with this.

(c) Require any soil contaminated as a result of the development to be remediated in accordance with relevant guidelines (including guidelines under Section 145C of the Act and the Contaminated Land Management Act 1997) or	Soil contamination is unlikely as addressed in the EIS and assessed, the EMRP will form part of the approval and deals with this matter.
(d) Require steps to be taken to ensure that the state of the land, while being rehabilitated and at the completion of the rehabilitation does not jeopardize public safety.	The site is privately owned, the site will be identified and marked.

SEPP No. 33 (Hazardous and Offensive Development)

Clause 10 states that development identified in clause 3 or 4 which is carried out on land within the Western Division requires the consent of the Council.

State Environmental Planning Policy No. 33 –Hazardous and Offensive development (SEPP33) is an enabling instrument that aims to ensure the merits of a proposal are properly assessed prior to determination (NSW Government Department of Planning 1994).

potentially hazardous industry means a development for the purposes of any industry which, if the development were to operate without employing any measures (including, for example, isolation from existing or likely future development on other land) to reduce or minimise its impact in the locality or on the existing or likely future development on other land, would pose a significant risk in relation to the locality:

- (a) to human health, life or property, or
- (b) to the biophysical environment, and includes a hazardous industry and a hazardous storage establishment.

potentially offensive industry means a development for the purposes of an industry which, if the development were to operate without employing any measures (including, for example, isolation from existing or likely future development on other land) to reduce or minimise its impact in the locality or on the existing or likely future development on other land, would emit a polluting discharge (including for example, noise) in a manner which would have a significant adverse impact in the locality or on the existing or likely future development on other land, and includes an offensive industry and an offensive storage establishment.

The EIS does not identify the development as being either potentially hazardous or offensive as there will be no hazardous substances stored on site. Fuels and lubricants will be transported as required on plant. Best management practices will be followed. The development does not require a protection licence from the EPA.

SEPP No. 55- Remediation of land.

This policy applies to the whole of the State. Clause 7 of the policy details when contamination and remediation are to be considered in determining development applications.

Clause 7: Contamination and remediation to be con	nsidered in determining development application
(a) It has considered whether the land is contaminated, and	
(b) If the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and	The EIS does not assess the likely incidences of contamination over the site. However because of previous uses of the site, being dryland grazing it is not considered the site would be contaminated.
(c) If the land required remediation to be made for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.	No further assessment required under this policy.

Section 79C 1(a) (ii) Draft Environmental Planning Instruments

3.3 Proposed Instrument

There are no draft environmental planning instruments to be considered in this assessment.

Section 79C 1(a) (iii) Draft Environmental Planning Instruments

3.4 Wentworth Shire Development Control Plan

The DCP does not have specific clauses regarding extractive industries.

Clause 5.7.2 Chemical transport Everyone transporting chemicals has a duty of care and a responsibility to carry out tasks in a manner that will not cause harm or injury to themselves, other people, their property, animals and the environment		
Before moving chemicals, information on the transport requirements of individual chemicals included on containers labels or Material Safety Data Sheet should be consulted and followed.	The EIS details that best management practices will be followed when these substances are transferred and in use.	

No further assessment required under this plan.

3.4 1(a)(iv) Environmental Planning and Assessment Regulation 2000

The proposal has been assessed and processed in accordance with the relevant sections of the Environmental Planning and Assessment Regulation 2000.

4.0 SECTION 79C 1 (B) AND (C) – LIKELY IMPACTS OF THE DEVELOPMENT AND SUITABILITY OF THE SITE FOR THE DEVELOPMENT

The EIS addressed the likely impacts of the development on the environment and the measures to mitigate any effects.

The likely impacts and proposed mitigation measures are outlined below.

4.1 Flora and Fauna

Green Edge Environmental P/L prepared the EIS, they have included fauna and flora assessments and identified all impacts.

The EIS has identified the flora species with either state or national conservation significance that have the potential to occur within the study area. Potential habitat exists for three of these species, they have been assessed for significance as per the Threatened Species Assessment Guidelines (DECC, 2007).

