Appendix R:

Response to Submissions

Government

Item	Respondent	Comment	Response	Action
1	Conservator			
1.1		The proposal is not expected to impact native communities.	Noted	No action required
1.2		Existing trees to be dealt with at DA Stage	Noted	No action required
1.3		Stormwater runoff from external hard stand should be treated for water quality. The additional hardstand triggers the WSUD Code. There should be a Gross pollutant trap for litter and larger pollutants	With refinement of the proposed development layout at the Development Application stage, detailed water quality modelling of the subject site using the MUSIC program will be undertaken in accordance with the Territory Plan. Appropriate water quality control measures including but not limited to vegetated swales, rainwater tanks and landscaped areas will be designed to achieve the stormwater quality targets stipulated by the EPSDD Waterways Water Sensitive Urban Design General Code. CRS are committed to appropriate WSUD management for the site including a Gross pollutant trap.	No action required at this stage. Further analysis will be subject to a subsequent design and siting DA for approval through EPSDD.
1.4		If approval was given to storing recyclables externally then it should be bunded for any fire suppression event	CRS is not seeking approval to store recyclables outside the building. The facility will be fully equipped with fire suppression measures to both monitor the environment for a potential flash point and to suppress fire across the site in the event of a fire.	No action required
1.5		Rain water from the main building could be captured and reused on site for washdown	This is not a mandatory requirement for the EIS. However, the proposal does show three tanks to the southern end of the MRF building which will be used for roof water collection and reused where possible	No action required
2	Environmental Protection Agency			
2.1		No concerns with the modelling methodology including the emission levels Emissions inventory has been modelled from actual facilities (Sydney) and are comparable to the levels used for Mugga Lane expansion Use of the NSW EPA 2 Odour units for sensitive urban areas “is a conservative benchmark for this assessment” Under the NSW guidelines “an odour criterion of 7OU could be justified for an industrial area and in TOU’s opinion, the mixed-use industrial zone would be less sensitive and would almost certainly tolerate higher odour exposure. The EPA agrees with the TOU findings that based on the odour criterion of 2OU (99%,1-sec), this assessment found that no adverse odour impacts at sensitive places are likely for the proposed MRF” “No environmental nuisance” “The EPA also agrees with EnRisks assessment that where negative impacts have been identified, these are considered to be negligible in terms of community health due to suggested and proposed process design, control, mitigation and management measure to be implemented” EMP to identify all activities that could cause harm and detail the mechanisms to minimise or prevent impacts Identify stockpile limits	Noted	No action required

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2.2		The EPA does not support the transport and/or disposal of leachate interstate	leachate transport interstate is not supported, CRS will enter into with a licensed collector for disposal in the ACT. All leachate will be tested on site by CRS.	See Sections 6.7, 6.7.1 of the Revised EIS
3	Environment, Planning and Sustainable Development Directorate			
3.1		EPSDD is currently formalising the ACT policy position regarding air emissions in the ACT Finalising the "Draft Separation Guidelines for Air Emissions", developing ACT Guidelines for Odour Assessments and a scheduled review of the "Air – Environment Protection Policy" While this is happening, the EPA has adopted the South Australian EPA Policy 2016	The EPA has stated that Use of the NSW EPA 2 Odour units for sensitive urban areas "is a conservative benchmark for this assessment" Under the NSW guidelines "an odour criterion of 7OU could be justified for an industrial area and in TOU's opinion, the mixed-use industrial zone would be less sensitive and would almost certainly tolerate higher odour exposure.	See Section 6.8 of the Revised EIS
4	ACT Emergency Services			
4.1		Satisfied with Water Supply, Access, Hazardous materials,Street furniture, landscaping and tree planting and building firefighting systems The proposal is supported Street furniture, landscaping and tree planting requirements to be followed "Compliance to the National Construction Code and inbuilt fire safety systems are outside the scope of this document and will be assessed separately by the ACTF&R Fire Safety Section at the building approval stage" Alterations to the building of more than 500m2 will require a fire safety review	Noted	See Sections 6.11 and 7.2 of the Revised EIS
5	ACT Health			
5.1		Appropriate mitigation for: Dust generation and movement while the site is under construction Harborage of vermin and pests at the facility Excess stockpiling of waste and risk of fire	Noted	No action required
5.2		Operations on air quality have not been addressed	The Project Team has conducted additional research into air quality including consideration of truck and train exhaust impacts on air quality. Mitigation measures such as sealing the processing shed and running all operations internally within the controlled environment will significantly reduce risks to air quality to acceptable levels.	See Section 6.8 of the Revised EIS . An additional report by Todoroski Air Sciences has been attached as Appendix Q

Item	Respondent	Comment	Response	Action
5.3		Potential of odour and air quality impacts due to Wiluna Street and Lithgow Street queuing (1 vehicle every 4 mins)	The twin weighbridges are 170m off Ipswich street which accounts for significant off-street queuing as well as two weighbridges to clear traffic. Secondly the intersection of Wiluna and Lithgow street is a further 340m away so a total of 510m before any truck was to queue in Wiluna street. It should be noted that CRS is now proposing to allow rigid trucks to enter from the north directly from Ipswich Street which would reduce the volume of trucks using Wiluna and Lithgow Streets significantly (reduce 8 trucks per hour). As a result of the above there will be less trucks in Wiluna and Lithgow Streets and no stationary/queued trucks in Wiluna Street or Lithgow Street. The Odour Unit made the following comment "Such emissions would be difficult to model and are likely to be minor in magnitude and consistent with the industrial location." These same trucks drive the streets of Canberra every day.	Revised truck access to reduce trucks in Wiluna and Lithgow Streets – See Section 6.2 of the Revised EIS
5.4		Increased air quality/environmental impacts in relation to increased truck movements should the RFT development not proceed	AECOM anticipates that if there was no rail then there would be an additional two truck movements per hour of operating carrying containers to landfill. The number of truck movements per hour is not expected to adversely impact on air quality or the environment.	See Section 6.2 of the Revised EIS and Appendix E.
5.5		Suitable performance indicators ensuring odour emissions from plant operations, once operations commence, meet expected odour impacts	Recommended air quality monitoring for the Project includes: • Annual stack emissions monitoring to measure odour and dust and validate emission rate used in the modelling and model predictions. • A field odour survey at locations on-site and off-site to validate the effectiveness of the proposed ventilation outlet and other mitigation measures. Odour surveys are to be conducted within the first two months of commissioning and ongoing at a frequency to be determined by an appropriate risk assessment. • Regular daily visual monitoring of dust plumes conducted by staff.	Recommendation from Todoroski Air Sciences supplementary report – See Appendix Q See Section. See Section 6.8.4.4 of the Revised EIS. See Section 7.2 of the Revised EIS for updated Environmental Management Commitments
5,6		Suitable active mitigations measure, such as odour scrubbers or suppressants, which could be implemented should proposed odour control prove ineffective	There are other measures available for further mitigation and would be implemented if required. These would include – taller stack, air locks at doorways and doorway misting. None of these measures are considered necessary and the worst-case waste profile has been modelled.	See Section 6.8.5 of the Revised EIS
5.7		Mitigation/operational measures to be implemented should there be a failure in the air handling system	See discussion in Section 6.11	See Sections 6.8.4.5 and 6.11.3 of the Revised EIS

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5.8		Inadequate detail as to when diversion strategies would be implemented should the MRF be at max capacity – need to explain management of excess waste	Railway Track Interruption: Programmed rail maintenance is already scheduled into the rail use as the track is shared by daily commuter use. A catastrophic rail track event that closed the track for longer than 3 days would necessitate the transfer of containers by road to Woodlawn. The intermodal containers proposed can be carried by non-specific container trucks which are readily available for sub contract at short notice. This would add two extra truck movements per hour for the duration of the emergency and would be an unusual circumstance that would affect all rail activities into Canberra. If the equipment, electricity, container loading and train access were all unavailable due to a fire for example (although the fire prevention equipment would prevent this) a section of the building (it's a big building with potential access either end) that is unaffected would be utilised for the following short-term operation. Mobile container box tilt from Access Recycling would be in the building and 20ft shipping containers would be loaded directly with mixed heavy/putrescible waste by an excavator with a set of grab buckets. The 20ft containers would be loaded by forklift onto intermodal trucks and transported to Woodlawn. Within 4-5 hours Wastepro/GotoGo, who provide a number of 110m3 walking floor truck and trailers combinations used in the waste industry in Sydney. They will provide semi-trailers to transport the light, bulky dry commercial and industrial waste component. Typically, these trailers carry some 22 tons and are used for waste transfer in and around cities. These would be loaded off the floor by the Access Recycling excavator until normal operations resume. Should the Government wish to assist in the emergency planning then Plan B could be formulated to use Mugga Lane in this circumstance. This would still involve truck movements as an emergency measure. In the rare occasion that trucks may not be able to access the MRF, arrangements for temporary disposal at another facility either in the ACT will be arranged (e.g. Mugga Lane pending prior arrangement)	See Section 6.4.3.3 of the Revised EIS
6	ACT Heritage Council			
6.1		No heritage assessment was required	Noted	No action required
7	National Capital Authority			
7.1		Site is partially situated with 200m of the centre line of the Monaro Highway which is defined as an approach route The NCA has taken the view that this site does not front the Approach Route so will not require a DCP	Noted	No action required (see Appendix V)
8	Office of the National Rail Safety Regulator			
8.1		Requirement that construction and operations of infrastructure are carried out in accordance with Rail Safety Law	Rail Operations will be the subject of a separate approvals process. Any rail operations will be consistent with rail safety law.	No action required as part of this EIS. Separate DA process has been undertaken for the RFT (DA201835108) and the design of the RFT will meet Australian Railway Engineering Standards
9	Strategic Planning – Planning Policy Division			
9.1		Scoping issues have been responded to by the applicant – there are no comments on the draft EIS Planning responsibility for East Lake rests with Urban Renewal Division – they will provide a separate submission	Noted	No action required
10	TCCS – Capital Works and Development Support/Transport Policy			

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10.1		ACT NoWaste has provided details on waste truck generation and flows. Further details required on the increase of heavy vehicles and the structural impact on the roads that approach the facility	The roads that approach the facility are listed as level 1 and level 2 heavy vehicle routes as outlined by TCCS. These include Lithgow and Wiluna Street. As Such, these roads would be expected to cater for larger vehicles with higher volumes such as the previous site use and other facilities adjacent that site including the metal and brick handling uses nearby. Supplementary information has been provided as part of this revised EIS. Further responses are provided to ACT NoWaste comments specifically later in this attachment.	See Sections 6.2.3.3, 6.2.4.3, 6.2.5.3 of the Revised EIS
10.2		Pre-development SIDRA and post development SIDRA have to be provided to TCCS for review and assessment	Noted.	Noted: AECOM have provided post-assessment SIDRA in the Revised EIS in section 6.2 and Appendix E.
10.3		Must consider the entry and exit points of the Murrays buses, Block1 Section 76 Fyshwick	It is our understanding that Murray's will not be utilizing Block 1 Section 76 Fyshwick.	No action required.
10.4		Swept path drawings showing waste trucks entry and exit onto Ipswich street should also be provided	AECOM have provided swept path diagrams in their original assessment and have now provided a further diagram for the revised access from Ipswich Street.	See updated Traffic analysis in Sections 6.2, 6.2.4.3 of the Revised EIS
10.5		Phasing changes have to be addressed at a later stage	Noted	No action required at this stage.
10.6		There needs to be additional appendices showing the calculation of additional government vehicle movements for future years – 2021, 2031 and 2041.	Growth in population will increase to production of waste. The reality of the approval is that the facility can only receive a maximum approved tonnage. If there was an increase in Government trucks that required access to the CRS MRF then this would be at the expense of commercial trucks. ACT NoWaste have also proposed other collection services that will take source separated materials to other destinations such that there may be less trucks going to CRS. This is difficult to model other strategic decisions and locations that CRS is not involved in. CRS has assessed the market both now and, in the future, and established a maximum design capacity for the site of 300,000Tpa. Hence, it is expected that the maximum number of vehicles that has been modelled from the proposal will remain less or at least equal to that proposed each year. ACT No Waste has indicated there may only be 170,000Tpa of waste available so the traffic modeling is already beyond what may be required. The capacity of the facility is 300,000 tonnes maximum. Government vehicles make up a smaller percentage of the maximum tonnage proposed with the majority taken up by C&I waste. In the event that there are more government vehicles due to population growth, the facility would receive less C&I waste to account for the increase in MSW.	No action required at this stage
10.7		Table 4 also needs to include the assumptions used to determine the daily number of truck movements, given the population of each suburb and the number of collection days.	The existing number of trucks servicing the Mugga Lane Resource Management Centre is 26,769 trucks per year. Given a total population of 373,671 people, this gives a rate of 0.0716 trucks per person (26,769÷373,671). This rate was applied to the number of collection days to give the number of trucks from each direction. A summation of the trucks for each weekday gives the daily total of trucks.	
10.8		The report needs to identify how heavy vehicles differ from freight vehicles	Heavy vehicles include government and non-government vehicles transferring waste to the Material Recovery Facility for processing. Freight vehicles are those vehicles transferring containers of other material directly to the Rail Freight Terminal.	A clarification has been added to the EIS Report
10.9		Under 2.3, the Canberra Strategic Transport Model concurs with Figure 5 and Figure 6 that the critical points, which are close to capacity, for future truck movements to reach the proposed development are:	As noted above in 10.6, the capacity of the site is capped at 300,000Tpa. The traffic modelling is at worst case for this development and may never reach those levels. If it were to exceed then a new application would be required, and traffic reassessed. It is expected that the number of vehicles generated from	As capacity is not proposed to exceed the number specified, and indeed may never reach this capacity, no further modelling is warranted at this time.

