

Appendix A

Summary of submissions, cross-reference and response

Appendix A

Summary of submissions and response

Table A1 summarises and responds to the submissions received during the public exhibition of the Environmental Report.

Table A1

Local government submissions (LGS)

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
Light Regional Council			
LGS001.1	Council appreciated the Department allowing the project group to attend Council's workshop on the Northern Expressway. Those persons present were able to glean a clearer understanding of the project and the anticipated outcomes and welcomed the opportunity to ask questions of the project team.	ER 3	Noted.
LGS001.2	While Council understands that there is little likelihood that there will be a quantum shift in the project's alignment, Council does however need to reiterate its stated position concerning the proposed route for the project, that is <i>'that it does not support the current route of this major project and in particular the route through the Gawler Harness Racing Club and the Gawler Aerodrome, which has the effect of completely destroying this regional recreational and business amenity that will affect a large selection of people both within the region and throughout the State.'</i>	ER 5	Noted.
LGS001.3	Following the conduct of the workshop at Kapunda which disclosed the other optional routes considered, it is fair to say that the chosen alignment represents the least disruption to the public between entry at Port Wakefield Road and exit at Sturt Highway (Gawler Bypass).	ER 5 SR 3.4.1	Noted.
LGS001.4	Gawler River overpass The Department must have the construction engineered to allow for at least a 1:100 ARI flooding event to pass underneath the overpass and to not have floodwaters restricted in their flow along the Gawler River towards the Gulf outlet. Will the overpass engineering be based on calculations for a 1:100 ARI flood event prior to the construction of the Gawler River Flood Mitigation Scheme project at Turretfield and the increase in height of the South Para Dam wall, or be calculated on estimates calculated after those projects have been completed?	ER 20 SR 3.8.1	Refer to Section 3.8.1 (Gawler River) in this Supplement Report.

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	Our preference would be that the Department builds the overpass at current estimates, in effect over-engineering the overpass to allow a greater than 1:100 ARI flood event to pass unhindered.		
LGS001.5	Weed control removal and maintenance practices must be established in the overpass foot-print area, in addition to adequate revegetation with native species endemic to the local area occurring once construction has been completed.	ER 9.4 SR 4.2.8	See response to LGS001.18.
LGS001.6	Roadside vegetation treatments Appropriate planting needs to be put in place to maintain roadside verges along the entire length of the Northern Expressway. Council assumes that the Department will be responsible for the maintenance of the entire width of the road reserve corridor (fence line to fence line) and that plantings to complement the natural heritage value of local roadways will be undertaken, inclusive of appropriate control programs for pest/noxious weeds.	ER 9.4 SR 4.2.8	See response to LGS001.18.
LGS001.7	The Department must take measures to control litter of all forms along the route.	ER 9.4	Litter is collected as part of the ongoing maintenance and management activities of DTEI.
LGS001.8	Drainage and stormwater issues The Department must take into consideration the management of stormwater being washed off the corridor, particularly as the Gawler River system is perched above the natural lay of the adjoining land. The issue of swale drain gradients and drainage retention/detention basins is highlighted in this context and Council would be desirous of establishing the proposed number of basins planned for the area and the holding capacity of those basins, particularly when considering the potential flood aspects of the Gawler River system. Where possible, schemes to reuse run-off should be considered, e.g. watering roadside plantations, use by adjoining landowners, etc.	ER 20 SR 2.2.4	<p>The longitudinal drainage system will be designed to provide a positive grade over its entire length. Despite this, the achievable grade in some locations is modest and some localised depression storage can be expected.</p> <p>To the north of the Gawler River, drains will fall in a southerly direction towards the river, while to the south of the river the drainage will continue to flow south-west (away from the river) towards the Hillier Road drain, where it will discharge to the river. Some reconstruction of the Hillier Road drain may be necessary, which will be determined during the detailed design phase.</p> <p>Roadside swales and centre medians are intended to be vegetated, at least grassed, and it is anticipated that a significant amount of smaller stormwater flows will naturally infiltrate or (where systems are lined) be taken up by roadside vegetation.</p> <p>Whilst smaller flows will naturally be utilised by roadside vegetation, the stormwater system must be designed for flood protection and must therefore be designed for flows which occur much less frequently than those considered practical to harvest for reuse.</p>
LGS001.9	Two Wells Road on/off ramps Council considers that inclusion of a southbound ramp at the Two Wells Road junction may be beneficial to the project. This junction may allow additional traffic from the southern and western sides of Gawler township and environs to access this new route as opposed to traversing the Main	ER 7.4.3 SR 2.2.2 SR 3.2	<p>A funding submission is currently being considered by the Australian Government to provide additional interchanges and ramps – refer to Sections 2.2.2 and 3.2 of this Supplement Report.</p> <p>The provision of these ramps allows better distribution of traffic through Gawler to access</p>

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	North Road route, thereby further reducing the traffic load on that highway. It will also provide for traffic coming to the Northern Expressway from the western side.		the Northern Expressway via Ryde Street or Redbanks Road.
LGS001.10	<p>Northbound on ramps</p> <p>Given that the route will be traversed by commercial operators and travellers heading interstate along the Sturt Highway, the lack of northbound access ramps for traffic heading 'up' the Sturt Highway to the border and beyond is questioned. To gain full benefit for the investment, Council considers that further access options should be considered.</p>	<p>ER 7.4.3</p> <p>SR 2.2.2</p> <p>SR 3.2</p>	<p>A funding submission is currently being considered by the Australian Government to provide additional interchanges and ramps – refer to Sections 2.2.2 and 3.2 of this Supplement Report.</p> <p>The issue of additional northbound on-ramps has been further investigated. It is proposed that these be provided at Curtis Road for traffic to and from the north as they have additional benefits associated with emergency services vehicle access and distribution of traffic on local roads or through residential areas.</p>
LGS001.11	<p>Emergency services vehicle access points</p> <p>This point is self explanatory: emergency services vehicles must have safe, easy and quick access to the Northern Expressway for attending potential accidents on the Expressway, as well as when carrying out transporting activities.</p>	<p>ER 7.4.7</p> <p>SR 2.2.5</p>	Refer to Section 2.2.5 of this Supplement Report.
LGS001.12	<p>Local road treatments</p> <p>Council understands that the following is to occur:</p> <ul style="list-style-type: none"> • Wingate Road remains open • Whitelaw Road will be closed • Ward Belt Road will provide access to the Gawler airfield • Kentish Road will be realigned • new on-ramp adjacent to Weaver Road. <p>It is noted, therefore, that there will be a general change in dynamics to and priorities of the local road network and as such Council considers that the Department should take responsibility for the alternative road treatments that may be required for these roads to remain serviceable, or to carry out their new roles. For example, it is considered that the Gawler Belt Road should be reconstructed to a bitumen surface standard; in addition, Kentish Road may need upgrading to cater for increased traffic movements associated with the re-routing of traffic to the Gawler airfield.</p>	ER 7.4.4	<p>Upgrading of local roads as a result of changes due to the provision of the Northern Expressway is described in the Environmental Report.</p> <p>It is confirmed that Wingate Road will remain open; Whitelaw Road will be closed; Ward Belt Road will provide access to the Gawler airfield and will be sealed from Lange Road to its eastern end; Kentish Road will have a minor realignment; and a new on-ramp to the Gawler Bypass will be provided adjacent to Weaver Road (which currently acts as a shared ramp/access service road).</p> <p>It is not considered that these roads will require further improvement due to the Expressway. However, DTEI will continue to liaise with Council on this issue.</p>
LGS001.13	<p>Gawler airfield</p> <p>Council is keen to secure the future viability of the Gawler airfield operations both from the aspect of the relocation of the Adelaide Soaring Club facilities and buildings, and from the perspective of being an authorised landing field for general aviators and the emergency services. Council understands that the Department has</p>	SR 3.12	Refer to Section 3.12 in this Supplement Report.

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	commissioned specialist advice from interstate to review the options available for the airfield on-ground operations.		
LGS001.14	Gawler trotting track In regard to the relocation and/or redevelopment of the Gawler Trotting Club (privately owned land and facilities), our understanding is that there are to be private negotiations between the Department and the club in this regard. Once again, we understand that the Department will be providing specialist advice to that organisation in order that they can determine the most viable outcome for themselves.	ER 3 ER 11 ER 17	DTEI has engaged the services of a consultant expert in the field of harness racing facilities. DTEI has consulted with the committee of the Gawler Harness Racing Club to understand the club's future intentions and to assist in determining the best option for the club. DTEI has undertaken a valuation of the landholding and improvements and will fund the cost of an independent valuation on behalf of the club. DTEI will work with the club and Light Regional Council to achieve a satisfactory outcome for the club.
LGS001.15	It is believed that there may be strategic developmental opportunities and outcomes associated with the area of land situated on the southern side of the Northern Expressway Project, that is, the divided southern portion of the airfield and trotting track land. It is considered that it may be appropriate to establish a joint working party to review the development potential of the area.	ER 11	The Gawler airfield is situated on land under the control of the Light Regional Council. All land severed by the Expressway route and not useful to the airfield remains in Council's name. DTEI is happy to facilitate discussion between Council and interested parties on the development potential of this land.
LGS001.16	Future economic development opportunities Council considers that historically where major road linkages have been provided, then so follows the potential for commercial and residential development at some stage into the future. Council encourages the Department to therefore consider the potential vision and opportunity for future developments along the project route. Indeed, comments were made at the workshop that the project does rely on traffic generated from nearby residential, commercial and industrial presences to provide a return on investment for both the State and Australian governments.	ER 10 ER 11 ER 26 SR 3.3 SR 4.2.5	The Environmental Report in Part D, Sections 10 and 11 acknowledges that the Northern Expressway is likely to stimulate development as has been experienced elsewhere in Australia and internationally. In Part E, Section 26, it is also suggested that there would be some minor to medium effects on land use in the commercial, industrial and horticultural areas adjacent to Port Wakefield Road. See response to LGS001.15.
LGS001.17	Council recognises that the land in question is primarily used for agriculture and horticulture and very little remains by way of intact native vegetation associations or communities. Remnant vegetation consists of individual roadside trees. High disturbance and nutrient levels from farming activities have removed much of the existing understorey.	ER 23 SR 4.2.8	Noted. Care will be taken to avoid native vegetation as much as is practicable.
LGS001.18	Treatment of revegetation works along side of carriageway The creation of the new carriageway and adjoining road verges will create considerable soil disturbance, which in turn will create vegetation/weed management issues. In a general sense, any roadside revegetation methodology will need to allow for the rapid domination of desired plants in order to exclude undesired species.	ER 7.4.11 ER 8.2 SR 4.2.8	The proposed landscape implementation methods are described in Section 8.2 of the Environmental Report. Weed control, both initially and after construction, will be a key issue in establishing vegetation and ensuring high plant survival rates. Controlling weeds will require vigilant and ongoing attention and resources during road construction works as well as during the

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	<p>As such, it is recommended that an understorey dominated revegetation program is used consisting of dense planting of chenopod species or, in places, native grasses. There are a number of examples in the district where such a methodology has been very successful. Of particular note is the treatment of the Sturt Highway road verge adjacent to the Amcor bottle factory.</p> <p>Similarly, road closures such as is proposed for Whitelaw Road will need to have a thorough revegetation program to prevent the domination of weed species and hence higher ongoing maintenance issues.</p> <p>Council notes that ongoing maintenance and environmental performance will be the responsibility of DTEI.</p>		<p>landscape establishment and maintenance phases.</p> <p>During the detailed design phase of the project, the various species mixes suitable for different landscape situations will be determined (e.g. swales, steep embankments, batter slopes and screening).</p> <p>Light Regional Council's recommendation for dense planting of chenopod species and native grasses in some areas is noted.</p> <p>DTEI will be responsible for ongoing maintenance of the Northern Expressway road reserve corridor upon completion of the construction contract.</p>
LGS001.19	<p>Treatment of the river crossing</p> <p>It is recognised that the actual river crossing will occur on private land just downstream of Wingate Road. The Environmental Report notes the degraded condition of the river in this area. The vegetation association consists of a canopy of mature river red gums over an understorey of mixed weeds and minor native species such as sedges, rushes and reeds.</p>	<p>ER 23</p> <p>SR 4.2.8</p>	<p>DTEI will be acquiring land in the Gawler River area to enable construction of the bridges. The understorey flora of the corridor is dominated by a range of weed species, including proclaimed noxious species. Woody and herbaceous weed control works will be carried out in the immediate vicinity of the bridges to enable appropriate revegetation and bank stabilisation. However, it should be noted that it is beyond the scope of the Northern Expressway Project to solve the significant and ongoing weed control problems along other areas of the Gawler River corridor. Some river red gums will be removed from the river banks to enable construction of the bridges. Revegetation works will be carried out to offset the removals.</p>
LGS001.20	<p>The proposed crossing of the river will be a bridge that will span the river. Key issues will be allowing the river to run unimpeded during very high flows and maintaining or improving the banks of the river and associated flood control levees. It is assumed that the Northern Expressway project team will be liaising with the Gawler River Flood Management Authority (GRFMA) in the development of a suitable river crossing design.</p>	<p>ER 20</p> <p>SR 3.8.1</p>	<p>Liaison with GRFMA will occur during the detailed design phase.</p>
LGS001.21	<p>Treatment of stormwater – use of detention basins, etc.</p> <p>The proposed methodology for the treatment of stormwater seems logical. The use of grass and revegetated swales in directing stormwater to wetland/detention basins would be the most appropriate method to deal with stormwater given the flat topography of the location.</p> <p>The only comment to make with regard to this methodology is to ensure that such swales are designed to deal with the occasional heavy rain periods experienced in the district.</p>	<p>ER 20</p> <p>SR 3.8</p>	<p>The longitudinal drainage of the Expressway will be designed for the peak 20 year ARI run-off event, consistent with Austroads design standards.</p>

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Town of Gawler			
LGS002.1	<p>Critical locations and transport routes for Gawler that will be affected by the Northern Expressway Project include:</p> <ul style="list-style-type: none"> • Redbanks Road and Main North Road from the existing Gawler Bypass through to Lyndoch Road • Angle Vale Road from Jack Cooper Drive through to Angle Vale • Ryde Street and Overway Bridge Road to Gawler Town Centre. 	ER 13	Noted.
LGS002.2	<p>As it is currently proposed by the Northern Expressway that there is no connection with Angle Vale Road, hence:</p> <ul style="list-style-type: none"> • Traffic demand on the Northern Expressway from within Gawler and the catchment east of Gawler is likely to access the Northern Expressway. • Conversely traffic from and to the Virginia and Gawler Belt horticultural areas will be forced to use the local road network to access the Sturt Highway at Redbanks Road 'interchange', or travel through Gawler on the Ryde Street– Overway Bridge Road route to access Barossa Valley Highway. <p>While no figures have been given for predicted changes at the above locations, Figures 13.3, 13.4 and 13.5 appear to indicate a predicted increase at Redbanks Road/Main North Road of 51–100%. A reduction is indicated for Angle Vale Road and the Ryde Street– Overway Bridge Road route, yet no provision exists for northbound or eastbound vehicles to access the Expressway north of Womma Road. This would seem to negate its value to producers with markets to the east. Any such traffic will continue to use the inadequate network through Gawler.</p>	ER 13 SR 2.2.2 SR 3.2	<p>Noted.</p> <p>A funding submission is currently being considered by the Australian Government to provide additional interchanges and ramps – refer to Sections 2.2.2 and 3.2 of this Supplement Report.</p> <p>With these additional ramps, the 2031 forecast traffic on the local roads in Gawler are estimated as follows:</p> <ul style="list-style-type: none"> • Main North Road (at Willaston) – 11,000 to 13,000 vehicles per day (vpd) • Redbanks Road (south of Gawler Bypass) – 12,500 to 15,500 vpd • Ryde Street – 12,000 to 16,500 vpd • Main North Road (at Gawler Racecourse) – 24,000 to 26,000 vpd. <p>Traffic to/from Virginia can access the Northern Expressway at the Heaslip Road interchange and exit at Redbanks Road. It is not forced to use Ryde Street.</p> <p>Note that this project is not assessing traffic patterns further east of Redbanks Road, e.g. using Barossa Valley Way. This should be referred to DTEI Policy and Planning Division.</p> <p>Traffic further north (near Angle Vale) will be able to use Angle Vale Road to access the Northern Expressway. North of Gawler River, the origins and destinations indicate that traffic will still use the Ward Belt Road irrespective of the provision of the Northern Expressway.</p> <p>It is presumed that traffic travelling east through Gawler is destined for the Barossa Valley Way and further to the south-east. Any traffic to the north or east will use Angle Vale Road/Gawler Bypass to access the Sturt Highway. The removal of this traffic 'through Gawler' would require provision of a bypass to the north-east of Gawler which is not part of this project. It is acknowledged that development at Evanston Gardens will add additional traffic to Angle Vale</p>

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			Road irrespective of the location of the interchanges.
LGS002.3	The focus of movement will gravitate to the north with traffic from Gawler East/Concordia/ Sandy Creek going through Willaston with additional pressure on the North Para Bridge, Main Street and Redbanks Road.	ER 13	It is acknowledged that some long-distance traffic will transfer to the Northern Expressway.
LGS002.4	Any reduction in traffic through the centre of Gawler from east to west to access Port Wakefield Road via Angle Vale will only apply to traffic with destinations south of Womma Road as this is the earliest interchange at which traffic can exit from the southbound carriageway.	ER 13 SR 2.2.2 SR 3.2	A funding submission is currently being considered by the Australian Government to provide additional interchanges and ramps – refer to Sections 2.2.2 and 3.2 of this Supplement Report. The provision of the ramps at Two Wells Road and Angle Vale Road is unlikely to attract a significant amount of traffic from central Gawler, destined to Munno Para and Elizabeth, as Main North Road will still provide a more attractive route (in terms of travel time).
LGS002.5	Because there is no north-east bypass to Gawler, and the purpose of the Northern Expressway is freight, it can be expected that the Willaston route will be attractive to freight movements from southern Barossa and northern Adelaide Hills into Adelaide.	ER 13	Noted.
LGS002.6	Southern demand is likely to find its way to Curtis Road (Munno Para) rather than heading north.	ER 13 SR 2.2.2 SR 3.2	A funding submission is currently being considered by the Australian Government to provide additional interchanges and ramps – refer to Sections 2.2.2 and 3.2 of this Supplement Report. It is agreed that most of this traffic would use the proposed Curtis Road interchange. With additional ramps provided at Two Wells Road and Angle Vale Road for traffic travelling to and from the south, this southern demand would be split mainly between these additional ramps.
LGS002.7	Further demand analysis for connection of the horticultural areas to the northern half of the Expressway appears warranted.	ER 13 SR 2.2.2 SR 3.2	See response to LGS001.10.
LGS002.8	In any event, the acknowledged increase in demand at the Redbanks Road interchange and its connection through Gawler to the Barossa and Adelaide Hills will require improvements along this route including: <ul style="list-style-type: none"> • traffic signals/roundabout at Willaston (Redbanks Road/Main North Road junction) • investigation of capacity issues at Willaston Bridge • investigation of safety concerns for heavy vehicles at Lyndoch Road/ Murray Street junction. 	ER 13 SR 3.2	The Metropolitan Region of DTEI is currently undertaking an investigation into the operation of the road network in Gawler and Council will need to refer this submission to that branch.

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LGS002.9	<p>Regarding the interconnection of Angle Vale Road with the Northern Expressway, if an interchange similar to that proposed for Curtis Road (southbound on/northbound off) was to be provided at Angle Vale Road, demand from the east (Gawler East/Concordia/Sandy Creek/Lyndoch/ Cockatoo Valley/ Williamstown) is likely to split three ways:</p> <ul style="list-style-type: none"> • north: through Willaston • central: through central Gawler to Evanston Gardens • south: to Curtis Road. <p>The interconnection will relieve the pressure on Willaston to some degree. It would mean additional traffic through the proposed Evanston Gardens Neighbourhood Centre which would provide some positive economic benefits for the centre, but locally-generated heavy vehicles would also be attracted through the centre.</p> <p>There is potential attraction for traffic to use Calton Road through Gawler Town Centre to Twelfth Street, Ryde Street, Jack Cooper Drive and Angle Vale Road.</p>	<p>ER 13 SR 2.2.2 SR 3.2</p>	<p>A funding submission is currently being considered by the Australian Government to provide additional interchanges and ramps – refer to Sections 2.2.2 and 3.2 of this Supplement Report.</p> <p>The provision of a full interchange at Curtis Road and partial interchange at Angle Vale Road for traffic to and from the south will change travel patterns in the area and would reduce the volume of through traffic using Angle Vale Road to access the Gawler Bypass/Sturt Highway. The interchanges will also better redistribute traffic to access the Northern Expressway so that all traffic is not concentrated on Redbanks Road.</p> <p>Traffic to/from Two Wells/Gawler Belt area (including Dublin and Mallala) will still use Redbanks Road to travel to the Barossa and further south-east. Provision of the Northern Expressway will not change this demand or its future growth.</p>
LGS002.10	<p>Unless the Angle Vale Road interchange were to be a 'full' interchange giving on/off access to both directions, or the Curtis Road interchange was to be 'full' access, the problem would still remain that traffic from the horticultural areas with northerly or easterly destinations would be forced to continue using the local network to access the Sturt Highway at Gawler. Thus the prediction of reduced traffic, particularly on Angle Vale Road, is viewed with some suspicion.</p> <p>With a full interchange at either Angle Vale or Curtis roads, Barossa and Adelaide Hills traffic to and from the horticultural areas will still require access through Gawler, placing an increasing demand on the Redbanks Road/Main North Road route.</p> <p>It is clear that the Northern Expressway will place increasing demands on this route regardless of other access points. This route must be upgraded as a priority in parallel with the Northern Expressway Project. Unless the foreshadowed access at Main North Road/Sturt Highway overpass is also improved at the same time, the problems will be further exacerbated by commuter and construction traffic to and from the suburb of Hewitt, needing to use this route to access the Expressway.</p>	<p>ER 13 SR 2.2.2 SR 3.2</p>	<p>See responses to LGS002.2, LGS002.4, LGS002.6 and LGS002.9.</p>
LGS002.11	<p>Noise impacts in Willaston, Reid and other parts of Gawler will be significant. Data in Section 14 of the Environmental Report indicates approximately 40% of properties in this area</p>	<p>ER 14</p>	<p>No roadworks are proposed on the Gawler Bypass between the end of the Northern Expressway Project and the start of the Sturt Highway upgrade. If and when further</p>

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	<p>(Area A) will be above acceptable levels. The report has not considered that portion of Willaston that falls between the end of the Northern Expressway Project and the start of the Sturt Highway upgrade, an area with greater residential density than Area A. The suggestion of noise barriers adjacent to Paternoster Rd needs to be carefully looked at. Council preference is for mounded earth and vegetation rather than acoustic walls which have a major impact on amenity.</p> <p>Noise impacts on Willaston should be considered for the whole Gawler Bypass – not ignoring the section beyond the formal Northern Expressway works. Quieter pavement, noise reduction mounds on the eastern side or other possibilities should be considered. Any measures should not impact on Willaston Cemetery which is a State Heritage Place and an important area of remnant native vegetation.</p>		<p>improvements are required for this section of road in the future, noise treatments will be considered as part of that future project.</p> <p>Section 14 of the Environmental Report outlined the approach to managing road traffic noise for the Northern Expressway. The nature of noise treatments adjacent to the Gawler Bypass where works are proposed will be determined during detailed design and will depend on the amount of noise reduction that is required to achieve the noise criteria.</p>
LGS002.12	<p>The Environmental Report is weak in its assessment of impacts at the Gawler end. An area of remnant <i>Eucalyptus porosa</i> open woodland at the southern end of Kentish Road is targeted for removal but this is not mentioned in the report. <i>E. porosa</i> open woodland is a high priority ecological association for conservation in South Australia. Areas in and near Gawler (including parts of Willaston Cemetery, Dead Man's Pass, Clonlea and the Gawler Belt rail corridor) contain important remnants of <i>E. porosa</i> open woodland. Other nearby areas contain remnants of <i>Eucalyptus largiflorens</i> open woodland which are also of conservation importance.</p>	<p>ER 23 SR 4.2.8</p>	<p>See response to RBS003.3.</p> <p>Propagating material will be collected from native species in the area including remnant <i>E. porosa</i> and <i>E. largiflorens</i> woodlands in the vicinity of the Expressway corridor. This propagating material will be used to grow plants for revegetation works within the road reserve.</p> <p>The collection of propagating material, including seeds, of all remnant native species will be undertaken.</p>
LGS002.13	<p>Because of the importance of the Gawler area as a transition between ecological communities of the plains and foothills, many individual species of conservation significance (apparently some 90 species according to local botanical records) exist in the area. As well as the issues associated with clearance of indigenous vegetation (which should include plans for minimising the clearance needed as well as providing net environmental benefits through offsetting work), plans for revegetation of the Northern Expressway corridor should be based on building on important local ecological communities.</p> <p>In this regard, adequate species' and associations' assessments are vital. Care should be taken not to introduce species which are not indigenous to the area (e.g. species planted on the existing Gawler Bypass may not be appropriate and at least one has been recorded as spreading into Willaston Cemetery). The</p>	<p>ER 23 SR 4.2.8</p>	<p>A detailed Vegetation Management Plan will be prepared to offset the removal of native vegetation and to provide a significant environmental benefit as required under the <i>Native Vegetation Act 1991</i>. This is a standard DTEI requirement and the principles for all net gain requirements are well established with the DWLBC.</p> <p>Constructing the Northern Expressway will necessitate considerable modification to the existing landscape. Whilst there may be a desire to replicate the pre-European vegetation associations within the road reserve along the corridor, in some cases, species that are non-indigenous to the local area may be used to fulfil the functional requirements for revegetating swale drains and stabilising bridge embankments. Care will be taken to ensure that the species selected are non-invasive.</p> <p>The landscape proposal (both at Gawler and along the rest of the Expressway) presented in the Environmental Report is an indicative</p>

