Addendum to the Final Assessment Report

This Addendum has been prepared in response to the Peer Review Report received Thursday 9 November 2023. Accordingly, the Draft Assessment Report has been finalised with any change resulting from the Peer Review Report, being made in red for the ease of identification.

However, there is some concern that some of the comments made by the Peer Reviewer are misleading in that the Peer Reviewer:

1. Has not undertaken a site inspection;
2. Questioned the suitability of and the qualifications of the authors of the Environmental Impact Study (GHD);
3. Seems to have no appreciation for how the content of the Operation Management Plan is to be formed by way of development consent conditions, thus allowing any future changes to be undertaken without having to submit a modified development application; and
4. Has not taken into account the heavy compliance required by the NSW Environmental Protection Agency through the issuing of the Environment Protection Licence, and their extensive monitoring regime undertaken for Waste Landfill Facilities.

The preparation of the EIS was undertaken over a 3 year period, and if the recommendations of the Peer Review Report to make substantive application amendments, undertake renotification and substantive reassessment of the application, this will result in a critical impact on the LPSC community as a whole. Whereby the manner of the proposed development conditions can adequately address the concerns raised and allow the development to progress.

Impact on the Community

Council currently landfills its waste at an aging facility that does not meet current standards. The current landfills are unlined and have poor leachate management control. Should this Development Application be refused or extensive delays be required, Council will have to continue utilising these unlicenced landfills resulting in further degradation to the environment. Further, the existing landfills are near end of life, and are being heavily monitored by the NSW EPA. Should they reach capacity, Council will have no choice but to transport its waste beyond the Liverpool Plains LGA, incurring greater costs and carbon emissions to manage its waste.

The subject land is specifically identified to be used as a landfill site, and is currently being used as a landfill. This Development Application seeks to increase the volumes of waste landfilled to accommodate the generation of all landfill within the Liverpool Plains LGA. The landfill cell design has been undertaken by suitably competent and qualified designers in GHD, and has been reviewed and received well by the NSW Environmental Protection Agency subject to standard conditions. Further, the NSW Environmental Protection Agency have been heavily consulted throughout the last 5 years in regards to these issues, by Council as the Landfill Operator and GHD the applicant on behalf of Council.

Whilst it is to be proposed to landfill substantially more waste, the environmental impact will likely be lower due to the design of the landfill meeting contemporary design standards and becoming a licenced facility. In contrast, the current landfill is unlined and has limited leachate management available, and is currently an unlicenced facility with the potential to create unredeemable significant environmental impact.

It is noted that percentages were used to describe the traffic impact within the Peer Review Report. The use of percentages is misleading as to the impact on road users and adjoining land owners. Whilst there may well be a 1,250% increase in traffic volumes, it is starting from very low base. It is noted the adjoining landowner is a quarry with a licence to extract some 400,000t pa. This would result in approximately 24,000 heavy vehicle movements per year, or 461 per week. The additional traffic from the landfill is negligible compared to the current traffic volumes that access the adjoining site along Merriwa Road which carries some 800 vehicles per day.

Operational Plan

Provision of an Operational Plan at the Development Application stage is considered to be antithetical to the long term operation of the landfill. By incorporating an Operational Management Plan into the Development Application, it would result in any change to this Plan to respond to legislative or technological changes to require a modification to the Development Application. This is inappropriate and delays the capacity for Liverpool Plains Shire Council to respond to changes in legislation and technology in operating landfills. Further, a suitable and complete Operational Management Plan cannot be developed until all conditions of consent are known, and an Environmental Protection Licence is provided by the NSW Environmental Protection Agency. Thus the determination of the Development Application is required to determine the full content of a completed Operational Management Plan.

The Assessing Officer makes the following comment regarding each issue as raised by the Peer Review report.

2. BACKGROUND	**Council Response**
Peer Review Comments: The site is currently used, in part, as a Council operated waste management facility and the requested expansion of the facility has been identified as necessary within Council's Waste Management Strategy. No information in relation to the approval of the current facility on the site has been made available for review and none is provided within the assessment report. It is considered that further information in relation to this would be beneficial to the Panel in its assessment of the application and this should be addressed in any amended application.	**Comments:** The operation of the Willow Tree Waste Management Facility was previously under the management of the former Murrurundi Shire Council. In 2004 part of the former LGA amalgamated with LPSC and part merged with the Upper Hunter Shire Council (UHSC). An outcome of this resulted in the land occupied by the facility being retained by the LPSC LGA. Prior to LPSC management, the information on the history and operation of the Waste Management Facility (WMF) is limited. All records and documents relating to the property were managed by the former Murrurundi Shire Council. During their administration, the LGA had been exposed to flooding and fires at different periods and as a consequence, most of their records were destroyed. Council in the past have requested information / records on properties now managed by LPSC from the UHSC, however, minimal information has been received.
3. ASSESSMENT OF ADEQUACY OF EIS IN RELATION TO SEARS	**Council Response**
Peer Review Comments: The SEARs identify a number of key issues that are required to be addressed in the EIS. The SEARs indicate that the EIS "*must include an assessment of all potential impacts of the proposed development on the existing environment (including cumulative impacts if necessary) and develop appropriate measures to avoid, minimise, mitigate and/or manage these potential impacts*." Each of the key issues is addressed following in Section 3.1 of the report. Further, the SEARs require the EIS to contain an assessment against a number of specified planning	**Comments:** The response to the peer review comments in relation to the key issues required to be addressed have been discussed in 3.1.1 - 3.1.12 of this table under the relevant headings. A discussion on how the specified planning instruments have been addressed are also included in Section 3.2 of the table. In regard to consultation, the applicant has advised that each of the government agencies listed below were consulted during the scoping and EIS phases.

instruments which will be addressed following in Section 3.2 of the report.
 	