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		the right turning movements from the northbound Monaro Highway/Canberra Avenue off ramp the right turning movements from Canberra Avenue to Geelong Street the southbound movement along Ipswich Street will be impacted by the upstream movements at its intersection with Newcastle Street. Under 2.5, noting the above, the report must identify trip generation beyond 2020/21 up to 2031 to obtain a better picture of the additional traffic that will be generated and its impact on the critical locations.	the site will remain consistent each year and will not be more than that proposed as the worst case. AECOM has modeled using known and worst-case date. The trip generation data will not change significantly as the sources of residential and commercial rubbish are relatively fixed as is the arterial road network. The access into Fyshwick has capacity for what is proposed. CRS is not privy to other future development of detail to accurately model future growth and its contribution is fixed otherwise would require another application process and assessment.	
10.10		Under 2.6, what is the dwell time of the vehicles at the site? Would the entrance and exit of vehicles be regular, i.e. 1 vehicle per 4 minutes? For safety considerations, signalisation of the site exit is supported.	As noted in the Response to Comments Materials Facility & Freight Terminal Traffic and Transport Assessment, the flow of traffic from the site is not expected to be consistent. Therefore, the dwell time is not overly relevant. This being said, the site area and queuing allowances before and after the weighbridges is sufficient to account for extended dwell times should there be a delay at the weighbridge or tipping area within the building. Support of the signalised egress is noted. Signalisation of the egress point will assist with a consistent flow from the site.	No action required.
10.11		Under 5.0 Summary, 2nd paragraph indicated that heavy vehicle movements will operate between 6am and 10pm, which falls outside of the network peaks. This is only partially true as the AM peak is between 8am and 9am and the PM peak is between 4pm and 5pm.	As summarised in section 5.0, the additional movements from the site are minor as they will be spread over an extended opening period. This will mean that overlap of truck movements with peak periods can be appropriately managed. In our experience C&I waste haulage companies will pick times outside of peak periods to lessen wait times in traffic. Should the site receive MSW waste trucks are likely to enter the site outside of peak periods given the standard pick-up periods cannot commence until after 7.00am. If the additional volumes are applied to the peak periods, there would be no noticeable effect to the existing level of service to the surrounding road network.	No action required
11	EPSDD			
11.1		Exec Summary More detail needs to be provided surrounding the rail use. Note: The rail use on the site must be strictly ancillary to the main use and in no way is to be used for other purposes.	Railway use in the form of loading and unloading of trains for transport is confined to railway zoned land (Block 11 Section 47), and RFT facility on the adjacent site is currently under assessment (DA201835108). Railway use is not proposed on either block Block 9 or Block 11 Section 8 which is consistent with the IZ2 zoned land. The proximity of the site to a rail line on the adjacent site will improve efficiency for transport of recyclables and residues however is not an integral part of the operation of the MRF facility. The MRF can operate without the RFT which is a standalone, albeit conveniently located facility which can be utilized without impugning the Territory Plan Zoning.	Updated detail provided in the executive summary and in Section 3 in the Revised EIS
11.2		Please provide development code compliance	The design responds to the rules and criteria of the Industrial Development code through building and site controls, built form (including height and setbacks) and parking and access. Amenity and Environmental considerations are addressed directly as part of this EIS document. Preliminary review of the relevant Territory Plan Codes, including the Fyshwick Precinct Map and Code, the Industrial Zones Development Code, the Transport and Services Zone Development Code and the range of General Codes indicate the proposed development is consistent with the Territory Plan. A full Design and Siting submission covering all relevant codes of the Territory	See Section 3.4 in the Revised EIS

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			Plan will be submitted following this EIS process. All Rail activities are located on Block 11 Section 47 which is zoned for that use. The Proposal is consistent or not applicable with Part A of the Industrial Zones Development Code. The proposal is consistent with Part B of the Code, with many of the key rules and criterion having been addressed as part of the EIS process including WSUD, Traffic and Noise.	
11.3		Please make it clear throughout the Draft EIS that the MRF can be a standalone facility and is not reliant on Mugga Lane resource centre or a rail freight terminal. Note: The rail line can be used if it can be demonstrated that the line can be used from the site (e.g. craned) and is not reliant on future DA's.	The MRF is a standalone facility that can be used to process and separate waste materials. The removal of material from site can be done by truck or ideally it will be done by rail If successful, the facility will leverage an RFT (subject of separate application – DA201835108) on the adjacent railway land. The facility will have the capability to load and transport materials by container, so the use of road is possible as it is near the Monaro Highway. The sites central location lends itself to efficient receipt of MSW and C&I waste from Canberra and the region. The RFT is subject to a separate DA proposal. The RFT DA will establish easements to provide access for general freight and RFT inputs. Several businesses have expressed interest in using the RFT to transfer goods between states. At the previous Kingston terminal, which this RFT seeks to replace, several external businesses utilised the RFT operations. The DA for a separate RFT will enable the continued use of rail to service General Freight requirements. At present there are no other commercial RFT's operating in Canberra for use by local industry The RFT will simply be a forklift transferring shipping containers on and off the train.	Report amended throughout to reflect the facility can operate as standalone without the RFT, but this is not preferred. See Exec Summary and 6.4.3.3 in the Revised EIS
11.4		Project description Update required - Please update response to reflect proposed development currently being undertaken by the proponent. Update on status of direct sale for block 11 throughout the document.	The proposed development of the rail freight terminal is the subject of a separate development application process. A separate application (DA 201835108) has been lodged.	Proposal Description updated in the Revised EIS
11.5		Please provide further information around project life and decommissioning of the site.	The project has no proposed end life as it is a large shed and will be maintained and renovated accordingly. The equipment inside will be replaced from time to time with equivalent machinery as service requirements demand This is not a quarry or landfill where there is a material legacy retained onsite. There is no storage of waste onsite or residual materials, therefore there is no decommissioning and the shed and yard could be repurposed at any point without the need for decommissioning actions. Should there be a need to decommission then the building will be cleaned of any remaining waste residues and an independent auditor appointed to certify (to EPA) that it is suitable for another industrial activity subject to approval	Detail added to the report at section 2.4 of the Revised EIS

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11.6		Alternatives to the proposal 2.6 Please provide further details regarding the specific reasons that other potential sites are not viable.	CRS have taken an approach based on proximity to rail, central within the ACT and proximate to the adjacent Access Recycling site. Proximity to rail has several benefits including reduced transport costs of recyclables and residues. The site provides the best connectivity to Rail whilst being in a central location and is adequately sized to accommodate the facility. Rail is an efficient transport method for waste. As waste management becomes more efficient and waste is further separated into fogo etc. additional trucks will be required to take waste to end destinations. The use of rail combats additional truck movements and provides an efficient alternate transport mode. Further, CRS wanted to own its site and needed an appropriate land size, frontage to the rail track and correct zoning. The land must be viable for the venture proposed and had to be available at the time CRA was looking to purchase as this is a privately funded venture.	See Updated Section 2.6 of the Revised EIS
11.7		2.6.1-2.6.2 Please provide the criteria used for assessing the performance of any alternative to the proposal considered.	Proximity to rail including appropriate siding length off the main line (support from rail entities as they own the land and track access). Land size including room to maneuver onsite and conduct activities in a large building. The idea of separate entries and exits was also considered important if possible. Zoning is critical and an appropriate zoning for the activities proposed should make the process easier – changing zonings or land use permissibility adds greater complexity and time. This also connects with environmental assessment as an appropriate zoning would suggest that EPSDD has already considered the impact of the land use. Availability to purchase was a key aspect as the private investment is significant and the ability to own and develop a long- term aspect is considered important to CRS. The protracted negotiations for Block 11, Section 8 are a perfect example of the complexities of government land purchases and how crucial it is to begin with the correct zonings which CRS has done.	See Updated Section 2.6 of the Revised EIS
11.8		2.8 Further justification is required regarding consequences from not proceeding with the proposal and clarification regarding life of Mugga landfill.	Not proceeding with the proposal will mean a continuation of the status quo for a number of years. CRS are proposing a significant private investment into the ACT which will address significant components of the ACT's waste strategy and will be able to implement it quicker. The commercial waste stream will remain untouched apart from education schemes at source. The production of PEF material could begin very quickly rather than commence after the FOGO scheme and be exported by rail as is indicated in the road map. The biggest consequences could be that some of the recoverable the organic fractions currently going to landfill will continue. CRS can remove green waste that is not collected by the "opt in" green waste service and other organics such as wood, paper and cardboard could still be diverted.	See Updated Section 2.8 of the Revised EIS

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			Mugga Lane will continue to fill up quicker than it needs too which will come at a cost to the community in the form of ongoing expansion and maintenance. The Government targets of zero emission by 2020 and 90% landfill diversion by 2025 will not be met.	
11.9		Statutory Requirements 3.2-3.3.2.4 Please provide the requirements/legislation surrounding waste licensing approvals and process/justification for the licence to be granted.	Please see amendment to Section 3.5 to include specific references to The Waste Management and Resource Recovery Act 2016 (effective July 2017) in relation to the relevant statutory and regulatory requirements (Attached)	See updated Section 3.5 of the Revised EIS
11.10		Other Requirements 3.3 Please Provide further details as to how the proposed EIShas been considered in accordance with the Territory Plan. Uses described under s3.3.1.1, such as freight transfer facility, do not seem to be associated with the proposed operation. S3.3.2 states compliance with the relevant codes. Further detail is required demonstrating how the development will comply.	The proposal is consistent with the principles of sustainable development of the Territory Plan, particularly with regard with meeting economic, social and environmental objectives. The proposal will assist in achieving improved waste management and recycling by integrating state of the art waste management practices. The proposal provides flexibility which will cater for the changing needs of the evolving waste requirements of the ACT. The proposed facility is consistent with the objectives of IZ2-Industrial Mixed-Use Zone. The proposed freight transfer facility sits adjacent the proposed MRF enabling integration with the existing Rail network and rail siding.	See updated Section 3.3 of the Revised EIS
11.11		3.2,3.4 Further details are required as how the development meets the special requirements under the National Capital Plan (within 200 metres of a main approach route).	Special Requirements of the National Capital Plan for the Monaro Highway apply to development on all land (not included within an Area of Special National Importance) which fronts directly onto the Approach Routes AND is not more than 200 metres from their middle lines. The subject site does not directly front the Monaro Highway so is therefore not subject to Special Requirements. A submission from National Capital Authority confirms this: “Site is partially situated within 200m of the centre line of the Monaro Highway which is defined as an approach route. The NCA has taken the view that this site does not front the Approach Route so will not require a DCP. Further, the proposal is not inconsistent with the objectives of the National Capital Plan.	See updated Sections 3.2 & 4.1 of the Revised EIS See Appendix V
11.12		4.3 Please provide further information on how the "ACT Climate Change Strategy" has been considered in the preparation of the EIS.	Please see separate summary response and additions to sections 4.3 & 6.8 of the Revised EIS CRS has addressed the role waste management plays in the ACT Climate change strategy (see Section 4.3). There are various Strategies that discuss Climate Change, and these are the ACT Climate Change Strategy AP2 2012 and it is also addressed in the ACT Waste Management Strategy 2011-2025. The clear focus from these Strategies id to address the production of methane gases by removing organic wastes from landfill and: 1. avoid products becoming waste (reduce and reuse) 2. find an alternative use for waste (recycle and recover), and 3. ensure safe and appropriate disposal as a last resort. CRS understands the waste hierarchy and its proposal is not designed to interfere with any program designed to avoid the production or recycling of waste. Minimising of the waste to landfill, in both short and long-term strategies achieve the same outcome. Removing the inevitable methane leakage and finding alternative uses for materials can occur for an additional 20% of the material currently going to landfill. Removal of short-term green waste and potentially long term, food waste will have a significant impact on	See updated Sections 4.3 and 6.8 of the Revised EIS

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the production of landfill methane but will also inhibit the production of electricity currently sourced from this methane.
TABLE 1 GREENHOUSE GAS AND WATER SAVINGS FROM RECYCLING
<table>
<tr><th>Type of material</th><th>Tonnes recycled 09–10 A</th><th>water saving per tonne (KL)</th><th>Water savings (kL) B</th><th>GHG saving per tonne</th><th>GHG emissions savings (tCO_2–e)</th></tr>
<tr><td>Paper</td><td>51224</td><td>15.58</td><td>798,000</td><td>1.54</td><td>79,000</td></tr>
<tr><td>Timber</td><td>47543</td><td>0.07</td><td>3,000</td><td>0.15</td><td>7,000</td></tr>
<tr><td>Glass</td><td>16783</td><td>2</td><td>34,000</td><td>0.33</td><td>6,000</td></tr>
<tr><td>Aluminium</td><td>2319</td><td>233.2</td><td>541,000</td><td>15.80</td><td>37,000</td></tr>
<tr><td>Steel cans</td><td>1026</td><td>1.1</td><td>1,000</td><td>0.81</td><td>1,000</td></tr>
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A – Figures provided by Territory and Municipal Services Directorate, ACT Government.
B – Figures from GHD (2009) 'Waste Technology and Innovation Study' for the Department of the Environment, Water, Heritage and the Arts (DEWHA) at http://www.environment.gov.au/settlements/waste/publications/waste-technology.html.

It should be noted from the extracts above and the table above that the removal of paper, timber, glass, aluminium and steel cans are all positive in terms of greenhouse gas and water savings. All of these materials (and others including green waste) are proposed to be recycled by CRS as indicated in Table 1 of the EIS. Of course, CRS is proposing to recycle other materials such as concrete and inerts, plaster board and other metals where there is production saving in the cost to the environment of mining raw materials to replace those that can be reused.

On 18 September 2018 when the Legislative Assembly passed the Climate Change and Greenhouse Gas Reduction (Principal Target) Amendment Bill 2018 to amend the zero net emissions target in the Climate Change and Greenhouse Gas Reduction Act 2010 (ACT). The bill proposed to reduce the principal target of zero net emissions from 2050 to 2045.
The ACT Climate Change Strategy "To a Net Zero Emissions Territory" Discussion Paper released to promote this amended target was introduced in December 2017 and discusses the following in relation to waste management:
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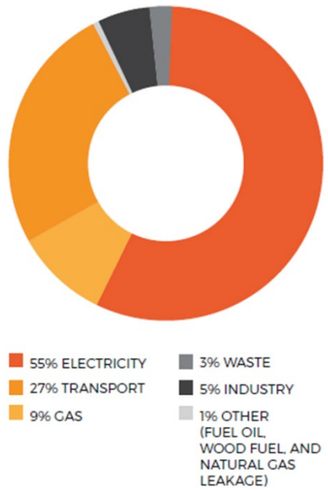
			Figure 3: ACT emissions in the 2015–16 Greenhouse Gas Inventory, showing electricity and transport as the major contributors to our emissions  Source:" To a Net Zero Emissions Territory" p.12 The Waste industry contributes some 3% of the total emissions and this has largely been identified as the breaking down of organic waste at landfill. Key targets of the discussion paper are to remove emissions from solid waste (divert organics, achieve higher recovery rates for MSW, C&I and C& D wastes), best available land fill capture technology CRS is proposing to contribute directly in all these strategies and any residues going to Woodlawn are going to an excellent and purpose designed landfill that has been an engineered landfill with capture technology since day 1 of operation.	
11.13		4.4 Please provide further information on how the "Sustainable Transport Plan" has been considered in the preparation of the EIS.	Please see amendment to Section 4.4 to include specific references to Transport for Canberra – Transport for a sustainable city 2012- 2031 in relation to the relevant statutory and regulatory requirements	See updated Section 4.4 of the Revised EIS
11.14		4.5 Provide further information on how the "Sustainable energy Policy" has been considered in relation to off-site energy production.	The movement of waste to landfill at Woodlawn does not detract from the ACT Sustainable Energy Policy 2011-2020 in the sense that the ACT is part of the National Energy Market (NEM).	See updated Section 4.5 of the Revised EIS

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11.15			As part of the NEM, “the ACT has no significant electricity generation and imports all-natural gas and transports fuels, the exceptions being some generation from mini hydro, landfill methane gas and solar” “The remainder of our electricity is sourced from the NEM from generators from other states” (p6) Should waste go to Woodlawn then it too will be used for methane generation and then electricity production which is part of the NEM. “The ACT has established targets for the use of renewable energy of 25% by 2020” (p11) “Modern technologies offer possibilities to transform municipal wastes into renewable electricity. This is already occurring at the Mugga Lane Resource Management Centre and Belconnen where methane is captured and currently used to generate around 24,000-28,000MWh of electricity each year. This reduces the ACT’s overall emissions by converting the methane to electricity and displacing other forms of non- renewable power generation. Generation capacity is expected to reduce over time in line with natural reductions in methane production at these sites. The draft Sustainable Waste Strategy 2010-25 was released in December 2010 and provides a pathway to recover organic wastes currently sent to landfill, thereby largely eliminating emissions from landfill. By recovering and recycling wastes the strategy reduces the energy use and emissions associated with the production of the material in the waste stream, such as glass, metals and plastics. Where it provides the highest value use, a portion of the sorted wastes may be diverted to a proposed energy-from waste facility to generate electricity, heating or cooling as well as producing valuable by-products such as biochar.” (p25) CRS will influence the volume of organic material going to landfill. The removal of woods, cardboard, paper and green waste will reduce the organic component therefor reduce the potential methane generating component. As the long-term strategy is to divert the organic as recognized in the policy above there will be no major change to the expected policy outcomes. If food waste was also diverted in time by CRS this will increase the organic diversion but that is desirable by various Government policies	
11.16		3.1.1 Please provide further detail on how the proposal meets ecologically sustainable development and further how the proposed EIS meets the inter-generational equity principle. See comments provided by ACT No Waste.	The proposal aligns with the three fundamental principles forming the basis of intergenerational equity and sustainable development. 1. Options Principle: Conservation of the natural and cultural resource base so that options remain available for future generations: - The proposal will not negatively impact on options for future generations given that the process will improve recycling and materials recovery and will divert materials for landfill. The proposal is adaptable and could be leveraged to create RDF and FOGO outputs.	See Section 3.4 of the Revised EIS Waste Management & Resource Recovery Act 2016 – comments