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	proposal for landscaping near Gawler needs a lot more work. The suggestion of using <i>Angophora cristata</i> [sic] (an ornamental native from New South Wales) for a feature avenue of trees at the commencement of the Northern Expressway should be rejected. If a feature avenue of trees is desired, then <i>E. porosa</i> or <i>E. largiflorens</i> can be used. A better alternative may be to avoid undue formality and have a more natural appearance.		<p>concept demonstrating the types of plant species and landscape treatments that may be implemented. Detailed landscape design and construction drawings will be developed when the final extent of land to be acquired is known and when other details affecting the landscape design such as the placement of noise barriers and the location of vegetation screening for local residences, have been determined.</p> <p>At each end of the Expressway, the design intent is to provide a formal row of feature trees such as <i>Angophora costata</i> to highlight the beginning/end of the Expressway and the approaching change in traffic conditions (i.e. traffic lights at Port Wakefield Road and merging traffic at the Gawler Bypass). <i>E. porosa</i>, <i>E. odorata</i>, <i>E. largiflorens</i>, <i>E. camaldulensis</i>, <i>E. socialis</i> and a range of other locally indigenous tree species will be used extensively throughout the Expressway corridor. Therefore, a different but complementary tree species list has been proposed at these locations to provide visual contrast to the other vegetation.</p> <p>The species list for revegetation and feature planting along the Northern Expressway has not been finalised and suggestions and recommendations as to other suitable species for these locations are welcome and will be considered.</p> <p>DTEI will continue to work with affected local councils and interested groups during the detailed design phase to further develop the landscape proposal.</p>
LGS002.14	As well as impacts on vegetation, the potential impacts on birds and animals and potential restorative measures need to be considered. Species which could be affected in the area include a number of bird and reptile species with conservation ratings as well as more well-known animals such as echidnas and sand goannas. Careful planning of offsetting works and corridor revegetation can provide potential gains for conservation to recover some ground lost during the previous 170 years of settlement.	ER 24 ER Table 41.1	<p>Noted.</p> <p>Measures to minimise the effect of the Northern Expressway on fauna species within the region are detailed in Section 24.6 and Table 41.1 of the Environmental Report. The pest fauna component of this region is large as are its varied impacts. It is considered unlikely that any of the reptile or bird species of conservation significance previously recorded or currently present in the corridor would be adversely impacted upon by the project.</p>
LGS002.15	It is important that the Northern Expressway environmental assessment deals thoroughly with these issues and further work is clearly required. Further information can be obtained from Trees for Life in relation to Willaston Cemetery vegetation, and Gawler Environment and Heritage Association Inc. (GEHA) and Urban Forest Biodiversity Program generally in relation to conservation issues in the area.	ER 23 ER 24 SR 4.2.8	<p>As noted in the Environmental Report, further detailed work relating to flora and fauna issues in all sections of the route will be carried out during the detailed design phase of the project.</p> <p>DTEI will continue to work with government and non-government organisations concerning conservation issues. The revegetation of large areas of land within the road corridor will contribute to improved biodiversity and provides the opportunity to include species of conservation significance to ensure their ongoing survival.</p>

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
LGS002.16	Impact on gliding and trotting facility Council is naturally concerned about any loss of facilities which are important to Gawler. Council trusts that suitable arrangements will be facilitated, if the current proposals to displace the trotting club and to significantly impact on the gliding club and airstrip facilities are carried through. Council wishes to be kept informed and involved in decisions affecting these very important community facilities.	ER 11 SR 3.12	Refer to Section 3.12 of this Supplement Report. See responses to LGS001.14 and LGS001.15.
LGS002.17	The Environmental Report does not contain an assessment of greenhouse impacts of the project – project construction stage, project implications (plus and minus) in terms of traffic alterations as at completion or project implications in terms of increased commuter and related travel likely to be generated by the suggested development generally to the north of the Expressway. Council understands that this will not appear until the Supplement Report in June and is concerned that this will not provide an opportunity for community consideration.	ER 22 SR 3.9	Noted. A greenhouse gas assessment has been included in Section 3.9 of this Supplement Report. Any comments regarding the greenhouse gas assessment can be forwarded to the Project Director, Northern Expressway for consideration.
City of Salisbury			
LGS003.1	Council supports the construction of the Northern Expressway and the decision to locate the confluence of the Expressway with Port Wakefield Road north of Taylors Road to accommodate the option of a rail/road intermodal west of Heaslip Road.	ER 4	Noted.
LGS003.2	The alignment in this location will provide more opportunities to realise future economic growth in the region through the provision of an integrated land use and transport strategy for the area now known as Greater Edinburgh Parks.	ER 7	Noted.
LGS003.3	Council considers that future planning and development of the secondary arterial network to the Expressway and upgraded Port Wakefield Road are equally important in a strategy for the provision of serviced industrial land. It is acknowledged that DTEI has commenced discussions in relation to the investigations of the secondary network and wishes to continue this into a planning and delivery strategy that aligns with the work being carried out on the Greater Edinburgh Parks Strategy with Department of Trade and Economic Development (DTED).	ER 7.2	It is noted and agreed that there should be ongoing investigations and planning involving DTEI and Council of the secondary arterial network to the Expressway and upgraded Port Wakefield Road. DTEI proposes a Transport Planning Review of the secondary road network adjacent to/or in close proximity to the Northern Expressway and Port Wakefield Road.
LGS003.4	In relation to stormwater management, particularly at the southern end of the Expressway where it meets Port Wakefield Road, the Council requires that DTEI ensures that there is no increase in the risk of flooding to properties around the areas of Waterloo Corner, Direk and St Kilda. Council staff are willing to work with the team to develop a strategy that can be implemented as part of the project's works so	ER 20 SR 3.8.2	It is intended that more detailed analysis and hydrologic/hydraulic modelling be undertaken during the detailed design phase to ensure the risk of flooding is not increased within surrounding areas.

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	that this will not impact on downstream properties.		
LGS003.5	<p>It has been acknowledged by all parties including DTEI that the upgrade of Port Wakefield Road will not provide a long-term solution to cater for future traffic volumes and that substantial works will be required in the medium term.</p> <p>Concern was expressed that funding will not be provided in a timely manner for the future upgrade and that the Cities of Salisbury and Adelaide will be left with a key transport facility with inherent and lasting deficiencies. Similar comparisons can be drawn with the situation along sections of Main North Road.</p> <p>Involvement is sought by Council in planning studies.</p>	—	The future Planning Study, (which includes the process for involvement of all key stakeholders), has yet to be developed. However, the City of Salisbury's request is noted and DTEI will liaise closely with Council to ensure that Port Wakefield Road will continue to function effectively and that any future changes will be timely.
LGS003.6	In relation to the Port Wakefield Road Upgrade, there is no detail available of the impacts on the sub-network roads including how provision will be made for land use changes and freight increase generated from Edinburgh Parks, the Parafield Commercial Precinct and Para Hills West.	ER 13	A presentation was made to Council staff to demonstrate the traffic network modelling and highlight changes in traffic volumes forecast for the local road network. Traffic volumes on most roads in the City of Salisbury will be unchanged or lower as a result of traffic transferring to the Northern Expressway. The Planning and Policy Division of DTEI will liaise with Council to address the management of future developments within Edinburgh Parks and surrounding industrial areas through further detailed investigation.
LGS003.7	The Mawson Connector (Elder Smith Road) connection to Port Wakefield Road has not been included.		An alternative arrangement has been provided via Kings Road/Martins Road. See response to PS037.2.
LGS003.8	The issue of noise abatement has not been addressed	ER 14.6 SR 3.5	Any potential noise treatments will be determined during detailed design. See response to PS036.1.
LGS003.9	Drainage issues at the Port Wakefield Road/Waterloo Corner Road junction and south of Ryans Road need to be provided for in the very limited provision of 'service roads' and in the expectation that local roads will carry the redirected traffic arising from the junction modifications. An example of this is the limiting of movements at the Burton Road junction forcing traffic from Ingham's and the freight transport precinct to detour via Angle Vale Crescent.	ER 20 SR 3.8.2	Refer to Section 3.8.2 in this Supplement Report. A concept design for stormwater management has been prepared for Port Wakefield Road. This includes works necessary to cater for the existing stormwater regime. Should changes in land use or development upstream be implemented then it is recommended that this be managed at the source. Where some traffic is redistributed to the local road network, the scope of upgrade works has been considered in conjunction with the local council. The proposal at Burton Road is to provide the right turn into Burton Road; however, the right turn out will still be restricted.
LGS003.10	Provision of midblock U-turns along Port Wakefield Road for all transport (including B-doubles) within the central median, as an alternative to the creation of service roads and	ER 7.8.3 SR 2.2.6	It is proposed to remove some right-turn movements along Port Wakefield Road. Alternative access would be via alternative road or some U-turn facilities.

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	appropriate intersection treatments, is regarded as a less than optimal design solution, particularly with regard to overall safety along what is a National Highway route. Where possible, alternative design outcomes should be applied.		<p>See response to PS037.7.</p> <p>The U-turn facilities have been located where relative low use is predicted and designed to cater for up to a semi-trailer as the maximum size vehicle. B-double movements will not be provided. It is also expected that additional lighting will be provided at these locations to improve safety.</p> <p>It is acknowledged that provision of the U-turn facilities is not ideal. The long-term future of Port Wakefield Road is subject to further investigation, hence the upgrading of this road to cater for the short to medium term (to 2016) requires that alternatives be developed that do not preclude or force an alternative that may be considered later.</p>
LGS003.11	Consideration needs to be given to complex issues associated with the Bolivar Road/caravan park/service station precinct.	SR 2.2.6	The proposed upgrade includes the additional investigations undertaken since the release of the Environmental Report including provision of footpaths, fences, restricting parking on the shoulder and changing the access from the service station.
LGS003.12	The realignment of Kings Road has not been addressed, allowing the existing congestion at its junction with Bolivar Road to continue.	ER 7.8.3	<p>This congestion is acknowledged as existing and is due to local movements that are not affected by the Northern Expressway.</p> <p>The project has no effect on this issue and hence its resolution is outside the scope of the works.</p>
LGS003.13	Traffic signal coordination will not include Waterloo Corner Road.	ER 28 SR 2.2.6	<p>Traffic signal coordination will be further investigated during the detailed design phase, although it is considered unlikely to be needed at this point. Lower traffic volumes at this end of Port Wakefield Road mean that signal coordination is not needed for capacity reasons.</p> <p>Coordination with the Waterloo Corner Road junction is not considered necessary due to the long distance to the Bolivar Road junction.</p>
LGS003.14	St Kilda Road will not receive any signal controls.	ER 7.8.3 SR 2.2.6	<p>The current and forecast traffic volumes using St Kilda Road and Port Wakefield Road and the crash history at the intersection do not, individually or in combination, meet the warrant for traffic signal control. The works on Port Wakefield Road do include extension of acceleration and deceleration lanes at St Kilda Road to improve safety at this location.</p> <p>This junction has been assessed for safe and efficient traffic movement in the proposed Port Wakefield Road Upgrade works, and it is considered that additional traffic control is not warranted.</p>
LGS003.15	Concerned about the non-provision of 'off road' paths for horses and the proximity to heavy traffic.	ER 7.8.3 SR 2.2.6	Works are proposed to be undertaken to Trotters Drive and to the service road between Daniel Avenue and Whites Road drain to upgrade its current condition. The specific nature of the work

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			<p>will be resolved in consultation with the City of Salisbury and the local community. Consideration will be given to horses in the design of the roads and kerb and channelling.</p> <p>The service road between Daniel Avenue and Whites Road west will be sealed and fenced off from Port Wakefield Road. If feasible and if funds are available, consideration will be given to providing an unsealed shoulder for pedestrians and horses alongside this service road. Provision of off-road paths elsewhere is not part of the project proposal.</p>
LGS003.16	Freight movements from the Bolivar wastewater treatment plant (WWTP) (in lieu of St Kilda Road) have not been addressed.	ER 26.3.4	<p>Access to the Bolivar WWTP is retained through access at Hodgson Road. Any changes to the local road network (by Council) that might affect operations of the WWTP are a matter for Council and the treatment plant operator.</p> <p>This is not part of the project scope.</p>
LGS003.17	Discussions between the Northern Expressway project team and Council staff need to continue to address issues highlighted in LGS003.	—	Noted.
City of Playford			
LGS004.1	As the local government authority for a large part of the area that the proposed Northern Expressway will traverse, the City of Playford has a significant interest in the location of the road and the impact it will have on its community and environment.	—	Noted.
LGS004.2	Considers that the Northern Expressway has major direct and indirect impacts on a diverse range of land uses particularly those to the west of Main North Road.	ER 11	<p>Noted.</p> <p>Considerable planning has been initiated by the State Government in the Playford North–Munno Para area for the northerly extension of metropolitan Adelaide. A more general review of land uses is contemplated.</p>
LGS004.3	The City of Playford's submission on the Environmental Report incorporates input from elected members and officers of Council and from the community at a public hearing on 26 April 2007.	—	Noted.
LGS004.4	<p>The major concerns raised at the public meeting on 26 April 2007 were:</p> <ul style="list-style-type: none"> • health and well-being of the community • the process of consultation and lack of opportunity for the community to provide input to the route selection • noise and air pollution impact on environment • the limitations on east–west access particularly for residents of Virginia, Angle Vale and Macdonald Park • the acquisition of property and impact on livelihood for local farmers and particularly the manner in which this process is being 	ER 2.1	<p>These issues are noted..</p> <p>This is a summary of the issues elaborated on in the submission. Responses are provided against issues as they occur below.</p>

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	<p>approached by the State Government and the lack of transparency and accountability</p> <ul style="list-style-type: none"> • issues relating to the impact of the proposed Expressway on the Gawler River flood plain • the need for full north and south movement access and egress to the proposed Expressway at Angle Vale Road and Curtis Road • the role of the Australian government in supporting and funding the proposed Expressway. 		
LGS004.5	Whilst the State government has allowed a normal consulting period of six weeks (plus some allowance for Easter) for comment on the Environmental Report, this time limitation has proven impossible for the City of Playford to achieve. In light of this, we have limited our comment to macro issues and reserve the right to raise community concerns as the project progresses through the detailed design and construction stages. The Council's main concerns are listed below.	—	Noted.
LGS004.6	<p>Health and well-being of the community</p> <p>As expressed at the public hearing on 26 April 2007, our community has genuine concerns about their health and well-being during the construction process and about the long-term effects regarding safety, noise, air pollution, potential flooding, reduced land values, lack of access and egress points, personal health effects caused by stress, and east-west access to schools and other amenities.</p>	SR 2.2.4 SR 3.3 SR 3.5 SR 3.8 SR 4.2.1 SR 4.2.9 SR 4.2.10	Many of the resident concerns about their health and well-being are addressed in the relevant sections of the Environmental Report and the Supplement Report. A small number of property owners affected by property acquisition have reported very high levels of stress associated with this process. Property owners have been offered counselling at no cost and this is monitored and reviewed on an individual basis. Referrals to other services can be provided on request.
LGS004.7	<p>Concern expressed about the process of consultation and lack of opportunity for the community and elected members to provide input to the route selection.</p> <p>There was no engagement with elected members nor with the community, before one route was announced on 15 November 2006, despite our staff requesting elected members' involvement with the Northern Expressway project team.</p>	ER 5 ER 3.2 <i>Community Engagement Technical Paper</i> , Attachment A Attachment B SR 3.4	<p>Consultation with councils, government and representative groups occurred prior to route selection and identified opportunities and constraints.</p> <p>Community engagement prior to route selection is described in the Environmental Report, Section 3.2.</p> <p>No consultation outside the route selection workshop occurred as participants in this process had professional and agency expertise across all aspects of the project and a commitment to balancing competing interests.</p> <p>Key stakeholders and preliminary issues, risks and concerns are provided in <i>Community Engagement Technical Paper</i> Attachment A.</p> <p>Details of the membership of the Steering Committee, Government Reference Group and Stakeholder Reference Group are provided in the <i>Community Engagement Technical Paper</i> Attachment B.</p>

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			<p>Extensive community engagement and communication with elected members occurred subsequent to the release of the preferred route on 15 November 2006.</p> <p>Information regarding the alternative routes considered and the selected route is provided in the Environmental Report, Section 5.</p> <p>Refer also to Section 3.4 in this Supplement Report.</p>
LGS004.8	<p>Access/egress between the Northern Expressway and the secondary road network</p> <p>The Council has particular concerns in relation to access to the Northern Expressway, particularly with the secondary road network at Curtis and Angle Vale roads where any interchange should provide not only access to the south but also to the north. It is understood that the provision of northerly access may be a question of timing and that ramps allowing for this may be built at some stage in the future. The Council rejects this vague option and requests that these ramps be committed within the initial five-year construction period.</p> <p>The Council requires undertakings in the report on the short-term provision of these connections and an ongoing consultation with the Northern Expressway team at the detailed design and construction stages. This process must ensure that the connectivity with the secondary road network is fully considered and that the local community is truly consulted and kept informed as appropriate.</p>	<p>ER 7.4.3</p> <p>SR 2.2.2</p> <p>SR 3.2</p>	See response to LGS001.10.
LGS004.9	<p>East-west movements</p> <p>The proposed Northern Expressway alignment has the potential to sever communities of interest and connection to the services in the eastern parts of the Council area and this is particularly the case for the areas of Angle Vale, Virginia and Macdonald Park.</p> <p>The Council requires undertakings to be given in the Environmental Report that:</p> <ul style="list-style-type: none"> the route from Virginia to the Northern Expressway be upgraded due to the closure of Petherton Road. Traffic must be able to cross between Penfield and Womma roads easily and safely via Taylors Road. Appropriate intersection treatments are to be provided to facilitate this movement the Northern Expressway team make a significant effort to research the pedestrian/bicycle flows in the Macdonald Park/Angle Vale area now and in the future, (particularly with the advent of the super schools and future growth) and, if necessary, 	<p>ER 7</p>	<p>See response to LGS004.17.</p> <p>DTEI proposes to upgrade the intersections of Taylors Road/Penfield Road and Taylors Road/Womma Road to accommodate safe turning movements of appropriate design vehicles and to review the right-of-way priority. This will be carried out in further consultation with Council.</p> <p>See response to PS010.2.</p>

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	establish properly engineered crossing points. Failure to do this will run the risk of further isolating and stressing already detached communities.		
LGS004.10	<p>The Council is concerned that the Environmental Report is vague and contradictory on what methods are to be used to deal with the impact of noise. The community is particularly sensitive to this issue and its impact on health. There is no detailed plan on what walls, mounding or other methods will be implemented and where. There is a need for more detail on the 'Noise and Vibration Management Plan' and ongoing monitoring of noise impact.</p> <p>The Environmental Report is silent on the responsibility for amending the Development Plan regarding noise mitigation on new development sites and it is Council's opinion that this is the responsibility of State Government in consultation with the Council.</p> <p>Council requires undertakings that the Environmental Report will contain more detail on noise monitoring and mitigation, and on the responsibility of State Government in regard to these matters and changes to the Development Plan.</p>	<p>ER 14 ER Table 41.1 SR 3.5 SR 4.2.9</p>	<p>Noted.</p> <p>Section 14 of the Environmental Report outlines the approach to managing road traffic noise for the Northern Expressway. The nature of noise treatments adjacent to the Northern Expressway will be determined during detailed design and will depend on the amount of noise reduction that is required to achieve the noise criteria.</p> <p>As indicated in Section 41, Table 41.1 of the Environmental Report, a Noise and Vibration Management Plan will be developed for the construction phase of the project. Detailed measures will be developed during the pre-construction phase and a comprehensive community engagement program will be developed to keep the community informed about construction.</p> <p>Changes are being considered to development assessment policies to require future development of sensitive land uses adjacent to the Expressway to meet noise attenuation standards.</p> <p>As indicated in Section 41, Table 41.1 of the Environmental Report, noise monitoring will be undertaken to assess the effectiveness of noise treatments and validate the results of noise modelling.</p>
LGS004.11	<p>Council considers that the Environmental Report misses an opportunity to identify 'view sheds' from the Northern Expressway and strategically focus on their clean-up/improvement beyond land owned by the Northern Expressway Project.</p> <p>The report should be more explanatory on the opportunities for artwork and the development of artistic themes for the route.</p> <p>The report should place much greater emphasis on best practice landscaping implementation and landscaping must not suffer as a first casualty in any attempt to reduce the cost of the Expressway. Timing and the scale of planting</p>	<p>ER 7.4.11</p>	<p><i>The Urban Design, Landscape and Visual Assessment Technical Paper</i> identifies views from within the study area. The strategy is to maintain and enhance these long views to the Mount Lofty Ranges for Expressway travellers and to minimise obstruction for local residents.</p> <p>Clean-up or improvement of land beyond that being acquired for construction of the road is not within the scope of this project. DTEI is not responsible for ensuring that local property owners improve the visual amenity of their land or maintain it appropriately.</p> <p>Details of urban design and artwork themes for the Northern Expressway will be developed by a team of urban design specialists during the detailed design phase of the project.</p> <p>The Environmental Report has been developed during the concept planning phase of the project. As such, it outlines broad design approaches and landscape remediation strategies rather than providing detailed plans for every location.</p>

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	<p>should be flagged as some vegetation could be planted before or at the very early stages of construction.</p> <p>The Council requires undertakings to be given in the report on improvements to visual amenity at specific locations, artistic projects and themes and more detailed landscape plans.</p>		Detailed landscape and urban design plans will be developed and discussed in consultation with Council during the detailed design phase once the exact extent of areas to be landscaped has been finalised and during detailed design of the bridge structures.
LGS004.12	<p>The Northern Expressway Environmental Report fails to address the impact of the road on land use changes in the immediate and nearby locality within the short to medium term. The Expressway will have significant implications on future land use patterns and how it will service, help or hinder infrastructure provision to these areas.</p> <p>The Expressway is a significant injection of infrastructure and will have a long-term effect (out to 2050) on the commercial/industrial and residential landscape. The area will become more accessible and there will be pressure on rates of development, location of that development and on land use throughout the region. Some strong input from Planning SA should be made in this regard.</p> <p>Analysis of these matters and guidance on land use and zoning policy should be included in the report.</p>	<p>ER 10</p> <p>ER 11</p> <p>ER 26</p> <p>SR 3.3</p> <p>SR 4.2.5</p>	<p>The Environmental Report in Part D, Sections 10 and 11 acknowledges that the Northern Expressway is likely to stimulate development as has been experienced elsewhere in Australia and internationally. In Part E, Section 26, it is also suggested that there would be some minor to medium effects on land use in the commercial, industrial and horticultural areas adjacent to Port Wakefield Road.</p> <p>Refer to Sections 3.3 and 4.2.5 in this Supplement Report.</p>
LGS004.13	<p>Whilst the City of Playford has concerns regarding the methodology and the selection of the route for the Northern Expressway, it strongly supports the concept of a major road connection in its area that will allow the safe movement of freight transport and opportunities for commuters and visitors to better access employment, tourism and recreation.</p> <p>The Northern Expressway as a significant infrastructure component will benefit the economic future of City of Playford and cater for the growth, particularly in the Playford North area, of future residential population.</p> <p>It is a major benefit for the City that a proposed new road route will remove significant road pressure on Main North, Angle Vale and Heaslip roads and road safety concerns within the township of Angle Vale.</p> <p>The Council accepts the linkages with the Commonwealth and State major statutory instruments but considers that the Environmental Report should also give due deference to the City of Playford's strategic directions by reference in this section to the documents:</p> <ul style="list-style-type: none"> • The Playford Plan and associated Goal Plans • The Ten Year Financial Plan and City Plan • The Corporate Management Plan. 	<p>ER 4</p> <p>SR 3.3</p>	<p>Noted.</p> <p>The City of Playford's excellent strategic initiatives, including The Playford Plan, The Ten Year Financial Plan, City Plan and the Corporate Management Plan are acknowledged. Many of these initiatives will be facilitated as a consequence of the Northern Expressway.</p>

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LGS004.14	As the benefits of the Northern Expressway will not be realised for five years, we strongly encourage that a solution to the major traffic issue at the intersection of Heaslip and Angle Vale roads be resolved in the short term.	ER 13	The City of Playford received \$1.1 million from the Australian Government's AusLink Strategic Regional Program to improve the intersection of Heaslip and Angle Vale roads. Options for this intersection are currently being investigated by the Metropolitan Region of DTEI.
LGS004.15	An independent review of the Northern Expressway has been undertaken by Hyder Consulting focusing on the methodology and selection process of the alternative routes (this has been included as an attachment to the Council's submission). The review is covered under a separate submission.	ER 5	Noted.
LGS004.16	<p>As indicated above in LGS004.14, the City of Playford supports the concept of the new road as a benefit to the region.</p> <p>Significant gaps exist in the sections of the report in regard to the following:</p> <ul style="list-style-type: none"> • There is very little detail on the economic benefits of the proposed route: it would be useful if more detail was supplied building on the points that were raised in Section 5 of the Environmental Report, but really expanding on the economic opportunities. • There is very little analysis of the benefits of the road in regard to a Waterloo Corner intermodal proposal and the opportunity for the integration of the road with this proposal. It should be emphasised that it is crucial that the Northern Expressway be as close as possible to this opportunity and that secondary road linkage and the layout of the land and future zoning need to be carefully considered to maintain the integration. The section on the intermodal is considered underdone. • The horticultural and food processing section would benefit from reference to the latest report from PIRSA, '<i>Northern Expressway alignment choice and its effects on the Virginia Horticulture District</i>' (20 April 2007). 	<p>ER 6 SR 3.3</p> <p>SR 3.4</p>	<p>Refer to Section 3.3 in this Supplement Report, regarding secondary economic opportunities and benefits of the Northern Expressway.</p> <p>Refer to LGS004.58, PS037.4 and PS037.6 regarding integration of an intermodal.</p> <p>See response to SGS011.1.</p>
LGS004.17	<p>In regard to the design principles and standards, the following is strongly supported: an eventual corridor width of three lanes in each direction, no light spill outside the corridor and the location of the route so as to minimise or reduce traffic volumes on Main North Road over the next 30 years. The following key matters are noted:</p> <ul style="list-style-type: none"> • that stormwater is drained to Council's aquifer storage and recovery (ASR) scheme where at all possible and any stormwater discharging to local road drains must be approved by Council 	<p>ER 7 SR 2.2.3 SR 2.2.5</p>	<p>See response to LGS004.66 and PS007.1, and refer to Section 2.2.3 of this Supplement Report. The Expressway comprising dual two-lane carriageways will be sufficient to divert significant traffic from Main North Road to the Expressway.</p> <p>Preliminary investigations have been undertaken to determine whether it is feasible to discharge stormwater to the City of Playford's Stebonheath Flow Control Park (FCP) and stormwater harvesting scheme. Natural surface levels between the Expressway and the FCP to the east of Andrews Road prevent gravity drainage</p>