Finally, the SEARs require that "*During the preparation of the EIS, you must consult the relevant local, State and Commonwealth government authorities, service providers and community groups, and address any issues they may raise in the EIS. In particular, you should consult with the:*
 	
• *Department of Planning and Environment, specifically the:*
  ○ *Environment, Energy and Science Group*
  ○ *Environment Protection Authority*
• *Transport for NSW Rural Fire Service*
• *Liverpool Plains Shire Council*
• *the surrounding landowners and occupiers that are likely to be impacted by the proposal.*
 	
Details of the consultation carried out and issues raised must be included in the EIS."
 	
The suitability of the consultation is addressed in the following in Section 3.3 of the report.
	– NSW Environmental Protection Authority (NSW EPA);
	– Environment, Energy and Science Group;
	– Transport for NSW (TfNSW);
	– NSW Rural Fire Service (NSW RFS);
	– Liverpool Plains Shire Council; and
	– Surrounding landholders likely to be impacted.
	
	It was also confirmed by the applicant that during the preparation of the EIS, clarification was sought from select agencies to confirm the requirements of the SEARs. Each specialist report was then prepared to respond to the consultation and requirements received from each relevant government agency.
	
	As the project was delivered on behalf of LPSC, the work undertaken in the preparation of the EIS was presented and approved by LPSC, as the applicant, prior to formal DA lodgement.
	
	In addition to the consultation with the relevant government agencies by the applicant, LPSC (as the applicant) also sent out letters to each of the adjoining landowners prior to the preparation of the EIS with no issues being raised from this consultation.
	
	This is addressed on Page 46 in the Final Assessment Report.

3.1 Key Issues	**Council Response**
Peer Review Comments: **3.1.1 Strategic and Statutory Context** The following are required to be addressed in the EIS: - *a detailed justification for the proposal and suitability of the site for the development* - *a demonstration that the proposal is consistent with all relevant planning strategies, environmental planning instruments, development control plans (DCPs), or justification for any inconsistencies* - *a list of any approvals that must be obtained under any other Act or law before the development may lawfully be carried out.* - *a description of how the proposed expansion integrates with existing on-site operations* - *a description of any amendments to and/ or additional licence(s) or approval(s) required to carry out the proposed development.*	**Comments:** Page 16 of the report discusses the LPSCs Waste Management Strategy and confirms the need for the expansion of the facility, which was obtained from the EIS. The site is zoned *SP1 Special Activities,* specifically for this this type of activity and currently occupied by an operational Waste Management Facility. This has been addressed in the report. The Final Assessment Report has confirmed the applicant has adequately addressed this information, which is detailed throughout the report (refer mainly Section 4). In relation to the volume of waste, the SEARs were applied for and obtained on the basis of 9,000 tpa. As such any approval will be limited to 9,000 tpa. Accordingly, this will be conditioned. Types of waste for the development are an operational aspect of the development and will be conditioned and strictly monitored by the requirements of the General Terms of Approval issued by the NSW EPA.

The EIS provides inconsistent details of the development (with discrepancies between the main document and appendices) in relation to: • Volume of waste • Types of waste • Hours of operation	Hours of operation are detailed in the proposed conditions (see Conditions L5; L5.1 – L5.3 of the Final Assessment Report).
3.1.2 Waste Management The following are required to be addressed in the EIS: - *details of the type, quantity and classification of waste to be received at the site* - *details of any resource outputs and any additional processes for residual waste* - *details of waste handling including, transport, identification, receipt, stockpiling and quality control* - *the measures that would be implemented to ensure that the proposed development is consistent with the aims, objectives and guidelines in the NSW Waste Avoidance and Sustainable Materials Strategy 2041.* The EIS does not specify in any detail the waste stream intended to be serviced by the facility in relation to type, quantity and classification and where quantities are provided in the EIS they are inconsistent with those utilised in some of the appendices. No details are provided of waste handling, including transport, identification, receipt, stockpiling and quality control. No details are provided of areas for ,or quantities of, stockpiles for cover material that will need to be transported to the site. No details are provided of any additional processes for residual waste. The EIS does not identify measures for consistency with the aims, objectives and guidelines of the NSW Waste Avoidance and Sustainable Materials Strategy 2041, providing the following comment "*The project is considered to directly align with the strategy as it responds to the need for a network of waste and resource recovery infrastructure to meet the challenge of developing a circular economy*" which does not establish consistency.	**Comments:** It is proposed that the following mitigation measures be listed as a proposed condition of development consent:- ***Condition E7 Waste Management*** – Final Assessment Report Pg. 88 *Prior to the commencement of operation, a Landfill Management Plan (LMP) is to be prepared to incorporate operational waste handling and management.* The LMP will ensure that waste management conforms to the requirements of relevant guidance documents and adheres to the waste management hierarchy principles contained in the *Waste Avoidance and Resource Recovery Act 2001.* The LMP must include, but not be limited to, the following: • Expected types, quantities and classifications of waste received on-site; • Waste receival, screening, handling, management procedures; • Procedures for identifying and managing unacceptable and non-conforming waste delivery • Waste classification procedures and details of how all waste streams would be recycled or disposal of in accordance with the Waste Classification Guidelines Part 1: Classifying waste (NSW EPA, 2014) and the waste provisions contained within the POEO Act, Waste Regulation and other relevant legislative and policies; and • Record keeping and reporting requirements. The imposition of this condition would ensure that the intent and objectives of the *NSW Waste Avoidance and Sustainable Materials Strategy 2041* are satisfied. Further, it should be noted that the GTA by NSW EPA have required that a Waste Classification Report which will identify types, nature & volume of waste, must be prepared and provide to the EPA prior to the Issue of the EPL and the commencement of any operations – proposed condition L3.1 Waste – Pg. 61 Final Assessment Report.