Item	Respondent	Comment	Response	Action
11.17			Conservation of Quality Principle: Each generation must maintain the quality of the Earth leaving it no worse for future generations. The proposal will reduce greenhouse emissions, divert materials from landfill, improve recycling. Conservation of Access Principle: provides that each generation should give its members equitable rights that access the legacy of past generations and should conserve this access for future generations: The proposal is expected to have no adverse impact on this principle.	
11.19		4.2.3 Please provide a statement regarding the proposal's compatibility with the principles in the Statement of Strategic Directions. Note: This section refers incorrectly to planning intent along with s4.2.2.	The proposal is consistent with the Statement of Strategic directions in that it seeks to fulfil a growing need for waste management options whilst avoiding significant negative impacts to the local area. The proposal is environmentally sustainable in that it will divert waste from landfill and allow the efficient use of materials that would otherwise be thrown away. The proposal is adaptable to the changing needs of the ACT waste market and could be used to process RDF and FOGO later. The current method of waste management in the ACT is unsustainable, this proposal seeks to form a part of an improved waste management framework.	See Section 4.2.2 and 4.2.3 of the Revised EIS
11.20		7.1 Risk Assessment 5 Please address if the Risk assessment is in accordance with the AS/NZS ISO 31000:2009 Risk management - Principles and guidelines. At the scoping application stage, all impacts identified in the Scoping Document were considered to be medium risk level or above. Any impacts with an initial risk rating at this level needs mitigation measures to avoid or reduce the impact.	The original risk assessment at the scoping application stage has been improved to cover a wider range of risks in accordance with the requirements of the scoping application. All identified risks have had mitigation measures applied to avoid or reduce the impact, thus reducing the risk rating.	No action required
11.21		Planning and land status 6.1.1 More detail is required to address the actual potential impact of sterilisation of surrounding land uses. Current surrounding uses and future residential developments also need to be taken into consideration when addressing this issue. Describe planning and development status of adjacent land. Describe land use of the proposed land and any land to be affected (including, but not limited to, zoning, lessee(s) or custodian of the land, the permissibility of the proposed use defined in the Territory Plan). Describe compatibility with other surrounding uses and how it relates to the IZ2 zone objectives, e.g. Zone Objectives (h), (i), (j) and (k).	This has been updated in Section 6.1 with specific reference to East Lake, Dairy Flats and land value assessment in similar circumstances	See Updated Section 6.1 of the Revised EIS
11.22		Traffic and Transport 6.2.3.1 Further information required around the traffic increase during construction and the proposed mitigation measures. Also see entity advice from TCCS and Transport Policy.	AECOM has provided specific additional information. See updates in Section 6.2 and responses to specific questions in Appendix S – Public responses comments	See updated Section 6.1of the Revised EIS and Appendices E & S for Public and Government responses

Item	Respondent	Comment	Response	Action
11.23		6.2.1 Further information needs to be provided for mitigation measures relating to preventing truck queuing on the existing road network (e.g. timing of trucks, waiting bays etc). As indicated in the Executive Summary (page ix), impact needs to be addressed in relation to truck movements to Woodlawn Bio Reactor if the RFT is not available. Provide further information as to how vehicle movements will be spread across the full 16-hour operation period, especially if avoiding peak traffic periods as per measures proposed in health impact assessment. Also, further information required from Health, TCCS and Environmental Protection Policy.	While drivers would typically plan to avoid peak traffic, the collection schedule is impacted by many external factors such as the number and volume of bins put out on the kerb for any day/location. It should be noted that these vehicles are already on the road network across the Territory and that they are not additional. The increased operation periods give greater flexibility to the network and operators and would results in a net positive result for the broader network. If the rail line is not operational the site has up to three days of storage space using the containers on-site before it would need to ship the waste out by road. The likelihood of the rail line being out of action for more than 3 days is considered low. At that time, the containers could be loaded on to trucks which could be scheduled to leave at any time of the day to minimise the impact on the network. In an emergency scenario where the rail access was not available then the removal of waste residues from the site would account for an extra 2 trucks per hour arriving and leaving the site across16 hours. The twin weighbridges are 170m off Ipswich street which accounts for significant off-street queuing as well as two weighbridges to clear traffic. Secondly the intersection of Wiluna and Lithgow street is a further 340m away so a total of 510m before any truck was to queue in Wiluna street. Based on regulated vehicle length (Schedule 6 NSW Consolidated Regulations – Heavy Vehicle dimensions) the following modelled queuing would be possible before it affected Wiluna Street Weighbridge Rigid trucks (12.5m) 14 41 Semi-Trailer (19m) 9 27 B-Double (25) 7 21 It should be noted that CRS is now proposing to allow rigid trucks to enter from the north directly from Ipswich Street which would reduce the volume of trucks using Wiluna and Lithgow Streets significantly (reduce 8 trucks per hour) Currently the truck collecting waste on behalf of ACT NoWaste are on an agreement to collect between the hours of 7.00am to 5.00pm. This accounts for 30-40% of the potential waste coming to the site if agreement with ACT NoWaste is reached. This does not affect the commercial operators. CRS is endeavoring to present worst case scenarios for the sake of modelling and impact assessment	Updated throughout Section 6.2 of the Revised EIS. See Traffic Sensitivity Modelling in Appendix Y
11.24		6.4 2.3 Provide additional measures to prevent the spread of waste to other sites e.g. fencing.	Fencing will be provided to secure the site. The fencing would stop windborne waste but as is stated in the Draft EIS, the activities of waste handling and processing are internal to the shed. Waste will be highly unlikely to escape the shed where waste and recyclables will be containerised for shipping. Further, the site will be regularly cleaned to further mitigate fugitive waste leaving the site.	See Section 6.4 of the Revised EIS
11.25		6.4 2.2,6.4.2.3, 6.4.2.4 Detail is required to indicate what will happen if operation ceases either temporarily or permanently (e.g. Emergency plan, clean up etc.).	Updated mitigation measures have been provided as part of the revised EIS.	See updated mitigation measures in Sections 6.4.3.2 & 6.11.3.5 of the Revised EIS
11.26		6.4.2.3, 6.4.3.3, 6.4.4.3 Further information is required addressing the storage and disposal of non-recyclable waste received at the facility and the nature, sources, location and quantities of all materials to be handled.	The guidance on creation of a waste management plan is noted. This will be addressed as part of the operation of the site. There are potentially three fractions to be stored and disposed of from the	See updates throughout Section 6.4 of the Revised EIS

Item	Respondent	Comment	Response	Action
		Provide further advice on waste management, including assessment, management and disposal. These matters could be addressed as part of a waste management plan to ensure impacts on surrounding area are minimised.	facility. The largest fraction is the residual waste which after processing will be top loaded into the compactor units and when the appropriate size and weigh bale is created it will be inserted by hydraulic ram into the purpose- built shipping container. When the doors are closed this container will be both sealed to stop any leachate escape as they are water tight. Each container has a small carbon filter to assist in stopping any odours. These containers will be stored on the RFT until loaded onto the next train. The processed waste fractions can have two destinations. There are the recycled materials which will be stored and baled (cardboard/paper/plastic) when there is a bale worth. These bales will be stacked and when there is a truck or container load, they will be transported by train or road to re-processers Materials such as masonry/brick/concrete/aggregate/sand are heavy but not voluminous and will remain in the bin under the processing line until there is a full load to send out Other materials such as timber and plasterboard will also be stored and transported as necessary Ferrous and Non-ferrous metals will be collected in a bin and sent to Access recycling as required The identification and separation of non-conforming materials will either be reloaded back onto the truck delivering it or it will be safely separated and then containerised for collection or delivery to an appropriate handler. For example: MRI-e cycle Solutions, based in Fyshwick, can and will provide services to collect and handle the following materials (some considered hazardous) on an as needs basis: Cars and Vehicles Batteries – Lead Acid Electrical Equipment Batteries – Lead Acid (Dispose Safely) Batteries – Rechargeable (Dispose Safely) Batteries – Single Use (Dispose Safely) CDs & DVDs (Dispose Safely) Computers & Accessories (Recycle, refurbish, reuse, dispose safely) Electrical appliances (Recycle, dispose safely) Electrical appliances – Battery operated (recycle, dispose safely) Mobile phones (recycle, refurbish, reuse, dispose safely) Power tools (Dispose safely) Printer cartridges (recycle, dispose safely) Smoke detectors (dispose safely) Televisions (recycle, dispose safely) Video and Audio tapes (recycle, dispose safely) Lighting Fluorescents Metals Aluminum – Scrap (Dispose Safely) Electrical Cables Any fragments of asbestos if found would be double wrapped and sealed in heavy duty plastic and delivered as required to an appropriately licensed waste disposal facility on a need's basis.	

Item	Respondent	Comment	Response	Action
11.27		8.1.7 Water Quality and Hydrology 6.7 - 6.7.5 Further information is required regarding the injection area, transferring leachate to containers, and mitigation measures to prevent the untreated water impacting on stormwater system. Plans show stormwater directed to Jerrabomberra Creek. Please indicate how contamination will be prevented.	Transferring leachate into containers will take place in the compaction area which is bunded and inside the shed so part of the capture system and not outside the building where the stormwater is collected	See throughout Section 6.7 of the Revised EIS
11.28		6.7 – 6.7.5 As per above, plans provided show stormwater going directly to Jerrabomberra Creek. Please provide further evidence on how contaminants / leachate will be prevented from reaching the stormwater system.	The Leachate collection system and the stormwater system are separate and divided by a 150mm bund inside the shed and separated by the shed itself. Leachate is managed in the shed as is the waste. Only loaded and sealed containers will be removed from the shed by forklift. There is no interface of waste orleachate outside the shed to influence stormwater quality. Leachate will be 100% bunded within the MRF. Cardno recommended an emergency overflow outlet from the leachate tank to discharge into the ICON sewerage network, this can be done by a Liquid Trade Waste Application. CRS has investigated this option and an application to ICON water can be made when the actual composition of the leachate can be chemically tested. Pumping out the tank from time to time by a licensed liquid waste processer would be another option CRS can use to ensure there is no contamination of the storm water system	See throughout Section 6.7 of the Revised EIS
11.29		8.1.8 Climate Change and Air Quality (p86-89) 6.8.2.2, 6.8.3.2, 6.8.4.2 Further Information required regarding impacts of odour (storage containers) on neighbouring blocks and future developments.	According to industry best-practice, the containers will be sealed, watertight and fitted with an activated carbon filter on their vent, thus minimising odours from this source. The door seals are washed post loading to ensure proper sealing before transport and the seals are inspected upon each loading and replaced annually to ensure performance. Veolia has successfully been using these same container design from Clyde and Banksmeadow in Sydney for rail transport to Woodlawn for many years. Up to 900,000Tpa are transported this way through the suburbs of Sydney and many country towns with minimal issue	Sections updated in response to comments
11.30		(p92-96) 6.8.2.4, 6.8.3.4, 6.8.4.4 As per above, further Information required regarding impacts of odour (storage containers) on neighbouring blocks and future developments	Please see response to 11.29	As Above

Item	Respondent	Comment	Response	Action
11.31		(p91-96) 6.8.2.3, 6.8.3.3, 6.8.4.3 Please provide further evidence of what effect the proposal may have on climate change and how the proposal is consistent with associated ACT and national policies, including evidence that Woodlawn Bio Reactor creates less greenhouse gas emissions than Mugga Lane Tip. Please also address ACT No Waste's comments	CRS understands the waste hierarchy and its proposal is not designed to interfere with any program designed to avoid the production or recycling of waste. Minimising of the waste to landfill, in both short and long-term strategies achieve the same outcome. Removing the inevitable methane leakage from landfill is best done by addressing the organic content and finding alternative uses for materials can occur for an additional 20% of the material currently going to landfill. Removal in the short-term, green waste that is in the MSW collections and potentially food waste in the long term, will have a significant impact on the production of methane but will also inhibit the production of electricity currently soured from this methane. Both landfills are engineered and are focused on methane capture. CRS has opted to utilize the WBL as it has been a purpose-built engineered cell from day one and is a classic hole in the ground that is being filled. The capture of methane and the long-term environmental performance of Woodlawn and its isolated location and ancillary activities are also advantageous. Ultimately, CRS is a processing and recycling facility with an intention of removing of paper, timber, glass, aluminum and steel cans which are all positive in terms of greenhouse gas and water savings. All these materials (and others including green waste) are proposed to be recycled by CRS	Please see Section 4.3, 6.8.2.3, 6.8.3.3, 6.8.4.3 of the Revised EIS
11.32		Hazardous emissions from the plant including cumulative impacts with other developments in the air shed - Not Addressed - Please provide a response in accordance with the scoping document. E.g. Any hazardous material from collection that will be processed/stockpiled on site	See Supplementary air quality assessment comments prepared by Todoroski Air Sciences See Appendix Q	See updated Sections 6.8.2.5, 6.8.3.5, 6.8.4.5 of the Revised EIS
11.33		Poor quality waste material or dangerous contaminants in waste material impacting on operations and air quality - Not Addressed - Please provide a response in accordance with the scoping document. E.g. Any hazardous material from collection that will be processed/stockpiled on site	Please see response provided at 11.26. The site is large enough to fully account for queuing and dwell times in the event of a dangerous contaminants or waste material impacting the operation of the site. Loads will be inspected prior to processing, in the event that hazard materials are detected they will remain on the truck with that load be directed out of the site. The tipping floor as well as the externals on the site will cater for a large number of trucks on site which is more than sufficient to ensure impacts to the local area and traffic network will be avoided.	See updated Sections 6.8.2.6, 6.8.3.6, 6.8.4.6 in the Revised EIS
11.34		8.1.9 Socio-economic and health (p96-99) 6.9-6.9.5 Further information required in relation to what actions will be taken to prevent the harbor to vermin and pest animals. E.g. management plans etc.	Examples of a draft Management Plan and construction plan are attached. The detail of these types of plan are finalised at the licensing stage to be accurate and included matters that would be conditions of consent. Detail at this stage would be generic	See Model CMP/OMP in Appendix P
11.35		(p96-99) 6.9-6.9.5 Further Information required - Please provide further information in relation to management plans/procedures for the handling and disposal of hazardous material.	Examples of a draft Management Plan and construction plan are attached. The detail of these types of plan are finalised at the licensing stage to be accurate and included matters that would be conditions of consent. Detail at this stage would be generic	See Model CMP/OMP in Appendix P
11.36		8.1.11 Hazard & Risk (p103-107)6.11.2.1, 6.11.3.1, 6.11.4.1 Provide further details on what impact a fire may have on surrounding land uses.	Additional details on fire mitigation have been provided	See Sections 6.11.3.1, 6.11.3.5 of the Revised EIS