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	<ul style="list-style-type: none"> that all intercepted roads must have emergency access to Northern Expressway via strategically located locked gates that access the secondary road network that the route from Virginia to the Northern Expressway must be upgraded due to the closure of Petherton Road. Traffic must be able to cross between Penfield and Womma roads easily and safely via Taylors Road. Appropriate intersection treatments are to be provided to facilitate this movement that, with regard to Curtis Road, the Northern Expressway Project is to match into the upgraded Curtis Road 100 m west of Andrews Road that, in regard to Curtis Road interchange, access to the north is required that, in regard to Angle Vale Road interchange, access to the north is required. 		<p>to this facility.</p> <p>Further investigations are planned during the detailed design phase; however, it is likely that available volumes will be small and require substantial treatment.</p> <p>It is intended that further consultation with local councils be undertaken during the detailed design phase to ensure the Northern Expressway stormwater drainage strategy is consistent with relevant council stormwater management plans.</p> <p>Emergency access is provided at the interchanges as discussed with emergency services groups.</p> <p>The route from Virginia to the Northern Expressway, assuming a Penfield Road/Taylors Road/Womma Road route, will be upgraded at intersections (Penfield Road/Taylors Road and Taylors Road/Womma Road) to accommodate safe turning movements of appropriate design vehicles, including a review of the right-of-way priority at the Penfield Road/Taylors Road intersection.</p> <p>A funding submission is currently being considered by the Australian Government to provide additional interchanges and ramps – refer to Sections 2.2.2 and 3.2 of this Supplement Report.</p> <p>Interchanges have been amended to include access to and from the north at Curtis Road and possibly at Angle Vale Road in the future.</p>
LGS004.18	The projected reduction of heavy traffic on Angle Vale and Heaslip roads is strongly supported as this will enable safer local community access and residential movement on these roads.	ER 10	Noted.
LGS004.19	<p>The Environmental Report states there are currently no Metroticket services on the north-western side of the proposed Northern Expressway route. Section 10.6.3 – Future Growth argues that the Northern Expressway could provide opportunities for growth of communities on the north-western side (Virginia and Angle Vale) but does not make a statement about the related, increased need for public transport should this happen and its interplay with the Northern Expressway and the potential need for pedestrian and commuter access across Curtis and Womma roads.</p> <p>Public transport is currently barely existent and threatened in Virginia and non-existent in Angle Vale. As these townships grow in population, public transport will become an increasingly</p>	ER 10.6.3	<p>The provision of any future Metroticket services is a matter for the Public Transport Division.</p> <p>The Northern Expressway would not exclude the potential for any future public transport bus service accessing and using the Expressway.</p>

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	important element of community life enabling sectors of the community without cars (young, old and those who cannot afford cars) to access services and facilities. The Northern Expressway will need to accommodate bus access to and from both townships.		
LGS004.20	<p>Other key points that should be addressed in the report are that east–west movement is essential for residents of Angle Vale, Virginia and Macdonald Park and that:</p> <ul style="list-style-type: none"> • These communities are isolated given their geographic location and the Northern Expressway must ensure it does not amplify this by restricting east–west movement to the urban areas of Andrews Farm, Smithfield and Elizabeth where local and regularly accessed amenities including major shopping centres, health services and schools are located. • The Council urges the Northern Expressway team to make a significant effort to research the pedestrian/bicycle flows in the Macdonald Park/Angle Vale area, now and in the future (particularly with the advent of the super schools and future growth) and, if necessary, establish properly engineered crossing points. Failure to do this will run the risk of further isolating already detached communities. 	ER 10	<p>See responses to LGS004.17, PS010.2 and PS038.5.</p> <p>Movement across the Northern Expressway can only occur at bridge overpasses for safety reasons.</p> <p>Consideration of pedestrian and cycle flows has occurred. Growth (zoned) areas are known. The location of any future 'super school' is not yet known. Local bicycle plans are the responsibility of the relevant councils. Dedicated bicycle or pedestrian bridges or underpasses have not been proposed as council integrated bicycling and pedestrian strategies are presently informal or yet to be developed.</p>
LGS004.21	<p>Other key points that should be addressed in the Environmental Report are:</p> <ul style="list-style-type: none"> • Council is concerned that consultation on the route itself was not a major part of the community engagement and this has been addressed in a number of discussions with the Northern Expressway team and in a separate submission from Council that has been compiled by an independent consultant. • Council is concerned that the communities most affected by the proposed route are fully consulted by the Northern Expressway team and that their concerns are properly addressed at the design and construction stages of the project. In particular, as mentioned in LGS004.21, that issues of access are addressed as well as that of potential disturbance through noise or air pollution. • Affected communities need to be informed via signage and mail of Northern Expressway planning and construction phases that will impact on their daily lives and activities. By having advance notice, people can plan and amend travel routes, etc. to minimise disruption and inconvenience. • An ongoing arrangement/process must be established so that communities should be 	<p>ER 3</p> <p>SR 1.3</p> <p>SR 1.3</p> <p>SR 4.2.1</p>	<p>Refer to Section 1.3 of this Supplement Report. The independent advice commissioned by City of Playford deemed the consultation on the route selection process to be rigorous and appropriate.</p> <p>An integrated Community Engagement Strategy is being developed to ensure the community is informed or involved throughout the design and construction phases of the project.</p> <p>This will include community engagement initiatives that enable communities to provide valuable local knowledge to the project. Community engagement strategies will also be developed with local industry, employment agencies, Aboriginal representatives, schools and training groups.</p> <p>Advance notice will be provided to local communities as the construction of the Northern Expressway progresses.</p>

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	involved in advising the Northern Expressway project team on local context and needs throughout the life of the project.		
LGS004.22	<p>A significant point that must be made is that the Environmental Report is a 'snapshot of today' and does not look at the land use implications of the Northern Expressway, which are substantial not only in the short to medium term but consideration must also be given to longer term impacts. Consideration must be given to future land use planning.</p> <p>This section should have a discussion on the implications of the Buckland Park proposal given its variation from the principles of the Urban Boundary, and its significant scale and proximity to the Northern Expressway/Port Wakefield Road intersection which will not, in the short term, be grade-separated.</p> <p>Major issues for infrastructure provision and implementation as a result of potentially new urban development will include:</p> <ul style="list-style-type: none"> the need for additional access points along the Northern Expressway, in particular: <ul style="list-style-type: none"> access at Curtis Road heading north as well as south access to the Northern Expressway at the proposed intermodal site the impact on service provision within schools and centres the impact on public transport (as indicated above) the impact on infrastructure such as energy, water and sewers. <p>Additional issues that may arise as a result of a new land use pattern in the area include:</p> <ul style="list-style-type: none"> the need to articulate the roles of State and local government further investigations into the financial and operational impacts on horticulture within the Adelaide Plains social, environmental and economic cost implications of intensification and expansion of horticultural, residential and industrial development. <p>In summary, it is felt there is no significant detail on what has been considered to integrate land</p>	<p>ER 10 ER 11 ER 13 SR 2 SR 3.2 SR 3.3 SR 4.2.5</p>	<p>The Environmental Report in Part D, Sections 10 and 11 acknowledges that the Northern Expressway is likely to stimulate development as has been experienced elsewhere in Australia and internationally.</p> <p>Section 3.3 of the Supplement Report acknowledges the likely secondary effects of the Expressway.</p> <p>Consideration of changes to land use were discussed in the Environmental Report in Part D, Section 10.6.3, Section 11.4 and Section 13.2.9. See also Section 4.2.5 of this Supplement Report.</p> <p>The Buckland Park proposal is a recent major project announced close to the release of the Environmental Report. The subject land is outside the Urban Boundary. There is no certainty that the proposal will be approved or what timelines will apply and hence this cannot reasonably be taken into account at this stage.</p> <p>These additional issues are considered outside the scope of the Environmental Report but would be the subject of future metropolitan and outer metropolitan regional planning strategies and/or industry plans.</p>

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	<p>use and the transport network, especially considering future land use changes that are highly likely to eventuate as a result of the Northern Expressway Project.</p> <p>The Northern Expressway will have the potential for an impact on horticulture and future urban activity beyond the current Urban Boundary resulting in consideration of a change in the boundary and Development Plan actions at the State and local levels of government.</p>		
LGS004.23	<p>The City of Playford strongly supports directing heavy vehicle and commuter traffic away from Angle Vale and the local road network.</p> <p>The need to take account of the specific linkages with the local road network is emphasised and the Council reserves the right to undertake discussions with the Northern Expressway team as the detailed design of the project develops to ensure that traffic impact on these roads is known and assessed and that an equitable apportionment of externality impact costs of the Northern Expressway is made.</p>	ER 13	<p>Noted.</p> <p>DTEI will continue to liaise with Council on this issue.</p>
LGS004.24	There is an overall uncertainty in the Environmental Report regarding (noise) amelioration. The report is vague and contradictory on what methods are to be used to deal with the impact of noise.	ER 14 SR 3.5 SR 4.2.9	See response to PS036.1.
LGS004.25	There needs to be a mention of how prevailing winds may influence the impact on noise...that is, will properties to the east experience a greater impact?	ER 14 SR 3.5	See response to PS029.17.
LGS004.26	Some sites have demonstrated that they will be impacted upon by the road in relation to noise; 32% of sites will be 'above daytime noise criteria'. Whilst generic measures have been outlined regarding walls, mounding, etc., there is no detailed plan outlining what will be implemented and where.	ER 14 SR 3.5 SR 4.2.9	See response to PS036.1.
LGS004.27	There is no documented proof that the proposed route affects the least number of people when compared to other options, despite this being stated.	ER 14 ER 5 ER 6 SR 3.4	Refer to Section 3.4 in this Supplement Report and Sections 5 and 6 of the Environmental Report about route selection activities and analysis.
LGS004.28	Extensive mounding may be required to achieve noise attenuation; costs should be considered against the life of the mound and will need to be assessed on a case-by-case basis.	ER 14 SR 3.5	Refer to Section 3.5 in this Supplement Report.
LGS004.29	Details should be included on sites where noise barriers are to be implemented. Noise is a key concern of the community, particularly as many people have located in the area for its quiet rural lifestyle. Any detailed information on noise attenuation can assist in easing community concerns.	ER 14 SR 3.5 SR 4.2.9	See response to PS036.1.

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LGS004.30	Details identifying who is responsible for amending the Development Plan (i.e. State Government) are required. It is Council's opinion that the State Government, and not Council, should implement changes to the Development Plan as a Plan Amendment Report (PAR) regarding noise mitigation on new development sites.	ER 14 SR 4.2.5	Amendments to the Development Plan can be initiated by the Minister for Urban Development and Planning. Any Plan Amendment Report that addresses issues such as noise management resulting from the Northern Expressway would be handled by the Minister as it affects more than one council area. DTEI is discussing with Planning SA possible changes to development assessment policies to ensure development of new sensitive land uses include noise attenuation measures.
LGS004.31	There are no details on what a 'Noise and Vibration Management Plan' will contain; this Environmental Report should provide some more detail on this plan.	ER 14 ER Table 41.1	As indicated in Section 41, Table 41.1 of the Environmental Report, a Noise and Vibration Management Plan will be developed for the construction phase of the project. Detailed measures will be developed during the pre-construction phase and a comprehensive community engagement program will be developed to keep the community informed about construction.
LGS004.32	During construction, heavy vehicles should consider varying the roads used to access sites so as to minimise impact (provided any damage to roads is kept to a minimum and reinstatement occurs).	ER 14	This will be considered during construction.
LGS004.33	There is no mention of monitoring noise post-construction, only a complaints hotline. It is strongly suggested that monitoring be more fully addressed in the Environmental Report.	ER 14 ER Table 41.1	As indicated in Section 41, Table 41.1 of the Environmental Report, noise monitoring will be undertaken to assess the effectiveness of noise treatments and validate the results of noise modelling.
LGS004.34	A major positive of the proposed Northern Expressway is the reduction of traffic noise within the township of Angle Vale and this should be more fully dealt with in the Environmental Report.	ER 14 SR 3.5	The Northern Expressway is predicted to decrease the average annual daily traffic flow (AADT) and commercial vehicle flow along Heaslip Road and Angle Vale Road. It is predicted that the noise contribution from road traffic noise on Heaslip Road will be decreased by 4–6 dB(A), and noise on Angle Vale Road will be decreased by 1–2 dB(A). Due to decreased commercial vehicle flow during the night, this will lead to a decrease in the frequency of maximum noise events for residents adjacent to Heaslip and Angle Vale roads.
LGS004.35	Stone mastic asphalt (SMA) should be the preferred road surface material. The report states the road surface will be stone mastic asphalt (SMA) but then states on pp 14–23 that there will only be 'targeted use' of SMA.	ER 7.4.2 ER 14	Section 14.5.2 of the Environmental Report notes that 'all the predicted future noise levels on the Northern Expressway are based on the use of stone mastic asphalt (SMA) as a low noise road surface'. As indicated in Section 7.4.2, the 'final selection will be decided when the contracts for construction are let.' Targeted use of SMA will be considered adjacent to built-up areas.
LGS004.36	The report does not indicate that monitoring of vibration should be undertaken before, during and afterwards on ALL properties in the	ER 15	The closest buildings adjacent to construction activities will be monitored to ensure compliance with relevant vibration criteria. If these sites comply with the criteria, then there is no

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	<p>immediate vicinity of construction.</p> <p>Vibration monitoring should be undertaken for ALL residences less than 25 m from construction sites, not selected sites.</p>		<p>justification for monitoring sites that are further away from construction activities. Monitoring will also be undertaken at any heritage buildings or other buildings of special significance near construction sites.</p> <p>Note that monitoring of those construction activities likely to cause significant vibration (i.e. hydraulic rock breakers, compactors, blasting, vibratory rollers, etc.) will also be undertaken on open ground on site. This monitoring will take place at different distances to allow vibration predictions to be carried out with these calibrated to site conditions along the Northern Expressway route. This will assist in providing accurate predictions of vibration levels at properties near construction activities without the need to monitor at each of the sites.</p>
LGS004.37	Education that vibration is unlikely to impact on buildings is not mentioned, but needed.	ER 15	The integrated community engagement plan will address a range of issues during the construction phase to keep the community informed.
LGS004.38	Building condition inspections before construction is supported, but of little use unless there are also inspections after construction. This is not outlined.	ER 15 ER Table 41.1	As outlined in Table 41.1 of the Environmental Report, a building condition inspection will be undertaken at specific properties prior to construction. After construction, these properties will be inspected and any damage caused by construction activities will be repaired.
LGS004.39	While Council understands that there may be Aboriginal heritage sites within the Northern Expressway project area known to the project management team, we ask that any bones, implements/tools, middens or other Aboriginal objects uncovered during excavation work be reported to the Aboriginal Affairs and Reconciliation Division of State Government under the Aboriginal Heritage Act for proper identification and relocation.	ER 16 SR 3.6	Section 16 of the Environmental Report outlines the approach to Aboriginal cultural heritage management for the project.
LGS004.40	<p>No heritage structures will be affected, but in five cases, the land around these heritage sites will be affected. The future use of both the dwelling on Petherton Road and the Smithfield Magazine Area could be contemplated to further assist in understanding what amelioration efforts will be required.</p> <p>The dwelling on Petherton Road is understood to be in a poor condition and owned by the State Government, so more thought should be undertaken as to the future of this site. Is it to be kept and if so, what should be done with it to ensure its longevity?</p> <p>Further consideration on any heritage sites owned by all levels of Government is required.</p>	ER 17 SR 3.7	<p>DTEI has continued to liaise with the Heritage Branch of the Department for Environment and Heritage.</p> <p>Refer to Section 3.7 in this Supplement Report.</p>
LGS004.41	Whilst it is acknowledged that the overall scenic value of the Adelaide Plains is of 'low to moderate scenic quality', there is an opportunity	ER 18	<p>Noted.</p> <p>This is an opportunity which is beyond the scope</p>

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	to identify 'view sheds' from the Northern Expressway and strategically focus on their clean-up/improvement beyond land owned by the Northern Expressway Project. This is not flagged.		of this project. See response to LGS004.11.
LGS004.42	Privacy loss for residents in Macdonald Park should be factored into amelioration costs, similar to those for noise impact.	ER 18 ER 7	Section 7 of the Environmental Report outlines the proposed landscaping scheme, including a landscape mound adjacent to Macdonald Park.
LGS004.43	Penfield Road is identified as a suitable site for artwork installation; however, the entire length of the road should be considered for artwork.	ER 18 ER Figure 7.9	The Urban and Landscape Design Strategy (Figure 7.9 in the Environmental Report) highlights appropriate sites for a series of artwork installations along the route. Other sites or the creative design of pieces of Expressway infrastructure (e.g. fences, bridge abutments, etc.) may also be appropriate. The exact nature of the artwork is yet to be determined. The Northern Expressway team will be working with artists, designers and the community to develop ideas that are reflective of the people and history of the local area.
LGS004.44	There is no significant emphasis on the provision of a complete artistic theme to provide interpretation along the entire Northern Expressway. An integrated artwork theme should be included in the planning and design stage to develop interpretation along the entire length of the Northern Expressway.	ER 18	See response to LGS004.43.
LGS004.45	There should be much greater emphasis on best practice landscaping implementation.	ER 18	DTEI will ensure that the significant financial investment being made to revegetate the corridor leads to a successful outcome both environmentally and visually. Therefore, best practice landscape implementation methods will be used to improve planting success rates and environmental sustainability. Methods that will be considered include mulch manufactured from Adelaide's recycled green waste, weed mats to prevent weed growth and geo-textile fabrics to improve batter stabilisation and minimise erosion. Drought tolerant plants and slow-release fertiliser will be used. Recent innovations such as water retention agents may be used to increase plant survival rates and minimise watering requirements.
LGS004.46	Planting of more mature vegetation should be considered and, where necessary, species that will achieve larger dimensions to accelerate amelioration of impacts.	ER 18	In high profile and highly visible locations along the Expressway, where an 'instant effect' is sought, semi-mature trees may be planted. (A semi-mature gum tree is classified as being approximately 2–3 years old and up to 2.5 m in height). However, because larger, more mature plants are significantly more expensive to grow, transport, plant and establish (they must be watered frequently and do not adapt as readily to local climatic and soil conditions), native plants that are 6-12 months old are usually used for

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			<p>large-scale landscaping and revegetation works.</p> <p>Within a few years, vegetation planted as tubestock will have reached a similar size to that planted when it was semi-mature.</p> <p>Whilst amelioration of visual effects is important, it is not a sound investment of resources to revegetate large areas of land with mature vegetation.</p>
LGS004.47	The report does not outline the possibility of implementing mature vegetation or planting vegetation before or during construction. Timing of the planting of vegetation should also be flagged as some vegetation could be planted before or at the very early stages of construction.	ER 18	<p>See response to LGS004.46.</p> <p>The importance of the timing of planting is recognised. Much of the landscaping will be undertaken to remediate and stabilise the site at the completion of road construction activities.</p>
LGS004.48	Some concern should be expressed that there will be unknown sites of contamination along the route due to historical circumstances and the rural nature of the area.	ER 19	Refer to Section 19.5.2 and Section 19.6.2 of the Environmental Report.
LGS004.49	Any changes to soil will influence the drainage regime and this needs to be acknowledged in more detail.	ER 19	Refer to Sections 19.5.1 and 19.6.2 of the Environmental Report and the <i>Geology, Soils and Site Contamination Technical Paper</i> .
LGS004.50	The Effect on Soils section does not outline a potential change in drainage patterns. This needs to be considered in relation to on-site works and potential for contamination.	ER 19.5 ER 19.6 ER 20.5	The Soil Erosion and Drainage Management Plan prepared as part of the Construction Environmental Management Plan will address the potential effects on soils and potential for contamination due to changes in drainage patterns.
LGS004.51	A change to the drainage regime needs to be acknowledged in more detail.	ER 20	See response to LGS004.53.
LGS004.52	Drainage west of the Northern Expressway seems to be ignored, with the emphasis on getting water from east to west. This appears to be an important opportunity to reconsider water movement on the Adelaide Plains south of the Gawler River.	ER 20	Further consultation with local councils and the Adelaide and Mount Lofty Ranges Natural Resources Management Board will be undertaken during the detailed design phase to ensure the Northern Expressway stormwater drainage strategy is consistent with relevant council stormwater management plans.
LGS004.53	There is limited consideration as to where stormwater will flow post-Northern Expressway and there needs to be discussion on how this flow can be coordinated and harnessed for reuse.	ER 20	<p>The conceptual design of the stormwater drainage system has been designed with the aim of maintaining current drainage patterns as far as practicable.</p> <p>It is possible to consider harvesting stormwater generated from within the road corridor for treatment and reuse; however, the available volumes are likely to be quite small. While the potential for stormwater harvesting will be investigated in the detailed design phase, the ultimate stormwater system will nevertheless be designed for flood management and the provision of adequate drainage for less frequent rainfall events, which will not be harvested.</p>
LGS004.54	The Northern Expressway will in part redefine flood prone areas and thus flood hazard zones. There should be greater connection to existing Gawler River flood mitigation project work to	ER 20 SR 3.8 <i>Surface Water and</i>	<p>Refer to Section 3.8.1 (Gawler River) in this Supplement Report.</p> <p>Refer also to the <i>Surface Water and Groundwater Technical Paper</i>.</p>

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	provide a greater understanding of a new flood regime.	<i>Groundwater Technical Paper</i>	More detailed design analysis is being undertaken and will also occur during the detailed design phase.
LGS004.55	More detail and a closer working relationship with the Catchment Board are required to ensure that any changes to the Adelaide Plains Flood Prone Areas are identified and addressed adequately.	ER 20 SR 3.8	Further consultation will be undertaken during the detailed design phase.
LGS004.56	Regarding groundwater contamination, impermeable liners 'will be considered'. This should be assumed as an imperative considering the types of chemicals that will be transported along the Northern Expressway.	ER 20	This will be addressed as part of the risk assessment process.
LGS004.57	The flora section outlines issues associated with significant sites but makes no mention of 'significant trees' as defined by the Development Act. It is acknowledged these will be identified during vegetation surveys; however, the identification and management of these trees in conjunction with Council should be outlined in this report.	ER 23	A detailed survey will be carried out during detailed design to identify all the vegetation that may be affected by the project. Council will be consulted about how to best manage any significant trees that may be affected by the project.
LGS004.58	<p>It is acknowledged that only a very small section of the Northern Expressway route impacting on Port Wakefield Road is within the Council's area. In regard to Port Wakefield Road, the Council acknowledges and supports the comments made by the City of Salisbury. In particular:</p> <ul style="list-style-type: none"> • The connectivity of the interchange at Taylors Road and Port Wakefield Road to Edinburgh Parks along Edinburgh Avenue (previously Wyatt Road). • The effect that the Northern Expressway would have on the local arterial road network that provides lateral connectivity to economic hubs such as Edinburgh Parks, Salisbury Town Centre and to Main North Road. The Environmental Report has acknowledged the need for further consideration of this network (Environmental Report Volume 2, p. 10-6): <i>'The City of Salisbury and City of Playford have plans for a major expansion of the industrial/ commercial activities on the western and northern perimeter of Edinburgh (Greater Edinburgh Parks) and access arrangements for this increased activity will require future consideration.'</i> • The other aspect that will require further discussion with DTEI during the design-and-construct phase of the Northern Expressway will be that of drainage. The Northern Expressway will channel overland flows to the intersection of Port Wakefield Road. The overall outcome is unclear at the moment and should be determined during the design phase. 	ER Part E SR 2.2.6 SR 3.2.2	<p>It is acknowledged that the Northern Expressway will require traffic redistribution on the local and arterial road network to either cross or join the Northern Expressway.</p> <p>The strategic transport model used to develop the scheme incorporates official Planning SA data for population and employment forecasts. The model was also adjusted to incorporate other 'projects' that could impact on traffic volumes. This included the proposed intermodal: the proposed scheme takes these movements into account.</p> <p>A presentation was made to Council officers that demonstrated the traffic network modelling and highlighted the changes in traffic volumes forecast for the local road network. These matters will be dealt with between Council and the Planning and Policy Division of DTEI.</p> <p>With the full development of centres such as Edinburgh Parks and Salisbury, it is inevitable that traffic volumes on local roads will increase in the future, irrespective of the Northern Expressway. Available traffic modelling suggests that the Northern Expressway will reduce traffic on most local roads.</p> <p>It is the intention that more detailed analysis and the preparation of stormwater design models be undertaken during the detailed design phase.</p> <p>It is also intended that further consultation with local councils and the Natural Resources Management (NRM) Board be undertaken during the detailed design phase to ensure that the Northern Expressway stormwater drainage</p>