Ten (10) threatened species were identified to have potential to occupy the site of the proposal. This was the trigger for the seven part test of significance, summarized below.

Bluebush Daisy (Cratystylis conocephala)	No critical habitat, grows in mallee with areas of Belah on calcareous red soil.
Koonamore daisy (Erodiophyllum elderi)	No critical habitat, grows in flat open areas on sandy calcareous soils. Not recorded on site.
Fleshy minuria (Kippistia suaedifolia)	No critical habitat, grows around saline lakes and depressions, often in association with gypsum.
Bladder senna (Swainsona colutoides)	No critical habitat, grows on sandy flats or skeletal hillside soils in mallee woodland.
Yellow swainsonpea (Swainsona pyrophila)	No critical habitat, grows in mallee scrub on sany or loamy soil, usually found only after fire.
Harrow wattle (Acacia acanthoclada)	No critical habitat at this site. Grows on deep, loose, sandy soil.
Purple-wood wattle (Acacia carneorum)	No critical habitat, occurs on sand ridges or sandy flats or in alluvium along watercourses.
A spear grass (Austrostipa nullanulla)	No critical habitat occurs on crests, slopes and spurs often on the western to north-western side of large lunettes of gypsum
A spear grass (Austrostipa wakoolica)	No critical habitat grows on floodplains of the Murray River tributaries; I open woodland on grey, silty clay or sandy loam soils.
Menindee nightshade (Solanum karsense)	No critical habitat, grows in occasionally flooded depressions with heavy clay soil.

The EIS details the threatened species that have the potential to occupy the site. A seven-part test of significance was undertaken for the following species:

Western Blue-tongued Lizard (*Tiliqua occipitalis*) Rufous Fieldwren (*Calamanthus campestris*) Redthroat (*Pyrrholaemus brunneus*) Little Pied Bat (*Chalinolobus picatus*) The following conclusion was reached:

"...that the potential impacts of the proposal on these threatened species are extremely unlikely and where could be potential impacts they will be very minor. Potential minor impacts resulting from the proposed quarry are not expected to increase the likelihood of a threatened or endangered species becoming extinct"

In determining the above the following matters were considered:

Implementation of the proposed works

Activites to be undertaken in the area following the proposed works

All direct and indirect impacts

The frequency and duration of each known or likely impact/action

The total impact which can be attributed to that action over the entire geographic area affected initially and over time

The sensity of the receiving environment

The degree of confidence with which the impacts of the action are known and understood.

Proposed Mitigation Measures

The management and mitigation methods are as follows:

- Quarrying site to be identified with permanent markers indicating 'no go zones'
- Species profiles to be kept on site of threatened species that have the potential to inhabit the site.
- Environmental Management and Rehabilitation Plan will be followed at all times.
- Ongoing rehabilitation, with annual reporting to assess performance against requirements of the EMRP and any other provisions required by Council.

The Office of Environment and Heritage have reviewed the application and the EIS. See 4.9 of this report

Conditions of consent to ensure negation or minimization of impacts on flora and fauna are to be imposed. Draft conditions are attached to this report in Appendix C

4.2 Traffic, Roads and Access

Traffic generation is anticipated to be a maximum of 50 vehicle movements per day. Whilst there will be some disruption to road users during quarrying activities due to the road being partially closed to allow safe access along existing tracks the end use is to repair and maintain the roads to improve the safety of the roads.

The impact this will have on existing road users will be minimal due to the current use. Best practice methods will be adopted.

Plant and equipment working on the quarry will not be permitted outside the designated quarry area. Bunting will be used to identify the area. Light vehicle parking will be within the footprint of the quarry.

The Roads and Maritime Services have reviewed the application and EIS. RMS have advised that they raise no objection and have submitted a number of conditions to be imposed for the consideration of Council.

4.3 Noise

The source of noise will be from the use of heavy machinery to extract and load gravel and trucks to cart the material to the site. Due to the remoteness of the operation to nearest residence there will be not be a significant detrimental impact on surrounding land users.

No further assessment required regarding noise.