Some of the identified mitigation measures appear generic and do not appear to relate to the proposed facility such as: "*Each load presented at the site is to be inspected and accepted/rejected. All waste is to be sorted, treated and recycled with unwanted waste disposed of to a licensed landfill."* No detail is provided of what waste will be accepted, what will be treated, what will be recycled and what will be disposed of and to where. *"The unloading, sorting and recycling of waste will occur within covered sheds to minimise dust and noise and reduce the potential for wastewater runoff. Unloading of vehicles and processing will occur in covered sheds, minimising the spread of waste*". No covered sheds are proposed according to the plans which are, in part, conceptual in nature.	
3.1.3 Landfill Design and Rehabilitation The following are required to be addressed in the EIS: - *details of the consistency of the proposal with the Environmental Guidelines: Solid Waste Landfills, second edition (EPA, 2016)* - *description of the proposed cell design and integrity* - *details of proposed leachate and gas management and monitoring* - *consideration of proposed water quality control and monitoring* - *description and justification of proposed daily waste covering* - *details of the proposed final capping, closure measures and rehabilitation of the site, including its final landuse.* The EIS does not specify methodology for leachate and gas management and monitoring. The management plan indicates "*Landfill gas management will be addressed during operation of the cell and not specifically as part of the concept design of the cell which is industry practice*." This is inadequate and again is indicative that the detailed information provided addresses the construction of the landfill cells and not the other elements of the proposal or the ongoing operation of the facility. A description and justification of daily waste covering has not been provided. Details of the rehabilitation of the site and its final land use not adequately addressed within the EIS.	**Comments:** ***During Operation*** To ensure compliance during the operation of the project, the matters as listed have been addressed by proposed conditions of development consent listed within the General Terms of Approval (GTA)from the NSW EPA who will be undertaking the monitoring.. Specific details are listed in the proposed GTA conditions by the NSW EPA. Refer to the proposed conditions listed in the report:- • *2 Discharges to Air and Water Applications to Land – P: P1.1-P1.2 (NSW EPA)*. - Pg. 60 Final Assessment Report • *4 Operating conditions* - Pg.65 Final Assessment Report Other conditions listed in the report from NSW EPA also cover these matters. ***Post-Operational*** Proposed conditions provided to address the rehabilitation of the subject site have been drafted to address this matter. Refer to the proposed conditions listed in the report:- • *A7 Decommissioning* – Pg. 58 Final Assessment Report • *F1 Decommission Management Plan* – Pg. 89 Final Assessment Report

No consideration has been given to staged rehabilitation.	
3.1.4 Hazard and Risk The following are required to be addressed in the EIS: - *a preliminary risk screening completed in accordance with State Environmental Planning Policy No. 33 – Hazardous and Offensive Development and Applying SEPP 33 (DoP, 2011), with a clear indication of class, quantity and location of all dangerous goods and hazardous materials associated with the development. Should preliminary screening indicate that the project is "potentially hazardous" a Preliminary Hazard Analysis (PHA) must be prepared in accordance with Hazardous Industry Planning Advisory Paper No. 6 - Guidelines for Hazard Analysis (DoP, 2011) and Multi-Level Risk Assessment (DoP, 2011).* - *an assessment of the risk of bushfire, including addressing the requirements of Planning for Bush Fire Protection 2019 (RFS). Any proposed Asset Protection Zones must not adversely affect environmental objectives (e.g. buffers)* - *any geotechnical limitations that may occur on the site and if necessary, appropriate design considerations to address this* See comments under Section 3.2 of the report in relation to SEPP (Resilience and Hazards). A satisfactory preliminary risk screening has not been provided. The EIS does not detail the size and volume of any stockpiles and their arrangements to minimise fire spread and facilitate emergency vehicle access. Rather, the EIS suggests "*The fire management system would be integrated into the design and management of the WMF with an emphasis on fire prevention*." No details are provided.	**Comments:** GHD employ qualified engineers and are considered to be suitably qualified to provide consultancy advice for hazard and risk management. The proposal was not considered to be 'potentially hazardous or offensive' by GHD as part of a preliminary risk screening assessment and hazard identification study. The EIS also confirms on Pg. 117 of the report the provisions of *Clause 3.10 Development to which Part 3 applies* of R&H SEPP do not apply. In regard to the stockpiles, this is considered an operational matter which will be addressed within the Operation Management Plan. The requirements for this are detailed in the proposed GTA conditions by the NSW EPA and Council. Refer to the proposed conditions listed in the report:- • *4 Operating Conditions* (O1 – O6.9)– Pg. 65- 68 Final Assessment Report • *E3 Emergency Management Plan* – Pg. 88 Final Assessment Report
3.1.5 Fire and Incident Management The following are required to be addressed in the EIS: - *technical information on the environmental protection equipment to be installed on the premises such as air, water and noise controls, spill clean-up equipment, fire management (including the location of fire hydrants and*	**Comments:** This is to be considered an operational matter that will be addressed within the Operation Management Plan, which can only occur after approval has been issued. A draft outline of the proposed Operational Management Plan has been provided by the applicant; however, the majority of the content is formed by the development consent conditions.