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	As in any road construction, no increase in flood risk should occur to properties in the City of Salisbury as a result of the construction of the Northern Expressway.		strategy is consistent with relevant council stormwater management plans.
LGS004.59	LGS004.60 to LGS004.76 summarise verbal submissions received from the community at a meeting held on 26 April 2007 at the Playford Civic Centre (as provided by the City of Playford).		Noted. Responses are provided against issues as they occur below.
LGS004.60	Lack of real and proactive consultation with residents affected by the proposed route, residents within the City of Playford in general and the elected members of the City of Playford.	ER 3 SR 1.3 SR 4.2.1	See response to LGS004.7. A significant effort has been made by DTEI to communicate and consult on the issues and activities which those consulted could influence. The selection of the route was by targeted consultation only. Sufficient detail was necessary on other issues to facilitate wider input.
LGS004.61	Rejection by the Northern Expressway project team of any requests for a reasonable extension of the public consultation period.	ER 2 ER 3	See response to PS029.12.
LGS004.62	The perception of a lack of transparency from the Northern Expressway project team in regards to the rationale for the proposed route and the overall cost-benefit ratio of the project.	ER 4 SR 3.4	See response to PS029.4.
LGS004.63	The Transport Minister, the Hon. Patrick Conlon publicly advising that there would be no public consultation implies that consultation is not a priority for the Department, nor that it will have any influence on the overall decisions.	ER 3 SR 1.3 SR 4.2.1	The <i>News Review Messenger</i> printed a report on 6 December 2006 with the headline 'This route is not negotiable'. Extensive consultation prior to selecting the route ensured that the best route was selected. The community engagement process since the announcement of the route has provided an opportunity for the community to identify and address any issues regarding the route, and to provide input into the negotiable aspects of the project. More than 5000 people have provided feedback and this has been considered by the project team.
LGS004.64	Lack of social justice displayed regarding the process of advising residents of compulsory acquisition orders.	ER 12 SR 4.2.6	Compulsory land purchase for public infrastructure has a direct effect on those properties acquired; the approach adopted was considered to provide the greatest level of certainty for all members of the community.
LGS004.65	Lack of on and off ramps along the proposed route.	ER 7.4.3 SR 2.2.2 SR 3.2	See responses to LGS001.9 and LGS001.10.
LGS004.66	A two-way laned road will only last for the next 10 years – not enough forward planning.	ER 5	The Northern Expressway is two lanes each way and is designed to accommodate future capacity beyond 2031. See response to LGS003.5 for Port Wakefield Road.
LGS004.67	Inconsistent information regarding the application of tolls on the proposed Expressway.		No toll is proposed.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
LGS004.68	Feedback from various truck drivers that they will only use the most direct route.	ER Exec Summary ER 6.2	Travel time savings and vehicle operating costs with the Northern Expressway will also be key criteria for its use.
LGS004.69	Potential for impact of flooding on the proposed route has not been adequately thought through.	ER 20 <i>Surface Water and Groundwater Technical Paper</i> SR 3.8 SR 3.8	Refer to Section 3.8 in this Supplement Report.
LGS004.70	Safety issues in Angle Vale will be addressed through the proposed project.	ER 7.2.2	Noted.
LGS004.71	Increase of safety issues in the community – kids riding bikes, access of pedestrians onto the Expressway.	ER 7.4.1	Fencing will ensure pedestrian/cycle access is restricted as it is with the South Eastern Freeway, with cyclone-type fencing and barriers where necessary. See response to PS004.6.
LGS004.72	Decrease of quality of lifestyle due to noise, pollution and diesel emissions.	ER 14 ER 21 SR 3.5	See responses to RBS001.4 and PS036.1.
LGS004.73	Major disruption to wellbeing of residents and community at large.	ER Part D	The Northern Expressway route has been determined following a comprehensive assessment of a wide range of criteria, including minimising effects on residents and the community at large.
LGS004.74	Adverse effects on health of residents – stress and diesel fumes known to be cancer causing.	ER 21 SR 4.2.10	See response to RBS001.4.
LGS004.75	Decrease of house valuations adjacent to the proposed route.	ER 12 SR 3.3	Residential property values are affected by a range of factors which may result in reduced or increased values. Refer to Section 3.3 of this Supplement Report.
LGS004.76	Increase of prices for fresh fruit and vegetables due to less horticultural land being available.	ER 10 SR 4.2.5	The amount of horticultural land removed is minimal compared with existing or potential horticultural areas. The link between land area and the price of fruit and vegetables cannot reasonably be determined as many other factors apply.
City of Salisbury (Manager, Civil and Landscape Design)			
LGS005.1	Review of the Environmental Report, <i>Surface Water and Groundwater Technical Paper</i> Stormwater management concept plan 6 of 7 shows an existing detention basin on the south-eastern corner of the Waterloo Corner Road and Port Wakefield Road intersection. The detention basin shown is not a formal detention basin and only stores stormwater run-off as a result of its levels. This low-lying area is a significant drainage issue which needs to be addressed as part of the upgrade works.	SR 3.8.2 <i>Surface Water and Groundwater Technical Paper</i>	Noted. <i>The Surface Water and Groundwater Technical Paper</i> described this area as being an informal detention area only. Refer to Section 3.8.2 in this Supplement Report for further information on Port Wakefield Road.
LGS005.2	The Catchment Management Subsidy Scheme has in previous years provided funding to Council to construct the Angle Vale Crescent drain. The drain has been constructed up to Angle Vale Crescent. The catchment extends to	SR 3.8.2 <i>Surface Water and Groundwater Technical Paper</i>	Refer to Section 3.8.2 in this Supplement Report for further information on Port Wakefield Road.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	Greyhound Road/St Kilda Road and it encompasses the area between Mumford Road and Port Wakefield Road. The drain should be extended to Greyhound Road/St Kilda Road and to the intersection of Waterloo Corner Road and Heaslip Road. There are significant flooding issues along Heaslip Road and at the intersection with Waterloo Corner Road which need to be resolved as part of the Port Wakefield Road Upgrade.		
LGS005.3	Stormwater management concept plan 5 of 7 shows existing and proposed drainage discharging to the St Kilda Road drain. All stormwater run-off south of Greyhound Road/St Kilda Road should be directed to the Angle Vale Crescent drain which ultimately discharges to the Helps Road drain. Refer to a drainage report prepared by Tonkin Consulting (Ref. No. 20000559RA3) for the St Kilda Road Catchment to determine the extent of the catchment. The capacity of the St Kilda Road drain should be determined to ensure that any additional flows being discharged to the drain are contained within the drain for a major event (i.e. 1:100 year ARI).	SR 3.8.2 <i>Surface Water and Groundwater Technical Paper</i>	Refer to Section 3.8.2 in this Supplement Report for further information on Port Wakefield Road.
LGS005.4	Stormwater management concept plan 6 of 7 shows an existing wetland/detention area adjacent to Jobson Road. This does not exist. There is a drain which runs parallel to Jobson Road and ultimately discharges to the Little Para overflow channel.	<i>Surface Water and Groundwater Technical Paper</i>	Conceptual design plans for Port Wakefield Road have been based on limited information at this stage. Information has been gathered primarily from site inspections due to the limited drainage information available from local authorities. More detailed analysis will be undertaken during the detailed design phase, including survey and comprehensive consultation with local councils.
LGS005.5	The Whites Road culverts have an estimated capacity of 12.75 m³/s. The culverts do not have a 1:100 year ARI event capacity and need to be upgraded. The <i>Surface Water and Groundwater Technical Paper</i> is correct in suggesting that the road will not be overtopped but the stormwater run-off floods private property. The culverts need to be upgraded to have a 1:100 year ARI event capacity.	SR 3.8.2 <i>Surface Water and Groundwater Technical Paper</i>	Refer to Section 3.8.2 in this Supplement Report for further information on Port Wakefield Road.
LGS005.6	Stormwater management concept plan 7 of 7 shows an existing wetland/ detention area within Ryans Road. The plan shows an existing drain on the eastern side of Port Wakefield Road which runs between Ryans Road and the Martins Road and George Street wetlands. The wetland/detention area does not exist. The wetland/detention basin is proposed to be constructed as part of a residential land division. A shallow swale drain does exist along the eastern side of Port Wakefield Road but its capacity is unlikely to be able to cater for stormwater run-off from either the proposed land	SR 3.8.2 <i>Surface Water and Groundwater Technical Paper</i>	Refer to Section 3.8.2 in this Supplement Report for further information on Port Wakefield Road.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	division, catchment upstream of Ryans Road or road reserve. The swale drain will need to be upgraded; otherwise, there is the potential for Port Wakefield Road and adjoining properties to be inundated with stormwater run-off.		
LGS005.7	<p>Stormwater management concept plan 4 of 7 shows the carriageway as splitting the Smith Creek catchment. The concept plan and <i>Surface Water and Groundwater Technical Paper</i> indicate that a swale drain along Womma Road conveys the stormwater run-off from the southern portion of the Smith Creek catchment into the Smith Creek outfall drain.</p> <p>There is a significant amount of stormwater run-off which flows along Heaslip Road which then floods the adjacent properties and the intersections.</p> <p>Confirmation is required that the swale drain along Womma Road has a 1:100 year ARI event capacity and that no stormwater run-off from this swale drain will overflow into the Helps Road catchment.</p> <p>The concept plan indicates that a swale drain will be constructed along the outer edge of the Northern Expressway. The concept plan indicates that the existing drainage along Short Road discharges in a northerly direction towards the Smith Creek outfall drain. At the Short Road interface, the Northern Expressway swale drain falls in a south-westerly direction and would create a flooding issue.</p> <p>The concept plan assumes that the stormwater run-off from catchments either side of the Northern Expressway are conveyed by drainage systems along the local council roads (i.e. Womma Road, Short Road, Pellew Road and Taylors Road). I assume that the designer has assumed that the drainage systems along Womma Road, Short Road, Pellew Road and Taylors Road capture all stormwater run-off from the upstream catchment and have a 1:100 year ARI event capacity. It is likely that the stormwater run-off has a distributed flow pattern and will not concentrate at the proposed new culvert crossings.</p> <p>The topography of the catchment needs to be assessed and the impact of locating the Northern Expressway in a manner which dissects catchments needs to be assessed.</p> <p>The proposed Northern Expressway drainage design has the potential to exacerbate flooding within the City of Salisbury.</p>	<p><i>Surface Water and Groundwater Technical Paper</i></p>	<p>In locations where Expressway drainage is to be discharged to local roadside drains, detention basins are proposed to limit the post-development flow to the level of the pre-development flow. The Womma Road drain between the Northern Expressway and Smith Creek will be upgraded if necessary to convey the peak 20 year ARI design flow, consistent with the longitudinal drainage design standard.</p> <p>The existing capacity of the Womma Road drain will be confirmed during the detailed design phase.</p> <p>Stormwater run-off along Short Road intercepted by the Expressway will be picked up by the Northern Expressway drainage system which will be designed to avoid flooding.</p> <p>Catchments used in the conceptual stormwater design have assumed natural and man-made topographical features form catchment boundaries for the design ARI event.</p> <p>Between Womma Road and Port Wakefield Road, topographic contours indicate the fall of the land is approximately parallel to the Expressway route, and therefore the Expressway road formation is not likely to cause significant backwatering to the detriment of adjacent land.</p> <p>More detailed analysis and hydrologic/hydraulic modelling will be undertaken during the detailed design phase.</p>
LGS005.8	Stormwater management concept plan 5 of 7 shows the Northern Expressway stormwater run-off discharging directly onto Port Wakefield	<p>SR 3.8.2</p> <p><i>Surface Water and Groundwater</i></p>	The conceptual design of the stormwater system has been prepared using preliminary hydrological models to enable calculation of

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	<p>Road. There is an absence of drainage information showing how this intersection will be serviced. The existing drainage infrastructure along the entire length of Port Wakefield Road, within the scope of this project, has insufficient capacity in numerous sections.</p> <p>Along with the concerns raised above, there are considerable concerns that this new intersection will not have adequate drainage infrastructure.</p> <p>It is my understanding that the Northern Expressway longitudinal drains have been designed to cater for road stormwater run-off. However, based on the above points regarding characteristics of the catchment and flow, I believe that the longitudinal drains should be designed to cater for the contributing catchment and for a 1:100 year ARI event. Furthermore, the design should consider future land use and should not be based on current land use. DTED is currently assessing future land use of the area south of the Northern Expressway. The area is bound by the Northern Expressway, west of Port Wakefield Road, Waterloo Corner Road and the Adelaide–Gawler rail line. This information appears to be more comprehensive than the information provided in the <i>Surface water and Groundwater Technical Paper</i>.</p>	<i>Technical Paper</i>	<p>preliminary flows and volumes for sizing of detention basins and swales. The design has been prepared in sufficient detail to ensure that a drainage system with 20 year ARI capacity can be constructed along the Northern Expressway, and that flooding issues along Port Wakefield Road are not exacerbated.</p> <p>Refer to Section 3.8.2 in this Supplement Report for further commentary on Port Wakefield Road.</p> <p>It is the intention that more detailed analysis and the preparation of stormwater design models be undertaken during the detailed design phase.</p> <p>It is also intended that further consultation with local councils and the NRM Board be undertaken during the detailed design phase to ensure that the Northern Expressway stormwater drainage strategy is consistent with relevant council stormwater management plans.</p>
LGS005.9	<p>Considerable effort has been put into developing the Environmental Report/ Technical Papers but there is a distinct absence of drainage design undertaken in preparing the conceptual plans. The lack of detail has resulted in several potentially significant issues not being addressed. The City of Salisbury does not approve any of the drainage concepts which have been presented in the Environmental Report/Technical Papers. The City of Salisbury would request that a detailed drainage analysis (including 2D analysis) be undertaken of the proposed Northern Expressway. The City of Salisbury would further request that DTEI liaise with it during the detailed design process to ensure that all issues are resolved.</p>	<i>Surface Water and Groundwater Technical Paper</i>	See response to LGS005.8.
LGS005.10	<p>A concern that the City of Salisbury has regarding the landscape design is the visible nature of the salt pans. The Environmental Report/Technical Papers refer to the enhancement of the view of the salt pans. The City of Salisbury would like clarification as to why the salt pans are considered as having visual amenity.</p>	<p>ER 33 SR 3.11</p> <p><i>Urban Design Landscape and Visual Assessment Technical Paper</i>, Section 3.2</p>	<p>Section 3.2 of the <i>Urban Design, Landscape and Visual Assessment Technical Paper</i> explains the assessment method and terminology used to rate the quality of the visual environment along Port Wakefield Road.</p> <p>Assessment of scenic quality is somewhat subjective and general assumptions as to what is considered 'attractive' do not hold true for all viewers of all landscapes.</p> <p>A team of landscape architects and urban designers carried out the visual analysis and agreed that, in comparison to other parts of the surrounding landscape along Port Wakefield Road, the unique views across the Cheetham</p>

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
			<p>Salt crystallisation pans were of visual interest and were considered to be of moderate to high scenic quality.</p> <p>They provide a distinct visual contrast to the natural wetland environment on the eastern side of Port Wakefield Road. The salt pans would provide a visually interesting and unusual landscape feature for tourists travelling through the region.</p>
LGS005.11	The City of Salisbury would prefer to see areas affected by construction being planted with screen planting (i.e. high and mid-canopy species) in lieu of grasses and low-lying vegetation as specified.	ER 7.6.5	<p>The current landscape proposal for Port Wakefield Road aims to:</p> <ul style="list-style-type: none"> • improve safety by removing hazardous trees and vegetation • replace the vegetation that is removed in accordance with legislative and policy requirements • re-establish dryland grass in areas that are disturbed due to construction works. <p>DTEI understands that the City of Salisbury has aspirations for the landscape along Port Wakefield Road to become a colourful, interesting and attractive gateway to the City of Salisbury. DTEI will work with Council to develop an appropriate landscape strategy to fund, design, implement and maintain the Port Wakefield Road corridor.</p>
LGS005.12	The City of Salisbury has concerns about the use of grasses in lieu of low-growing plant species in areas where visual and headlight screening is an issue. The City of Salisbury considers the use of grasses as a significant maintenance concern.	ER 9.4	See response to LGS001.18.
LGS005.13	In all areas where planting is to occur, the City of Salisbury has a preference that the soil be deep ripped.	ER 8.2.2 ER 8.4	See response to LGS005.11.
LGS005.14	Where possible, alternative water supplies (i.e. City of Salisbury non-potable supply) should be used to establish and maintain plantings.	ER 9.4	DTEI will investigate the use of alternative water supplies to maintain landscape plantings along Port Wakefield Road and the Northern Expressway. Options include City of Salisbury non-potable supply and water from the Water Reticulation Systems Virginia (WRSV) pipeline.

Table A2

State government submissions (SGS)

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
SGS001.1	The Land Management Corporation is very supportive of the project.	ER 4	Noted.
SGS001.2	We have no specific issues to raise in regard to environmental impacts.		Noted.
SGS001.3	Would like to register our support for the construction of an interchange at Angle Vale Road. We understand this option is still under consideration.	ER 7.4.3 SR 2.2.2 SR 3.2	Noted. A funding submission is currently being considered by the Australian Government to provide additional interchanges and ramps – refer to Sections 2.2.2 and 3.2 of this Supplement Report. An interchange and ramps are now proposed for traffic to and from the south, and provision for traffic to and from the north in the future.
SGS002.1	The Adelaide and Mount Lofty Ranges Natural Resources Management Board is currently working with the Northern Adelaide Plains community to prepare a new water allocation plan for the Northern Adelaide Plains Prescribed Wells Area. As part of the development of this plan, the Board has been through a process to define the sustainable yield of the Tertiary aquifers within the prescribed area. This work has indicated that the groundwater resources of the area are currently over-allocated.	ER 20	Noted.
SGS002.2	The Australian and State governments require the Board to identify a range of pathways to address the over-allocation of groundwater in this area, as part of this water allocation plan. One of the pathways that the Board is currently investigating is the option to buy back allocations in the region.	ER 20	Noted.
SGS002.3	The Board notes that as part of the Northern Expressway Project a number of horticultural properties within the Northern Adelaide Plains Prescribed Wells area will be acquired, either in full or partially. It is likely that these properties currently have water allocations associated with them which, given the current and likely future transfer rules, would be unable to be transferred to other water users.	ER 20	DTEI undertakes land acquisition in accordance with the Land Acquisition Act whereby the appropriate market value for the property plus levels of compensation are determined. Compensation payments can include water allocations. It is anticipated that most landowners, where affected, will prefer to transfer their allocations; however, where this is not possible, DTEI will acquire the water allocation and liaise with the NRM Board during this process.
SGS002.4	To protect the future economic and environmental viability of the area, the Board believes it is essential that, where water allocations are unable to be traded, they be acquired in concert with the acquisition of land as part of the Northern Expressway acquisition program.	ER 20	See response to SGS002.3.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
SGS003.1	Salisbury CFS brigade is responsible for all the areas west of Port Wakefield Road, north of Deuter Road and south of Martins Road.	ER 7.8.9	Noted.
SGS003.2	It is estimated that the CFS response into the Globe Derby area will result in a 2–3 minute delay. The number of options to access this area have been reduced, thus isolating this suburb and only providing one point of access to emergency services via Globe Derby Drive. Access presently exists via Ryans Road East then either Daniel Avenue or Ryans Road West. This is based on appliances travelling from Salisbury Central (including SAMFS and SAAS) via Salisbury Highway, Ryans Road and Martins Road. The unfortunate lack of foresight of Transport Services Division by not providing turning movement at Salisbury Highway/Port Wakefield Road already results in a 6 km detour to access an incident at that junction.	ER 7.8.9	Issue noted. Further detailed discussions are being held with all the emergency services regarding access issues to/from Northern Expressway and Port Wakefield Road. Access via Salisbury Highway, Ryans Road and then Martins Road will be improved with the proposed installation of traffic signals both at Ryans Road and particularly at Martins Road. Additional access is being considered by DTEI.
SGS003.3	We also note the number of U-turn movements being provided for in this upgrade. The CFS brigade has concerns about the number of articulated and ridged vehicles that will be required to undertake a U-turn due to the closure of the median sections. The movement of an articulated vehicle undertaking a U-turn is much slower than a right-turn manoeuvre. As you may be aware, Ingham's Enterprises relocated their entry some years ago to Burton Road, so articulated vehicles were having to U-turn at the Burton Road junction to enter the factory from Port Wakefield Road. The relocation followed two fatal accidents involving vehicles impacting under the trailers of the turning vehicles. We are concerned this may now also reoccur.	ER 7.8.3 SR 7.8.9	Some right-turn movements are proposed to be removed. Alternative access would be via the alternative road network or some U-turn facilities. See responses to PS037.5 and LGS003.10.
SGS003.4	The Salisbury CFS brigade supports the upgrade of Port Wakefield Road and additional safety measures and would like the issues identified in SGS003.2 and SGS003.3 to be considered in the design phase.	ER 7 SR 2.2	See response to SGS003.2.
SGS004.1	The selection of Buildings No. 29 and 33 for State Heritage recognition was primarily to represent South Australia's major contribution to the Second World War effort, aside from providing troops. While Buildings No. 29 and 33 enable an appreciation of the relevance of the separation distance between these munitions stores for risk management associated with the explosion of any one building in the complex, there is no heritage-related reason why two other buildings in the complex of equivalent condition and heritage value could not be heritage listed in place of the two currently included in the South Australian Heritage Register. While DEH staff	ER 17 SR 3.7	Buildings No. 29 and 33 are State Heritage Places. There is an obligation to not adversely affect the places. The Northern Expressway route is now approximately 100 m west of Building No. 33. This will avoid both places although it will be closer to the westernmost place. This retains the separation distance between the magazines which is an important feature of their operations. Section 17.6.5 of the Environmental Report outlines specific measures to conserve the State Heritage Places.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	have previously suggested an adjustment of the Expressway alignment so as to not pass between these munitions stores, I am open to either option, provided the alternative can be practically achieved through negotiation by DTEI with the current landowner and that there is no cost to the Department or disadvantage to the community interest in this matter.		
SGS004.2	It is noted that the proposed Expressway alignment will cross both Smith Creek and the Gawler River. The impact on these watercourses should be minimised during and after construction.	ER 20 ER 41 SR 2.2.4 SR 3.8 <i>Surface Water and Groundwater Technical Paper</i>	The proposed management and mitigation strategies are described in Section 41 of the Environmental Report and in the <i>Surface Water and Groundwater Technical Paper</i> .
SGS004.3	Any use of culverts over Smith Creek should adequately address potential erosion around the structure and downstream due to increased flow rates.	ER 20 ER 41	Erosion protection will be addressed in the detailed design phase in the formulation of a Soil Erosion and Drainage Management Plan.
SGS004.4	The Gawler River is recognised as an important asset for the region and any development impacts should take into account existing vegetation, bird movement, aquatic species, lighting and noise.	ER 23 ER 24 ER 41 SR 4.2.8 <i>Flora and Fauna Technical Paper</i>	The importance of the corridor for migratory and resident fauna species is discussed in the Environmental Report and <i>Flora and Fauna Technical Paper</i> .
SGS004.5	Restoration funding should be directed to benefit the river environment including the introduction of buffers to protect the river from future development.	ER 7.4.11 SR 4.2.8	Refer to Section 4.2.8 in this Supplement Report.
SGS004.6	Fauna crossings should be included that will enable movement under the proposed Expressway, especially at Gawler River and Smith Creek crossings and when crossing the Adelaide–Gawler rail line.	ER 24 SR 4.2.8	The design of the Gawler River bridges will enable fauna movement along the river corridor. Consideration of fauna crossings will also be given to crossings at Smith Creek and the Adelaide–Gawler rail line during detailed design. However, dedicated fauna crossings are not considered necessary to facilitate fauna movement at any other locations along the Northern Expressway.
SGS004.7	The point at which the proposed Expressway crosses the Gawler River is within 1000 m of open space parcels totalling 154 ha (this open space is under the care and control of the City of Playford as a reserve under the <i>Crown Lands Act 1929</i>). Opportunities should be explored to create linkages, both open space and biodiversity, between the proposed Expressway and existing and proposed areas of open space.	ER 7.4.11	DTEI is continuing to discuss the Metropolitan Open Space System (MOSS) land and opportunities to provide linkages along the Gawler River with the Open Space Unit of Planning SA and officers of the City of Playford.
SGS004.8	Impacts upon remnant vegetation adjacent to the Adelaide–Gawler rail line should also be managed to ensure works associated with the proposed Expressway result in the least amount of vegetation loss.	ER 23 SR 4.2.8	Noted. This is part of the detailed survey which will be undertaken when the exact disturbance sites are known.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
SGS004.9	<p>Where possible, removal of significant trees should be avoided.</p> <p>In cases where the removal of such trees is unavoidable, it is recommended that hollow material be saved and used in the proposed revegetation programs that aim to offset the removal (or in sites that have been or will be revegetated as part of the One Million Trees Program).</p> <p>It is noted that sites to be revegetated as part of the offset program will be identified in the Vegetation Management Plan (to be prepared).</p> <p>Consideration should be given to targeting land around the Gawler River for revegetation sites.</p>	ER 23 SR 4.2.8	<p>Refer to Section 4.2.8 of this Supplement Report and response to LGS004.57.</p> <p>Removal of significant trees will be avoided where possible. If any significant trees must be removed, replacement plantings will take place.</p> <p>If natural hollow trees are encountered during tree removal or pruning for the Northern Expressway, every effort will be made to leave the hollow and its occupant (if native) undisturbed. It should be noted that many of the hollows in this region are used by introduced pest animals.</p> <p>Trees containing hollows that must be removed to enable construction of the Expressway will be relocated in accordance with Part 522 Tree Hollow Relocation of DTEI's Master Specification.</p> <p>Areas of land around the Gawler River will be targeted for extensive revegetation, particularly as set-aside area for replacement plantings under the <i>Native Vegetation Act 1991</i>.</p>
SGS004.10	It is noted that a detailed vegetation survey will be prepared during the design phase of the project. Such surveys are best carried out in spring. The timing of vegetation-related works should be managed for maximum outcome, for example, plant salvage is best undertaken in late winter while seed collection for species that occur in this area should be undertaken in summer.	ER 23 SR 4.2.8	Surveys have been and will continue to be undertaken in all seasons. This allows for assessing the variation in the vegetation. Seed collection has occurred and will continue.
SGS004.11	The Environmental Report states that permit(s) under the <i>National Parks and Wildlife Act 1972</i> will be required as part of this project for the collecting or destroying of native flora and fauna. Prior to undertaking any physical works for the Expressway, the lodgement of a permit application will be required.	ER 23 ER 24	Noted.
SGS005.1	Overall, DFC believes that the Northern Expressway will improve accessibility for people living and working in the region and supports the proposed route.	ER 4 ER 10	Noted.
SGS005.2	DFC is responsible for the administration of over 1000 social housing dwellings in the Gawler, Nuriootpa, Angaston, Tanunda, Lyndoch and Freeling townships. DFC expects that the proposed Northern Expressway will significantly reduce driving time for people who commute between these townships and the western and southern suburbs of Adelaide.	ER 4 ER 10	Noted.
SGS005.3	DFC expects that the Northern Expressway will have a positive impact on the Playford North project. The proposed exit from Curtis Road will provide a much faster route than the current Main North Road route.	ER 4 ER 10	Noted.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
SGS005.4	It is understood that there are no DFC-administered properties directly affected by the route.	ER 12	Correct.
SGS006.1	<p>Provision to manage future urban stormwater</p> <p>While it may not be intended, it is expected that over time the Northern Expressway will be likely to create a de facto northern urban boundary, with significant urban development of both homes and commercial activities to the south of the Expressway. The net impact will be greater run-off of urban stormwater with natural drainage being inclined northward to the Gawler River. The issue I am raising is whether there is adequate provision, both in design capacity and infrastructure provision, to allow for managed movement of potentially increased flows of urban stormwater through the Expressway land. Unless appropriately managed at the stormwater source, there may be higher rates of instantaneous run-off and inflows to the receiving land, thus generating higher risk for both property and the environment.</p>	<p>ER 20</p> <p>ER 7.2.4</p> <p>SR 2.2.4</p> <p>SR 3.8</p>	<p>Design to a 1:100 ARI event level has been adopted for much of the project.</p> <p>The Environmental Report states the design approach as:</p> <ul style="list-style-type: none"> • 1:10 ARI – affected council distributor and local roads • 1:20 ARI – Northern Expressway longitudinal and road surface drainage • 1:100 ARI – Northern Expressway cross drainage <p>It is generally accepted that new developments contributing significantly to increased stormwater run-off will need to manage stormwater at the source.</p>
SGS006.2	<p>Abandoned water wells on acquired properties</p> <p>Your Environmental Report acknowledges the local groundwater characteristics in Section 20.4.2. It also acknowledges that in addition to the over-extraction of water, 'leaky' wells pose a risk to groundwater, with the mixing of waters between the Tertiary aquifers (T1 and T2) and the numerous Quaternary aquifers. This mixing of water is generally brought about by well-casing failure.</p> <p>To reduce this risk, there is a need for the Expressway Construction Manager to ensure that all wells on the Expressway land are decommissioned and backfilled by a licensed well driller. This task should be undertaken before any siteworks associated with the Expressway are commenced as construction work can damage wells or cause wells to become 'lost' before the necessary remediation work.</p>	ER 20	<p>This is to be addressed during detailed design and in the Construction Environmental Management Plan.</p> <p>Noted.</p> <p>Further liaison with the DWLBC and the NRM Board will occur during detailed design to ascertain the location of observation wells and the need for remediation, decommissioning or any relocation.</p>
SGS006.3	In addition, any wells on land that is to be acquired for the Northern Expressway Project, but then realigned and released for sale, should also be assessed for risk. It is estimated that a number of existing wells in this area will fail in the near future due to the type of construction. These at-risk wells should similarly be decommissioned and backfilled. DWLBC can provide you with advice in the identification, assessment and technical management of these tasks.	ER 20	<p>See response to SGS006.2.</p> <p>DTEI will liaise with DWLBC during the detailed design and construction stages of the project.</p>
SGS006.4	Possible interference with observation wells DWLBC has a number of observation wells in the region of the Northern Expressway. These are	ER 20	See response to SGS006.2.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	important for the ongoing assessment of ground-water resource condition and management of the resource. In the event of any observation wells occurring on the Expressway reserve, it will be necessary that these be correctly abandoned and replacement wells constructed to the appropriate specification by the Expressway Construction Manager. The location of existing observation wells and any replacement wells will need to be discussed with DWLBC.		
SGS006.5	<p>Management of borrow pit developed for construction fill</p> <p>I am advised that a borrow pit of some 8 m in depth is to be developed near the Gawler River to provide construction fill. While I am not aware of the actual location and prevailing topography, I would like to be assured that the management of this operation is cognisant of the risk of tailings escaping into the Gawler River, in the event of flood conditions. Furthermore, should the borrow pit intersect a shallow Quaternary aquifer, that measures will be taken to ensure the excavation does not cause contamination of the intersected aquifer.</p>	<p>ER 20</p> <p>SR 2</p> <p>SR 3.10</p>	<p>An extractive industry licence under the Environmental Protection Act will be required to extract materials from the flood attenuation basins.</p> <p>Location of flood attenuation basins is provided in Section 2 (Figure 2.2) in this Supplement Report.</p> <p>The risk of tailings escaping into the Gawler River will be addressed in the Soil Erosion and Drainage Management Plan prepared as part of the Construction Environmental Management Plan.</p> <p>Any proposed discharge of stormwater to Gawler River from the material extraction will be subject to a permit and will be managed consistent with the requirements of the DWLBC and EPA.</p>
SGS007.1	SA Water's primary interest in this project is in relation to the Port Wakefield Road component and potential impacts of upgrading this section on the adjacent Bolivar WWTP site.	ER 26.3.4	Noted.
SGS007.2	The report identifies that there will be no direct impact on the Bolivar WWTP site and current access (via Hodgson Road) will be retained. It is noted that the expected increased traffic volumes due to the Expressway may increase the risk of crashes, given that there will be no change to access.	ER 26.4.1	Noted.
SGS007.3	The report does identify that further improvements to the link between the Northern Expressway and Salisbury Highway will be required post-2016 and planning investigations on these improvements are still to be undertaken. SA Water would seek to be involved early in those planning processes, particularly where they may relate to alterations to the existing alignment, or where these may have an impact on the Bolivar WWTP site, and on future planning or management of this site. Such discussions are viewed as critical as the Bolivar site is a crucial component of SA Water's wastewater management infrastructure.	ER 3	<p>Noted.</p> <p>SA Water (Bolivar) as a key landowner and land use activity will be consulted as part of future investigations affecting future options.</p>