Item	Respondent	Comment	Response	Action
11.37		(p103-107) 6.11.2.5, 6.11.3.5, 6.11.4.5 Further Information required - Please provide further details of the Impacts if the infrastructure fails. E.g. Emergency procedures how will the waste be processed, transport movements etc.	Emergency Procedures Onsite equipment failure: There are two items of key fixed and mobile equipment that if the equipment failed there would be an alternative such that the operation could continue. These included double in and out weighbridges, multiple in and out fast closing doors, two sorting lines, two container compactors, two extraction fan motors (Will have variable speed control and each will shift 75% of the load individually so if there was a motor issue one fan would be sped up to cover), at least two pieces of equipment (forklifts, loaders etc.) with service agreements and/or replacement arrangements from a local supplier or hire company. The equipment duplication and or duplicate parts availability on key items of wear and tear allows a skeleton processing arrangement while equipment is serviced or replaced. There are 8 hours of every day where maintenance can occur without inhibiting operations. Electricity interruption: Access and connection to portable generators will be organised with a local hire company for short notice deployment Fire interruption: The focus is on prevention such that any fire incident is small and contained and will be resolved before any fire brigade intervention as discussed in Section 6.11.3.5. There is again an 8-hour non-operation windows each day to restore operations. A significant fire event, which could also occur at Mugga Lane, will require a rudimentary solution. The size of the facility would allow short term receival and direct loading of containers for road transport in an emergency. There are enough containers to store three days waste in sealed and watertight environment. Longer than that would require road transport to Woodlawn. The same would occur if there was a significant fire event at Mugga Lane. Railway track interruptions: Programmed rail maintenance is already planned into the availability for the rail tracks for daily commuter service. Catastrophic rail track event that required more than three days to rectify would then necessitate the transfer of containers by road to Woodlawn. Mugga Lane: Should the Government wish to participate in the emergency planning scenario then Mugga lane could replace Woodlawn in the above arrangements just as CRS could provide an alternative outcome for Mugga Lane if an emergency occurred there.	See Section 6.11 of the Revised EIS
11.38		(p103-107) 6.11.2.6, 6.11.3.6, 6.11.4.6 Further Information required relating to the safety of workers (e.g. the EIS does not include examples of OMP, EMP and OH&S)	Model CMP and OMP documents from Benedict Recycling – Mayfield Newcastle The final CMP and OEMP, which will incorporate the final remediation plan and RAP and revised EMP will include all the relevant Work, health and safety requirements and procedures	See Appendix P
12	9.1 Public Consultation			

Item	Respondent	Comment	Response	Action
12.1		(p126) 8.1.2 Further information required - please provide further evidence of the consultation with surrounding lease holders and land managers that will be potential impacted by this proposal.	Consultations (other than door knocks and flyer distributions) All Bids - Immediate Neighbour (Meetings and emails - Proforma objection mail out – generated some 140 client objection responses) Austral Bricks - Near Neighbour (Meetings and emails) Timbo's café - Immediate Neighbour (No issues) Access Recycling - Immediate Neighbour (No Issues) Holcim Concrete - Immediate Neighbour (3 meetings and emails) Tiger Waste - Immediate Neighbour (Letter of support) Harvey Norman - Immediate Neighbour (1 Meeting and email question responses) Horseland - Immediate Neighbour (email list) Canberra Times - Near Neighbour (1 meeting and site visit by management) Molonglo Group - Near Neighbour (email exchanges) Coles Express (Shell) - Near Neighbour (email list) Southside Village - Nearest residential neighbour (Meetings and presentation) Site visit offered to all on the mailing list, including neighbours for 31/1/18 - 8 people attended	See updated Section 8.1 of the Revised EIS
12.2		Any recreational groups affected by the proposal	No recreational groups were identified as part of the public consultation process.	See updated Section 8.1of the Revised EIS
12.3		Any volunteer conservation, landscape management or land care groups affected by the proposal	Conservation Council meeting attendance, meeting invites and email correspondence Friends of Jerrabomberra Wetlands notifications and fliers	See updated Section 8.1 of the Revised EIS
12.4		The local community	The process has included an extensive community consultation process run for more than 18 months. This included contact with community councils, door-knocking, newspaper ads, community meetings, individual meetings, phone calls and emails. Communications were handled and funneled through Newgate until December 2017 and thereafter by Adam Perry (CRS Director). A register of communications was kept early but due to the volume of requests and the number of persons dealing with meeting requests, media and responding to public questions this was not continued. Records exist of phone conversations as they were followed up by emails. The 1800 number and flyers all contained contact details as does the CRS Website. In time the correspondence and phone communication has been done by Adam Perry on all matters. This has included media enquiries, resident meetings, one on one meetings.	See updated Section 8.1 of the Revised EIS
12.5		Describe the community consultation undertaken (methodology & criteria for identifying stakeholders and the communication methods used	See updated Section 8.1 of the Revised EIS.	See updated Section 8.1 of the Revised EIS
12.6		Describe how concerns have been considered considering the proposal and any future development planned	All matters raised during the consultation process have been considered by the project team and actioned as part of the design and development phase as required. Views raised were responded to quickly with information passed to the	No action required

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			community where possible. Examples of this include: • altering the design to remove WtE from the proposal completely • adjusting traffic flows and timings to reduce perceived impacts which were raised by the community. Including the new traffic lights, at the proponent's expense, to improve pedestrian and on street safety • Revised traffic flows to permit some truck traffic arriving from the north to access the site from Ipswich Street so as to limit trucks in Wiluna Street	
12.7		10 Recommendations Provide revised summary to include all mitigation measures as described throughout the EIS. All mitigation measures will inform any subsequent approval process. Describe the monitoring parameters, monitoring points, frequency, data interpretation and reporting proposals - Not addressed - Please provide a response in accordance with the scoping document	The development of a monitoring regime would be done after conditions of consent are imposed and after application to ACT NoWaste for a facility licence. Monitoring regimes would include: • Construction Monitoring • Monitoring of existing water sample wells • Stormwater and sediment controls General Operations • Weighbridge in and out • Records of waste transporters • Quarterly summaries of waste receival transactions to NoWaste • Scheduled maintenance of key equipment • Stack monitoring • Periodic field odour assessments on site and off site • Air Quality monitoring at the stack – 2 months after operation commencement and then annually • Daily visual monitoring for dust generated by site activity, conducted by staff • Stormwater first flush cleanout • Vermin and pest management – contractor schedule • Offsite Noise confirmation – 6 months after opening • Online complaints register and responses	See Section 7.2 of the Revised EIS "Summary of Draft Environmental Management Commitments" has been updated to include these identified actions.
12.8		Scoping Document Reference Include a table that cross references the draft EIS to the scoping document - Further Information Required - A table that cross references the EIS to the scoping document is required	A table identifying and cross-referencing scoping document elements has been prepared and included with the revised EIS.	Updated the Revised EIS and See Appendix T
12.9		General The revised EIS must address all matters raised in the Scoping Document (and as identified in these comments), including matters raised in the representations and by entities. If matters raised by entities or in the representations had not been	A table identifying and cross-referencing scoping document elements has been prepared and included with the revised EIS. Responses to community and Government feedback have been provided as part of the Appendices to the report.	See Appendix R, S and T
12.10		previously addressed in the draft EIS then the revised EIS should adopt avoidance or mitigation measures to reduce the impacts. The revised EIS must be clear and concise but must address all impacts adequately as identified in the Scoping Document. The revised EIS should correct all errors in the draft EIS.	In most cases, Mitigation measures have been built into the original design of the proposal, so additional measures are not required or appropriate. In instances where a mitigation measure is required, the measure has been identified in the scoping documents.	
13	ACT NoWaste			

Item	Respondent	Comment	Response	Action
13.1		A draft Environmental Impact Statement (EIS) is currently open for public comment on Capital Recycling Solutions Pty Ltd(CRS) proposed Material Recovery Facility (MRF) in Fyshwick. Submissions close on 5 June 2018. The comments and questions in this submission relate to the Draft Environmental Impact Statement for the Materials Recovery Facility Fyshwick prepared by Purdon Planning for Capital Recycling Solutions in April 2018. The proposal states that the MRF would receive, sort, separate and export the ACT's waste that is currently going to the Mugga Lane landfill as well as wastes currently landfilled in the surrounding region (Proposal Description, pg. ix). ACT NoWaste requests the revised EIS consider the comments/questions raised below.	No response required. See below.	No response required. See below.
13.2		General comments Please review the Waste Act and ensure it is considered and incorporated into each relevant section of the revised EIS.	Reference to this ACT and Regulations have been included in Section 3.5.8. The licencing of a facility was fully expected and welcomed. CRS's has JV partners with many waste management facilities and are familiar with supplying the operating detail. This will be addressed in the development application detail. The scoping response from EPSDD made no reference to the new Waste Management and Resource Recovery ACT 2016 (published in 2017) nor was there any reference or comment by ACT NoWaste about this or assessing the licencing risk. CRS focused on assessing Government department concerns in their submission which is the purpose of the scoping process. The scoping comment from Waste Policy was "Waste Policy has no comment at this stage of the proposal." CRS had outlined its proposal and its numbers in the scoping application. This being said guidance from ACT NoWaste at this point is appreciated.	See updated Section 3.5.8 of the Revised EIS
13.3		Comments by section The draft EIS states the Territory is encountering high levels of waste generation per capita (pg.3). This statement is misleading. The Australian National Waste Report 2016 which provides the most recent comparative data by State and Territory, reports that the ACT is the second lowest per capita waste generator after Tasmania. The EIS should be updated to reflect the above information.	The ACT governments own website https://www.environment.act.gov.au/waste says : "In the ACT we generated around 1 million tonnes of waste in 2014–15 (across all waste streams, not just municipal solid waste), which is approximately 2.7 tonnes of waste per person. This is one of the highest per capita waste generation rates of any state or territory in Australia.". If the Australian National Waste Report 2016 is the most recent data, then this should have been advised to industry in 2017 during the ACT's market sounding exercise. The data presented in the Waste Feasibility Study is a snapshot. CRS has chosen to extrapolate and project the numbers as a maximum scenario for proper environmental impact assessment. The Australian National Waste report uses data from 2014/15. ACT generation of waste per capita is 1998kg per capita based on that data. The ACT population has grown from 2014 (386,000) to 2017 (415,900) (ABS numbers) so there are now an extra 25,000 people	See updated Section 1.3 of the Revised EIS Reference changed from "High" to "Increasing" in the EIS.

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			generating waste than in 2014. This means there was an estimated growth of 50,000 tonnes of waste created in 2017. This is expected to grow further due to population growth. Unless the population growth stops there will be at least an average of 1.6% population growth (2017 was 2.2%) which means that any facility design needs to factor this in. Whether the number is high or not the reality is that facilities need to be designed for the future. The Market Sounding Tender document in 2017 made the statement on page 5 (3.2.4) that "Total waste generation in the territory is currently over 1 million tonnes per year and is projected to grow by approximately 2%pa" – this would mean and additional 20,000tpa at least.	
13.4		ACT Waste Feasibility Study Since the submission of the draft EIS, the ACT Government has released the Waste Feasibility Study (WFS) discussion paper and Roadmap. The CRS MRF proposal in its current form is incompatible with the Roadmap in many respects including in so far as it seeks to commit 100 % of the Territory's residual waste (existing landfill waste) to a low recycling/high landfilling solution for an extended period. Whereas the Roadmap recommends incremental progress towards full resource recovery by diverting high value resources, e.g. food waste, from landfill. The Roadmap also recommends facilitation of market development to increase demands for recycled products, e.g. glass fines and soft plastics, etc. The revised EIS should include in-depth consideration of how the proposed waste management facility fits within the WFS Roadmap. Further information remains required to determine how CRS propose to use market-based mechanisms to increase demand for recycled products	Notwithstanding that CRS had not seen the Roadmap before its EIS was on exhibition, CRS contributed to the market sounding process and was expecting feedback in 2017 in relation to the strategy from the ACT Government. References to the discussion paper are now included in Section 1.3 of the EIS noting that it is only a discussion paper distributed for public comment and CRS has no firm idea what the final strategy will be. The Minister in her message at the front of the Roadmap document makes the following statements: - "*we are seeking pathways to achieving the ambitious goals outlined in the ACT Waste Management Strategy 2011-2025 and a carbon-neutral waste sector by 2020*" "*the territory's resource recovery rate has plateaued at around 70% for the last decade and the waste sector is unlikely to be carbon neutral by 2020 under current management practices" (p5) The CRS proposal is not actually "incompatible*" with the Roadmap. On the contrary, CRS believes that it can ideally assist in the achievement of the Territory's waste recycling goals. CRS is not sequenced with the Roadmap currently as it has a strong organic waste processing focusses on the back of a dedicated collection service. This will take at least five years to establish and the success of the program is not automatic therefore assumptions on recovery rates are theoretical. There is little focus on the commercial waste stream, which makes up some 60-70% of what is still going to its monopoly owned landfill. The purpose of the original waste strategy is to move from the 70% recovery to 90% recovery by 2025 targeting the most difficult fraction to sort and recover. The lack of significant achievement in this over the last decade resulted in the Government's Market Sounding process and now the Roadmap discussion paper. CRS's self-funded and sited proposal should be welcomed for serious consideration as it is specifically focused on separating materials from the major portion of the waste stream going to landfill. There is no reason that these projects cannot synergistically co-exist, as they do elsewhere. CRS is not opposed to the FOGO scheme and believes it can assist in delivering greater diversion of organics from mixed wastes. There is no threat to the ACT NoWaste plans as they intend to source separate with dedicated bins which will naturally divert the fractions they want to process. CRS is happy to focus on separation of any recoverable materials from mixed loads that is in the best interest of the Territory and can be effectively	See updated Section 1.3 of the Revised EIS

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			and economically reused. Market-based mechanisms refers to supply, demand and price. Our business case is simple in that CRS charge a fee to receive waste; CRS pays a fee to dispose of waste to landfill. In between those two key elements CRS removes as much material as possible for recycling, to avoid the landfill disposal costs. In this simple system, market-based mechanisms drive recycling. Access Recycling has been operating in the metals recycling industry for more than thirty years, processing in excess of 100,000 tonnes of metal across Australia annually, with greater than 99% of all materials recycled. Benedict Industries has been operating in the C&I, C&D waste recycling industries for more than 50 years, processing more than 1 million tonnes annually, with greater than 85% recycled. In this regard CRS uses the combined industry knowledge of both operators to divert as much material as possible away from landfill, within the constraints of the market-based mechanisms (such as demand and supply) available to us for any given commodity. The waste market is an everchanging market that is driven by mechanisms beyond the control of any individual operator. However, with the experience of both Access Recycling and Benedict Industries, whom are experienced operators, CRS has the ability to navigate the recycling market and respond or adapt to changing regulations, demand and supply sources. In terms of available supply, according to the Waste Feasibility Study, the ACT has one of the highest rates of waste generation per capita, at 2.67 tonnes per person per annum, and recycles only 70% of it. CRS intends to utilise these figures to predict likely waste supply streams. In terms of demand, circumstances change frequently, as seen recently with China, however, as demand reduces in one area, it often increases in others. Or, technology and other economic factors are used to improve waste sorting and meet new demand requirements. CRS knows from our existing business operations, commodity prices change over time, and new technology creates whole new markets. One example of such market changes is the ACT Government's recent proposal to create an ACT Fogo industry. This announcement represents an opportunity where one previously closed with the recent announcement that mixed waste organic material in a variety of situations has been halted. These market factors will remain and continue to drive recycling to the highest levels of commercial feasibility.	
13.5		Mugga Lane Resource Management Centre (MLRMC) A number of statements made on page 4 of the Draft EIS are either incorrect or reflect outdated information. Claims have been made that the Territory is in imminent risk of running out of landfill space and that any expansion of the facility willrequire significant land and bush clearing. The document provides no evidence to support such claims. While numerical inconsistencies on diversion vs recovery and recycling have been explained, ACT NoWaste remains concerned about CRS claims surrounding diversion and recovery / recycling	Clearing of 9.8 hectares of protected Box Gum clearing is significant. The acquisition of farming (for the landfill and the offset) is also sterilizing land – 67 hectares are dedicated to the landfill extension – piggybacking on part of the old landfill only delays its restoration. The landfill is significant in its requirement for land and water management as expressed on page vii of the Mugga Lane Extension EIS. The 90% diversion rate relates to the potential MSW and C&I waste, currently going to Mugga Lane landfill. The 90% diversion refers to waste deemed worthy of processing for the recovery of recyclable materials. CRS use the compositional analysis of the breakup of wastes provided in the market	Amended in the Revised EIS. See Section 2.3.1 of the Revised EIS