water flow rates at the hydrants) and containment measures - *details of the size and volume of any stockpiles and their arrangements to minimise fire spread and facilitate emergency vehicle access* The EIS does not provide technical information on environmental protection equipment to be installed and containment measures. It does not detail the size and volume of any stockpiles and their arrangements to minimise fire spread and facilitate emergency vehicle access. The assessment suggests "*The fire management system would be integrated into the design and management of the WMF with an emphasis on fire prevention*." No details are provided. Again the report appears to be for a concept rather than an operational facility.	This has been covered within the proposed conditions of consent in the Final Assessment Report (e.g. condition E3 Emergency Management Plan). Further, mitigation / management is addressed in the General Terms of Approval and the licencing provided with the EPL from the EPA (e.g condition *O5 Emergency Response* Final Assessment Report *).* It should be noted that a landuse approval (Development Consent) forms the content of any Operational Management Plan, but further, by having its requirement as a condition of consent, it allows the flexibility for the Operation Management Plan to be modified as per relevant need, legislation changes etc through the EPL rather than having to modify the existing development consent.
3.1.6 Air Quality and Odour The following are required to be addressed in the EIS: - *a quantitative assessment of the potential air quality, dust and odour impacts of the development, during both construction and operation, in accordance with relevant Environment Protection Authority guidelines* - *a description and appraisal of air quality and odour impact mitigation and monitoring measures, in line with International Best Practice.* The assessment is based on "*an initial throughput of 4,000 t/yr increasing up to 9,000 t/yr of landfill"* , and is based on the site receiving the following waste: - *Landfill waste from LPSC 'red bin' garbage collection* - *'Clean fill' (such as soil, sand, gravel, bricks or other excavated or hard material)* - *Solid or liquid organic materials* This is inconsistent with the EIS which indicates the proposal is for *4,400 tonnes per annum (tpa) up to 11,700 tpa* and waste is to include a *resource recovery area including a community recycling centre, and drop-off locations for domestic customers for tyres, concrete, steel, green waste, bulky wastes, etc and small vehicles transfer station for domestic customers, for transfer by the site operator or collections contractor to the landfill cells*	**Comments:** The EIS contained several discrepancies regarding the overall capacity of the expanded WMF as a result of some optioneering of the design during the final stages of the concept design / EIS. **However, the SEARs were applied for and obtained on the basis of 9,000 tpa. As such any approval should be limited to 9,000 tpa.** In regard to the types of waste, the following information has been sourced from the Council's Waste Management Strategy (MRA, 2018). In 2013/14, Council received approximately 5,000 tonnes of waste through its rural landfills, major landfills and transfer stations, of which 1,800 tonnes was recycled and the remainder sent to landfill for disposal. Waste generation has been projected for Council using: - The rate of population growth in Council. - The rate of growth of consumption in the Extended Regulated Area 4. These projections estimate that waste generated in the LGA in Financial Year 2022 (1st July 2021 – 30 June 2022) was over 7,000 tonnes per annum and will reach 9,427 tonnes per annum by FY27. MRA (2018) noted limitations to this estimate, the data for FY12 to FY14, which comprises the basis of the projections: - Was collected by visual inspection, incurring a large margin of error.

The WMF is expected to receive up to 96 tonnes of landfill waste per day.

The discrepancy between the documents is 2,700t or 30% which is a large margin for error and is likely to affect the odour and dust assessments. Further, concern is raised that there is insufficient information on the quantity of different types of waste to allow an accurate assessment of air quality and odour.

Further, concern is raised that the assessment is for a concept approval and not for an operational approval as per the following comments in the report:

- *"The project is at concept stage and details of the types and volumes of waste are currently unknown "* – pg 3 of air quality and odour report
- *"The need for emergency leachate disposal measures (such as irrigation and off-site tankering during or immediately after high rainfall events) would be assessed as part of the subsequent phases of the project, if deemed feasible"* – pg 5 of air quality and odour report
- *"Landfill gas management would be addressed during operation of the cell and not specifically as part of the concept design of the cell which is industry practice."* - pg 5 of air quality and odour report
- *"As the project is at concept stage, no plan is available of the vehicle access, parking and circulation areas."* pg 5 of air quality and odour report

The discrepancies in the information need to be corrected and a comprehensive assessment prepared of the operation of the facility.

- Was measured at the three major landfills, and therefore is exclusive of the four rural landfills.

It was also noted that the impact of the NSW Government's Container Deposit Scheme (CDS) for drink containers was not included in this projection as the impacts are difficult to predict and are likely to lie within the margin of error for this analysis.

Figure 1 shows the forecast provided by MRA and Table 1 summarises the extrapolated forecasts used to assess the estimated life of the landfill extension and other associated items (such as traffic volumes and resource recovery requirements.

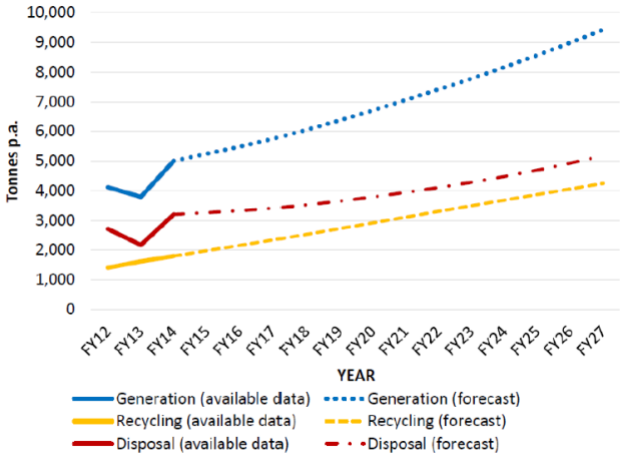

Figure 1 *Council waste generation, recycling and disposal forecast (FY12-FY27) (MRA, 2018)*