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
SGS007.4	It is also worth noting that there are areas of significant cultural heritage and remnant vegetation on the Bolivar WWTP site.	ER 16 ER 17 ER 23 <i>Non-Aboriginal Heritage Technical Paper</i> <i>Flora and Fauna Technical Paper</i>	Noted.
SGS008.1	Regard the Northern Expressway proposal as a very positive development for our region and State that also brings some opportunity to enhance the biodiversity values of the northern region. Also have some areas of concern...and request that these be considered and changes incorporated into the project.	ER 23 SR 4.2.8	Noted.
SGS008.2	Kentish Road, Gawler Belt has quite a good area of <i>E. porosa</i> or <i>E. porosa/E. odorata</i> woodland – both are important conservation rated ecological associations. The site contains about 20 species of native vegetation, supports several fauna species and is adjacent to the Gawler rail corridor containing 116 identified local species. Six species to be removed from Kentish Road have a regional conservation rating. If this area cannot be avoided and the clearance of the <i>E. porosa</i> /peppermint box woodland takes place then I request that adequate offsets be negotiated.	ER 23 SR 4.2.8	See response to RSB003.3.
SGS008.3	The Environmental Report Table D.3 lists 23 species of conservation significance along the Gawler to Port Wakefield Road, Northern Expressway corridor. The GEHA list records some 91 species of conservation significance along/near this Northern Expressway corridor. I would ask that due consideration be given to information supplied by GEHA to this project as this information is critical to the establishment of sound species lists for revegetation and landscaping along the Northern Expressway.	ER 23 SR 4.2.8	Information and species lists provided by GEHA will be used to establish the species list for revegetation and landscaping along the Northern Expressway.
SGS008.4	Regarding the selection of exotic species such as <i>Angophora cristata</i> [sic] for feature landscaping, this is clearly unacceptable. Much effort and investment has been made by various State government agencies to promote the benefits of local indigenous plants in all planting projects and this project must have a local indigenous planting policy. To intentionally plant exotics and non-local natives over icon species such as <i>E. porosa</i> , <i>E. odorata</i> or <i>E. largiflorens</i> is irresponsible and counterproductive to conservation efforts.	ER 7.4.11 SR 2 SR 4.2.8	See response to LGS002.13. In accordance with the Government's Planting Indigenous Species Policy, hundreds of thousands of indigenous plants will be planted within the Expressway corridor, in what will be one of the largest revegetation programs to take place on the Northern Adelaide Plains. The Expressway will pass through what is a highly modified horticultural landscape. A limited number of large nursery-grown feature trees are proposed as a contrasting design feature to the indigenous plants that are being used along the rest of the corridor.

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SGS008.5	The loss of valuable native vegetation at the Gawler River crossing must be appropriately offset.	<i>Flora and Fauna Technical Paper</i> , Sections 4.1.3 and 5.1.4	See response to LGS002.13.
SGS008.6	As the Northern Expressway will bring a large increase in traffic that will potentially bring in weed species, a commitment should be made to a long-term weed management plan for the region including contribution to a woody weed control program along the Gawler River.	ER 23 ER 41	See response to PS034.13.
SGS009.1	Considers the Environmental Report to be a very detailed document that satisfactorily describes the project (including subject land) and its implications for the environment and affected communities. In particular, it justifies the preferred route based on several years of studies and cost-benefit analyses.	ER 4	Noted.
SGS009.2	The report suitably addresses the issue of future urban and industrial growth in the Playford Council area and the protection of MOSS land. In particular, the route selection process ensures that MOSS land along Main North Road (i.e. north of Munno Para) has been avoided.	ER 11	Noted.
SGS009.3	The consultation and assessment process mirrors that which would normally be undertaken for a Major Development or Project (i.e. under the Development Act), ensuring that all relevant issues have been thoroughly investigated and presented in the Environmental Report (especially route selection aspects). This will provide the community and stakeholders with a good understanding of the implications of the proposal and the opportunity to provide input into its assessment.	ER 2	Noted.
SGS010.1	The proposed Expressway is aligned with a number of key targets contained in the South Australia Strategic Plan. This includes economic growth, export growth, strategic infrastructure and population growth, which have been qualified throughout the Environmental Report.	ER 4.2.2	Noted.
SGS010.2	The Northern Expressway will become a strategically important asset for South Australia and significantly enhance the future prosperity of the State. The geographic extent of the Northern Expressway will ensure economic benefits accrue to regional South Australia as well as the metropolitan area. The economic hub comprising northern Adelaide through to the Riverland will become efficiently linked to global markets, which will improve the export competitiveness for a wide range of key industry sectors.	ER 6	Noted.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
SGS010.3	As outlined in the Environmental Report, the northern Adelaide region is forecast to experience substantial economic growth on the back of a number of key initiatives throughout the region. These include the expansion of defence activities (DSTO and Army), growth of Edinburgh Parks, residential development including Playford North, and related key transport infrastructure projects including the Port River Expressway, Outer Harbor channel deepening, and improvement of local road networks. The Northern Expressway will bind many of these projects together and further enhance the region's business attractiveness for sustained economic growth.	ER 6	Noted.
SGS010.4	The value of the Northern Expressway in terms of regional development is also significant. Industries in the Riverland and Barossa regions will benefit from more efficient access to the Port of Adelaide, and the tourism sector will be likely to benefit as a result of increased visitation from Adelaide.	ER 6	Noted.
SGS010.5	The proposed alignment is strongly supported by DTED. Importantly, it preserves the operational capacity of the RAAF land by not encroaching upon security buffers and future runway expansion, and it protects sufficient supplies of land alongside the RAAF to allow for future growth of Defence sector activities. This will help to ensure the long-term presence of Air Defence activities in the region. The alignment also preserves the opportunity to develop an intermodal rail/road facility which is vital into the longer term.	ER 5	Noted.
SGS010.6	The location of population and industrial growth is an important issue which requires an appropriate planning response that will permit industry to attract the necessary workforce. The placement of proposed interchanges will allow efficient access for existing and future industry, while also allowing communities to travel to jobs across the region. A related benefit is the anticipated improvements to traffic conditions along Main North Road, which will allow more efficient movement of local commercial vehicles.	ER 6	Noted.
SGS010.7	Growth of townships throughout the outer metropolitan area will play a role in achieving the South Australia Strategic Plan target of two million people by 2050. The Northern Expressway will help to facilitate this and will allow the growing workforce to consider a wider range of residential locations including Gawler and the Barossa Valley.	ER 10.6.3	Noted.
SGS011.1	PIRSA acknowledges the ongoing extensive consultation undertaken by DTEI in respect to this project.	ER 3 ER 11	Noted. The Northern Expressway will result in the loss of

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	<p>The Virginia Horticultural District (VHD) is one of the State's major horticultural production areas.</p> <p>The Virginia Horticultural District is unique in that it has multiple water supply options, major private and public investment in infrastructure, and access to a large labour market.</p> <p>PIRSA favours an Expressway route located as far as possible from the core of horticultural activity, where it will have least direct, indirect and long-term impacts on the health and vitality of individual business and the Virginia Horticultural District as a whole.</p>	<p>SR 3.4</p> <p>SR 4</p>	<p>some horticultural land as a result of acquisition for the actual corridor.</p> <p>DTEI recognises the importance to the State and uniqueness of the production and infrastructure of the VHD. These were most important considerations in the investigation, assessment and selection of the proposed route. This route minimises impact on the production and infrastructure of the VHD, compared to the other routes assessed.</p> <p>Section 3.4 in the Supplement Report provides more information on the alternatives considered and the route selection process.</p> <p>DTEI will continue to liaise with officers from PIRSA in regards to the project.</p>
SGS012.1	A new Birth-to-Year 12 school is planned for construction in the Playford North redevelopment area. At this point, the exact location has not been confirmed and therefore the impact of the Expressway is difficult to determine.	ER 11	Noted.
SGS012.2	The closure of Fradd Road at Angle Vale will have an impact on a school bus that picks up students in this location and takes them to Gawler High School. The route that this bus takes will need to be reconsidered, along with the bus timetable. As families will need to be informed of changes made, it would be appreciated if DECS could be informed of the closure date with enough lead time for communication to the families and students concerned.	ER 11	Noted.
SGS013.1	The process of site contamination assessment should be undertaken in accordance with the NEPM (Assessment of Site Contamination). It is highlighted that site contamination refers to the condition of land and waters, particularly underground waters. The preliminary assessment identified activities within the study area with the potential for impacts to groundwater (e.g. fuel storage). The potential for groundwater contamination within the study area must also be considered and addressed as part of the assessment of site contamination for the project, and must be taken into account in all relevant project management plans.	ER 19	Noted.
SGS013.2	It should be ensured that the relevant management plans specifically address issues related to soil processing, transport and storage as appropriate with reference to relevant EPA guidelines.	ER 19	Noted.
SGS013.3	The broad risk-based approach for managing water quality risks during both the construction and operational phases is supported.	ER 20	Noted.

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SGS013.4	Development of strategies, design and management in accordance with DTEI's <i>Protecting Waterways Manual</i> is supported.	ER 20	Noted.
SGS013.5	The application of water sensitive urban design strategies such as water retention, flow reduction, swales, detention basins, wetlands and buffers is also supported.	ER 20	Noted.
SGS013.6	Caution is required in applying the water quality analysis presented in the <i>Surface and Groundwater Technical Paper</i> . Whilst the broad approach proposed to manage water quality risks is considered appropriate, the reliance on a limited suite of criteria prescribed in the EP (Water Quality) Policy 2003 does not necessarily address the potential impacts on water quality. This is not considered a significant issue at this stage of the proposal given that the overarching management principles are sound. However, it is considered important that the EPA be engaged throughout the design process to support water quality risk management strategy development and design. This would provide confidence to all parties that the broad principles are being applied to adequately address pollution risks.	<i>Surface and Groundwater Technical Paper</i>	Noted.
SGS013.7	The EPA has previously worked with DTEI regarding the noise mitigation proposal. The approach to road traffic noise outlined in that document has been incorporated into the Environmental Report. The EPA considers that this approach will ensure that the general duty of the <i>Environment Protection Act 1993</i> will be satisfactorily achieved.	ER 14	Noted.

Table A3

Representative bodies submissions (RBS)

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
RBS001.1	As Principal of St Columba College, Andrews Farm, I would like to register some concerns about the proposed Northern Expressway.		Noted.
RBS001.2	Would also like to acknowledge that development of the Expressway will bring great opportunities to northern areas.	ER 4	Noted.
RBS001.3	Possible traffic congestion on Curtis Road The likelihood of significantly increased traffic on Curtis Road is of concern. There has been significant housing development in Andrews Farm, on Davoren Road and along Curtis Road. When one takes this into account, along with major housing development planned for the Munno Para area, the likely numbers of people needing to use Curtis Road to access the college will greatly increase. The possibility of extreme traffic congestion in an area used by a significant number of school-aged children and youth is very concerning.	ER 13.3.3	Curtis Road is a council road, and the Council is investigating what improvements are required to cater for existing and future traffic.
RBS001.4	Health issues The distance of the Expressway from the college is of concern (approx. 1 km east if it is the proposed route). Research has taken place on the extreme negative health effects of minute diesel particles. The number of heavy vehicles (diesel engines) using the Expressway will be significant. I would like some reassurance that the health of children attending the college will not be adversely affected by the Expressway being located so close to the college. Presently, Curtis Road is not a main arterial route, with heavy vehicles using Heaslip Road which is significantly further away from the college than the proposed new Expressway route.	ER 21 <i>Air Quality Technical Paper</i> , Figure 5.1	See response to Proforma A.1. Figure 5.1 in the <i>Air Quality Technical Paper</i> shows the predicted peak 1-hour nitrogen dioxide concentration for the Northern Expressway. Plots for other contaminants (including PM2.5 and PM10) show similar patterns, with peak concentrations predicted to occur on the roadway, decreasing with distance from the roadway. The change in concentration of fine particles at 1 km distance from the proposed route will be negligible and well within air quality limits. The air quality model predictions for the Northern Expressway have determined that air quality concentrations will not exceed any of the National Environment Protection Measure (NEPM) limits at the nearest sensitive receptor in 2011 and 2021. In most cases, the predicted concentrations approach background (existing) levels within 60 m of the roadway.
RBS001.5	I ask that someone from your department consults with St Columba College in relation to the concerns listed. The long-term health of students is of prime concern and deserves to be taken extremely seriously. I am surprised that to date no one from the Expressway project [team] has made any contact with the college.	ER 3	St Columba College has now been consulted and their concerns are being considered.
RBS002.1	It has been agreed to use the Tappa Iri Board representatives as a group to coordinate and consult on the Expressway and representatives of the Board have been meeting with Northern Expressway project team members. Invitations to	ER 3 SR 1.3	Noted.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	the broader Kaurna community have also been extended for all consultation events. Issues and opportunities raised through consultation with Kaurna representatives are listed below.		
RBS002.2	NRM Boards are developing resource documents that will be good references for this project. One is on engaging with Aboriginal people, the other, called 'Tools of Knowledge', is a set of guidelines for dealing with four nation's culture.	ER 3	Noted.
RBS002.3	Opportunities for employment through creative and artistic input, landscape design, works and construction, and road maintenance. Tappa Iri is willing to investigate training and project managing a team for this purpose. Collaboration will also occur through subsequent meetings with Greening Australia.	ER 7.4.11 SR 3.6	The Northern Expressway project team will continue to work with the Kaurna community through the Tappa Iri Board representatives to determine opportunities for employment and recognition of Aboriginal heritage in the project area through interpretation, signage and revegetation.
RBS002.4	Opportunities for affirmative action on infrastructure contractual arrangements where appointed firms are required to appoint Aboriginal trainees, semi-skilled or skilled workers.	ER 7.4.11	See response to RBS002.3.
RBS002.5	Support and develop strategies to facilitate artefact retrieval and storage in a culturally sensitive manner. The level of public access and promotion of these artefacts still needs to be determined but may be linked to interpretation, signage and art work.	ER 16.6 SR 3.6	As indicated in Section 16.6 of the Environmental Report, a Cultural Heritage Management Plan will be developed to manage scattered artefacts and Aboriginal heritage sites. Aboriginal cultural heritage issues will continue to be managed in consultation with the Kaurna community in a way that recognises the significance of the heritage issues and ensures an appropriate level of conservation.
RBS002.6	Develop appropriate interpretation and signage to acknowledge the importance of Aboriginal heritage in the project area.	ER 7.4.11	See response to RBS002.3.
RBS002.7	Consider sensitive areas such as the Gawler River for revegetation using suggested indigenous plantings as advised by the Adelaide Botanic Gardens.	ER 7.4.11	See response to RBS002.3.
RBS002.8	Review lessons learnt from the Southern Expressway and maximise positive experiences for this project.		See response to RBS002.3.
RBS002.9	Develop a record of sites and artefacts across the project in a multimedia manner that can be used as a model for other projects. Whilst there is a lot of research done on archaeological and anthropological studies, it is not encapsulated in a visual and accessible manner to be used for educational purposes. The Northern Expressway provides an opportunity to record how Aboriginal people were involved in a positive manner.	ER 7.4.11	Noted. See response to RBS002.3.
RBS002.10	Some members of the Tappa Iri Board have been involved in the walk over the land and research for the heritage survey. There is agreed support for the Expressway as an important project for South Australia. It provides the Aboriginal community with a range of opportunities as suggested in this submission.	ER 16	Noted.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
RBS003.1	GEHA is concerned that other options which may have cost less and resulted in better long-term outcomes have not been discussed in the documents released.	ER 4	See response to PS029.6.
RBS003.2	Other options Some years ago a proposal was floated for a new train line from about Virginia through the Adelaide Hills to meet the Melbourne line towards Murray Bridge. Such a line could remove all the freight issues, connecting Port Adelaide with the Barossa, Riverland and further on to the eastern states by having an adequate freight train service and possible intermodal. The main justification for the Northern Expressway would then be doubtful and the hundreds of millions of dollars required for the Northern Expressway would be available for improved public transport connecting northern metropolitan areas with Adelaide and Port Adelaide. Reducing greenhouse gases and climate change, reducing urban sprawl and producing a more efficient public transport system could have followed.	ER 4	The proposed Northern Expressway does not preclude a new rail link. Benefits from the Expressway also apply to current commuter traffic as well as to freight transport, providing greater transport efficiency.
RBS003.3	Indigenous vegetation The Environmental Report suggests that no areas of significant vegetation are affected except where the Expressway crosses the Gawler River. In fact, several thousand square metres is apparently set for clearance on the side of Kentish Road at its southern end (the blue paint lines and pegs are already being put in!). The site contains at least 20 species of native vegetation and includes a quite good area of <i>E. porosa</i> woodland – a priority conservation rated ecological association (species list titled <i>Appendix 1 Plant species affected by proposed Kentish Road clearance and nearby</i> provided by respondent).	ER 23 SR 4.2.8	At the time the vegetation investigations were carried out, the exact footprint of the road had not been determined adjacent to the Gawler Bypass at Kentish Road. A detailed vegetation survey will be carried out within this area during the detailed design phase of the project. Localised steepening of batters and plant salvage/rescue will be carried out to conserve as much as possible of the <i>E. porosa</i> woodland association, including understorey species. A Vegetation Management Plan will be prepared to offset the removal of native vegetation and to provide a significant environmental benefit as required under the <i>Native Vegetation Act 1991</i> .
RBS003.4	A couple of the <i>Austrostipa</i> species listed need checking but all others are confirmed. Because of the poor season, there is a reasonable chance that other seasonal species may also be found in later years. Six species to be removed from Kentish Road have a regional conservation rating. Note: <i>Dichanthium sericeum</i> is on the list – these plants (probably 200) are actually on the Gawler Bypass road verge just south of the Kentish Road block but are also proposed to be cleared.	ER 23 SR 4.2.8 <i>Flora and Fauna Technical Paper, Section 2</i>	All species of <i>Austrostipa</i> listed are present in or near the road corridor. Not all species occur in the northern section of the corridor. Section 2 of the <i>Flora and Fauna Technical Paper</i> explains that due to below average rainfall during 2006–07, some populations and/or species may not have been recorded during the field surveys. Following summer rainfall, this and other summer growing species were recorded. A detailed vegetation survey will be carried out within the Northern Expressway corridor during the detailed design phase of the project. Particular attention will be given to ensuring that species of conservation significance are surveyed during the appropriate season. All species of conservation significance recorded will be managed to ensure an appropriate level of conservation. This may involve taking seed or cuttings to propagate

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
			plants for revegetation of the corridor, or carefully removing vegetation for transplanting to a suitable location nearby (for smaller-sized species). These works would be carried out in accordance with legislative requirements of the <i>National Parks and Wildlife Act 1972</i> .
RBS003.5	The area contained at least two bird nests and is close (within 400 m) of recent bearded dragon, sand goanna and echidna sightings. The area is part of a significant area of remnant vegetation which provides important bird habitat. Many bird species with conservation ratings live in or move through the area on a seasonal basis.	ER 24.6 ER Table 41.1	The diurnal and seasonal variation in bird species in the region is discussed in the <i>Flora and Fauna Technical Paper</i> . Measures to minimise the effect of the Northern Expressway on fauna species within the region are outlined in Section 24.6 and Table 41.1 of the Environmental Report. These measures also apply to the management of fauna and fauna habitat in the Kentish Road area.
RBS003.6	The Northern Expressway Environmental Report is gravely deficient in its records of indigenous plants in the area close to the proposed Northern Expressway. The list in the Environmental Report Volume 2 contains many fewer species than the list in the Technical Paper Volume 3.	ER 23 <i>Flora and Fauna Technical Paper</i>	The purpose of the vegetation assessment was to determine the effect of the Northern Expressway on vegetation within the proposed corridor and immediate vicinity. The Environmental Report is a summary of information only. The species lists included as Appendix D in Volume 2 of the Environmental Report were incomplete and not intended to have been included in Volume 2. Refer to the species lists in the <i>Flora and Fauna Technical Paper</i> .
RBS003.7	There are errors in the plants listed (e.g. <i>Allocasuarina verticillata</i> and <i>Melaleuca lanceolata</i> are listed as exotic species in Table D2 whereas both are indigenous – both are also included in the list of indigenous plants).	ER 23	See response to RBS003.6. The introduced species table also includes some native species such as <i>Allocasuarina verticillata</i> and <i>Melaleuca lanceolata</i> that have been planted along Port Wakefield Road.
RBS003.8	Problem with the lack of research and use of data for vegetation near Gawler. The Environmental Report Table D3 lists 23 species of conservation significance along the Gawler to Port Wakefield Road Northern Expressway corridor. Clearly, there is a failure to research this northern area which on the GEHA list records some 91 species of conservation significance along/near this Northern Expressway corridor (some are herbarium records which may not now remain, but most are present and observable). (Species list titled <i>Appendix 2 Northern Expressway – plants of conservation significance – Port Wakefield Road to Gawler section</i> provided by respondent). Appendix 2 shows plants of conservation significance from the Gawler Belt rail corridor, Willaston Cemetery, the Gawler River corridor (where it is within 2 km of the Northern Expressway) and some nearby roadsides and the Parkers Road Cemetery.	ER 23	See responses to RBS003.3 and SGS008.3. Additional species will be assessed as part of future surveys in seasonal variation of the corridor's vegetation.
RBS003.9	The total of 91 species generally ignores species which are more than about 3 km from the Northern Expressway corridor whereas the Northern Expressway list is rather loose in	ER 23	Noted Some of these species are of local significance only.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	covering a wide area. If the area covered extended to Lewiston, then several more species could be added.		
RBS003.10	There is a mystery over <i>Caladenia tensa</i> which is listed under the <i>Environment Protection and Biodiversity Act 1999</i> (EPBC Act) as 'endangered' but only has a regional conservation status of K (uncertain) for the Southern Lofty area in South Australian lists. Mr Bob Bates collected a herbarium specimen in October 2000 'Railway line NW of Gawler in pine and mallee'. I have checked with Mr Bates whose recollection is that the site was the sandhill on Ateyo Road which is only a few hundred metres from the Northern Expressway corridor. Mr Bates also confirms that South Australian records are for a group of plants which have not been definitely described.	ER 23	DTEI is aware of the location of the collection by Mr Bates. No plants were observed here during 2006, no doubt due to drought conditions. DTEI is aware of taxonomic confusion within this group (and other groups) of undescribed <i>Caladenia</i> species. However, no additional taxonomic descriptions or name changes have been published or are in manuscript. Until this has been undertaken and an assessment of the conservation significance is available, it is best to err on the side of caution for a species that is listed under the EPBC Act.
RBS003.11	Because of the important aspect of the Gawler area as a transition between ecological communities of the plains and foothills, many individual species of conservation significance exist in the area. As well as the issues associated with clearance of indigenous vegetation (which should include plans for minimising the clearance needed as well as providing net environmental benefits through offsetting work), plans for revegetation of the Northern Expressway corridor should be based on important local ecological communities. In this regard, adequate species' and associations' assessments are vital. Care should be taken not to introduce species which are not indigenous to the area (e.g. species planted on the existing Gawler Bypass may not be appropriate and at least one (<i>Acacia paradoxa</i>) has been recorded as spreading into Willaston Cemetery recently).	ER 7.4.11 SR 4.2.8	See response to LGS002.13.
RBS003.12	The proposal for landscaping near Gawler needs a lot more work. Using <i>Angophora cristata</i> [sic] (an ornamental native from New South Wales) for a feature avenue of trees at the commencement of the Northern Expressway is surely inappropriate. <i>E. porosa</i> or <i>E. largiflorens</i> could be used or avoid undue formality with a more natural appearance. The formal landscaping on intermediate crossings also has a formality which perhaps is not necessary nor able to be easily maintained in the longer term.	ER 7.4.11 SR 4.2.8	See responses to LGS002.13 and SGS008.4.
RBS003.13	Planners should also keep in mind that, apart from the river corridor, much of the land between Gawler and the Curtis Road connection was grassland (or very open grassy woodland) rather than woodland in 1836, contrary to some published information. GEHA can provide more detail on request of pre-European vegetation in the area via pre-1850 records. These are quite	ER 7.4.11 SR 4.2.8	Noted. See response to SGS008.3.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	accurate given that land sales in the area did not occur until about 1847. Consequently, areas of open grassland are most appropriate in this area and should be considered for all areas which require mowing/slashing. Re-establishing some significant pieces of grassland could be one of the major benefits of the Northern Expressway and restore some vital areas of habitat. This also fits well with maintenance regimes for verges and areas where a low profile and hence slashing is planned or desirable.		
RBS003.14	<p>Fauna impacts</p> <p>As well as impacts on vegetation, the potential impacts on birds and animals and potential restorative measures need to be considered. Species which could be affected in the area include a number of bird and reptile species with conservation ratings as well as more well-known animals such as echidnas, bearded dragons and sand goannas. Recent bat monitoring in the area seems to have added another rare species of bat (the western broad-nosed bat) to those noted to date. Careful planning of offsetting works and corridor revegetation can provide potential gains for conservation to recover some ground lost during the previous 170 years of clearance and settlement.</p> <p>Further information can be obtained from Trees for Life in relation to Willaston Cemetery vegetation and the Urban Forest Biodiversity Program generally and in relation to conservation issues in the area, as well as from GEHA.</p> <p>It is important that the Northern Expressway environmental assessment deal thoroughly with these issues. Further work is required.</p>	ER 24	See responses to LGS002.14 and LGS002.15.
RBS003.15	<p>Heritage issues</p> <p>Although a comprehensive study has been made on European heritage in most areas, places near Gawler again seem to have missed out. A number of very old limestone cottages are immediately to the west of the current Gawler Bypass south of Redbanks Road. There is a lack of information on whether these buildings will be subject to vibration, noise or other impacts. Also, an unusual limestone structure on Kentish Road is in line to be demolished (see Appendix 3 of the Environmental Report). This site needs careful study. These issues have already been raised directly with Transport SA, and QED Pty Ltd has undertaken further study. The GEHA is keen to avoid demolition of the limestone structure if possible.</p>	ER 17 SR 3.7	<p>The stone cottage on the gravel section of Kentish Road and the former slaughterworks on Lange Road are not on the State or Local Heritage List.</p> <p>Neither site will be directly affected by the Northern Expressway.</p> <p>The stone and concrete pipe structure located on the road reserve between the gravel section of Kentish Road and the Gawler Bypass reserve is also not on the State or Local Heritage list but it is an item of interest and further investigations are proceeding.</p>