4.4 Hazards

Bushfire

The EIS states that due to the nature of the proposal and the composition of vegetation species at the site, it is highly unlikely that the vegetation would carry a fire. The wide spacing of individual shrubs and the limited amount of dry matter of grass species present (due to the arid climate) would not be conducive to the spread of fire.

Flooding

The site is not identified as being floodprone in the EIS and is not located in Councils mapped area for flood prone land.

Stormwater will be retained on site, due to the porous nature of gravel stormwater infiltrates quickly through the soil profile.

Table drains will be cut into the roads on the downside slope sited as dictated by catchment size and slope. This will direct the run off stormwater to small containment areas ensuring water is directed away from road formation.

Waste management

Any waste generated from the site will be contained and removed from the site for safe disposal.

4.5 Soil, Geological and Erosion

Soil assessment has been undertaken by Green Edge Environmental P/L and forms part of the EIS.

The soil is not known to be contaminated and no new contamination is expected as a result of the quarrying activity due to the best practice methods adopted.

The presence of acid sulphate soils has not been found. The process for the production of acid sulphate soils is for sustained inundation followed by drying. The Wentworth Shire is sited in a predominately semi-arid rangeland zone. Annual rainfall is less than 300mm and evaporation rates are six times higher than rainfall rates. (Wentworth Shire Fact File, French & Maynard, 2004).

Mitigation measures

Supervision of earthworks will be undertaken by a suitably qualified/experiences mines manager as per SA Water policies.

Quarrying and processing will only occur during suitable environmental conditions e.g. not on days of rain, high wind or flooding.

All machinery will be serviced off-site

A spill kit is permanently attached to a portable fuel cart which is on site during hours of operations.

4.6 Air Quality

The EIS has identified that practices associated with quarrying of gravel that could impact on air quality include exhaust emissions from plant and vehicles and windblown dust from the site.

The nearest dwelling (SA Water staff housing) is 3.5kms away and the nearest public road approximately 500m from quarry three (3), therefore impacts will be minimal.

Mitigation measures

- No burning on site
- All plant and equipment will be equipped with fire extinguishers
- All plant and vehicles serviced and be in good working order to ensure emissions within manufacturers standards
- Tarpaulins will be used to cover loads on trucks
- Quarrying and carting will cease if severe wind conditions are present.
- Water cart to be used on haulage days as required.

4.7 Water resources

No creeks, streams or waterways run through the proposed sites. The nearest permanent natural water supply is Lake Victoria, 1.9km to the east of the site.

The EIS has identified that groundwater resources within the area are generally of varying quality. 28 wells have been identified within a 5km radius of the site. The nearest ground water wells are 200m and 500m from the site. These wells have been drilled to 48m with the standing level or depth below surface being 30.9m and 28.3m respectively. The elevations of these wells are not recorded but due to the flat nature of the surrounding landscape it is expected to be similar to the proposed quarry area at 58m (AHD).

The New South Wales Office of Water advised that if any groundwater is encountered during the extraction of the gravel then works must cease and the office be contacted to obtain the appropriate licenses and/or approvals.

NOW's requirements included in the draft conditions.

No impacts on ground water and no impacts anticipated because of surface water. No further assessment required.

4.8 Context, Setting and Visual Impact

The setting is rural and the land is predominately used as a salt interception and evaporation scheme. The proposed quarry is on freehold land owned by the South Australian Minister for Water Resources, approximately 65km west of Wentworth. The vegetation habitat is a combination of bluebushes, including Black Bluebush, Pearl Bluebush and low open shrublands. One weed species was identified at the site i.e.cuccumis myriocarpis, commonly referred to as 'paddy melon'.

The visual impact of the quarry site on the surrounding land is minimal. The site is 500m from the nearest public road. The quarries areas will be rehabilitated throughout the life of the project. Pictures attached in Appendix B show the landscape overview, the dominant flora species typical to the area and gravel and soil layers.