Table 1 *Extrapolated waste generation, recycling and disposal forecast*

Financial year	Landfill disposal (tpa)	Recycling (tpa)	Total waste generation (tpa)	Cumulative landfill disposal (t)
FY23	4,400	3,300	7,600	4,400
FY24	4,500	3,500	8,000	8,900
FY25	4,700	3,700	8,400	13,600
FY26	4,900	4,000	8,800	18,500
FY27	5,000	4,300	9,400	23,500
FY28	5,200	4,500	9,700	28,800
FY29	5,400	4,800	10,200	34,200
FY30	5,600	5,200	10,800	39,800
FY31	5,800	5,500	11,300	45,600
FY32	6,000	5,900	11,900	51,600
FY33	6,200	6,300	12,500	57,800
FY34	6,400	6,700	13,200	64,300
FY35	6,700	7,200	13,800	70,900
FY36	6,900	7,700	14,600	77,800
FY37	7,200	8,200	15,300	85,000
FY38	7,400	8,700	16,100	92,400
FY39	7,700	9,300	17,000	100,100
FY40	7,900	10,000	17,900	108,000
FY41	8,200	10,600	18,900	116,300
FY42	8,500	11,400	19,900	124,800
FY43	8,800	12,100	21,000	133,600
FY44	9,100	13,000	22,100	142,800
FY45	9,500	13,800	23,300	152,200
FY46	9,800	14,800	24,600	162,000
FY47	10,200	15,800	25,900	172,200
FY48	10,500	16,900	27,400	182,700
FY49	10,900	18,000	28,900	193,600
FY50	11,300	19,200	30,500	204,900
FY51	11,700	20,500	32,200	216,600

3.1.7 Noise and Vibration The following are required to be addressed in the EIS: - *a description of all potential noise and vibration sources during construction and operation, including noise associated with any blasting, machinery and plant movements, and road traffic noise* - *a noise and vibration assessment in accordance with the relevant Environment Protection Authority guidelines* - *a description and appraisal of noise and vibration mitigation and monitoring measures.* The section entitled "Key Features of the Project" indicates "*The project is at concept stage and details of the types and volumes of waste are currently unknown."* Accordingly, the report is not adequate as it does not assess the details of the operation of the expanded facility. The assessment is based on specified onsite vehicles and vehicles entering and leaving the site which are inconsistent with the traffic assessment figures. The noise assessment indicates 2 waste truck movements per day (1 truck entering and exiting) however the traffic assessment is based on 27 tucks per week. Clarification of the maximum vehicle movements is required and the assessment is to be updated to reflect the clarified figure. The discrepancies in the information need to be corrected and a comprehensive assessment prepared of the operation of the facility.	**Comments:** The applicant has reviewed the information in the Noise and Vibration report and noise modelling regarding traffic numbers. Whilst the daily numbers stated in the report are not consistent with the traffic report, the assessment is based on a worst case 1 hour where 1 truck is entering and exiting the site (2 overall movements). Given there are 27 trucks over the week period, this would be considered conservative. In addition, it is noted that the contribution from onsite truck movements is negligible compared to the other onsite activities. That is, an increase in onsite truck movements would not increase the overall noise emission to the surrounding sensitive receivers. Regarding off-site traffic, an assumption of one truck movement per hour has been similarly assessed. Given there are 27 trucks over the week period, this would also be considered conservative. The overall increase would be negligible compared to the existing traffic on the road.
3.1.8 Soil and Water The following are required to be addressed in the EIS: - *a description of local soils, topography, drainage and landscapes* - *details of water usage for the proposal including existing and proposed water licencing requirements in accordance with the Water Act 1912 and/or the Water Management Act 2000* - *an assessment of potential impacts on floodplain and stormwater management and any impact to flooding in the catchment* - *details of sediment and erosion controls* - *a detailed site water balance*	**Comments:** In relation to the comment regarding 'concept application', the information provided in the EIS and plans for the purposes of assessment against the provisions of the EP&A Act 1979 is adequate. The EIS, plans and specialist studies satisfactorily demonstrate the intent of the development and provide suitable mitigation and management strategies. Furthermore, the NSW EPA have provided GTA approval, subject to their conditions and further requirements being met prior to the issue of the Environmental Protection Licence (EPL). All these matters identified are addressed as part of the EPL being issued. All operational matters of the design are appropriately dealt with by the proposed conditions issued by NSW EPA and Council.

- *an assessment of potential impacts on the quality and quantity of surface and groundwater resources* - *details of the proposed stormwater and wastewater management systems (including sewage), water monitoring program and other measures to mitigate surface and groundwater impacts* - *characterisation of the nature and extent of any contamination on the site and surrounding area* - *a description and appraisal of impact mitigation and monitoring measures.* The EIS response to groundwater management is one that again references a concept type application as follows: "*The need for groundwater management measures will be assessed as part of the subsequent phases of the project*." This level of information is inadequate and inconsistent with the SEARs. The Water Impact Assessment indicates "*Increasing the Leachate Pond should be considered during the detailed design phase to mitigate the occurrence of uncontrolled discharge* ." This level of information is inadequate and inconsistent with the SEARs. The Water Impact Assessment indicates *"Wastewater collected from site facilities such as toilets, lunchroom and washing, and the laboratory are to be directed to a site Advanced Wastewater Treatment System (AWTS) for on-site treatment. The clarified effluent would be irrigated for disposal to the tipping area for dust suppression and vegetation establishment as required. Alternatively, clarified effluent may be directed to the Leachate Pond for evaporation."* This level of information is inadequate and inconsistent with the SEARs. The water management system currently proposed is a concept design drawing which is inadequate for approval of the operation of the facility. As discussed previously, contamination has not been adequately addressed. A comprehensive assessment is required to be prepared for the operation of the facility.	GHD are qualified to provide consultancy advice regarding contaminated land and offer a number of services in relation to assessments. In the EIS GHD state *"…The site has not been listed as being contaminated by the EPA. It is possible however that leachate and other contaminants from the existing unlined landfill may have resulted in contamination at the site. Results of geotechnical and groundwater quality investigations undertaken in and around the site however have not identified any such contamination."* The EIS (Pg, 117) also confirmed that a PHA was not deemed required as per the preliminary risk screening assessment carried out.