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		rates due an apparent lack of evidence. This concern arises from use of the following language in section 2.3.1 which details waste composition (emphasis added): - "this table *indicates* that *potentially* and *conservatively some* 24.5% *can* be recovered - CRS has *assumed* that a 40% recovery rate of each of the targeted materials (in grey in Table 1) indicated and is therefore *assuming* that the residual 60% is either contaminated or unable to be recovered - "… CRS has made *estimations and there is no reason to assume that the overall recovery rate cannot be achieved*" - "Currently, CRS is *close to achieving more than* 85% recovery from its C&I and C&D processing…. (CRS is *predicting* 40% recovery of the C&I waste in this facility and is *very optimistic* that this could be a low number" - Whilst the recyclability of the MSW stream *may* be more complex due to contamination the recovery from the C&I *should* exceed 40% of its volume, therefore the overall combined recovery tonnes will be *more than 20% as predicted*" Clarity is sought on how the 90% diversion rate has been calculated, given that the estimation appears to have been made based on their Sydney facility which processes C&I and C&D waste which is materially different to the proposed MRF waste streams of C&I, MSW and "light residues from C&D and other wastes" (see now section 1.1, p. 1). It also remains unclear what evidence CRS has on how they have calculated potential high levels of contamination of the MSW stream which will allegedly be "balanced out" of a more readily recoverable / recyclable C&I stream. Clarification is sought surrounding the language about the Sydney facility as to whether the 85% is in fact recovery, or whether this meant to read diversion. Clarity remains sought on *how* the CRS will ensure it consistently meets their claimed resource recovery and recycling rates. Further information is also sought on *<u>how</u>* this market risk will be managed to maintain an ongoing demonstration of the claimed rate.	sounding study by TCCS, to ascertain which of the waste would be targeted. CRS excluded waste such as contaminated soils and asbestos and 50% of the timber as being contaminated. The recovery rate of 20% relates to the conservative overall target of processing the targeted waste at the proposed CRS MRF. CRS was quite specific in Table 1 of the EIS. CRS would target in its sorting, some 40% from specific material volumes as an average: MSW Composition Paper 13.3% Organics 13.4% (may reduce with separate collection service Glass 4.1% Plastic 10.6% Metals 2.4% Inerts 2.4% C&I Composition Paper 8.4% Organics 2.7% Glass 1.9% Plastic 6% Metals 1.1% Inerts 38.9% Wood 8.5% (50% of total still to landfill) CRS would expect the recovery rates to be higher for inert and metals for example than 40% and contamination may see other materials lower than 40% but CRS has averaged the recovery across the board of these targeted materials. If ACT NoWaste was to keep red lidded bin waste to Mugga Lane landfill, then the recycled percentage may well rise above 20% as there is less wet and contaminated waste. It will be drier and easier to process and sort from the commercial streams. If red lidded bin waste (general municipal waste) still went to Mugga Lane Landfill the diversion percentage from Mugga Lane landfill will be significantly less. In Sydney, Benedict Recycling processes over 1,000,000 tonnes per year of Commercial and C&I waste and has done so for the last 20 years. Benedict Recycling is aware of the cost of landfilling versus recovery/recycling/diversion opportunities and runs a separate materials supply business with various recycled blends for reuse purposes. Benedict Recycling was Sydney's biggest glass processor before industry issues changed the market and currently Benedict Recycling is a processing business (not supported by collection contacts) and operates successfully in receiving waste, separating and sorting and finding markets for the non-landfill residues. Landfill is very expensive in NSW and if the levy is introduced then the motivation to recover/divert/ recycle will be greater than it is currently. The CRS facility will be licenced, and the appropriate regulator can monitor the incoming/outgoing data that will have to be submitted. Other factors such as a levy, which are beyond CRS's control, will have an impact as well as other policy	

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			initiatives by ACT NoWaste (such as any FOGO and/or Green waste collections), or other facilities approved in the Territory. CRS has always operated in a commercial environment and will adapt to all the recycling market technologies, conditions and circumstances, as required. The “end market” question is a part of everyday business. This is a matter of commercial in confidence. However, suffice to say that seeking and developing recycling markets is a daily activity for a large recycling company.	
13.6		The EIS should be edited to provide accurate, up-to-date and substantiated information in regard to the Mugga Lane landfill and proposed recovery rate.	The ACT NoWaste submission is critical of the CRS proposal on the basis that the Mugga Lane Landfill has at least 12 years of life: *“The planned and designed size of the landfill in Mugga has capacity for the foreseeable future – the Territory only builds landfill cells as they are needed. The current operational and under-construction cells provide landfilling capacity until 2030”* The Waste Facility Study Roadmap (p.30) gives a different impression for industry, stating that the remaining life of the Mugga Lane Landfill is only 5 years: *“The ACT’s landfills at Mugga Lane and West Belconnen take waste collected and transported by Government, licensed contractors and the RMCs. Mugga Lane has been expanded and based on current and expected rates of waste generation has capacity until 2023.”* CRS has taken the view that regardless of the life of Mugga Lane, there is an opportunity to process recyclable materials and divert materials from landfill. This is acknowledged in the ACT Policy documentation. In the process of recovering materials there will be residues that still need to be landfilled and CRS believes that Woodlawn is the best outcome as this will remove the requirement for expansion of Mugga lane. The recovery rate is conservatively averaged across both the waste streams and expected to be more than 20% diversion/recovery from landfill. CRS has identified potential materials that can be recovered in Table 1 of the EIS. This is based on ACT NoWaste data. CRS has indicated that there is a potential diversion from the two waste streams (MSW and C&I) for recycling processing. Both streams are identified in the National Waste Report, as the waste streams with the least amount of recycling occurring (58%). While the reference to “only 20%” on p.7 is inaccurate. CRS has indicated on many occasions in the report starting, for example on pages ix,xiii, 1 of the Executive study to “more than 20%” recycling and recovery and has also indicated that this is a conservative number in section 2.4.1 and table 1 (over 24%). CRS has made calculations based on the numbers distributed by ACT NoWaste for the Market Sounding in 2017. ACT NoWaste did not issue the National Waste Report numbers, so it was reasonable to assume that the Market Sounding numbers were more specific to the actual ACT market situation. CRS has been conservative in their predictions for three reasons; Firstly, the lack of information from the market sounding process in terms of strategic direction. Secondly, the hardest recycling processing comes with mixed and contaminated fractions. The first 58% is much easier to recycle than the next	Amended the EIS in relation to 90% diversion and 20% recycling rates See Section 2.3.1 of the Revised EIS

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			30%. To imply that it is “only 20%” demeans the complexity of the process. CRS would expect that if it was easy then ACT NoWaste would already be doing it. It has been stated that recycling has been stagnant for 10 years by the Minister so 20% from these two large waste streams is significant. Thirdly, the recovery rates from the MSW will be lower, due to contamination than the C&I, keeping the average lower. Should this waste stream have the food waste removed for FOGO then the actual recycling % would increase as the contamination would be less, even though the overall tonnes received would decrease.	
13.7		Background The draft EIS refers to CRS as a ‘holistic waste recovery facility’ having three components: an MRF, a rail freight terminal, and possibly, a Waste to Energy plant (WtE), which is to be discussed in a separate EIS application (pg. 6). It is useful to note in the context of a WtE plant that the WFS Roadmap proposes the Territory develop a WtE policy in the first instance and subsequently investigate the viability of a process engineered fuel (PEF) production facility for the ACT’s residual (non-recyclable) waste. A PEF plant will not require the Territory to guarantee a fixed quantity of waste for a local WtE plant.	CRS has already moved away from the WtE aspect of waste recovery in the ACT. Therefore, a new Scoping application was made. Regardless of the Roadmaps reference to a future WtE policy CRS considers that this will not happen in the Territory in the medium term due to a number of factors so has therefore been removed from the proposal. Interestingly, the Roadmap indicates the preparation and export of waste as Process Engineered Fuel is an acceptable concept, but further indicates that there is a lack of appetite for WtE in the ACT. CRS has amended this paragraph in the EIS to avoid any confusion about WtE being part of this proposal. This paragraph is merely a reference to the planning journey undertaken by CRS to date rather than any strategic intent on this site. The EIS is for an MRF and does not seek any WtE.	See updated Section 2.1 of the Revised EIS
13.8		The revised EIS should include an assessment of treatment options for organic waste other than landfill. It is suggested that clarity is provided in the following places surround the MRF processing and recovery of FOGO: - In now section 2.3.2, p. 24 (last paragraph) to reflect that while some organic materials (e.g. uncontaminated paper, cardboard and timber) will be recovered, FOGO will not be included at this time and will go to landfill. - In the table in now section 6.4.1, p. 124 surrounding “How will kitchen waste/food be dealt with?” – that the answer to this question be updated to reflect that, for example: “It will pass through the MSW sorting process (as it will be both mixed and inside garbage bags), bag opened and loosely shredded and after being picked through for recyclables. The food waste will go into landfill along with other contaminated or soiled material that cannot be recycled. When a composting or other facility exists in the future, food waste could be separated in the MSW sorting process for transporting and composting, with any residues then containerised for transport to landfill.” -Please confirm this means that CRS will achieve a 20% recycling rate despite landfilling all food waste at Woodlawn.	Composting and other treatment options generally apply to the food waste and organic fractions of the waste stream. CRS did originally consider this but ruled it out in the ACT due to odour and a lack of local reuse markets (the use of composting at the scale proposed is not really addressed in the Waste Feasibility Study other than mandatory use by government). CRS has considered that a processing facility connected to rail could, in the long-term, service a composting facility, also connected to rail, but much closer to end users at scale. In the short-term CRS considered a processing and recycling and rail facility in the ACT would be the most useful and flexible priority. CRS would be happy to contribute separated materials to another Composting facility and is willing to discuss the possibility of separating food and green waste fractions and even railing to a composting site if the ACT Government wanted to do this. CRS is aware from its 30 years of recycling activities that resources are only recycled when they are reused (not stockpiled) the current situation with China has highlighted this and CRS is focused on dealing with materials which it can not only process but also reuse. This will change from time to time and the flexibility of CRS’s facility to respond to the processing needs of the ACT will remain well into the future. The CRS facility is an MRF for separating materials. It is not a composting facility or a Fogo facility and therefore these were not considered in the EIS as they have different requirements and economics. If those types of facilities exist in the ACT in the future, then the sorting activities could and would be adjusted to assist in the viability of those specific programs. Minimising waste to Mugga Lane landfill would still be the main goal. The concept of dealing with FOGO arose from a question issued by ACT NoWaste that asked CRS to consider other treatment options for organic waste. It is commercially competitive to build a facility and not require a Government contract to fund it. ACT NoWaste introduced their Waste Feasibility study in May 2018 outlining	See updated Sections 2.4.1, 2.6.3 of the Revised EIS

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			their potential strategic focus on FOGO. This occurred after the Draft EIS was exhibited. As a result, CRS has considered the concept of organic processing (FOGO)and has indicated that it is more than willing to separate appropriate material and send it to the FOGO processing facility, to assist the ACT Government in landfill diversion. However, CRS is not proposing to compost organics at Fyshwick. CRS is proposing to sort acceptable material and supply an approved FOGO facility, should the need arise. Should there not be an approved facility or a facility that can dispose of the compost lawfully, then FOGO waste will continue to landfill, as is presently the case. Food waste separation (FOGO) was not considered in Table 1 of the EIS which details proposed recyclable materials as FOGO was not a goal of the ACT Government at the time, and CRS does not propose to undertake any composting activities itself. If there is a processing/recycling option in the future (for any type of material) there is no reason that the food waste cannot be separated and sent by rail/truck to a different lawful facility as part of the recycling initiative. The CRS MRF recycling goal is 20%. This can be achieved in a number of ways and should hopefully be greater. CRS has targeted certain materials from both waste streams and then assumed 40% recovery of that material. This in fact may be greater, or less, in any given hour. Currently all the material that is proposed to be processed ends up in landfill. If CRS can achieve 20% of whatever it receives then this represents recovery of a significant amount of material that is currently being tipped in landfill. ACT NoWaste has only expressed concern surrounding recovery of less than 20%, when currently they are offering no processing for this material. CRS considers anything above what is presently occurring to be a success. However, is still adamant that 20% is achievable. CRS has operated long enough to know that new technologies are developed all the time and then proved in the industry constantly. For example, markets for pelletised organics are developing so other lawful uses will be explored and developed over time. If new consents are required for more machinery and technology, then the planning approval process will be undertaken. Commercial operators are always looking for lawful opportunities and contingencies. CRS is aware that the Territory intends to introduce a levy and is not privy to its timing, mechanics or pricing, but it does work in other states who operate in a waste levy environment. Queensland removed its levy a few years ago and then received significant landfill waste, much of it from NSW. Queensland has introduced a new levy in mid-2019 which will change this landfilling dynamic in Queensland and NSW Currently, waste generated to the ACT is presently flowing to 6 different landfills outside of the ACT. In addition to Mugga Lane, CRS will have at least 6 different disposal options, accessible by road. It is also possible that CRS could enter into a reciprocal arrangement for emergency landfill with Mugga Lane (ACT Government) but no arrangement are in place.	