4.9 Aboriginal Cultural and European Heritage

An Aboriginal cultural assessment was undertaken by a local elder of the Dareton Local Aboriginal Lands Council. The assessment found:

- No known Aboriginal artifacts at the site
- The position of the site in relation to the surrounding landscape is unlikely to have provided for intensive Aboriginal occupation

An Aboriginal Heritage Information Management System (AHMIS) database search was undertaken of the proposed quarry and surrounding area. No Aboriginal objects and Aboriginal places were recorded on the proposed development site and four sites over 500m from the proposed quarry.

The application and EIS were assessed by the NSW Office of Environment and Heritage in regard to Aboriginal Cultural Heritage. They advised that they have a number of concerns regarding the content of the Aboriginal Cultural Assessment findings in the EIS and required a detailed Cultural Assessment to be undertaken:

The NSW Office of Environment and Heritage advised the consent authority on the 20 November 2013 that a condition requiring the proponent apply for and have approved an Aboriginal Heritage Impact Permit.

The nearest European Heritage items are:

- Item 74 of Schedule 5 of the Wentworth Local Environmental Plan 2011 (WLEP) is recorded as being the Lake Victoria Homestead – approximately 2.6 kms south of the site.
- Item 75 of Schedule 5 of WLEP is recorded as being the Noola Homestead approximately 7 kms north of the site.

No impacts on either Aboriginal or European heritage have been found in the assessment.

4.10 Social and Economic Impact

An assessment to justify and consider alternatives to the project was undertaken. This site was chosen for the extent of resource available, ownership and location to the end use. The EIS identified that existing staff will operate the quarrying extraction. The gravel is to be used for road maintenance of local roads. It is considered that the proposal would provide a very minor social and economic impact when considering employment generation. The land is not prime crop or pasture land and the site will be rehabilitated in accordance with the rehabilitation plan and the local government requirement.

4.11 Cumulative impacts

The EIS stated cumulative environmental impacts from the proposal will be minimal, each identified impact has been assessed and any potential threats are shown to be mitigated.

The assessment of the development did not identify any cumulative impacts associated with the operation relating to traffic, loss of vegetation, amenity and noise. All have been addressed and will be managed effectively.

4.12 Ecological Sustainable Development

The EIS has not specifically addressed ESD, however it is considered that the siting of this proposal and the haulage to end use maximizes best ESD ideology. The mitigation measures in the EIS and the assessment has shown that ESD is being implemented and is considered satisfactory for this proposal.

5.0 PUBLIC SUBMISSIONS

Section 1 (d) any submissions made in accordance with this Act or the regulations

A chronology of the public notification and referral process is provided in section 2.2. of this report.

No submissions have been received.

Section 1(e) the public interest

The development was advertised and publically exhibited in accordance with Section 79 and 79A of the EP & A Act. No submissions were received as a result of the public notification.

The proposal is permissible within the zone and satisfies the objectives as outlined in section 3.1 of this report.

6.0 CONCLUSION

This proposal is for the operation of a gravel quarry, to be known as "Salt Flat Gravel Pit". The proposed quarry will extract a total of 60000m³ over a total life expectancy of ten (10) years. The operation will be undertaken in six stages over the ten years. It will operate from 7am to 6pm Monday to Sunday (as required). Access and haulage will be via internal tracks and the Rufus River Road. Traffic generation of up to a total of 50 peak daily vehicle movements per day.

The development application is designated and an EIS was submitted to identify all potential impacts. It is considered that the EIS has been prepared in accordance with the Director Generals requirements issued by the Department of Planning and Infrastructure and all relevant legislation for the assessment of the development and the identified impacts are assessed within Sections 3 and 4 of this report.