3.1.9 Traffic and Transport The following are required to be addressed in the EIS: - *details of road transport routes and access to the site* - *road traffic predictions for the development during construction and operation* - *swept path diagrams depicting vehicles entering, exiting and manoeuvring throughout the site* - *an assessment of impacts to the safety and function of the road network and the details of any road upgrades required for the development.* - *a traffic impact assessment (TIA) in accordance with Transport for NSW's* This is generally assessed as acceptable and as appropriately responding to the SEARS, however the significant increase in commercial traffic (1250%) is not consistent with the identified increase in waste collection at the site (166%) notwithstanding it is likely the commercial deliveries (presumed to be garbage collection) would appear to be the major source of waste. The document should be amended to clarify the discrepancy and confirm the conclusions are not altered by the clarification.	**Comments:** The percentages used to describe the traffic impact within the peer review are concerning. The use of percentages is misleading as to the impact on road users and adjoining owners. Whilst there may well be a 1,250% increase in traffic volumes, it is starting from a very low base. It is noted the adjoining landowner is a quarry with a licence to extract approximately 400,000tpa. This would result in approximately 24,000 heavy vehicle movements per year, or 461/week. The additional traffic from the landfill is negligible compared to the current traffic volumes accessing the adjoining site along Merriwa Road, which carries approximately 800 vehicles per day.
3.1.10 Biodiversity The following are required to be addressed in the EIS: - *accurate predictions of any vegetation clearing on site or for any road upgrades* - *a detailed assessment of the potential impacts on any threatened species, populations, endangered ecological communities or their habitats, groundwater dependent ecosystems and any potential for offset requirements in accordance with the current Environment, Energy and Science Group legislation and guidelines* - *details of weed management during construction and operation in accordance with existing State, regional or local weed management plans or strategies* - *a detailed description of the measures to avoid, minimise, mitigate and/or offset biodiversity impacts.*	**Comments:** It is acknowledged that there are no statutory requirements for offset rehabilitation. However, it is considered good practice to replace any disturbed vegetation. This was a recommendation of the Biodiversity Report and the reason why a proposed condition was included in the Final Assessment Report to reflect it. Refer Condition *A2 Report Recommendations* - Final Assessment Report Pg. 56 The site does not have an approved Koala Plan of Management (KPoM) and it is identified that the area **is unlikely to have core Koala habitat as per the Department of Planning NSW SEED - Koala Likelihood Map.** The Final Assessment Report reflects the accuracy of the Biodiversity Assessment Report which was prepared by a suitably qualified consultant, and the NSW Department of Planning SEED Mapping has been disregarded, as it

This is assessed as acceptable and appropriately responding to SEARS with the exception of providing sufficient information of offset rehabilitation (though it is noted one is proposed but not required as it does not meet the threshold to require one). Given there is no statutory requirement for the offset, a condition in relation to the rehabilitation would be acceptable. It is noted that the EIS and Council assessment report inaccurately state the site does not support any koala feed trees listed in Scheduled 3 of the SEPP. Notwithstanding the inaccuracy the Biodiversity Report appropriately identifies the trees and addresses that their loss is acceptable.	showed no koala habitat within the area or feed trees onsite.
3.1.11 Visual The following are required to be addressed in the EIS: - *including an impact assessment at private receptors and public vantage points.* The visual assessment is adequate.	**Comments:** No response required.
3.1.12 Heritage The following are required to be addressed in the EIS: - *including Aboriginal and non-Aboriginal cultural heritage.* This is assessed as being adequately addressed by the EIS and as having no significant or detrimental impact.	**Comments:** No response required.
3.2 Planning Instruments	**Council Response**
Peer Review Comments: The SEARs require the EIS to undertake an assessment of the application against the relevant environmental planning instruments, including but not limited to the following: • State Environmental Planning Policy (Infrastructure) 2007 • State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 • State Environmental Planning Policy (Koala Habitat Protection) 2020	**Comments:** In relation to Clause 2.157 of the SEPP (Transport and Infrastructure), the Final Assessment Report confirms Liverpool Plains Shire Council (LPSC) developed a 10-year Waste Management Strategy for the ongoing management of waste within the region. The Waste Management Strategy (WMS 2018), prepared by LPSC, was formed under the NSW Waste Avoidance and resource Recovery Act 2001. The vision for the strategy was to maintain and improve on a reliable, independent and sustainable waste management system for LPSC's residents. Specifically, four themes were envisioned:

- State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
- State Environmental Planning Policy No. 55 – Remediation of Land
- Liverpool Plains Local Environmental Plan 2011
- relevant development control plans and section 7.11 plans

The EIS generally contains an appropriate assessment of the application in relation to the above and other relevant environmental planning instruments, with the following exceptions:

1. SEPP (Transport and Infrastructure)

The EIS does not contain an appropriate assessment against Clause 2.157 of SEPP (Transport and Infrastructure) in relation to the following:

> *(a) whether there is a suitable level of recovery of waste, such as by using alternative waste treatment or the composting of food and garden waste, so that the amount of waste is minimised before it is placed in the landfill, and*

The EIS indicates that the project is at "concept stage" and the types of waste to be processed are unknown. It is identified that the facility may possibly contain stockpile areas for processing and storage of scrap metal, tyres, construction and demolition waste and food and organic waste. This level of information is inadequate for assessment of compliance with Clause 2.157 and is inconsistent with the requirements of the SEARs.