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
RBS003.16	Willaston Cemetery is a State Heritage Place. The noise from increased traffic and possibly faster speeds should be assessed for its impact on the cemetery as a place of solitude and remembrance.	ER 14	See response to LGS002.11.
RBS003.17	<p>Traffic issues</p> <p>The crucial issues are with much higher traffic flows on Redbanks Road immediately and with projected growth. Main North Road intersection will be a major bottleneck. That will flow on to Paxton Street intersection as well. There will be flow-on effects throughout Willaston with more traffic using residential side streets such as Brown Street (north-west part), Bright Street, Princess Street, Davies Street and Queen Street.</p> <p>The next roads to be impacted upon will be Main North Road into Murray Street, Murray Street and Lyndoch Road/Calton Road. Further impacts will be felt with traffic drawn from Gawler South trying to get to Redbanks Road.</p> <p>A roundabout at Redbanks Road/Main North Road and Paxton Street/Main North Road or lights will also be needed to retain some sanity.</p> <p>Connections at Angle Vale Road with the Northern Expressway to allow traffic to and from Gawler to use this connection rather than Curtis Road will relieve some of these impacts.</p>	<p>ER 13</p> <p>SR 3.2</p> <p>SR 3.2</p>	<p>Traffic on Redbanks Road will increase due to the Expressway but also because of natural traffic growth. The increase is not expected to cause significant effects.</p> <p>The improvement of the arterial roads within the Town of Gawler is currently being investigated by DTEI as a separate study, including the junction of Main North Road/Redbanks Road.</p> <p>A funding submission is currently being considered by the Australian Government to provide additional interchanges and ramps – refer to Sections 2.2.2 and 3.2 of this Supplement Report.</p> <p>With the proposed additional interchanges and ramps provided on Two Wells Road and Angle Vale Road, traffic will increase on these connecting roads due to the Expressway but also because of natural traffic growth, and the increase on Redbanks Road will be less. The increase is not expected to cause significant effects.</p>
RBS003.18	The other weakness of the plans is that vehicles from west of Gawler which would normally join the Sturt Highway or Main North Road off Angle Vale Road or Two Wells Road are going to be forced to backtrack through unsealed local roads or to come through Gawler via Ryde Street and Murray Street to join the main roads. These are very negative outcomes which could only be fixed by access on the Northern Expressway from Angle Vale Road and Two Wells Road.	<p>ER 13</p> <p>SR 3.2</p>	<p>Traffic currently using Two Wells Road or Angle Vale Road to gain access to Gawler will be unaffected by the Expressway as these roads remain open. If traffic uses side roads which will be closed because of the Expressway (e.g. Whitelaw Road) to first gain access to these two arterial roads, some minor diversion may be required to another connecting road (e.g. Wingate Road).</p> <p>A funding submission is currently being considered by the Australian Government to provide additional interchanges and ramps – refer to Sections 2.2.2 and 3.2 of this Supplement Report.</p> <p>Access will be improved with the proposed additional interchanges and ramps provided on Two Wells Road and Angle Vale Road.</p>

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
RBS003.19	Noise impacts in Willaston, Reid and other parts of Gawler will be significant. The suggestion of noise barriers adjacent to Paternoster Road needs to be carefully looked at. Council preference is for mounded dirt and vegetation rather than acoustic walls which have a major impact on amenity.	ER 14	See response to LGS002.11.
RBS003.20	Noise impacts on Willaston should be considered for the whole Gawler Bypass, not ignoring the section after the Northern Expressway ends before Redbanks Road. Quieter pavement, noise reduction mounds on the eastern side or other possibilities should be considered. Any measures should not impact on Willaston Cemetery which is a State Heritage Place and an important area of remnant native vegetation.	ER 14	See response to LGS002.11.
RBS003.21	Greenhouse impacts It is disappointing and embarrassing that despite government policies on greenhouse gases and climate change, the released Environmental Report has little information on this. With the Northern Expressway being planned to maximise catchment of residential commuters as well as freight movement, the inevitable result will be pressure for the spread of urban development well beyond that which is currently being planned. Such development is generally contrary to government plans for more compact urban development and should be assessed from a variety of angles including impacts on travel and hence greenhouse gases. A supplementary report has been promised but not seen yet.	ER 22 SR 3.9	Refer to Section 3.9 in this Supplement Report.

Table A4

Public submissions (PS)

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
PS001.1	Concerned that the shortened runway will result in a major road crash as motorists may not realise that, as they drive around the curve northbound, they may see the bottom of a large agricultural aeroplane with a glider on tow heading towards them, and may have a major road crash.	ER 5 ER 13 SR 3.12	Refer to Section 3.12 in this Supplement Report.
PS001.2	Emergency services will not be able to access a major road crash in a hurry.	ER 13 SR 2.2.5	See response to LGS001.11. Discussion with emergency services providers confirmed the strong preference for access to be via defined interchanges, as well as from intermediate culs de sac if required. This will provide an appropriate response time.
PS001.3	The respondent flies the tow plane for the gliding club and has observed the height of the tow plane on take-off on a moderately warm day (performance would be poorer on hot days). The tow plane had 80–100 ft clearance above the ground at the point where the new Expressway would cross the runway (taking off to the south-west on runway 23). There would be less clearance over the road and any poles, etc. A similar height is achieved over the ground (not including the bridge height) at the north-eastern end taking off from runway 05.	ER 5 SR 3.12	Refer to Section 3.12 in this Supplement Report.
PS002.1	Has not found anything that addresses the issue of increased traffic on roads running adjacent to the proposed route.	ER 13.3 SR 3.2	The alignment passes through agricultural area with only minimal abutting development. However, there are a number of existing and proposed residential developments located within the study area. These, together with future commercial/industrial development, are expected to increase traffic on all the roads, not just as a result of the Northern Expressway. A funding submission is currently being considered by the Australian Government to provide additional interchanges and ramps – refer to Sections 2.2.2 and 3.2 of this Supplement Report. The provision of additional ramps at Two Wells Road (for traffic travelling to and from the south), Angle Vale Road (for traffic to and from the south, and possibly also to and from the north in the future) and Curtis Road (for traffic to and from the north) should limit the amount of traffic using the local road network to access the Expressway. However, traffic from future development is expected to use the local roads to access the arterial network and the Expressway.
PS002.2	Concerned about the increase of traffic on Andrews Road to access the Curtis Road southern on ramp/northern off ramp.	ER 13.3 SR 3.2	See response to PS002.1.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
PS002.3	With one interchange north of Gawler, has any modelling been undertaken to project how many vehicles will travel via Angle Vale Road along Andrews Road on to Curtis Road to access the southbound interchange?	ER 13.3	See responses to PS002.1 and PS002.5.
PS002.4	As there is likely to be an increase in traffic, what improvements are planned to take place on this road to allow for this increase, that is, line markings, upgrading of the surface or speed limit reduction?	ER 13 SR 3.2	The City of Playford is commencing improvements along Curtis Road as part of the Playford North project. The design and future operation of this road have been investigated and will be implemented as the development proceeds.
PS002.5	Concerned for elderly mother living on Andrews Road as without adequate measures, entry/exit to her property will become increasingly dangerous.	ER 13 SR 3.2	A funding submission is currently being considered by the Australian Government to provide additional interchanges and ramps – refer to Sections 2.2.2 and 3.2 of this Supplement Report. Additional interchange ramps will be provided at Angle Vale Road (for traffic to and from the south, and possibly also to and from the north in the future) and at Curtis Road (for traffic to and from the north). Therefore traffic on Andrews Road is not expected to increase because of the Expressway. However, traffic may increase on Andrews Road due to additional development that is proposed in the vicinity in which case this issue would be the responsibility of the Council and should be considered when assessing future development proposals.
PS003.1	Disagrees with the 'benefit' that there will be improved traffic conditions for local residents.	ER 13 SR 3.2	The Expressway will provide both positive and negative access benefits to local residents depending on where residents live relative to the interchanges. The proposed additional ramps will provide additional benefits (refer Section 3.2 of this Supplement Report).
PS003.2	Macdonald Park is severely affected by the proposed route – cutting it off from Elizabeth and Munno Para where the main facilities (shopping, transport, etc.) are located.	ER 10.6.1	See responses to PS029.20 and PS038.5.
PS003.3	The meandering nature of the route does not appear to make much sense in terms of disruption to locals and also the route length and number of overpasses required. A simpler path, crossing Heaslip Road on the northern side of Curtis Road and then running along the western side of Heaslip Road would be shorter in length and would eliminate at least one overpass.	ER 5.1.6	See response to PS024.3. Section 5.1.6 of the Environmental Report explains why the initial preferred (white) route adjacent to Heaslip Road was rejected and the proposed (yellow) route was selected in its place.
PS003.4	One of the earlier paths was for the Expressway to be basically along the western side of Heaslip Road from Angle Vale to Port Wakefield Road. Why was this changed?	ER 5.1.6	See response to PS003.3
PS003.5	With the disruption to the local area traffic conditions and the lack of any real advantage given by the Expressway to these local communities, the only purpose for the Expressway is for 'through traffic' which could	ER 5.1 ER 6	The Northern Expressway provides benefits to through traffic, as well as to traffic to and from the communities, businesses, horticultural industry and other industries in the northern Adelaide region through which it passes.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	then be equally served by a quite direct route from Gawler to Port Wakefield Road going north and west of Angle Vale township.		Through traffic alone would not provide the economic benefits required to justify the road. Also see response to PS024.3.
PS003.6	Given widespread community concern/disapproval, has any serious consideration been given to modifying the route taking into account the concerns and considerations of the local communities?	ER 5.1 ER 6 SR 2 SR 3 SR 4.2.1	The justification of the proposed Northern Expressway and the route has been based on detailed investigations and evaluation. From this process (refer to Section 5 of the Environmental Report), the proposed route was selected as the best. The views and concerns of the community are important and have been listened to but may not result in change given a wide range of criteria that must be taken into account. Small changes can be accommodated where they are considered to be feasible. As can be seen from Section 3 of the Supplement Report (regarding further route investigations and Section 2 regarding the description of the route), some changes have been made.
PS004.1	Over the last 17 years, residents living on Petherton Road, Macdonald Park have seen massive growth of residential dwellings in Andrews Park, Munno Para and Davoren Park areas, leading to a huge increase in traffic using Petherton Road. This has led to safety concerns during peak hour. Pleased to see that Petherton Road will be blocked to through traffic, thus returning Macdonald Park back to a residential suburb with only local traffic.	ER 13	Noted.
PS004.2	The proposed route is well founded and will achieve the aim of its existence. However, I feel for the people who will have their properties acquired and hope they will be fairly compensated.	ER 12	Noted.
PS004.3	Concerned about the noise of heavy traffic during the evening and night for residents in the area.	ER 14 SR 3.5 SR 4.2.9	See response to PS036.1.
PS004.4	Concerned about pollution of the atmosphere.	ER 21 ER 22	See response to Proforma A.1.
PS004.5	Will the Port Wakefield Road Upgrade cater for the additional traffic flow?	ER 28	The proposed upgrade of Port Wakefield Road does have sufficient capacity to cater for the proposed traffic volumes.
PS004.6	Will the Expressway have continual fencing to ensure that it can only be accessed at the designated entry and exit points?	ER 7.4.1	Section 7.4.1 of the Environmental Report indicates fencing comprised of post and open wire through rural areas and may include cyclone mesh or solid panels where increased safety and security are required.
PS004.7	Advantages of the Expressway are to: <ul style="list-style-type: none"> • provide a direct route for interstate freight transport to the northern industrial areas of Adelaide and Port Adelaide • provide a fast and direct route for people who 	ER 4	Noted.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	<p>work in the industrial areas of Adelaide and Port Adelaide</p> <ul style="list-style-type: none"> • relieve heavy traffic from Main North Road, Angle Vale Road and Heaslip Road • open up the northern areas to further growth. 		
PS005.1	Need to revise the situation of existing traffic exiting St Kilda Road onto Port Wakefield Road.	ER 28	<p>With the closure of right-turn access at nearby junctions, there will be some, although not significant, increase in traffic on St Kilda Road.</p> <p>The junction's acceleration and deceleration lanes are proposed, as part of the project, to be increased in length to current design standards. There is no warrant at present, or with the Expressway up to 2016, for traffic signal control of this junction or to connect St Kilda Road with the junction of Port Wakefield Road/ Waterloo Corner to make a 4-way intersection.</p>
PS005.2	St Kilda is the main access point to the sea for the northern suburbs of Adelaide as well as having significant other attractions which bring visitors to this coastal town. The increase in visitor numbers is expected to rise dramatically as the northern suburbs develop with more housing and with this new freeway which will allow faster times to access these facilities.	ER 28	<p>Noted.</p> <p>Also see response to PS005.1.</p>
PS005.3	Access into the precincts of Waterloo Corner and St Kilda appears to be affected in a minor way. Directing all of the traffic out of the area via St Kilda Road is a looming disaster. <i>(At a meeting, the respondent provided a suggested plan of median strip ingress lanes for this corner but now thinks that is not at all satisfactory unless there are traffic lights installed to control the intersection).</i>	ER 28	See response to PS005.1.
PS005.4	It is already very tricky to enter onto Port Wakefield Road in the late afternoon when tired boaties and tired go-cart drivers head for home. On Sunday afternoons and long weekends, it is very difficult for vehicles leaving St Kilda Road to break into the streams of traffic returning from the north of the State. This is already the situation. I fear what conditions would be like when traffic densities double on Port Wakefield Road.	ER 28	See response to PS005.1.
PS005.5	<p>Sees only two possible solutions to fix this problem at St Kilda Road:</p> <ul style="list-style-type: none"> • re-align St Kilda Road so that it joins onto Port Wakefield Road at the Waterloo Corner Road intersection, or • install a set of traffic lights (precedent is already set at Bolivar of having traffic lights close together). 	ER 28	See response to PS005.1.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
PS006.1	Concern about water running over and around Globe Derby Park – to stop mosquito breeding for both Dry Creek and Little Para River.	ER 35	Management of mosquito populations is a community and council responsibility. Road upgrades around Globe Derby Park will be designed to avoid water pooling.
PS007.1	Will lights on the Northern Expressway be solar powered as this would be better for the environment?	ER 7.2.6 ER 7.4.8 SR 2.2.3	Solar powered lighting is not proposed. There will be no lighting on the Northern Expressway itself, only at some intersections and interchanges, and local road connections to ramps or interchanges.
PS008.1	As a business proprietor on the service road adjacent to Thompson Road at Burton, am concerned about the ability of this service road to cope with the extra traffic volumes that will be placed on it if Burton Road is closed off. It would have to have no parking on its entire length. The corner where it meets Angle Vale Crescent will require modification: (it is very dangerous now!) DTEI has already encroached on this road by moving the 'sheep' fence 3 m in to the kerb line. Trucks cannot reverse out of business premises without hitting the fence.	ER 7.8 SR 2.2.6	See response to PS0037.5. The scheme at Burton Road has been amended to retain the right turn into Burton Road for up to semi-trailer size vehicles. Hence, traffic increase on the service road should be minimal, and due to traffic that was turning right onto Port Wakefield Road. Northbound traffic from Burton Road will connect to Port Wakefield Road via Angle Vale Crescent and Waterloo Corner Road under signal control. It is expected that some works will be required to Angle Vale Crescent (particularly the curve) to enable opposing large vehicles to pass. This may include road widening and control of parking.
PS008.2	Our business is house relocation and we use OD3 on a daily basis. Can we assume provision will be made to allow oversize loads to access Heaslip Road from Burton and Elizabeth West via Womma Road? (Loads need to travel via OD3 to avoid bridges on the Gawler Bypass. Available height is 5.2 m.)	ER 13.2.6	The existing over-dimensional load route OD3 will remain as at present. The Expressway will not be an over-dimensional load route and therefore these loads will be prohibited on the Expressway.
PS008.3	Will oversize loads be able to use the Northern Expressway or will obstacles be put in place to impede progress!!?	ER 13.2.6	Certain over-dimensional vehicles will be able to use the Northern Expressway. However, over-height vehicles may have problems at the overpasses. The existing Heaslip Road OD route and OD3 will be maintained to provide for these vehicles. See response to PS008.2.
PS008.4	New home builders are planning to have a construction yard in the triangle between Route 1 and Martins Road that will require loads to travel north. Likewise, it is planned to have a construction yard on the corner of Ryans and Port Wakefield roads and also Selecta Homes construction yard at the northern end of the southern service road.	ER 13.2.6	Movements north from the Ryans Road/Martins Road precinct will be undertaken under signal control at Ryans Road. Access to this area from the south will be made via signal control at Martins Road. At present, Martins Road is not a gazetted B-double route. It is expected that this will need to be revised as part of the project. Works at the intersection of Ryans Road and Martins Road are proposed to facilitate large vehicle movements. Access to the north from the Selecta Homes site at the northern end of the service road will be by permit and official traffic control at the northern end of the service road. Alternatively, access to the north via a loop of Martins Road/Ryans Road could be used to travel north using signal control.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
PS008.5	Modifications would need to be carried out to the roundabout at the junction of Ryans Rd and Martins Rd to facilitate the movement of oversized loads.	ER 7.8 SR 2.2.6	This roundabout will be upgraded as part of the project to cater for the expected vehicles using the road.
PS009.1	The project is looking very impressive and a great addition to transport.	ER 4	Noted.
PS009.2	What will be the upgrades to Angle Vale Road – especially on the corner of Stevens Drive and Angle Vale Road, and who will be responsible for it?	ER 7.4	The T-junction of Angle Vale Road/Stevens Drive is not part of the Northern Expressway Project, therefore no works are proposed as part of this project.
PS009.3	Issue of traffic on Angle Vale Road is important.	ER 13	Noted. The Expressway will reduce traffic, particularly heavy freight, on Angle Vale Road. However, it is expected that traffic growth from south Gawler and the proposed Evanston Gardens residential area could increase traffic to current levels in the future.
PS009.4	Issue of noise on Angle Vale Road is important.	ER 14	See response to LGS004.34.
PS010.1	In general, I favour the Northern Expressway as it will improve access to the north and has the potential to reduce traffic on local roads.	ER 4	Noted.
PS010.2	<p>Concerned that needs of cyclists have not been fully considered in the design of the Expressway. Particularly concerned with the severance of the Angle Vale area from the developing Munno Para West for slow traffic such as cyclists, pedestrians and farm vehicles as follows:</p> <ul style="list-style-type: none"> • Access from east to west is only available via overpass at Curtis or Angle Vale roads; both are high speed roads. • Fradd Road, a convenient route for slow traffic, is cut. • The design of roundabouts at Curtis Road may not be cyclist friendly. • Slow traffic volumes will increase with the development of Playford North (4000 residences) and associated schools and similar infrastructure. • Farm equipment will have to use the Curtis Road or Angle Vale Road overpass. <p>Suggested corrective action is as follows:</p> <ul style="list-style-type: none"> • Study the impact of the Expressway on the safety and convenience of slow vehicles such as cyclists, farm equipment, electric wheelchairs, etc. • Study the expected numbers of these types of vehicles in the future with the expansion of residential land in the area. • Consider possibility of an overpass or underpass on Fradd Road for slow vehicles or pedestrians. 	ER 7.4.5	<p>Pedestrian and cyclist use on and across the Northern Expressway alignment has been investigated in conjunction with various councils. The design has taken into consideration the comments made by councils about these issues</p> <p>The design of the overpasses at Angle Vale, Two Wells and Curtis roads includes provision of roundabouts to slow traffic and provide safe access to the ramps to/from the Northern Expressway. The roundabouts will be designed to cater for cyclists.</p> <p>In addition, the overpasses will be sufficiently wide to provide a 2 m sealed shoulder that can be used for slow farm machinery and cyclists.</p>

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	<ul style="list-style-type: none"> Check the design of road junctions, roundabouts and overpasses with a view to cyclists' safety. 		
PS010.3	<p>I would like to see northerly access to the Expressway for residents of Munno Para, Davoren Park and Angle Vale via the Curtis Road interchange for the following reasons:</p> <ul style="list-style-type: none"> The Curtis Road access to the Northern Expressway is currently only southbound. This means that traffic to the north from the Munno Para West/Downs area may have to use either Andrews Road or Stebonheath Road. Both Andrews Road and Stebonheath Road are narrow roads with substantial residential development. The Playford North project at Munno Para West will include 4000 residences at completion, a substantial number of which will have interests or work in Gawler and the Barossa. Commercial industries will possibly develop in the interchange areas such as Curtis Road demanding northerly access. <p>Suggested corrective action is as follows:</p> <ul style="list-style-type: none"> Provide northbound access to the Expressway at Curtis Road. Study the effects of residential development in the Munno Para West area (Playford North). 	ER 7.4.3 SR 2.2 SR 3.2	See responses to PS002.1, LGS001.9 and LGS001.10.
PS010.4	<p>The Environmental Report omits mention of Munno Para Downs as an affected suburb even though it is bisected by the Expressway. It seems other affected suburbs have also been omitted from being named.</p> <p>The Northern Expressway bisects the suburb of Munno Para Downs between Angle Vale Road and Fradd Road, yet it is not mentioned by name at all in the Environmental Report.</p>	ER 10	The 'suburb areas' (Environmental Report Table 10.1) used for the analysis are compilations of Australian Bureau of Statistics collector districts. 'Suburb area 9 – Munno Para West' includes parts of Munno Para West, Munno Para Downs and Munno Para.
PS010.5	<p>The Urban Boundary is actually between Munno Para West and Munno Para Downs.</p> <p>The route is defined by the places it does not pass through (Angle Vale, Virginia and Penfield) rather than the ones it does (see Executive Summary page 13, and Section 1.4.1).</p> <p>In Section 11.3.1, land use is defined by the route rather than suburb names, clouding the issue of the affected suburbs.</p>	ER 11	Noted.
PS010.6	<p>Section 14.4, Noise levels (in the Environmental Report) does not indicate levels for Munno Para Downs or Munno Para West. I expect this is in catchment E.</p>	ER 14 SR 3.5 SR 4.2.9	Catchment E (Macdonald Park/Andrews Farm/ Munno Para) includes properties in Munno Para Downs and Munno Para West within 500 m of the Northern Expressway alignment located south of Angle Vale Road. On the nearest side of Munno Para Downs and Munno Para West, noise levels from the Northern Expressway are predicted to