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13.9		2.6.1 Expansion of Mugga Lane The draft EIS claims that "The future of the Mugga Lane landfill will be problematic for the ACT as it has very limited current life, is expensive to operate and provides very little in the way of recycling opportunities for waste streams targeted by this development opportunity" (pg. 28). The claims made in this statement are incorrect, not substantiated with evidence or analysis, and misleading. In addition, the draft EIS provides no insight into how this might cost the Government and industry. ACT NoWaste would like to note below: The planned and designed size of the landfill in Mugga has capacity for the foreseeable future – the Territory only builds landfill cells as they are needed. The current operational and under-construction cells provide landfilling capacity until 2030, which means the Territory will not need to commit further capital funds until 2026- 27; The draft EIS provides no substantiation to its claim the landfill is expensive to operate; and With a very little analysis to support this claim, the proposed MRF will only achieve 6 % increase in landfill diversion. Whereas, the WFS Roadmap provides a pathway to achieving at least 15 % increase in landfill diversion. The EIS should either substantiate the claims that the Mugga Lane landfill is problematic or remove such references from the document.	The attitude that the CRS MRF is a competitor to the objective of achieving 90% landfill avoidance by 2025 is confusing. Any efforts (not requiring public funding) should be encouraged to achieve the policy objective of 90% landfill diversion. The Government is not being asked to fund or sign a contract to tip at CRS. The gate fee will be competitive and would also be dependent on any waste levy the Government imposes on its landfill to encourage recycling and avoidance as discussed in the Roadmap. The diversion from landfill is entirely dependent upon the reuse markets and facilities that the ACT chooses to create (with an understanding that extra processing means extra cost to the community). CRS will work within and support the framework that evolves in the future. The Roadmap is now a discussion document and it is very focused on the organic component of the waste stream when it could be as much as 5 years until a purpose-built facility and site exists. CRS could be participating in separation of materials within 18 months of an approval. CRS are conservatively seeking to recover some 20% of the 300,000 tonnes currently being sent to landfill which CRS believes it can divert. Even if the actual total tonnages are less, the proportion of recycling will be more than 20% of the waste that is diverted from Mugga Land landfill. What is not acknowledged is that by having the capacity to sort waste, the CRS MRF will be able to divert more materials to other facilities as the Roadmap's strategies are developed. This will take time, but the diversion from landfill will increase as and when the ACT develops facilities to end- process and use materials. If materials are source separated or recovered from a dedicated facility like the proposed CRS MRF they are still diverted from landfill. It is wrong to assume that the CRS facility will have a single life purpose and cannot adapt to the local conditions and opportunities – commercial businesses do this by nature to survive.	No Update required
13.10		The EIS notes that as much as 30,000 tonnes per annum of Territory waste "is being tipped across the border in NSW" (pg. 28). It is worth noting that most of this is going to the Woodlawn facility by road transport. This movement of waste is due to the significantly lower gate fee charged by the Woodlawn compared to the Mugga Lane landfill. It should be noted that regional receipt of waste by Woodlawn is approved by NSW authorities.	The 30,000 tonnes per annum is a figure from the market sounding data provided by ACT NoWaste. It is said in the data that this is based on "verbal advice" and does not indicate that it is going to Woodlawn – just NSW. It is also noted that this information is "an estimate with a high margin of error" In the absence of other data this was modified and the projected 300,000 tpa for 2020 does not include tonnes crossing the border as these numbers were uncertain. This being said, the CRS proposal could capture and process this estimated 30,000 tonnes and capture recyclables instead of them being transported by road interstate.	No Update required

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13.11		The EIS further suggests the CRS MRF is preferable to the expansion of Mugga Lane (pg. 28). The arguments put forward are inaccurate and misleading. Below points should be noted in this context. As noted above the statement about the life of the Mugga Lane landfill is incorrect and misleading. Recycling benefits – the proposal seeks to lock the Territory into a maximum of 6 % increase in landfill diversion over the life of the facility, bringing the Territory's diversion rate only up to 76 % compared to current rate of 70 %. In contrast, the WFS Roadmap aims for a landfill diversion increase of at least 15 %, which will bring the Territory's diversion rate to 85%	Please see comments made previously – CRS is not seeking to "lock" in the Territory and would for instance seek to compete for the commercial waste as is normally the case. Government- controlled waste may be the subject of a contract but that would be the Government's requirement. Any recycling of the landfilled fractions would be taking waste management towards Governments goals rather than continuing to be stagnant. Commercial arrangements are inevitable, but it is difficult to discuss this until there is some sort of approval to give confidence to any contractual arrangement. CRS believes that it will be able to tender for various aspects of the Roadmap, thereby providing alternatives to what is a monopoly situation now.	No Update required

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13.12		ACT NoWaste agrees that the Territory can avoid capital outlay through to this proposal. However, what remains unclear is what gate fee the CRS MRF would charge the Territory for sending the Mugga Lane waste to the proposed facility. In addition, the Territory would also forgo significant landfill fee revenue which is used for public purposes. The proposal claims that it can reduce transport cost – this is patently irrational as the proposal involves transporting waste some 60 kilometers from the ACT through a process of triple handling: Collection at the kerbside and transport to the CRS MRF Unloading at the MRF and loading into storage containers for transport to Crisps Creek intermodal (Removal of recyclables reduces volume to landfill) Unloading at Crisps Creek and loading of the containers onto trucks that take the load for disposal at the Woodlawn landfill. Avoidance of landfill fire risks, windblown litter and odour – It should be noted that these issues are not unique to the Mugga Lane but are common for any landfill facilities including Woodlawn. In addition, Mugga Lane landfill has a significant exclusion zone from residential and industrial areas. It should be noted that the CRS proposal itself creates a risk of MRF fire, litter and odour within close proximity of other businesses in Fyshwick. The tolerance for failure of safety and environmental controls will be far less in the instance of the proposed facility given this proximity. In addition, the Mugga Lane landfill is constructed to the best practice engineering standards (Victorian Best Practice Environmental Management) and operated in accordance with strict environmental guidelines. The issues raised in the report around fire, litter and odour are well managed in Mugga Lane facility. The EIS should either accurately present the claims with substantiation or remove such references from the document.	The lack of the need to provide land or capital outlay is no small advantage to Government and taxpayers. The “progressive city with the ambition of having public, private and community partnerships” as espoused by the Minister in the Roadmap (p.5) would seem that the burden of achieving the landfill diversion should not rest solely on the Government. The market sounding was a call for help and not the first occasion. If solutions are offered by the private sector and then subsequently ignored or shunned in favour of the maintenance of business as usual without exploration of the possibilities, then the “progressive city” is not progressing. With the assistance of this proposal the ACT Government and the taxpayer will avoid the cost of providing the land and the cost of the facility. This is a financial benefit to the community of some $50-60 million. CRS is confident that it can offer the service at a commercially competitive rate. The proposed FOGO scheme will involve additional truck movements. The fire risk is acknowledged. CRS proposes fixed in-situ fire firefighting systems, that would include thermal cameras and stockpile temperature monitoring. Automated sprinkler systems are proposed to deal with any event. There is no significant stockpiling and a focused firefighting arrangement with proper systems will be installed – the focal point always remains the same and the floor is concrete not compacted rubbish and liners such as is the case with typical land fill facilities.	
13.13		2.7 Avoidance of Potential Impacts The draft EIS claims that further expansion of the Mugga Lane landfill will have environmental impacts such as clearing of land and felling of trees (pg. 30). The land in question is marginal, and was used previously for broad acre farming, a low order use. Expansion of the landfill does not require removal of significant vegetation. The environmental impacts due to landfill expansion have been mitigated by establishing equivalent offsets approved under the Environment Protection and Biodiversity Conservation Act 1999.	Removed reference to “significant land clearing” from Section 2.6.2	see updated Section 2.6.2 of the Revised EIS

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		Any trees required to be felled to expand the landfill will be completely offset in a similar manner. It is misleading to suggest the proposal will mitigate significant environmental impact. Please remove this statement from the revised EIS or provide clarification with details on the type of land that is to be cleared, as well as the planned offsets.		
13.14		The draft EIS states that fire risk management has been considered in the proposal by referring to a guideline issued by the Victorian EPA in November 2017 (pg. 31). It is not clear whether ACT Fire and Rescue have been consulted to ensure this would meet their requirements. Please consult with ACT Fire and Rescue with regards to fire risk management and include the outcomes of this consultation in the revised EIS.	We have nominated and will detail firefighting arrangements in the development application stage as required, to the Australian and Territory standard. Fire monitoring and suppression is a commitment listed in the Draft EIS document. Furthermore, the scoping document was referred to the Emergency Services Agency for comment and the ACT F&R reviewed the submission and "has no special considerations or objection at this time". The ACT Emergency Services Agency has raised no issues with the Draft EIS and will assess the design detail at the development application stage.	See ACT Emergency Services Comments in the response to submissions
13.15		Consequence of not proceeding The draft EIS makes three claims around the consequences of not proceeding with this proposal (pg. 31). In reality there is minimal adverse consequences for the Territory if the proposal does not proceed at this time. Below points should be noted in this context: The need to expand Mugga Lane landfill - as noted above, expansion of the Mugga Lane landfill is already underway and when completed will provide capacity through to 2030. The first dot point in section 2.8 consists of generalisations that are not supported with any evidence. The existence of the Mugga Lane landfill is not an obstacle to increased recycling, as landfilling has to be the last resort for any residual waste after all other higher order steps (i.e. reduce, reuse and recycle) are undertaken as per the 'waste hierarchy'. Developed based upon the 'waste hierarchy' principles, the WFS Roadmap provides the strategic pathway to achieving the Territory's waste management objectives. Second point is location specific. The only key advantage this proposal has over any other is its access to rail freight network. It could be argued that apart from this advantage, such a large scale Commercial & Industrial and Municipal Solid Waste (MSW) MRF would be best located in the Hume Resource Recovery Estate, with residual waste taken to the Mugga Lane landfill within close proximity. Unlike Fyshwick, Hume Estate offers a unique industrial symbiosis opportunity for waste management facilities in the ACT. A missed opportunity for the Territory – the draft EIS states that the Territory "may miss a significant opportunity to be an industry leader in Australia and be self-determining in the crucial areas of waste recycling and connected transport". As pointed above, access to the rail transport network is probably the singular and only unique feature of this proposal. However, the viability of this proposal seems to hang primarily on railing 80 % or more of the ACT's landfill waste some 60 kilometers away to another landfill. The long-term capacity of Mugga Lane landfill ensures the Territory can manage its waste while providing	Expanding Mugga lane itself will not achieve the goal of reducing waste to landfill nor will it achieve the zero emissions by 2020 as the FOGO diversion will occur at best in 2023. A facility that sorts waste and either separate recyclables or make engineered fuel would be a significant asset and at no cost to the community to establish. ACT NoWaste acknowledges the benefit of the rail freight access. CRS also sees a huge advantage in the rail connection into the future – this is not available at Hume and may also assist in the efficient export of the PET mentioned in the Roadmap. The FOGO facility needs to locate and may not be in Hume and may even be in NSW. Locating the proposed facility in Hume when it has no viable access to rail is a significant consideration. The comment regarding the proposal's viability is a subjective claim based on incomplete assumptions. This is a private sector proposal made by experienced operators in the industry who are not asking for public funds. To make a statement that "no significant opportunity would be lost" when a facility to process the commercial and industrial waste stream can be dismissed is short-sighted. The Roadmap has barely touched on the biggest landfill waste portion being Commercial and Industrial waste and the largest amount currently crossing the border. Rather than embrace a solution that might cost the taxpayer nothing, ACT NoWaste dismisses it because it effectively does not follow its interpretation of the Roadmap – this is despite the facility being identified as required in the 2011-2025 Strategy. CRS sees this proposal as an opportunity to work within the waste management system and dovetail with current facilities and assists in solving problems.	See updated Section 2.6 & 2.8 of the Revised EIS

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		flexibility around options to increase landfill diversion. As noted above the CRS MRF proposal would lock the Territory into a much lower increase in landfill diversion than the targets in the ACT Waste Management Strategy. As a result, ACT NoWaste believes no significant opportunity will be missed in the event the proposal is not approved. The EIS should either substantiate the claims or remove such references from the document.		
13.16		3.1.1 Ecologically Sustainable Development The draft EIS indicates there will be separation and treatment of waste on-site (pg. 35). It is unclear what waste treatment process is included in the proposed development. The details in the draft EIS indicate the facility will collect and sort mixed waste, but details of waste treatment are not given in detail. The EIS should clarify the types of waste treatment that will be undertaken in the revised EIS to provide evidence that the proposed development is not limited to separation and collection for transport only.	Waste transporters will deliver waste to the facility. CRS would receive waste from the MSW collections, C&I collections and light C&D waste bins and then process them through in-situ plant as shown in Figures 12, 14 & 15 of the EIS, for recovery of material. The final waste volume and composition is dependent upon many factors, detail of the sorting process is indicative (more detail is commercial in confidence) but there is enough equipment detail to make acoustic and power assessments and show the approximate flows and treatment. The sorting processes will inevitably change over time as market conditions change, Territory policy's and strategies evolve, as technology improves and, recycling markets change. At this stage CRS proposes to mechanically and manually sort MSW in one sorting line and C&I in a separate sorting line. Should, for example, the Territory create a FOGO collection scheme then this may change the detail of the sorting line as its characteristics would be different. CRS is incorporating as much flexibility into its facility to be able to adapt to ideas proposed as solutions for the Territory such as the production of PEF and the like.	See updated Section 2.4 of the Revised EIS
13.17		6.2 Assessment of impacts – Traffic and transport The traffic flow modelling (pg. 70 and Appendix A pg. 13) assumes that truck movements will occur evenly over the proposed span of operating hours (6am to 10pm) resulting in an assumption of 15 truck movements per hour (or one every four minutes). If the trucks come in between 7am to 5pm, in line with operating hours of Mugga Lane, this increases the traffic generation rate to 23 trucks per hour (one every 2.6 minutes). However, the Draft EIS does not appear to discuss the capacity of the facility and the feeder roads in this context and how the facility or the feeder roads will handle peak inflows of waste trucks. The EIS should indicate the MRF capacity to deal with peak truck movements into the facility.	Please see response to 10.11. There is no requirement to adjust the MSW collection and tipping times for NoWaste operators as part of this proposal. MSW only makes up around 30% of the waste proposed to be collected. The increased opening hours will allow Commercial operators to spread tipping throughout the day and evening and avoid some of the commercial centres busiest times.	See updated Section 6.2 of the Revised EIS

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13.18		6.4 Assessment of impacts - Materials and waste Impact MW-3 (Excess Stockpiling during operations and clean up when operations cease) has a pre-mitigation risk rating of 'medium' and a post-mitigation risk rating of 'very low'. The draft EIS acknowledges that the assumed risk mitigation measures are dependent on another facility, with the example given being Mugga Lane landfill, as a back-up if excessive build up/stockpiling of waste occurs (pg. 76). It appears the proponent's expectation is that the Territory retains ongoing reserve capacity and operational readiness to step in to deal with serious operational failure at the proposed CRS MRF. This highlights a key point of the proposal and indicates, upon approval, the CRS MRF would become a critical piece of Territory's waste infrastructure handling 30 % of the Territory's waste. Failure of this facility, through fire or other business interruption events, in the absence of an appropriate back-up solution would cause a serious build-up of waste in Canberra. The EIS should provide detailed information to support its post-mitigation risk rating of 'very low' for Impact MW-3. This should also cover its proposed back-up solution including the extent of dependency on the Territory to provide operationally ready landfill capacity. Further information remains requested surrounding CRS's statement that "*Mugga Lane landfill could have its footprint managed for low volume, problematic waste streams*" under s 2.5.2, p. 42.CRS appears overconfident in their ability to mitigate risks associated with externalities that may affect the MRF's operation, as well as their ability to remedy any business interruptions quickly which will return the MRF to operation within a number of days. It appears that business interruptions occurring in the proximity to and may directly affect MRF have not been appropriately considered. For example, what contingencies are in place should a mass event occur affecting all businesses in the area such as a major fire that would render the MRF non-operational for an extended period or even permanently? Further information is requested proposed continuity plans and plans to manage any waste (including problematic waste) that may have been processed by or be within the MRF in the event that it is rendered non-operational for an extended period or permanently due to an incident, whether this event occurs internally or externally.	CRS does not propose that Mugga Lane be the only back-up solution and cited it as an example of a licenced facility. CRS has freely promoted the ability of the Mugga Lane operation to have significantly longer life and not have to continue to extend and invest capital at the same rate. If Mugga was to remain open it could focus on problematic wastes as was suggested in page 1 of the CRS EIS. This could make sense with Belconnen closing in 2019 and Mugga Lane needing its own Plan B facility. The risk of business operational interference exists (as it will for Mugga Lane as well) but it involves having solutions both strategically and with equipment – CRS would have this in place as they are experienced waste site operators and must have alternatives for business continuity. ***Fire*** This has already been identified in our EIS and additional comments. Prevention of fire risk is key, and this has been outlined in detail already. Most of the issues for facility fires are in domestic recyclable MRF's where there has been dangerous stockpiling of material in outdoor facilities. This MRF will be focused on a range of material and not paper/plastic centric to reduce risk. This issue has not been raised by ACT Emergency Services who are the experts, so CRS considers existing contingencies to be enough. Regardless CRS have identified alternate methods of operation in its contingency table(see Section 6.11of the Revised EIS) and are confident that any business interruption would be managed as part of the proposed OEMP which forms part of the licensing arrangement with the Territory (subject to an agreement). ***Continuity Plans*** If the facility was rendered non-operational, CRS have already indicated that they would clean up the facility so it can return to the industrial real estate marketplace. Another facility is already been proposed for the other end of Fyshwick so there may well be competition in the marketplace, which is a good result for Canberrans. CRS would be interested in discussing contingency options with ACT NoWaste for the sake of efficiency as outlined in 13.18.	Detailed analysis of business interruption has been added to Section 6.11 of the Revised EIS