The development application was processed and advertised in accordance with the provisions of the *Environmental Planning and Assessment Act 1979* and the *Environmental Planning and Assessment Regulations 2000.*

Based on the above Section 79C assessment of the proposal, it is recommended to the Western Region JRPP that the development application for an Extractive Industry-Gravel on Lot 1 DP 709627 Rufus River Road, Rufus River be approved subject to the conditions below:

7.0 DRAFT CONDITIONS

DA13/044 EXTRACTIVE INDUSTRY – GRAVEL QUARRY – LOT 1 DP 709627 RUFUS RIVER ROAD, RUFUS RIVER SCHEDULE 1

1.	The development hereby authorised shall be carried out strictly in accordance with the conditions of this approval and stamped approved documents listed below
	 Environmental Impact Statement prepared by Green Edge Environmental P/L dated 12/05/2013,
	 Environment Management and Rehabilitation Plan prepared by Green Edge Environmental P/L dated 12/03/2013
	NOTE: Where there is inconsistency between the Environmental Impact Statement, the conditions of this approval shall apply.
2.	Approval is for an Extractive Industry being for the quarrying, extraction and processing of gravel.
3.	Without the further consent of the Wentworth Shire Council, in writing, this permit shall lapse and have no force or effect unless the use or development hereby permitted is substantially commenced within 5 years of the date of this permit.
4.	No removal of gravel and fill or disturbance of vegetation outside of the designated work area will be permitted without the written approval of the Wentworth Shire Council.
5.	The proponent must apply for, and have approved, an Aboriginal Heritage Impact Permit, issued by the NSW Office of Environment and Heritage under Part 6 of the National Parks and Wildlife Act 1974, prior to the commencement of works.
6.	A chemical closet or similar self contained toilet facility shall be provided on or in the vicinity of the gravel site for use by workers engaged on activities associated with the quarry.
7.	Operations within the worksite shall be carried out in accordance with the requirements of the NSW Workcover Code of Practice for excavation Work.
8.	The proponent is required to rehabilitate the area in line with the rehabilitation plan, to a standard that returns the land back to its use prior to the use of the land as a gravel quarry.
9.	Monitoring of site rehabilitation activities is to be undertaken by a qualified ecologist to determine the success of the rehabilitation works, and identify any areas where follow up plantings or other work is required. This monitoring is to be undertaken on an annual basis and reported to Council.
10.	Quarrying and ancillary activities must be carried out in a manner that will minimise emissions of dust from the site.
11.	Any driveway to the public road network (Rufus River Road) is to be located and maintained so as to comply with the required Safe Intersection Sight Distance (SISD) in either direction in accordance with the Austroads Publications for the prevailing speed limit. Compliance with this requirement is to be certified by an appropriately qualified person prior to construction of the vehicular access.

12. The driveway intersection is to be constructed as a "Rural Property Access" type treatment in accordance with the Austroads Guide to Road Design and is to be constructed perpendicular (or at an angle of not less than 70 degrees) to the carriageway. The driveway is to be constructed with a minimum width to accommodate the largest size of vehicle likely to access the subject site. 13. Any damage or disturbance to the road reserve (other than the driveway) is to be restored to match surrounding landform in accordance with Council requirements. 14. The access driveway is to be designed and constructed to prevent water from proceeding onto the carriageway. If a culvert is to be located within the clear zone of the carriageway for the prevailing speed zone it is to be constructed with a traversable type headwall. 15. Trucks entering and leaving the site that are carrying loads must be covered at all times, except during loading and unloading. 16. When the quarry is in operation the proponent is to install "Truck Entering" (W5-22C) signs on both the approached to warn motorists of the possible truck movements. 17. Any entry gate to the site shall be located at least 40m from the edge of the carriageway or at a property boundary whichever is the greater. This is to allow for the standing of large vehicles when gates are to be opened. 18. If any groundwater is encountered during the extraction of the gravel then works must cease and the New South Wales Office of Water must be contacted to obtain the appropriate licences and/or approvals.

NOTE:

It is recommended by the New South Wales Office of Water that the SA Water Corporation check the allowed use of water licenses to ensure that the use of the water within the proposed development is permissible.

RESONS FOR CONDITIONS

- a) To ensure compliance with the terms of the Environmental Planning and Assessment Act.
- b) To ensure work is sustainable, and that an appropriate level of provision of amenities and services occurs within the Shire and to occupants of lots.
- c) To minimise environmental impact and impact on public assets, degradation of natural resources, and to enhance amenity.
- d) To provide for a quality environment, safe and efficient movement of people and to ensure public safety and interest.

APPENDIX A



APPENDIX B