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
			be under the noise criteria, with daytime $L_{eq,15h}$ levels below 50 dB(A).
PS010.7	I don't know if these omissions are by design. Previous documents did include mention of Munno Para Downs; maybe the inclusion of the global term 'Munno Para' is deemed adequate. But then this definition of Munno Para covers a very large area, bounded by Main North Road, Curtis Road, Dalkeith Road, Angle Vale Road and Frisby Road. It can also be confused with the part of Smithfield that includes the major shopping centre.	ER 11	Any confusion resulting from incorrect reference to postcodes or defined suburbs is neither intended nor deliberate. Broader descriptions did aggregate some areas. The location of the Northern Expressway is clearly shown on the various plans with this taking preference over text where apparent confusion applies.
PS011.1	Strongly feels that there should be access to the Expressway (both on and off) from the Gawler–Two Wells Road.	ER 7.4.3	See responses to LGS001.9, LGS001.10 and PS002.1.
PS012.1	Doesn't want trees/bushes on both sides of the road and median as birds fly between trees and bushes and this will increase road kill. Plant the vegetation on one side only of the corridor.	ER 7.4.11 ER 39.3.2 ER 25.4.1	Refer to Sections 25.4.1 and 39.3.2 of the Environmental Report for effects on birds. Refer to Section 7.4.11 of the Environmental Report for indicative landscape concept designs.
PS012.2	Budget for an education/training campaign that teaches users how to merge lanes on the Expressway and how to keep left when not overtaking.	ER 13	Driver behaviour is governed by the Australian Road Rules. The perceived need for training is noted.
PS012.3	Introduce a minimum speed limit and ban heavy machinery (tractors, graders, etc.) during peak hours.	ER 13	Issue of minimum speed limit is noted. Access restrictions on vehicle types on the Northern Expressway will be considered as part of the detailed design. Access is restricted to the major interchanges and farm movements are typically short distance.
PS013.1	The Gawler airfield is referred to as the 'Gawler glider field' which is ironic as the airfield may remain after the Expressway has been constructed, but the gliding operations may be in serious doubt.	ER 3.5.2 SR 3.12	Noted. Refer to Section 3.12 in this Supplement Report.
PS013.2	Has fundamental misgivings about whether the operations will be safe with the shortened runways at Gawler.	ER 11 SR 3.12	Refer to Section 3.12 in this Supplement Report.
PS013.3	The report gives very little information about how the Expressway will impact upon gliding operations.	ER 11 SR 3.12	Refer to Section 3.12 in this Supplement Report.
PS013.4	The proposal will convert a safe gliding operation where risks of launch failure can be managed into a potentially unsafe operation where launch failures will potentially kill or injure pilots, passengers and members of the general public.	ER 11 SR 3.12	Refer to Section 3.12 in this Supplement Report.
PS013.5	Provided information on launch failures. Launch failures could occur at any time... gliders being aero-towed into the sky can safely take off from a runway that is 1200 m long, provided everything works perfectly. If for any reason the launch fails and the glider is no longer being towed by the tug aircraft, the glider must find	ER 11 SR 3.12	Refer to Section 3.12 in this Supplement Report.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	somewhere to land.		
PS013.6	Provides information and data indicating that to be safe, a glider runway needs to be 1650 m in length (requiring on average 1000 m for take-off and climb to 60 m and 650 m landing distance from 60 m height). This indicates that if a glider is less than 60 m above the ground, the only place to land is straight ahead. At present the landing straight ahead is still possible at Gawler because the runways have sufficient length. If you shorten the runways, the gliders will have no option but to crash into whatever structure is ahead of them. In all probability, this will result in gliders having to do a forced landing on the new Northern Expressway, with very little chance of survival for the pilots and their passengers and a significant risk for traffic using the road. There is no mention of this hazard to road users in the Environmental Report.	ER 11 SR 3.12	Refer to Section 3.12 in this Supplement Report.
PS013.7	Has analysed logger data for hundreds of flights from Gawler, for a variety of gliders and is absolutely convinced that the proposed Northern Expressway will convert an inherently safe gliding operation into a very risky venture. Is very happy to share the data to substantiate claims and sure that conclusions will withstand scientific analysis. Launch failures do occur and we need runway length to cope with these failures.	ER 11 SR 3.12	Refer to Section 3.12 in this Supplement Report.
PS013.8	Of a total of 1062 glider flights, has experienced four launch failures. Only one of these would have been able to land on the proposed shortened runways. The present runway has runway lengths which provide sufficient length to recover from the launch failures I have experienced. The new shortened runways, in all probability, would have resulted in a fatal accident for himself and other members of the public if in place at the time of these launch failures.	ER 11 SR 3.12	Refer to Section 3.12 in this Supplement Report.
PS013.9	Searching through the records, I believe there has never been a serious injury or fatality with gliders taking off or landing at Gawler. Please include details on how gliding operations can be run safely at what you call the 'Gawler glider field'.	ER 11 SR 3.12	Refer to Section 3.12 in this Supplement Report.
PS014.1	The airstrip at Gawler is used for water bombers to fill their tanks and fight fires in this State from Balaklava, the Barossa, Kapunda and to the surrounding country areas. Planes need the full length of the present airstrip to take off with a full load of water. The proposed shortened strip means using only half a load; therefore, the cost is many times higher and increases the danger to pilots plus countless fire damage as more time and take-offs will be needed. There is also a high risk of a plane landing or crashing on the new road.	SR 3.12	Refer to Section 3.12 in this Supplement Report.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
PS014.2	Airstrips need to be placed strategically to utilise prevailing winds in the area and with cross strips to accommodate wind change. The existing airstrip has four fire hydrants. The small strip near Williamstown is unsealed and often impossible to use.	SR 3.12	Refer to Section 3.12 in this Supplement Report.
PS014.3	Emergency services have been consulted but not the pilots who actually fly the planes and they have been told that emergency services are handling negotiations. The pilots intend to refuse to use a shortened strip no matter how serious the fire. This airstrip needs to be available for other emergencies. They are now building bigger bombers that carry larger quantities of water than the ones presently being used.	SR 3.12	Refer to Section 3.12 in this Supplement Report.
PS014.4	The gliding club has significant problems with a shorter strip.	SR 3.12	Refer to Section 3.12 in this Supplement Report.
PS014.5	The road and its proposed route are impressive in all other aspects with many environmental considerations; it is well planned; noise and Aboriginal areas have been considered.	ER 2	Noted.
PS014.6	This road will encourage more businesses and families to the area.	ER 10.6.3	Noted.
PS014.7	As a concerned member of the public, I do hope you will reconsider the portion of the project (which affects the airstrip) as all safety issues are overlooked, that is, fire safety, personal safety and traffic safety.	SR 3.12	Refer to Section 3.12 in this Supplement Report.
PS015.1	Resident of Globe Derby Park...property is a purpose-built horse agistment and stable complex for up to 33 horses...can be up to 100 horses using the unmade service road to transfer from their respective stables and the Globe Derby Park Harness Racing Complex training track. The statement that the unmade service road is used for horse training is completely false. No trainers or horses specifically use the unmade service road to actually train their horses. The unmade service road is the only viable access route to move horses between our stables and the Globe Derby Park Harness Racing Complex training tracks.	ER 25.6.1 SR 2.2.6	Comment in Environmental Report says that the unsealed access road between Daniel Avenue and Whites Road drain is used for training horses. However, it was not the intention to indicate that the service road was to be used as a training road, but for the movement between the Globe Derby complex and various stables/ agistment in the region. The access road is used as access for horses/ trainers between accommodation and training facilities at Globe Derby Park. It is proposed to seal the access road and remove direct access to Port Wakefield Road. The access needs for horses will be resolved as part of the detailed design undertaken with the community and the City of Salisbury. The service road will also contain an unsealed shoulder of sufficient width to cater for the movement of horses from stables to the training track at Globe Derby Park.
PS015.2	Two or three years ago representatives from DTEI visited our home, and I believe others in the immediate area. They visited to discuss upgrading the unsealed service road to a sealed road and having a dedicated horse path located alongside the sealed service road.	ER 25.6 SR 2.2.6	See response to PS015.1.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	It was my impression that this would transpire when the service road was upgraded but [Sections] 25.6.1 and 25.6.2 of the Northern Expressway upgrade [report] states otherwise.		
PS015.3	The statement that the road reserve will no longer be available for training purposes is completely ludicrous. Sealing the service road and changing traffic conditions will result in increased motor vehicle usage along the service road. This will cause potential conflict with up to 100 horses which will still be moving between their stables to the Globe Derby Park Harness Racing Complex training track and will duplicate the hazardous conditions experienced by trainers located along Daniel Avenue, Alabar Crescent and Grayling Court.	ER 28 SR 2.2.6	See response to PS015.1.
PS015.4	I believe that the option of placing a dedicated horse path with simply a less wide version of the current unmade service road parallel with the sealed road would be the best solution. Horses and cars on the same road are a recipe for disaster.	ER 28 SR 2.2.6	See response to PS015.1.
PS016.1	Believes that shortening the runways of the Gawler aerodrome is likely to lead to aircraft landing off site. This is accompanied by a significant chance of severe injury or worse to both aviators and the public.	SR 3.12	Refer to Section 3.12 in this Supplement Report.
PS016.2	As the Chief Flying Instructor of the Australian Air Force Cadet (AAFC) Gliding Club at Gawler is concerned that the proposed new Northern Expressway, while not preventing the operations of the AAFC, will impact strongly on the safety of those operations. As a highly experienced and qualified pilot, believes that he has a duty of care to the students and instructors under his supervision as well as to neighbours and the public to bring this issue to the attention of the authors of the Environmental Report.	SR 3.12	Refer to Section 3.12 in this Supplement Report.
PS016.3	It does not appear that the Environmental Report takes into account the impact that shortening the Gawler aerodrome runways will have on road users and nearby residents.	SR 3.12	Refer to Section 3.12 in this Supplement Report.
PS016.4	Has provided details of the AAFC operational details including training provided to all students on emergency procedures such as engine failure on take-off.	SR 3.12	Refer to Section 3.12 in this Supplement Report.
PS016.5	During the launch of a glider or motorglider, it is possible that the launch may fail either by a failure of the motor of either the tow plane or motor glider or due to mishandling by the pilot (student). Typically, a glider and tug or a motorglider will take off with a ground roll of a few hundred metres. Until the glider reaches a height where it can safely turn around through 180° to land on the runway from which it just took off, it must land	SR 3.12	Refer to Section 3.12 in this Supplement Report.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	ahead. Attempts to turn below this height almost invariably lead to a spin and are fatal to the occupants of the aircraft. The generally accepted height for a turn back is 60 m and this is highly dependent on the type of aircraft and experience of pilots. AAFC motorgliders are significantly heavier than 'normal' gliders and often flown by inexperienced pilots. Both these factors indicate that 60 m is a minimum distance.		
PS016.6	Provides aircraft details on the two motorgliders, SF25 'Motor Falke' and a Grob G109, and data on performance figures (data based on measurements carried out in 2003 and extracted from flight manuals provided by their manufacturers, compliance with which is a legal requirement in Australia). From the profiles based on manufacturers' data and standard atmospheric conditions, the Motor Falke requires about 1400 m and the G109 requires a full 1500 m. The Twin Astir glider requires 1400 m of runway length. The data shows that a pilot suffering launch failure when just below 60 m will need 1300–1500 m of runway length to land ahead safely. At an elapsed travel distance of 1200 m, the glider/ motorglider could still have between 15–30 m of altitude.	SR 3.12	Refer to Section 3.12 in this Supplement Report.
PS016.7	Students are trained in emergency procedures for launch failure. The potential for mishandling of the exercise by the student is high but provided sufficient length is available the instructor can safely recover...one in 270 launches would result in a launch failure ... expected that a real launch failure would occur about once per year and mishandled exercises several times a year.	SR 3.12	Refer to Section 3.12 in this Supplement Report.
PS016.8	Where a glider/motorglider does not have enough height to turn back but has too much height to land ahead safely on a shortened runway, there are two basic outcomes: (1) Contained within the aerodrome – when able to put down on the runway but not stop before the end of the runway. This usually is the fence, and stranded wire fences are frequently known to kill pilots by decapitation. Mitigation: having a fence designed to absorb the impact of a glider and using arrester bed arrangements at the ends of runways can mitigate the effects of this problem. However, the arrester bed needs careful design as short landings when using the runway in the other direction will result in significant damage to an otherwise normal landing. (2) Not contained within the aerodrome – the glider/motorglider pilot will attempt to land in the clearest space available. This is likely to be on the new Expressway. Collisions with vehicle traffic are likely to result. Attempts by	SR 3.12	Refer to Section 3.12 in this Supplement Report.

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	the pilot(s) to land in a built-up area would almost certainly lead to fatalities and significant property damage. Mitigation: none obvious.		
PS017.1	Conflicting information regarding house demolition has been given by Northern Expressway team members. How can you give demolition numbers when you don't know yourselves?	ER 12.3.1	Noted. Final detailed design is required before the actual number of dwellings to be demolished is precisely known.
PS017.2	The (Environmental Report) Environmental Impact Study was an expensive, glossy book of spin. The five books which you never gave to me were too much to read, digest, understand and respond to in the short time you are giving the (suffering) public to get their submission back to you.	ER 2	See response to PS029.12 Property owners affected by acquisition were provided with a full copy of the Environmental Report on request. Technical Papers were made available on CD.
PS017.3	Social research into the social aspects of the Environmental Report was non-existent. Giving a few statistics on race, religion, jobs, etc. is not addressing the severe social impact.	ER 10	The Social and Demographic Profile was intended to set the context and provide a general overview of characteristics of the area, which are comparable with other parts of Adelaide and South Australia. Also refer to Section 1.3 of this Supplement Report.
PS017.4	Forcibly taking people's homes is as close to criminal as it gets and just because you have an archaic 1969 law that says you can, does not make it morally right or acceptable.	ER 12.1	See response to PS023.16.
PS017.5	What sort of civilised society throws people out of their homes against their will? It's undemocratic, un-Australian and draconian. This is having a severe social impact on me and my family. I will never forgive the Labor Government and Department for Transport.	ER 10	Major road projects inevitably have consequences on properties and the families who are associated with them. The project planning has endeavoured to affect as few properties (and families) as possible.
PS017.6	The main reason you want the Expressway is to transport uranium from the Mid North to Port Adelaide. Then you will be ultimately responsible for mass murder after the next nuclear accident. But money is all that matters, eh!	ER 13	See response to Proforma A.4.
PS017.7	It is your fault that Heaslip Road, the Angle Vale corner and Main North Road are a heap of <expletive> anyway. You have had plenty of time and (GST) money to fix them up but you were too disorganised to get up off your chair. Why didn't you buy land at that Angle Vale corner before all those houses got built there?	ER 4	The Northern Expressway will relieve the problems at the Angle Vale Road/Heaslip Road intersection by substantially reducing through traffic particularly heavy trucks passing through Angle Vale. See also response to LGS004.14.
PS017.8	You need to stick the Expressway further west through agricultural land, not between Macdonald Park and Elizabeth next to houses and schools.	ER 5 SR 3.4	See response to PS024.3 and Section 3.4 in this Supplement Report.
PS017.9	This will be looked back on as the worst highway decision ever. Worse than the one-way Southern Expressway.	ER 4	Noted.
PS018	See Proforma Submission A.		See response to Proforma Submission A.
PS019	See Proforma Submission A.		See response to Proforma Submission A.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
PS020	See Proforma Submission A.		See response to Proforma Submission A.
PS021	See Proforma Submission A.		See response to Proforma Submission A.
PS022.1	Protest the proposed changes to access to Port Wakefield Road at Globe Derby Park. Whereas the new Expressway appears to be a forward looking project with many benefits, communities on the western side of Port Wakefield Road have no alternative but to use or cross that road.	ER 25 SR 2.2.6	See response to PS022.7.
PS022.2	The upgrade of Port Wakefield Road will isolate us even more and make such daily tasks as shopping, travelling to schools or accessing medical help a nightmare.	ER 25 SR 2.2.6	See response to PS022.7.
PS022.3	Access is engineered in such a way that our only opportunities to cross Port Wakefield Road...are by means of a U-turn across an upgraded highway...or by attempting to merge from a turn left with care to a right-turn lane at Martins Road where there is insufficient length of pavement to make the manoeuvre when other traffic is on the road.	ER 28 SR 2.2.6	See response to PS022.7.
PS022.4	I do not agree with the assertion in Section 25.3 that 'the area as a whole has a lower educational attainment than the rest of South Australia'. Not only is this a spurious claim as it ignores the fact that there is a larger proportion of older people for whom education was not available who live within the agricultural areas north of Adelaide but a perusal of Census information reveals that Globe Derby Park is an anomaly, having higher than average wealth, home ownership and education than is the norm. Contrary to your demographic profile, we have very few children in the 0–4 year range and we are wealthier than the Mawson Lake average.	ER 25.3	This comment is based on analysis of 2001 Census data. Refer to Section 5.10 of the <i>Social and Demographic Profile Technical Paper</i> .
PS022.5	I found your assertion insulting and irrelevant and wonder if it is yet another effort to alienate my community being added to your refusal to provide even minimum public transport to an ageing populace.	ER 25	See response to PS022.4.
PS022.6	Concerns regarding social severance – access to shopping, schools, etc. The community at Globe Derby Park is the most vulnerable to any change of conditions on Port Wakefield Road. Where you (in Section 7.6.2) seek to minimise conflict by reducing right-turn cross movements, I see it as a practical attempt to isolate my community from the rest of the State.	ER 7.6.2	See response to PS022.7.
PS022.7	Most residents of Globe Derby Park shop at Hollywood Plaza or at Parafield Plaza. At present, this involves crossing Port Wakefield Road at Ryans Road East or at Martins Road. What you are proposing is that we turn from Daniel Avenue onto a dual direction service road,	ER 28 SR 2.2.6	The change in access at Daniel Avenue to left in/left out, and signal control at Martins Road and Ryans Road affects the ability to cross Port Wakefield Road in a direct movement from Daniel Avenue to Ryans Road.

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	<p>travel almost to the Little Para River, turn across the southbound traffic on the service road, access the Port Wakefield Road and at the designated spot, U-turn across 4 to 6 lanes of traffic and retrace the journey back to a left turn across another dual direction service road into Ryans Road.</p> <p>The other alternative is to use Trotters Drive, a private road with very little traffic, to reach Globe Derby Drive where, for great chunks of the day, it will be impossible to make a left-hand turn followed by a quick right merge to the new Martins Road traffic lights (Section 7.8.3 – ‘no changes are proposed for access to/from Globe Derby Drive’).</p> <p>At the very least, we need a right-hand turn either left then right from Daniel Avenue to Ryans Road East or a right then left from Daniel Avenue to Martins Road, yet you propose neither.</p> <p>What we have been offered is a left slip lane at Globe Derby Drive which in theory would allow a right-hand turn into Martins Road at new lights, but without a dedicated left-hand turn light at Globe Derby Drive, egress onto Port Wakefield Road will be almost impossible at peak hours and the manoeuvre to the right-hand turn lane at Martins Road will be a problem at most times.</p>		<p>To manage traffic movement and improve road safety, a number of existing uncontrolled intersections have been modified to be left in/left out (e.g. Daniel Avenue). The traffic movement on Port Wakefield Road, south of Bolivar is high and any additional uncontrolled or controlled movements (over and above the current scheme) at intersections such as Ryans Road, Daniel Avenue and Martins Road will have a significant effect on traffic flow. The alternative access points to the Globe Derby community are via Trotters Drive/Globe Derby Drive where movements can be made under full signal control including the left turn northbound (allowing safe and unimpeded access to Martins Road and the ability to turn right across Port Wakefield Road also under signal control). Alternatively, vehicles can enter and exit the area via the northern end of the service road near Whites Road drain, or make a U-turn north of Ryans Road. The Minister for Infrastructure has rights over Trotters Drive as a right of way.</p> <p>Trotters Drive may be formalised as a public road and upgraded to suit. Works associated with this road will be resolved in consultation with the community and the City of Salisbury.</p> <p>Traffic can turn left onto Port Wakefield Road when the northbound traffic on Port Wakefield Road is stopped by vehicles turning into or out of Globe Derby Drive. Hence, there is no oncoming traffic for the merge across Port Wakefield Road to Martins Road.</p> <p>It is acknowledged that there will be some delays with this movement.</p>
PS022.8	When you add to the ridiculously difficult manoeuvres outlined above, the fact that the drivers in Globe Derby Park are people who moved into the area in their middle age some 30 years ago and whose driving skills are not likely to improve, my assessment is that, rather than decrease the number of vehicle accidents, you will, in fact, see a marked increase in their frequency. As Daniel Avenue is our most used road (Section 28.2.3) with 1200 vehicles per day compared with Globe Derby Drive, 750 vpd, an overpass at Ryans Road would be an acceptable option.	ER 7.6.2	<p>See response to PS022.7.</p> <p>It is acknowledged that accessibility from the eastern side of Port Wakefield Road to Globe Derby Park will reduce with the proposal. However, with the significantly increased traffic on Port Wakefield Road with the Expressway, the deletion of the right turns at Daniel Avenue is considered necessary to ensure safe and efficient traffic flow. Alternative access points are available at Globe Derby Drive or via the northern end of the service road between Whites Road west and Daniel Avenue.</p>
PS022.9	I also note (Section 26.4.1) that our only ‘convenience store’, the existing fruit and vegetables shop, will close due to removal of access.	ER 26.4.1	Liaison will occur with owners during detailed design to determine access arrangements to this property
PS022.10	Concerns regarding horses According to the report (Section 25.6.1), the current unmade service road between Daniel	ER 25.6 SR 2.2.6	See response to PS015.1.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	Avenue and the Port Wakefield Road traffic station to the north 'is used for horse training.' This is not the case. The report (Section 25.6.2) says that 'the road reserve will no longer be available for training purposes' – which it never was. I take this to mean that the road will no longer be available as a conduit between the track and the stables of the owner/trainers.		
PS022.11	The parkland behind those houses fronting Port Wakefield Road is privately owned and will not be available as an access way to the track.	ER 28	See response to PS015.1.
PS022.12	The statement in Section 25.6.2 is contradicted in Section 28.3.9 – 'equestrian access will be maintained through the provision of a wide unsealed shoulder.' One can only pray that this shoulder is located on the seaward side of the sealed service road.	ER 28 SR 2.2.6	See response to PS015.1.
PS022.13	Concerns regarding no pedestrian access By constructing...a six-lane highway with two dual direction sealed service roads without Port Wakefield Road access in place of a four-lane highway and one unsealed service road with multiple access points to Port Wakefield Road, you will effectively prevent any pedestrian egress from the area. This will prevent me from walking to the Ryans Road transport café for my newspaper (45 minute round trip) or to the Greenfields Railway Station (40 minutes one way). I was advised that the closest pedestrian crossing will be at Bolivar Road/Port Wakefield Road intersection where, apparently, one already exists. (Curiously, there are no pedestrians living or working near that intersection. Has the crossing ever been used?)	ER 28.2.8	A signalised pedestrian crossing is proposed at the new signalised intersection at Ryans Road. This will facilitate safe movement of pedestrians east-west across Port Wakefield Road. There will also be this provision at Bolivar Road (as northbound traffic is stopped).
PS022.14	Concerns regarding no public transport The report's authors comment that 'cars are the dominant mode of transport...and that...fewer people travelled to work by bus or train than the State average'. That is because we don't have access to bus or train. I have been writing to various Ministers of Transport and local members for 30 years and the most recent reply stated that, as this was a new suburb, I should expect nothing. The truth is, this is not a new suburb and many of its residents are becoming distinctly old.	ER 28.2.7	Provision of public transport is based on estimated demand for the services. In areas of relatively low population, demand may not be sufficient to justify the provision of a service.
PS022.15	The only existing public transport is a school bus. I have not been able to contact anyone who can tell me the route this bus will take in future. It seems to me that it may not have a future.	ER 28.2.7	This is a matter for the Department of Education and Community Services.
PS023.1	What is your definition of 'extensive community consultation' referred to in the Executive Summary p. 5? How long is extensive? How was this consultation conducted? Of those who were consulted, how was the road affecting them?	ER Exec Summary SR 4	Refer to Section 4 in this Supplement Report.

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	Who collected this information and how was it recorded? What period of time was there between the information being collected and it being incorporated into the report?		
PS023.2	Please define 'positive outcomes'. Who does 'positive outcomes' apply to, affected businesses or DTEI? Please provide a detailed plan about how 'staff will continue to work with all owners to negotiate positive outcomes for affected property owners'...will be achieved. (Questions regarding statement in Executive Summary p. 5)	ER Exec Summary <i>Community Engagement Technical Paper</i> , Section 1.4	Positive outcomes are defined as results that are seen as beneficial or satisfactory to 'affected property owners or tenants'. The communication and consultation strategies as explained in Section 1.4 of the <i>Community Engagement Technical Paper</i> , outline the community engagement strategies in the current plan and these will continue as appropriate for subsequent phases of the project.
PS023.3	Please provide the statistics and composition of the respondents who 'support the need for the Expressway' (as referred to in Executive Summary p. 5). Please provide an explanation of how negative or opposing views of the Expressway were dealt with during open days and how this informed the information presented at open days.	ER Exec Summary <i>Community Engagement Technical Paper</i> , Section 2	Information is provided in <i>Community Engagement Technical Paper</i> Chapter 2 – Summary of Responses. Opponents of the Northern Expressway were invited to record their objections on feedback forms. All feedback has been noted and recorded. Feedback has been provided to the project team and has been considered and addressed where appropriate. People who opposed the Expressway were also invited to meet individually with project team members to discuss their concerns.
PS023.4	Please provide information on how the project objective, 'Actively involve the community in an integrated and inclusive process which fosters the exchange of knowledge with the community', will be achieved. How will DTEI ensure that this is upheld? What recourse do community members have if they feel that they have not been sufficiently included in the 'exchange of knowledge with the community'?	ER 1.6 <i>Community Engagement Technical Paper</i> , Section 1.4	<i>Community Engagement Technical Paper</i> Section 1.4 outlines the range of communication and consultation strategies designed to provide information to and seek feedback from the community. A Local Industry Participation Plan will be a key initiative of the next phases of the project as outlined in Section 1.6 of the Environmental Report. Community members should contact the Project Information Line by phoning 1300 658 621 initially and, if not satisfied, a letter can be sent to the Project Director, Reply Paid 1, Walkerville SA 5081.
PS023.5	Please define 'where possible' from the project objective 'where possible, minimise changes to existing land uses'. How can this point be recorded in the document, given that the road is going to ruin a community by building an expressway, therefore instantly changing the existing land uses?	ER 5.1.6	The proposed Northern Expressway route was chosen as it provided neutral or slightly positive social effects overall, although with a large effect on property (as would be expected for a new route through a fringe urban area), but less than would be the case in other areas.