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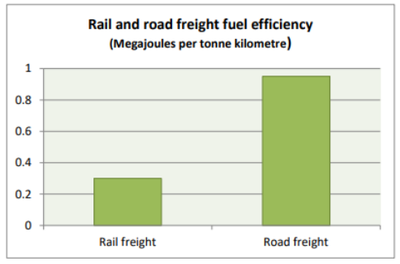
13.19		6.8.4.3 Impact on climate change The draft EIS makes claims about the benefits of GHG emission reductions by diverting organic waste from Mugga Lane landfill to the Woodlawn landfill (pg. 92). The WFS Roadmap proposes that organic waste be diverted from landfill, through a food organics and garden organics collection service, and use the collected material to create compost and other products. This would divert around 40,000 tonnes of waste from landfill and also reduce GHG emissions substantially from Mugga Lane. The draft EIS contains repeated statements comparing the environmental performance of the Mugga Lane landfill and the Woodlawn Bioreactor, but does not provide the basis for such analysis (pg. 92). The report compares the energy generation of the Mugga Lane facility and Woodlawn bioreactor facility per tonne of waste delivered (pg. 92), however, it fails to consider the differences in the waste volume and composition the two facilities may receive, as well as the different designs of the two facilities. As noted earlier, the Mugga Lane landfill has been designed using best practice principles to mitigate any environmental risk posed by landfill operations. For this reason, the waste is kept dry to reduce the amount of leachate produced as the waste breaks down. The Woodlawn Bioreactor is also designed to meet best practice principles, however with the objective of breaking down waste rapidly to generate methane faster than a standard landfill. This does not necessarily mean that Woodlawn is more efficient at capturing methane, simply that the methane generation occurs faster and over a shorter time span. Without a proper analysis of respective waste composition and comparison of the captured and released methane emissions of each facility, the comparison made in the draft EIS is misleading. The EIS should provide appropriate analysis and sources in support of its claims about the relative performance of the Mugga Lane landfill and the Woodlawn Bioreactor or remove the claims.	Rather than concentrate on the environmental performance of each landfill CRS prefers to focus on the proposed GHG benefit by diverting recyclable resources, including organics. The diversion of organics will reduce landfill methane and will also reduce renewable energy created from that methane over time. CRS is proposing to divert/recycle at least 20% of the material it receives. Recycling has the benefit of not requiring new raw resources to be utlitised. While the projected throughput volume may vary the 20% is an average between the two targeted waste streams. Should the organics be diverted at source the diversion ratio from the residuals would be in fact higher as the total proportion percentage of the dry commercial and industrial waste will be higher relative to the MSW and the MSW will be less contaminated and drier without the food waste and potentially better to process The transport of materials to the landfill and ports by rail also has environmental upside and GHG benefit: *"Reducing the environmental impact of freight transport should be integral to supply chain priorities. Increased use of rail freight can reduce Australia's greenhouse gas emissions from supply chains. Transport contributed 18% of Australia's greenhouse gas emissions in 2016. Transport emissions were 52% higher in 2016 than in 1990. Road transport causes 84% of transport emissions (road freight 21%) compared with 3.5% for rail transport. Australia's greenhouse gas emissions from transport are the eighth highest in the world because of the nation's high use of road transport. Rail freight is over three times more fuel efficient than road freight. Rail freight uses only 0.30 Megajoules of fuel for each tonne kilometer of freight transported compared with 0.95 Megajoules of fuel used per tonne kilometre by trucks"* Source: Submission to Inquiry into National Freight and Supply Chain Priorities – Rail Future Institute July 2017 p 6  Rail freight is still twice as energy efficient as road freight even after the 'full fuel' cycle is considered. This takes into account fuel use from all aspects of the transport task including line haul, road pickup and delivery, energy production and distribution, manufacture of transport equipment and construction of roads and railway lines (the 'full fuel' cycle)[39]. Source: Submission to Inquiry into National Freight and Supply Chain Priorities - Rail Future Institute July 2017.p 7 Other sources of emissions are from brake wear, tyre wear and noise. *"Railway travel is generally held up as less environmentally damaging mode of land transportation that trucking. Data on air pollution certainly confirms this… The noise nuisance posed by rail is generally considered to be less that that posed by trucks. This is in large measure because railway noise is intermittent, whereas highway noise (including trucks) tends to be fairly consistent"* Whilst the noise of a locomotive may be between 90 & 100 dB(A) when passing, a	See updated Sections 6.8.3.3 of the Revised EIS

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			truck maybe between 71 & 95 dB(A), the decibels per tonne are slightly lower for trains (63) than for trucks (64). Source: The Environmental Effects of Freight – Organisation for Economic Co-operation and Development Paris 1997 pp 25-26 *"Rail freight is also important to supply chains over relatively short distances.* *"There are numerous short-haul urban and regional rail flows in Australia and overseas that lie well below this conventional 1,000 kilometres, indeed to under 30 kilometres." - Bureau of Industry, Transport and Regional Economics – Why short-haul intermodal rail services succeed* *Various freight trains in Australia fall into what is termed 'short-haul rail', traversing distances much less than the 'conventional' view that rail freight is only viable over distances 1,000 kilometres or greater. These 'short-haul' freight trains have an important role in supply chains – for example, transporting stone 65 kilometres from Kilmore East in Victoria to facilities in Melbourne, cement 20 kilometres from Railton to Devonport in Tasmania, woodchips a similar distance to the Port of Albany in Western Australia or the many 'short haul' regional container trains which operate on the east coast including in Tasmania."* Source: Submission to Inquiry into National Freight and Supply Chain Priorities - Rail Future Institute July 2017.p 3 *"My research, most recently updated in 2012, found the total average external costs for the movement of one tonne of freight one kilometre in a non-urban area by an articulated truck is 2.79 cents, and by rail freight is 0.24 cents (with respective road and rail external costs in urban areas being 3.88 and 0.61 cents per tonne km). The difference is mainly due to unrecovered road system costs (one cent per net tonne km) and the average accident risk cost for freight moved by articulated trucks being 0.85 cents as against 0.04 cents per tonne km for rail. The ratio is about 20 to 1, suggesting that rail is twenty times safer than articulated trucks as a way of moving freight…* *Based on relative fuel use calculations and the size of the Australian articulated road freight task (151 billion tonne kilometres in 2011-12 as noted by the Australian Bureau of Statistics using about 4.3 billion litres of diesel), and rail using one third of the diesel that trucks use in moving non-bulk line haul freight, this would save about 450 million litres of diesel each year. It would also reduce, each year, carbon dioxide emissions by more than one million tonnes and total external costs by more than A$600 million."* Source: https://theconversation.com/too-many-loads-on-our-roads-when-rail-is-the-answer-24118 March 2014 CRS has proposed the use of rail as its ideal development strategy and has included it in this EIS for completeness. The proposal can operate using trucks to landfill and ports, however, this would not produce the best environmental outcome possible.	

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13.20		The draft EIS states “it is without any doubt that the Woodlawn Bioreactor is a better engineered landfill. The use of a fully engineered landfill is deemed to be a much betterenvironmental outcome” (pg. xiii). ACT NoWaste challenges the statement about Woodlawn being a ‘better engineered’ landfill and claims this statement is incorrect in two respects: Firstly, the two landfills cannot be compared in a reasonably objective way in terms the draft EIS seeks to; and Secondly, the Mugga Lane landfill is a ‘fully engineered landfill’ in any reasonable assessment and reflects current best practice in terms of its design and operation. It complies with the most rigorous standard in Australia, the EPA Victoria’s Best Practice Environment Management – Siting, Design, Operation and Rehabilitation of Landfill. The EIS should revise the wording of these statements in the revised EIS to reflect the facts provided.	The EIS will be adjusted to remove the comparison aspects of both landfills	References removed
13.21		The revised EIS should include in-depth consideration of how the proposed waste management facility addresses the Waste Hierarchy, the Strategy and fits within the WFS Roadmap. In particular, it should provide substantiated details on how it meets the Strategy’s objectives of a carbon neutral waste sector. Further information remains requested on how CRS proposes to address the NSW EPA ban on organics derived from mixed waste and the extent to which the ban impacts its claimed resource recovery rate and the potential plans for FOGO in the future.	Comments regarding this matter are provided in the Introduction. CRS is offering to divert organics from landfill by sorting and removing food waste and then transferring them when the appropriate reprocessing facilities are available. Currently ACT NoWaste is proposing green waste and food waste collection and processing however this is not available now. Both these programs will have their own collection programs. CRS is proposing that in its materials recovery facility, organic and greenwaste could be separated from the waste to landfill, where source separation has not occurred. In terms of the 2011-2025 strategy the CRS facility is offering to process waste that is not currently being processed. Any efforts to recycle is axiomatically a better outcome then just tipping into landfill. CRS does not wish to impede the landfill diversion objectives and will support them where it is possible. Currently the recycling efforts have plateaued for ten years so a reduction of at least 20% from the two biggest waste streams going to Mugga Lane would seem to be a step forward. In the short term the diversion of green waste, paper, cardboard and wood recycling will advance the carbon neutral objectives. Similarly, if food waste fractions from mixed loads can be diverted in 5 years’ time this will also assist. It should be noted that the removal of these fractions will slow down methane production but also inhibit electricity production. In late 2018 the NSW EPA banned food waste derived compost from agricultural use as well as mine rehabilitation and forestry. This is a result of long-term testing on the impact on agricultural soils. CRS is not proposing a composting facility and notes that this was a proposal outlined in the ACT waste feasibility study. Not diverting this portion will increase contamination of the MSW residual stream as it will be co-mingled. This will not improve recyclability; however, the diversion of food waste was not included in Table 1 as recoverable. This is part of the potential future ACT strategy and was not available when the Draft EIS was done nor is it locked in. CRS do not need to address the ban as CRS are not a composter, CRS are not proposing composting, nor are, CRS proposing to be one.	See updated Sections 1.3, 2.1, 2.2 2.4, 2.6 in the Revised EIS

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			CRS have suggested in the EIS that CRS can, in our MRF, sort and supply food waste material to an approved compost facility. CRS made this suggestion after ACT NoWaste announced its intention to investigate FOGO. As the marketing of the compost is the responsibility of that facility, it is not CRS to determine the impact of the NSW EPA decisions. CRS would only deliver material to a lawfully approved facility. As already indicated in the EIS in Table 1 on page 23, CRS has not indicated that food waste was recyclable/divertible from landfill, so CRS are not currently relying on the food waste component in their recycling calculations.	
13.22		The report claims that around 300,000 tonnes waste per annum will be transported to the subject site by existing collection trucks and waste tipping, processing, and containerisation will take place within the proposed MRF. The 300,000 tonnes are the figure used by ACT NoWaste to inform management planning of the Mugga Lane Resource Management Centre, and as such is an over-estimation in order to build-in a level of contingency.	As previously written the 300,000tpa is a maximum design figure for EIS calculation purposes. CRS has extrapolated the market sounding 2015 data room information for 2020/21 and excluded material that would not be deemed appropriate for processing – That was the information provided to industry in that tender process. If ACT NoWaste can build in a level of contingency it would seem logical for CRS to the same. The purpose of the 300,000 is to establish a design tonnage for the environmental analysis for the EIS. Any actual tonnages that are less than 300,000 will automatically mean the environmental risks are reduced.	No Action Required
13.23		ACT NoWaste advises that the current figure for waste deposited in the Mugga Lane landfill is approximately 240,000 tonnes per annum. Of this, MSW stream is approximately 70,000 tonnes. The ACT Government has an existing household waste and recycling collection contract that delivers MSW to the Mugga Lane RMC. The ACT Government and ACT NoWaste are not aware of an arrangement between CRS and the ACT Government for MSW collected through kerbside bins to be diverted from the Mugga Lane RMC, so therefore the planned facility could only expect to receive around 170,000 tonnes of waste, originating from the Commercial and Industrial sector. The EIS should be updated to reflect the above information.	There is no arrangement with ACT NoWaste as CRS has been unaware of the strategic intentions until the Feasibility Study was released, which was after the EIS was submitted. CRS is used to the commercial world and will be able to tender for opportunities as they arise, and the facility has the correct approvals and licencing. CRS has not done its “viability” on the 300,000 tpa and if there was only 170,000tpa of commercial waste (as suggested by ACT NoWaste) then this would still be a viable commercial operation. CRS respects that ACT NoWaste may wish to honor its existing contractual arrangements and CRS is not seeking any contracts to be broken. These types of contracts come up for tender from time to time and in the commercial world competing for business and opportunities is part and parcel to a competitive outcome which Government normally seeks for the taxpayer. Should Act NoWaste wish to protect its red lid bin waste for its proposed FOGO scheme then the net outcome would be less volume into CRS. It should be noted that less volume of MSW waste would also mean less trucks (9 per hour instead of 15) and certainly less odorous material to manage which would make the environmental footprint much simpler to manage and would reduce community and ACT NoWaste concerns significantly.	No Update required

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13.24		The Territory provides municipal household kerbside waste collection services through an outsourced collection contract. The contractor operates a fleet of waste and recycling collection trucks from their depot at Hume. The contractor collects: Approximately 70,000 tonnes of MSW from household on a weekly basis which is taken directly to the tipping face at the Mugga Lane landfill; and Approximately 30,000 tonnes of household co-mingled recycling on a fortnightly basis, which is delivered tothe ACT MRF at Hume. These collections occur between 7am to 5pm Monday to Friday. The central location of the Mugga Lane landfill, its proximity to the contractor's depot and the traffic access to the Mugga Lane Resource Management Centre provides for a relatively efficient collection service. The span of operating hours is designed to align with the drivers' Enterprise Agreement. As noted earlier, the CRS MRF would require triple handling of household MSW. Diverting MSW from the Mugga Lane landfill to the CRS MRF would create inefficiency and therefore cost to the kerbside collection service. The Territory does not charge the contractor to deposit MSW at the Mugga Lane landfill and therefore the effective cost per tonne is significantly less than the $149 gate fee the Territory charges for general commercial waste. The draft EIS assumes a decision by the Territory to divert household MSW to the proposed CRS MRF, however, does not provide any evidence to support such assumption. The report should be redrafted using more accurate facts and figures provided by ACT NoWaste and provide an in-depth analysis of contingency planning, including modelling of the effects on traffic movements where trucks collecting MSW are diverted outside of the hours of operation of the Mugga Lane Resource Management Centre.	Most of the trucks to CRS are from the commercial sector. ACT NoWaste is only interested in the impact on the MSW collection trucks, which are contracted by ACT NoWaste to collect the bins. As already stated, CRS will compete for the MSW commercially and through any tender process should it be approved. The current arrangement allows ACT NoWaste to discount its own waste to landfill whereas the commercial waste is $50-60pt more to dispose. The discount neither incentivises recycling nor maximises the economics of the resource (landfill). CRS contends that the $90 received for MSW waste is under the market pricing and would barely cover the cost of expansion and ongoing environmental monitoring. The ACT Government operates a monopoly landfill business in such a way, and at such a price, that it does not incentivise the recycling of commercial and demolition (lights), commercial and industrial or municipal solid wastes. In the absence of any competition this is not realised. CRS is offering an alternative facility, privately funded, that will increase the recycling rate of these, otherwise unrecycled, waste streams in the territory	No Update required
13.25		Traffic considerations The EIS analysis of truck movements seems to ignore theobvious issue of transferring the waste loads from the Mugga Lane precinct, an area that experiences relatively low traffic intensity during business hours to a relatively congested and busy traffic area of Fyshwick. This combined with the triple handling of waste to transport loads some 60 kilometres from its current location, creates an inefficient model in comparison with current business as usual.	We have previously addressed this statement and the AECOM report has assessed a 0.2% increase in traffic at the AM peak which is considered insignificant	See Section 6.2 in the Revised EIS