> *(b) whether the development—*
> *(i) adopts best practice landfill design and operation, and*
> *(ii) reduces the long term impacts of the disposal of waste, such as greenhouse gas emissions or the offsite impact of odours, by maximising landfill gas capture and energy recovery, and*

The assessment indicates that the project is at "concept stage" and that "*Detailed design of the project would be undertaken in accordance with the 2016 Landfill Guidelines (NSW EPA, 2016)".* In the absence of this information the application cannot be assessed as being compliant with Clause 2.157 and is inconsistent with the requirements of the SEARs.

maintaining the LGA's independence and self-sufficiency, optimising waste management costs, improving amenity and environmental management, and increasing the accessibility of waste facilities for residents. This was addressed in the applicant's submission of the development in the EIS and accompanying documents.

In relation to the comment regarding 'concept stage', the information provided in the EIS for the purposes of assessment against the provisions of the EP&A Act 1979 **is considered adequate**. The EIS, plans and specialist studies satisfactorily demonstrate the intent of the development and provide suitable mitigation and management strategies. Furthermore, the NSW EPA have provided GTA approval, subject to their conditions and further requirements being met prior to the issue of the Environmental Protection Licence (EPL). All these matters identified are addressed as part of the EPL being issued.

The final construction plans, operational environmental management plan and any other management plans for the development will be provided to NSW EPA/Council/Principal Certifier by the proponent prior to commencement of construction and operation, addressing these matters. It is considered the construction/operation of the project will not commence until the above mentioned are provided and to the satisfaction of the NSW EPA/Principal Certifier.

GHD employ qualified engineers to provide consultancy advice for waste, hazard and risk management. The proposal was not considered to be 'potentially hazardous or offensive' by GHD as part of a preliminary risk screening assessment and hazard identification study. The EIS also states (Pg. 117 of the EIS) that the provisions of *Clause 3.10 Development to which Part 3 applies* of R&H SEPP **does not apply.**

As confirmed, the site is a continuation of an existing use and is not a proposed new use. The expansion of the WMF is within the property boundaries of existing area of land currently utilised for waste disposal and the land is zoned SP1, specifically for that purpose. One of the zones objectives identifies that land in this zone is "*to facilitate development that is in keeping with the special characteristics of the site or its existing or intended special use…".* The proposal achieves this objective. Mitigation and management measures are provided in the EIS on Pgs. 119-121 for the construction and operational phases of the project.

GHD are suitably qualified to provide consultancy advice regarding contaminated land and offer a number of services. The EIS confirmed that a PHA was not deemed required as per the preliminary risk screening assessment carried out. Details of the methodology of the assessment

2. SEPP (Resilience and Hazards) – formerly SEPP 33 and SEPP 55 Chapter 3 addresses hazardous and offensive development and a waste management facility is a potentially hazardous and offensive industry. Therefore, pursuant to Section 3.11, a preliminary hazard analysis in accordance with the current circulars or guidelines is to be submitted with the application. Such assessment should be prepared by suitably qualified engineers with expertise in landfill and be based on comprehensive information provided by the applicant in relation to the operation of the facility, waste received (including quantities of different types of waste) and processes occurring onsite. None of this information appears available. The risk assessment, if carried out by such an expert, has not been attached to the EIS. The assessment contained within the EIS is vague in nature and, according to page 116 of the EIS is for the construction of an asphalt plant, not the proposed development. The full assessment prepared by a suitably qualified and experienced person is required to be attached to the EIS. Whilst the same land use is to continue on the site, the EIS fails to consider whether the portion of the site to be used in relation to the expansion of the use is currently contaminated and whether any additional mitigation measures are required to address that contamination. Chapter 4 addresses remediation of land. Whilst the EIS indicates a search of the EPA's records does not indicate the site is identified as a contaminated site, no Phase I assessment has been carried out in relation to the previous uses of the site (or none that has been provided). The site is known to have been used as a quarry and a quarry continues to be operational on land adjacent to the proposed development. As a quarry has the potential to contaminate land, it is considered a Phase I report, as a minimum, is require to satisfactorily address the requirements of the SEPP.	are identified in the EIS on Pg. 116, which considered the approach required by the R&H SEPP. Additionally, the EIS provides details of an assessment undertaken on the typical hazards and risks associated with the WMF (e.g. diesel fuel, chemicals, general oils and lubricants etc. - Pg. 117).
3.3 Consultation	
Peer Review Comments: The consultation section of the EIS indicates consultation with community, Council and	**Comments:** As previously confirmed, each of the government agencies listed below were consulted during the scoping and EIS phases.