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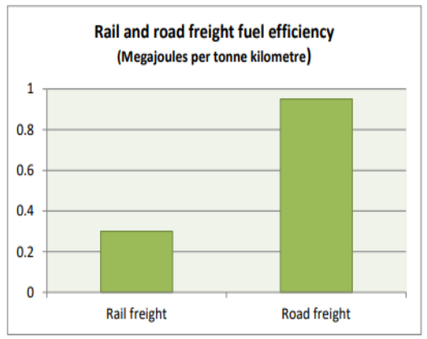
13.26		The proposed development claims to support the principles of the Ozone Protection and Synthetic Greenhouse Gas Management Amendment Act 2010 as it will result in the diversion of waste from the Mugga Lane landfill (pg. 44). It claims the proposed operation of the MRF, and Rail Freight Terminal will divert trucks from the road to rail and reduce greenhouse gas emissions as a result. It is unclear how the current emissions from waste transportation will be reduced as the same trucks that drop waste at the Mugga site will need to drop waste at the Fyshwick site. The current proposal requires additional transport of waste from the ACT to the Woodlawn Bioreactor via rail, but this does not currently occur via roads. Please clarify in the revised EIS as to how the proposed facility actually divert trucks that are currently on the road to rail.	CRS has chosen a centrally located site that accesses rail. The rail access will allow the advantages of rail delivery, outlined below, over use of road freight. If the objective is to create less waste to landfill and more recyclables, then that recycled material must find markets. This maybe compost, PEF or other opportunities that will all require truck transport as it is at the moment. There will be an additional transport leg over what is currently occurring at Mugga Lane, but this is efficient as outlined below and as the material to landfill reduces so will the need to move material around. The locating of a FOGO processing facility somewhere in the ACT or NSW this will involve additional truck movements other than just going to landfill and it would likely be a longer movement. It is not possible to compare everything with what's occurring now as that situation will change as a result of Government policy and CRS is promoting the ideal use of rail as part of the solution. Currently there is only the option to use more trucks as the nearest commercial rail point for recycled materials or general freight. containers are at Goulburn. Any use of rail for moving recycled materials out of the ACT and the movement of general freight will reduce the number of trucks and some of the truck travel distances The EIS has proposed the preferred method of operation is to utilise rail to transfer residues and recyclables and there is a clear environmental benefit:  Rail freight is still twice as energy efficient as road freight even after the 'full fuel' cycle is considered. This takes into account fuel use from all aspects of the transport task including line haul, road pickup and delivery, energy production and distribution, manufacture of transport equipment and construction of roads and railway lines (the 'full fuel' cycle)[39]. Source: Submission to Inquiry into National Freight and Supply Chain Priorities - Rail Future Institute July 2017.p 7 *"Reducing the environmental impact of freight transport should be integral to supply chain priorities. Increased use of rail freight can reduce Australia's greenhouse gas emissions from supply chains. Transport contributed 18% of Australia's greenhouse gas emissions in 2016. Transport emissions were 52% higher in 2016 than in 1990. Road transport causes 84% of transport emissions (road freight 21%) compared with 3.5% for rail transport. Australia's greenhouse gas emissions from transport are the eighth highest in the world because of the nation's high use of road transport. Rail freight is over three times more fuel efficient than road freight. Rail freight uses only 0.30 Megajoules of fuel for each tonne kilometre of freight transported compared with 0.95 Megajoules of fuel used per tonne kilometre by trucks"* Source: Submission to Inquiry into National Freight and Supply Chain Priorities - Rail Future Institute July 2017p 6	No update required

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			"Rail freight is also important to supply chains over relatively short distances. "There are numerous short-haul urban and regional rail flows in Australia and overseas that lie well below this conventional 1,000 kilometres, indeed to under 30 kilometres." - Bureau of Industry, Transport and Regional Economics – Why short-haul intermodal rail services succeed Various freight trains in Australia fall into what is termed 'short-haul rail', traversing distances much less than the 'conventional' view that rail freight is only viable over distances 1,000 kilometres or greater. These 'short-haul' freight trains have an important role in supply chains – for example, transporting stone 65 kilometres from Kilmore East in Victoria to facilities in Melbourne, cement 20 kilometres from Railton to Devonport in Tasmania, woodchips a similar distance to the Port of Albany in Western Australia or the many 'short haul' regional container trains which operate on the east coast including in Tasmania." Source: Submission to Inquiry into National Freight and Supply Chain Priorities - Rail Future Institute July 2017 p 3	
13.27		Section 6.2.5 of the draft EIS covers an assessment of risks related to traffic and transport, and states that the proposed timeframe for truck movements between 6am and 10pm falls outside of road network peaks (pg. 70). There is no discussion of whether the ACT EPA have been approached to discuss their willingness to vary the current Environmental Authorisation held by the ACT's contracted kerbside waste collection service provider, which restricts truck from entering residential areas before 7am. ACT NoWaste is also aware that the ACT EPA is currently reviewing the regulation of truck movements around mixed-use developments at night based on complaints by residents of these developments.	Again, this focuses on the kerbside which is some 30% of the total waste stream proposed. This would be a discussion that would be had as necessary. Should this waste stream not be available to CRS as has been suggested then it is a moot point. The 300,000 tonnes claimed is a maximum capacity measure for the purpose of this EIS exercise so the actual truck movements will be less as a result. The 70% Commercial waste stream is not affected by the environmental authorisation related to MSW collection	No Update required
13.28		As both road network peaks do in fact occur between 6am and 10pm, please clarify what is meant by the statement made on pg. 70.	This is a typographic error "falls" should read "spreads trucks".	Confirmed EIS updated.
13.29		Please provide clarification in the revised EIS on whether the ACT EPA have been consulted regarding the proposed hours of operation and the feasibility of truck movements outside of the current schedule.	The EPA has been included in on the scoping and application consultation and have raised no issues with the hours. The hours relate also to waste processing as well as potential truck deliveries.	See Response to Submissions – Government Appendix R
13.30		The extension of waste collection hours would have a direct impact on the working arrangements of the truck drivers who are delivering waste to the proposed facility. There is no evidence in the draft EIS that the waste transportation industry has been consulted regarding the feasibility of extending operational hours, particularly regarding driver availability and associated operating costs. The revised EIS should provide analysis and feasibility of the proposed operating hours in this context.	We are seeking operating hours of 6.00am to 10.00pm Monday to Saturday and 8.00am till 2.00pm Sunday. These hours will be adjusted should industry or volumes not require them. There are already several variables all of which point to a lower volume of trucks than has been modelled. Assuming the modelling is worst case and food waste be subject to FOGO collection, the total volume of waste available being less, then the impact of trucks arriving will also be less in volume and per hour. This being said the traffic modelling demonstrates that the impact can be minimized during AM and PM Peak periods. Should there be a customer that only wants to deliver waste in a narrower window of hours then this can be arranged. CRS expects that the longer hours will suit some customers and, on the balance, will not cause variations beyond the EIS modelling CRS has now asked its traffic engineer to model four other traffic scenarios that	See Appendix Y

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			would be the case if trucks arrived on a narrower time frame. These models include mimicking currently advertised Mugga Lane hours and other versions all of which have narrower hours of waste delivery to site of both Commercial and Government waste collection trucks and in some version less days. The sensitivity modelling shows the greatest increase to the volume of overall traffic to be 2.3% in the morning peak – which is considered to be a relatively small impact. This is the most stringent model scenario which has all Government trucks using the CRS facility between 7.30 and 12.00pm (5 days) and Commercial trucks between the hours of 6.00am and 5.00pm (6.5 days). Please see Appendix Y for the full AECOM Traffic Sensitivity Modelling Report .	
13.31		Stockpiling and Business Interruption The proposed CRS MRF has an inherently greater risk of business interruptions occurring when compared with the Mugga Lane. The Mugga Lane landfill has far greater flexibility to allow for multiple truck movements at the tipping face due to the several points at which trucks can access the operating landfill cell. In contrast, the MRF site is constrained in that respect and will create a major bottleneck due to limited on-site maneuverability and storage capacity. As opposed to the proposed MRF, the Mugga Lane landfill has numerous other temporary drop-off points that can be utilised for temporary storage of waste.	The proposed MRF has been properly designed and in fact there are similar operating MRF's that are servicing double the proposed 300,000 tonnes per annum. There is significant off-street queuing and the site is not affected by weather. The shed is designed to avoid bottle necks and has contingencies throughout the design and has the advantage of odour, dust and fire management in a controlled environment. Specific contingency arrangements have been outlined in Sections 6.4.3.3 and 6.11.3.5 of the Revised EIS and they also include business interruption planning. Should there be a business interruption a Woodlawn then there is the capacity to store waste in containers for three days if the need requires. There are other licensed facilities in the region that can accept waste if necessary. Whilst having had discussions in November 2016 with ACT NoWaste in relation to emergency options there have been no discussions since on this aspect. Should CRS be successful in its application it would be willing to discuss emergency operations and other strategic initiatives with ACT NoWaste that will provide efficiencies, policy achievement and ultimately deliver the best outcome for the environment and the ACT residents. "This information appears to satisfy many of the previous comments provided by ACT NoWaste, including further information on critical infrastructure and on-site equipment failure as well as electricity, fire and railway interruptions". Please refer to answers in 13.18 of this Appendix. In an ideal sense CRS and the Territory could/should support each other and the policy objectives. As there is no planning approval there is no situation to discuss other than theory. As outlined in 13.18 of this Appendix there is the capacity for cooperation. CRS is targeting a portion of the market that is going directly to landfill and is willing to discuss working with the Territory on mutually beneficial aspects but has made no provision for this (other than suggested possibilities). Hopefully this will change, and common sense can prevail where there is cooperation and benefit to the community and policy objectives of the Territory.	See updated Sections 6.4.3.3 and 6.11.3.5 of the Revised EIS
13.32		The EIS proposes the Territory maintain its landfill, presumably at taxpayers' expense, as a back-up in the event the CRS MRF fails. It is ironic that the proposal seeks to compete with the Territory's major landfill, however, at the same time requiresthe Territory to maintain this landfill as a back-up in the event of service failure at the proposed MRF. The EIS should provide details on an acceptable contingency plan	Business Interruption Alternatives: Should there be a short-term business interruption and an alternative arrangement is required then there are a range of options. Customers would be advised, and they adapt their collection times to assist. Dependant on the type of waste other licensed receivers may be approached	No Update required

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		excluding the Mugga Lane landfill as an option.	to assist. There are a number of licenced landfills that could accept waste on a short-term basis. If the equipment, electricity, container loading and train access were all unavailable due to a fire for example (although the fire prevention equipment would prevent this) a section of the building (it's a big building with potential access either end) that is unaffected would be utilised for the following short-term operation. Mobile container box tilt from Access Recycling would be in the building and 20ft shipping containers would be loaded directly with mixed heavy/putrescible waste by an excavator with a set of grab buckets. The 20ft containers would be loaded by forklift onto intermodal trucks and transported to Woodlawn. Within 4-5 hours Wastepro/GotoGo, who provide walking floor truck and trailers to the waste industry in Sydney, by arrangement will provide 3 semi-trailers to transport the light, bulky dry commercial and industrial waste component. Typically, these trailers carry some 22 tons (110m3 capacity) and are used for waste transfer in and around cities. These would be loaded off the floor by the Access Recycling excavator until normal operations resume. These is capacity to store containerised waste for a number of days if necessary, but this is not preferred. CRS has not had a discussion regarding Mugga Lane as a contingency. ACT NoWaste had discussions with CRS in 2016 and has also been seeking Woodlawn to be its backup when Belconnen Landfill closes. The proposal could mean that the Mugga Lane landfill can continue to operate without expensive expansions into the future at considerable expense to the ACT rate payer. CRS assesses its proposal as being complementary to the strategies being proposed for the ACT by ACT NoWaste. CRS are perfectly willing to adapt and assist in delivering solutions with the Territory in the spirit of cooperation.	
13.33		Substantiation of key statements There are sections of the report where claims have been made and not substantiated with references. Statistics have been reported throughout the proposal without references, for example the: annual percentage increase of domestic waste generation rate in the ACT and annual percentage increase of population growth in the ACT (pg. 7); estimated volume of waste taken interstate and life span of Mugga Lane landfill (pg. 28); and annual electricity generation rate per tonne of waste deposited in Mugga Lane vs Woodlawn (pg. 92); Please provide references to support these figures and statements or remove them from the EIS if they cannot be substantiated.	This will be clarified and referenced where necessary	Updates to report have been added as necessary to substantiate key statements. Section1.3.5 has been amended to include the ACT NoWaste landfill life and tonnages figures in the Revised EIS

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13.34		The proposed waste management facility claims to recover 60,000 tonnes of resources annually from current residual waste that goes to landfill. However, it is not clearly articulated in the report as to what waste streams are going to be recovered that will make up the 60,000 tonne. Please provide a breakdown of the materials to be recovered, the approximate volumes and likely end-markets in the revised EIS.	Based on the information provided by ACT No Waste the calculations are shown and discussed in Section 2.4, 2.4.1, Table 1, 2.4.2, Figures 14 & 15 of the draft EIS and subject to final design based on the approved waste streams available. The facility is being designed for 300,000TPA therefore extrapolation of known data and projected for future growth has occurred to make the EIS purpose meaningful. The 60,000TPA is a 20% proportion of the 300,000TPA design tonnage. Table 1 in Section 2.4.1 **ACT C&I Profile (inc C&D "LIGHTS")** **High Recycle Potential Material** **141,750** **Possible recovery =** **40%** **56,700** **73,552 tpa** **301,000 tpa** **= 24.4% overall recovery** **ACT MSW Profile** **High Recycle Potential Material** **42,132** **Possible recovery =** **40%** **16852** The table shows potentially recoverable materials in grey and also recognizes that not all of it is recoverable and has taken 40% recovery of each of the grey components. Whilst the volume in tonnes will vary, CRS has used the audit data, provided by TCCS to make proportionate estimations. The modelling assumes 300,000 throughputs as that is the design capacity – if the tonnage is	See Updated Section 2.4.1 in the Revised EIS

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			less, then the volumes recovered are also proportionately less. It should be noted that currently Benedict Recycling recovers more that 85% from its operations in Sydney processing C & I and C & D wastes. MSW there is potential to recover some 40,000TPA: Paper (including cardboard) Glass Plastic Metals Inerts Organics can also be separated and sent for composting? – will reduce with the new green waste collection program C & I (inc C & D lights) there is potential to conservatively recover some 147,000TPA Paper (including cardboard) Glass Plastic Metals Inerts Wood (50% of the % going into landfill) Organics can be separated and sent for composting CRS are not prepared to disclose the commercial details of our end markets to a competitor. CRS are being questioned by an entity that has a significant market presence as ACT's only landfill and is the regulator and policy maker. CRS are not inclined to answer this as its not part of the environmental assessment.	