Government authorities will be ongoing. No indication is provided that any of the identified stakeholders have been consulted during the preparation of the EIS. Accordingly, the EIS is not consistent with the requirements of the SEARs in relation to consultation.	– NSW Environmental Protection Authority (NSW EPA); – Environment, Energy and Science Group; – Transport for NSW (TfNSW); – NSW Rural Fire Service (NSW RFS); – Liverpool Plains Shire Council; and – Surrounding landholders likely to be impacted. The applicant has advised that during the preparation of the EIS clarification was sought from select agencies to confirm the requirements of the SEARs. Each specialist report was then prepared to respond to the consultation and requirements received from each relevant government agency. As the project was delivered on behalf of LPSC, the work in preparing the EIS was presented and approved by LPSC as the applicant prior to formal DA lodgement. In addition to the consultation with the relevant government agencies, LPSC also sent out letters to each of the adjoining landowners prior to the preparation of the EIS and no issues were raised from this consultation.
4. ADEQUACY OF PLANS	
Peer Review Comments: The extent of information provided on the plans is comprehensively inadequate. The plans appear, in part, to be schematic or 'concept' in nature rather than detailed and provide insufficient information to allow assessment of the application, with minimal dimensioning and no information on materials, heights, etc of storage facilities, bunding or management of water onsite. No information is provided of sheds which are referred to in other documentation as mitigation measures. No information is provided on the proposed finish and gradient of the realigned roads within the site, with vague comments such as "*formalise existing access track*" and "*formalise and realign existing access track*". In the absence of further information, the suitability of the construction and gradient of the roads to safely cater for garbage trucks cannot be assessed. In the absence of this information, air quality (ie dust) cannot be adequately assessed. Some plans include options rather than a clear proposal such as: • Cell Arrangement Plan indicates *"install piggyback liner across existing landfilled areas*	**Comments:** The EIS presents a proposal for the expansion of an existing operational waste management facility. GHD has advised that consideration has been given to the existing infrastructure and operational requirements of developing the proposed expansion. Given the size and nature of the proposed development, the drawings are considered sufficient to allow the determination this application. The concept design drawings prepared for the project have been attached for reference. All proposed infrastructure including proposed landfill cells, ponds, weighbridge, office and general site layout of the transfer station are documented on these drawings, which have been based on georeferenced, contoured aerial photos to scale. These are considered to be adequate for this landuse Development Approval as the final detailed construction plans will be required prior to release of the Construction Certificate. These would collate the outstanding items as listed within the Development Consent.

or relocate existing waste to lined cells as part of landfill". In the absence of a clear proposal an assessment cannot be undertaken. Some plans defer detail to a later stage such as if the proposal is for a concept rather than operational facility, such as: • Cell Arrangement Plan indicates *"surface water diversion measures around landform and collection measures on landform surface not shown, to be confirmed in detailed design".*	
5. ADEQUACY OF ASSESSMENT REPORT	
Peer Review Comments: The assessment report does not assess the proposal against the requirements of the SEARs. In the absence of this information the Panel does not have adequate information to determine the application. A review of the report has identified a number of more minor discrepancies which should be corrected/addressed, including: • Impacted vegetation is variously identified as "*isolated patches of native vegetation comprising disturbed woodland and grass land*" or "*Threatened Ecological Community*" where the Flora and Fauna Report identifies the vegetation as a Critically Endangered Community. • The report incorrectly indicates the site does not contain any Koala feed trees. The report makes number of unsubstantiated statements, such as follows, for which justification should be provided: • *"In order to achieve the goals of the Strategy the proposed expansion of the WTWMF intends to provide cost efficient security of waste disposal and processing to maximise resource recovery. The project also identifies a reduction in the amount of waste going to landfill and an increase the availability of recycled products."* – no details of this are provided. • *In order to consider this, a Preliminary Site Investigation ('PSI') has been prepared for the site.* – no PSI was attached to the EIS.	**Comments:** The Final Assessment Report has been assessed against the SEARs, however specific sections have been included in the Final Assessment Report in the order of the requirements as per the SEARs Advice. This information was retrieved from the EIS report. Comments in relation to the vegetation as a critically endangered community is true, however the community itself is not impacted by the development site area. The Final Assessment Report t has been amended to reflect the **accuracy** of the Biodiversity Assessment Report which was prepared by a suitably qualified consultant, and the NSW Department of Planning SEED Mapping has been disregarded, as it showed no koala habitat within the area or feed trees onsite. The comments in regards to the Liverpool Plains Shire Waste Management Strategy 2018 are unsubstantiated. The EIS clearly specifies the reasons for the project and demonstrates consistency with this Strategy with this information is obtained from both the EIS and the strategy itself (refer Pg. 16 of the Final Assessment Report). The EIS also confirms that a PSI was undertaken by GHD who are considered to be suitably qualified consultants in this field, and evidence of the outcome were summarised in the EIS. – Pg. 117 of the EIS The EIS has indicated that water **may be** required during construction to achieve required earthworks moisture content, and to suppress dust. If required, water will be sourced from existing sediment basins or carted from the closest potable source to the site.

Inadequate assessment has been detailed in relation to Clause 7.4 Essential services of LLEP within the report. In particular consideration is necessary of the adequacy of water supply for the expanded use given it is an essential mitigation measure in relation to dust control. The report indicates "*The wastewater collected from site facilities such as toilets, lunchroom and washing, and the laboratory are to be directed to a site Advanced Wastewater Treatment System (AWTS) for on-site treatment. The clarified effluent is proposed to be irrigated for disposal to the tipping area for dust suppression and vegetation establishment as required. As an alternative, clarified effluent may also be directed to the Leachate Pond for evaporation."* Again, the information provided offers alternatives rather than a solution and is inadequate for determination of the application. Further, the reference to the onsite laboratory is confusing as there is no building proposed for such.	The on-site AWTS system is required to service the amenities block. Proposed Condition B5 Other Approvals requires a Section 68 Approval under the Local Government Act 1993 for AWTS. This approval will detail the exact manner in which the effluent is treated and the utilisation of the irrigation. In regards to Clause 7.4 Essential Services of LPLEP, a detailed assessment is not considered necessary as after construction has been completed, the only water required will be for the toilet and the lunch room and a water tank will be provided. In regards to the operational nature of any ongoing dust suppression for the proposed development, this would be a component of the Operation Management Plan required under and specifically proposed conditions O2 Dust – Pg 65 of the Final Assessment Report details this.