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PS023.6	Delivery to affected property owners was poorly done...Why did my family have to hear this on our answering machine?...Why were we given an information pack with the phone number for a counselling service, that has more than a four-week waiting list to see a counsellor?... This illustrates how poorly this pack was put together...	ER 3.4	Community engagement staff did not leave information regarding property acquisition on answering machines. If property owners were unavailable at the time of calling, a message was left asking them to contact the Department for Transport. Alternative counselling services were made available to property owners.
PS023.7	At the bottom of the list of positive support for the Expressway in Section 3.5.1 was the quote 'It's about time'. Why was this added? Why was there not a 'counter quote' for those opposed in Section 3.5.2? How about mine, 'this will destroy my family'?	ER 3.5	Section 3.5.2 of the Environmental Report, Community and Stakeholder Engagement, lists key concerns about the Northern Expressway. The effects on property and effects on families were referred to more generally.
PS023.8	How will those property owners be supported who are experiencing grief and loss? How will property owners be supported after they are forcibly removed from their property?	ER 3.5.2 SR 4.2.1	It is acknowledged that some people may find the process of property acquisition and relocation difficult. Property owners requiring support have been offered counselling. Anyone requiring additional support will be referred to appropriate agencies. Information will be provided via the 1300 Information Line (1300 658 621).
PS023.9	After dividing the community, what plans are there to ensure people manage this transition and still feel connected and confident to seek support/connection from within their council area, after the extreme abuse they have received from having a road put through their property?	ER 3.5.2	See response to PS023.8.
PS023.10	How will you ensure that community members who may have extreme negative reactions, for example, grief and loss, depression, and other mental health issues directly related to the Expressway and being forced from their homes, do not become disenfranchised and disconnected from their community?	ER 3.5.2	See response to PS023.8.
PS023.11	How will the long-term social impacts of the Expressway be monitored and managed?	ER 3.5.2	During the phases of the project, the Project Information Line 1300 658 621 should be the initial means of contact in relation to social impact issues raised by individual community members or stakeholders. If not satisfied with the response, a letter can be sent to the Project Director, Reply Paid 1, Walkerville SA 5081. Social effects will be managed and monitored through evaluation processes set up by the project and by delivering effective project outcomes. Some issues would be outside of the scope of the project. Long-term integrated planning initiatives between local government, State government and the private sector will be critical to ensure social infrastructure and services are appropriately provided to the Northern region.

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PS023.12	Please provide the details of the number of houses/properties that would need to have been acquired for each individual route.	ER 5.1.4	See table below.			
		SR 3.4.1	Refer to Section 3.4.1 of this Supplement Report.			
		Route	Affected properties	Whole property	Partial property	Houses within corridor
		White	117	48	69	40
		Green	131	55	77	40
		Blue	103	40	63	33
		Purple	133	50	83	48
		Red	120	43	77	34
PS023.13	Please provide copies of all documents used in the literature review as part of the social and demographic investigations. How did these documents influence the decision of the 'proposed route'?	ER 10.1 <i>Social and Demographic Profile Technical Paper</i>	The documents used as part of the Social and Demographic Analysis are set out in the References attached to the Environmental Report and the <i>Social and Demographic Profile Technical Paper</i> . Most of the relevant documents referred to are able to be accessed via public libraries, councils or the internet. This information informed the project team as to the community profile and communities of interest, one of six criteria used in the route evaluation process.			
PS023.14	To me, it comes across that because the area is low socio-economic, these individuals do not have any rights, and therefore should be expected to move to accommodate a road. Is the report saying that if there were more professionals in the area the Expressway would not be going through their homes?	ER 10.3 SR 4.2.4	The socio-economic profile was included to provide a context in which the effects of the Northern Expressway and Port Wakefield Road Upgrade could be considered. There is no discrimination on the local community profile, and such an interpretation is incorrect. Refer to Section 4.2.4 in this Supplement Report.			
PS023.15	How are these 'ageing', 'non-English speaking background', 'unemployed' 'clerical, sales and trades and non-professional' people supposed to be able to represent themselves, have access to source information which provides them knowledge about their rights and be able to make an informed choice?	ER 10.3 SR 1.3 SR 4.2.4	The community engagement stage has provided opportunity for individuals and communities to express their views through the form of community open days, group presentations and one-on-one discussions. A wide range of communication methods and languages were provided to support this diverse community in responding to the project. Refer to Section 4.2.4 in this Supplement Report.			
PS023.16	Why are we still being guided by Acts that are 81 years old and 44 years old respectively? Have there been any amendments? Will there be any changes to these Acts to ensure property owners have some rights? Why are landowners' rights not considered in these Acts?	ER 12.1 SR 4.2.6	The object of the <i>Land Acquisition Act 1969</i> is to provide for the acquisition of land on just terms. The Act can be viewed at < http://www.legislation.sa.gov.au > or purchased from the Service SA Government Legislation Outlet, 101 Grenfell Street, Adelaide or online at < http://www.shop.service.sa.gov.au > Pages 25–29 of the Land Acquisition Act provide details of its legislative history, including a list of amendments that have been made since 1969. The legal rights of property owners are detailed in the Act and the summarised in the DTEI property acquisition guide available at < http://www.transport.sa.gov.au/pdfs/dtei_property_acquisition_guide.pdf >			

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			<p>The <i>Highways Act 1926</i> is an Act to make further and better provision for the construction and maintenance of roads and works.</p> <p>Pages 41–47 of the <i>Highways Act</i> provide details of its legislative history, including a list of amendments that have been made since 1926.</p>
PS023.17	<p>Why is there no analysis of how individuals/ groups of people feel about the Expressway? The report provides simple demographic information with the label of 'social'. Whilst this is part of the social aspects, this does not explore individuals/communities' feelings or reaction to the Expressway. You are ignoring the human aspect of the road, how it really affects people, how people are really feeling.</p>	<p>ER 10</p> <p>SR 1.3</p> <p>SR 4.2.1</p>	<p>The function of an Environmental Report is an assessment of socio-economic and environmental factors. The subsequent community engagement provides the opportunity for individuals and communities to express their views on the effects on physical, social, economic and environmental factors.</p> <p>It is acknowledged that individuals/groups have strong feelings/reaction to road infrastructure. Any new infrastructure has the potential to generate both positive and/or negative response.</p> <p>The decision on the project is made by government taking into account all issues raised and comments made by the community and relevant stakeholders.</p> <p>Support was also expressed from many individuals attending displays.</p> <p>Also see responses to PS023.8.</p>
PS023.18	<p>People who oppose the route selection have been silenced throughout this process. There has been a tragic lack of transparency and accountability throughout all the interactions in the entire process.</p>	<p>ER 5</p> <p>SR Appendix A</p>	<p>See response to LGS004.7.</p> <p>Opposition to the route has been recorded and addressed where possible. Feedback opposing the Northern Expressway has been received via email, letters, phone calls, media, public meetings, feedback forms and submissions.</p>
PS023.19	<p>After you have built a road that a large number of people oppose, how will you rebuild people's lives, spirit and belief in a fair country?</p>	<p>ER 12</p> <p>SR 4.2.1</p>	<p>It is acknowledged that some people may find the process of property acquisition and relocation difficult. Property owners requiring support have been offered counselling.</p> <p>Anyone requiring additional support will be referred to appropriate agencies. Information will be provided via the 1300 Information Line (1300 658 621).</p>
PS024.1	<p>...you think you are doing a job that will be in the best interests of South Australia...you are all patsies for the uranium industry and the trucking industry so they can get rich. Mr Rann is going to coerce the Labor Party into approval of a (massive) increase in uranium mining as documented in <i>The Advertiser</i>. The truckies with their radioactive load (going to Port Adelaide) do not want to share the road with local commuters. As long as they get the Expressway, they are happy to risk millions of lives as long as they all can get rich. Radiation poisoning is a slow painful death. Transporting uranium between Andrews Farm and Macdonald Farm is stupid and irresponsible. Put this Expressway further west. The few</p>	<p>ER 13</p>	<p>See response to Proforma A.4.</p>

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	daredevil local commuters who will use it will be driving at 110 km/h, swerving in and out of your trucks doing the national truck speed of 100 km/h. A perfect scenario for terrorists.		
PS024.2	The Rann/Conlon/Foley Labor Government will go down in history above that dopey Bannon and the billions he squandered over the State Bank debacle.		Noted.
PS024.3	Move the Expressway west through agricultural land.	ER 5 SR 3.4	Refer to Section 5 of the Environmental Report. It was found that routes west of Angle Vale would not be economically viable and therefore would not meet the project's stated strategic objectives.
PS025	See Proforma Submission A.		See response to Proforma Submission A.
PS026	See Proforma Submission A.		See response to Proforma Submission A.
PS027	See Proforma Submission A.		See response to Proforma Submission A.
PS028	See Proforma Submission A.		See response to Proforma Submission A.
PS029.1	We oppose the current proposal as put forward regarding the Northern Expressway.		Noted.
PS029.2	We still do not know just exactly where the proposed Expressway passes through our property and cannot fully assess its impact on our vineyards and our business.	ER 5	Property owners will continue to be consulted as the detailed design process refines the alignment.
PS029.3	The real major stakeholders in this project were not properly consulted and involved as they should have been.	ER 3 <i>Community Engagement Technical Paper, Attachment A</i> SR Appendix B	See responses to LGS004.7 and LGS004.60. Attachment A of the <i>Community Engagement Technical Paper</i> lists in detail the stakeholders involved in the consultation process Phase 1 – Concept Planning. The community engagement process has included key stakeholders, government agencies, four councils, funding agencies and affected property owners as well as a range of representative bodies and the community. Refer Appendix B in this Supplement Report.
PS029.4	Many of the so-called stakeholders who were involved have told us that they were kept informed about what Transport SA wanted but they were not able to contribute to the route selection process.	ER 3 <i>Community Engagement Technical Paper, Section 1.4</i>	The route selection process is explained in Part B Chapter 5 of the Environmental Report, and Attachment A of the <i>Community Engagement Technical Paper</i> . Independent advice commissioned by the City of Playford supported the process used by DTEI. Refer also to Section 3.4 of this Supplement Report. The stakeholder consultation techniques used are explained in Section 3.3 of the Environmental Report. Community engagement techniques are outlined in the <i>Community Engagement Technical Paper</i> Section 1.4. Broader community consultation on the proposed alignment has occurred since 14 November 2006. A parameter of this consultation was the route, and in line with the guiding principle of involve-

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
			ment of 'transparency', involvement within the route selection process was not a negotiable issue.
PS029.5	The elected members of the City of Playford were not consulted in the decision-making process. The paid staff at the City of Playford were involved but they have no authority to act on behalf of the ratepayers unless they were given directions to do so by the elected members. We know they were not given this authority.	ER 3 <i>Community Engagement Technical Paper</i> , Attachment A	Attachment A of the <i>Community Engagement Technical Paper</i> lists in detail the stakeholders involved in the consultation process Phase 1 – Concept Planning. The City of Playford issues are also listed showing the inclusion of council in the consultation. During the most recent consultation Phase 2 – Concept Design, City of Playford expressed concern at the level of consultation with the council and extra initiatives were designed and conducted with the council. The selection of the route is a State Government responsibility. Council officers provided input into the route selection process by identifying opportunities and constraints. The policy role of the council is acknowledged.
PS029.6	Transport SA has managed to get statements from organisations representing the transport industry to support this proposal but when we followed up and asked them whether they would support a better route – one that was shorter, more direct and away from built-up areas, they preferred this alternative and not your proposal.	ER 5 SR 3.4	The route selection criteria are described in Section 5 of the Environmental Report, Volume 1 Part B and Section 3.4.7 of this Supplement Report. The proposed route was selected, refined and assessed in terms of functionality, accessibility, scope, costs, economic benefits, and social and environmental effects and represents the best route. The approach used non-monetised criteria to best evaluate the various route options for land use, social, environmental and development factors. Refer also to Section 3.4 in this Supplement Report.
PS029.7	From the beginning of your dealings with the public, you have not been honest and straightforward but you have tried to obtain the maximum information from the landowners but giving them the least information in return.	ER 3	Information has been provided to property owners as available and when requested. Anyone requiring information regarding this project is encouraged to phone the 1300 Information Line (1300 658 621).
PS029.8	You have tried to gauge just how much compensation you may have to pay out by going to affected landowners prior to the issue of any notice of Intent to Acquire. This makes us believe you have not properly costed the project.	ER 12	Whilst processes under the Land Acquisition Act including service of a Notice of Intention to Acquire Land cannot be implemented until formal approval of the scheme is given, all negotiations with affected property owners are being conducted in accordance with the compensation provisions of the Land Acquisition Act. The estimate process involving property and all other components of the project have been considered over several years and costed accordingly.
PS029.9	You have told us that the money for the project, \$550 million, is all available – ready to go. We are told by the Hon. Jim Lloyd, Minister for Local Government, Territories and Roads that 'The	ER Exec Summary	The Northern Expressway Project is an AusLink project funded jointly by the Australian and South Australian governments. Both governments committed funds in the current AusLink program

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	Australian Government is still considering its position on funding for the project and is yet to begin formal negotiations with the South Australian Government on this aspect.' Why mislead us? What is the real situation?		based on the initial \$300 million estimate. The increase of \$250 million resulting from the revised project estimate of \$550 million requires further negotiation between the governments. This is currently underway and a decision is pending in the coming months.
PS029.10	The Transport Minister, the Hon. Patrick Conlon has been reported to have said 'the preferred route is the best route' and 'the proposed route is set in concrete and not for negotiation.' This was at the beginning of the public consultation period which means that this public consultation is a sham as everything has already been predetermined and the public and the landowners have not had a say and will not get a say.	ER 3 SR 4	Community feedback has assisted the project team to refine the alignment and identified issues to be managed during the next phases of the project. Recent community engagement initiatives have provided constructive feedback (which is being considered) regarding: <ul style="list-style-type: none"> • access/egress from the Expressway • emergency services access • local road network access and upgrading • input into the environmental assessment and issue identification • considerations for landscape options • opportunities for public art.
PS029.11	Right from the first meeting, we asked Transport SA for information regarding the alternative routes considered together with the costing. We were told that information would not be made available. Eventually, it was made available on about 20 March 2007 when the public consultation period was nearly over.	ER 5.1 <i>Community Engagement Technical Paper</i> SR 3.4	Information regarding alternative routes considered and the selection process was made available in the Environmental Report. The Environmental Report was released on 15 March 2007 and submissions on the Environmental Report were accepted until 26 April 2007. Refer to Environmental Report, Volume 1, Part B Section 5.1 and Technical Papers, Volume 2, Section 2.2, <i>Community Engagement Technical Paper</i> , Attachment A.
PS029.12	Requests for extensions of time for the public consultation period from a number of individuals and organisations have been declined by you.	ER 3	The public consultation period was extended by one week to 26 April 2007 (six weeks), and a number of submissions received after that date have also been considered. Six weeks is considered an appropriate period and is consistent with the consultation period for Major Developments or Projects under the <i>Development Act 1993</i> .
PS029.13	You have told us and others that there will be housing development on both sides of the new Expressway and that the Northern Expressway will not restrict the release of housing land. Have you consulted Planning SA? How do you know where the new urban land boundary will be?	ER 11	Under current Development Plan provisions, residential development can occur east of the Northern Expressway in the residentially zoned areas of Andrews Farm, Munno Para Downs and Smithfield Plains. West of the Northern Expressway, dwellings can occur on existing country/ rural living allotments or in conjunction with primary industry. Change to the Urban Boundary is a decision of the Minister for Urban Development and Planning. Whilst comment was made relating to the potential pressure or change resulting from the Northern Expressway, no change to the Urban Boundary is proposed as a result of the project.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
PS029.14	To justify the proposed route as being the best route, you have asserted that there will be increased utilisation of the Expressway because of its proximity to housing and townships. There is absolutely no evidence that this is the case. Why would locals in cars want to get onto an Expressway with a 110 km/h speed limit that carries heavy transport from interstate, the Riverland and the Barossa? The ramps for getting on and off the Northern Expressway at Curtis Road and Womma Road do not encourage this to happen.	ER 13 SR 3.4	<p>There will be greater traffic volumes on the proposed route because it is close to major urban development, compared to routes further west away from the urban areas.</p> <p>Traffic modelling undertaken by DTEI showed that, in general, routes east of Angle Vale would carry greater traffic volumes than routes west of Angle Vale. The traffic level of service expected on the Expressway will be high and it is not expected that trucks will deter other traffic from using it.</p> <p>A funding submission is currently being considered by the Australian Government to provide additional interchanges and ramps – refer to Sections 2.2.2 and 3.2 of this Supplement Report.</p> <p>Additional ramps at Curtis Road, Angle Vale Road and Two Wells Road are now proposed and will make the Expressway even more accessible than the proposed route assessed in the Environmental Report.</p>
PS029.15	You have given us figures for the dollar return on investment for each of the alternative routes and without showing how you managed to get the best dollar return on your preferred route. Since when have governments had to justify dollar returns on investment for major projects like schools, hospitals and major roads?	ER 6 ER Table 5.3 ER 5.1.5 SR 3.3	<p>The economic evaluation of the proposed route is given in Table 5.3 of Section 5.1.5 of the Environmental Report.</p> <p>In general, State and Australian governments undertake economic assessment for major projects to show that they are beneficial in their own right and also, in some cases, that they compare favourably with other projects. This is particularly the case for transport projects where user benefits can be readily determined.</p>
PS029.16	Some local roads in our area will be closed. Some of our property will have no road access. You have not given us any real answers to our very real problems. Other roads in the area will end up attracting much more traffic. No answers have been provided on what exactly you will do to solve the problems caused to the existing road network by the Northern Expressway.	ER 7.4.4	Traffic on local roads closed by the Northern Expressway will divert to other routes. Based on turning volumes at the intersection of Heaslip Road/Petherton Road, it is estimated that 75% of the traffic on Petherton Road east of Heaslip Road would divert to Womma Road (about 2250 vehicles per day (vpd)), and 25% to Curtis Road (about 750 vpd), some of which may use Julian Road (less than 400 vpd). These volumes would not cause significant effects on these roads.
PS029.17	Because of the prevailing winds from the south-east, all the road noise and vehicle pollution will end up over Macdonald Park, Andrews Farm and Elizabeth housing estates. Heavy transport with its exhaust brake noise is being brought into close proximity to existing housing areas which will have greater housing density in the next 5–10 years.	ER 14 ER 21 SR 3.5	<p>In terms of noise, a light wind up to 3 m/s blowing towards a receptor increases the noise level received from the noise source, and wind blowing away from the receptor reduces the noise level received. Therefore, a light south-easterly wind may result in a slight increase in noise to the east of the Expressway.</p> <p>Also note that, as wind speed increases above 3 m/s, the noise level received from the noise source progressively becomes masked by other noises generated by the wind blowing (such as moving trees, rustling grass, etc.). The higher the wind speed, the greater the masking effect. In addition, the noise levels and criteria are calcu-</p>

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			<p>lated as 15-hour and 9-hour averages, and the noise model assumes that over these periods, there is neutral meteorological effect on the noise levels. Road traffic noise levels have been calibrated from existing conditions to account for the existing environmental effects in the Northern Expressway area.</p> <p>DTEI is discussing with Planning SA a change to development assessment policies within Councils to require future development of sensitive land uses to meet noise attenuation standards.</p> <p>In terms of air quality, contaminants will be carried downwind but will disperse so that, at a distance of 100 m from the roadway, the resulting concentrations will be similar to background concentrations (see Section 21 of the Environmental Report). Modelling shows that the effects within 100 m will still be below the accepted levels.</p>
PS029.18	<p>The Federal Minister for Transport, the Hon. Mark Vaile has stated 'I understand selection of the preferred alignment over other proposals was based on consideration of a number of key issues such as the direct impact on residents (i.e. minimisation of the resumption of private property), overall cost, length, performance of the alignment and impact on local community amenity. Another key consideration in selection of the preferred route was the noise impact on residents. It was considered important that noise be minimised to reduce the need to use unsightly sound wall barriers.'</p> <p>The proposed route breaks all the rules:</p> <ul style="list-style-type: none"> • It is not the shortest. • It is not the cheapest or most cost-effective. • It is not the straightest road but the most winding road on the Adelaide Plains. • It separates and divides the communities of Macdonald Park and Angle Vale from their sister communities of Andrews Farm and Elizabeth. • It brings heavy transport to within 200 m of existing housing. • It will severely restrict future housing land availability and proper future planning for the cities of Elizabeth and Munno Para. • It does not have minimal impact on people and communities. • It does not minimise compulsory acquisition of private properties. • It does incorporate several unsightly sound wall and high mound sound barriers. 	<p>ER 5</p> <p>SR 3.4</p>	<p>Section 5 of the Environmental Report and Section 3.4 of this Supplement Report, clearly show that the proposed route was the best route overall in terms of environmental effects, property acquisition, economic benefits and costs.</p>

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	There are alternative routes that would satisfy the Hon. Minister Vaile's requirements in a much better and more cost-effective way.		
PS029.19	<p>The situation for the Northern Expressway is identical to the Victoria Park Grandstand proposal except that we are talking about \$550 million for the Northern Expressway as against \$50 million for the Victoria Park project.</p> <p>The State Government has had to go back to the negotiating table with the City of Adelaide to come up with the best result.</p> <p>We believe the State Government should consult and negotiate with our elected representatives in the City of Playford to ensure we get the best result for our region, and for South Australia, and the best value for the Australian taxpayer.</p>	ER 3	Noted.
PS029.20	For Transport SA, this has been an exercise in building a road. There has been insufficient consideration given to existing communities and future planning for our city. The communities of Macdonald Park and Angle Vale are isolated and separated from major services and their sister communities.	ER 10 SR 4.2.7	<p>The Northern Expressway fits well within the various future strategic plans for the State and for metropolitan Adelaide, as well as within the Australian Government's transport strategy. Careful consideration of all factors resulted in selection of the proposed route as having the least net adverse community effects.</p> <p>It is acknowledged that the Northern Expressway and the resultant closure of Petherton Road will inconvenience and reduce the level of accessibility of a small number of Macdonald Park residents. Travel distance analysis has been undertaken for various communities and likely destinations. These residents will need to travel some extra distance for trips between Macdonald Park and facilities, particularly within the suburbs of Andrews Farm, Smithfield Plains and Davoren Park. The extra distance will vary depending on the resident's location within Macdonald Park, but mostly will range from a few hundred metres up to 2 km.</p> <p>Given that reasonable alternative local routes are available and the relatively high cost of an overbridge on Petherton Road, it is considered that the bridge link is not warranted.</p>
PS029.21	Transport SA has not been straight and honest and has engaged in behaviour far from transparent. We object to being treated in this way.	ER 3.1 SR 4	Refer to Section 4 in this Supplement Report for the details regarding the community engagement process.
PS029.22	This project will deliver a road that will be in existence long after all of us are gone. We owe it to future generations to get this right, not just for now, but for the next 50 years.	ER 40.4.2	Section 40 of the Environmental Report outlines the project's approach to sustainability.
PS029.23	We reject the current proposal. The current proposal does not achieve the best result. There are other better alternatives. Find them!	ER 5	See response to PS029.18.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
PS030.1	Stop northbound traffic on Globe Derby Drive and southbound traffic on Ryans Road. Let us use Daniel Avenue to Martins Road.	ER 7.8 SR 2.2.6	The west-east movement from Globe Derby Park across Port Wakefield Road using Daniel Avenue will be restricted as Daniel Avenue is proposed to be left in and left out only. Also, Ryans Road east will not provide right turn in from Port Wakefield Road. The improvement of safety has been a key element of the scheme development. Northbound traffic will be stopped at Globe Derby Drive to allow left turn out of Globe Derby Drive under signal control. This will allow proximate access to Martins Road to travel east. Extensive traffic modelling has been undertaken along Port Wakefield Road, and the proposed scheme presents the most appropriate balance of safety, operational performance and access. See response to PS037.3.
PS030.2	Where does the school bus go at Globe Derby Park?	ER 7.8	Adelaide Metro advise that school services B (a.m.) and P (p.m.) link Daniel Avenue with nearby schools and the Salisbury Interchange.
PS030.3	Can we have a bus at Globe Derby Park?	ER 7.8	No public bus provision is proposed with the Port Wakefield Road Upgrade.
PS030.4	Upgrade Trotters Drive and move horses to a dedicated shoulder.	ER 7.8 SR 2.2.6	Works are proposed to be undertaken to Trotters Drive to upgrade its current condition. The specific nature of the work will be resolved in consultation with the City of Salisbury and the local community.
PS030.5	Roundabouts are better than traffic lights.	ER 7.8	Noted.
PS031.1	Make Ryans Road a 4-way junction, as it will be too much traffic for Globe Derby Drive and Trotters Drive. We have had trucks etc. in extreme already (illegible text).	ER 7.8	A signalised 4-way intersection would provide unacceptable delay to traffic on Port Wakefield Road and Ryans Road east.
PS031.2	Horses are slipping on the road as a result of the traffic already at a rate of every other day. We have no footpaths on Globe Derby Drive and Trotters Drive, Whites Road or Ryans Road.	ER 7.8	Works are proposed to be undertaken to Trotters Drive and to the service road between Daniel Avenue and Whites Road drain to upgrade its current condition. The specific nature of the work will be resolved in consultation with the City of Salisbury and the local community.
PS032.1	Footpaths needed on Whites Road, Ryans Road, Globe Derby Drive and Trotters Drive.	ER 7.8	The provision of pedestrian footpaths on roads within Globe Derby Park are generally a council responsibility, or for Trotters Drive, the responsibility of the owner of the road reserve.
PS032.2	Public transport	ER 7.8.8	No change to public transport is proposed.
PS032.3	Use local papers so we can get information.	ER 3 SR 4 SR Appendix B	Refer to Section 4 and Appendix B in this Supplement Report which details which local papers were used for notices and advertisements.
PS033	See Proforma Submission A.		See response to Proforma Submission A.
PS034.1	We have been denied any visible basic plans (elevation) of the structure of the proposed bridge over the Gawler River and of the approach and exit roads north of the Gawler	ER 7.2 SR 3.8	Refer to Section 3.8 in this Supplement Report.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	River which pass under the overpass, on the Two Wells–Gawler Road. These roads go through the declared flood plain categories 1,2 and 3, one of which has severe restrictions on any built structures.		
PS034.2	The Executive Summary (p. 18) states that culverts or pipes would be used in certain situations where flood or natural flow of waters would be impeded by the project. However, no one has stated what type of structure. Will it be so low so as to block up, or are the on and off road structures so high that they deflect the roll of water?... If your on and off road is high enough to both stop and deflect this flood break, persons east of Wingate Road on either side will be 'hit', water will be pushed across the Gawler River, down Wingate Road, Hillier Road and Dalkeith and eastwards down Gawler/Angle Vale roads.	ER 20 SR 3.8.1	Refer to Section 3.8.1 (Gawler River) in this Supplement Report.
PS034.3	Not enough information is provided to explain how the project will impede floodwaters, and the actual effects and mitigation around the bridge over the Gawler River. This is why we cannot comment, as you have not presented all of the facts. Surely the bridge and its associated nearby and on and off roads constitutes part and therefore all of the Northern Expressway. This means we can in future present legally, written comments on the bridge over the Gawler River and its nearby roads and its effects on residents.	SR 3.8.1	Refer to Section 3.8.1 in this Supplement Report.
PS034.4	We have not been given any basic costs on the various routes, and a slur has been cast on road users, that they are not intelligent enough to use a more direct (and cheaper) freeway, from the Sheoak Log Road to the Port Wakefield bypass. Once road users took this option, there would be less of a bottleneck for traffic, as would happen at Taylors Road. Thus the heavy transport now using the Two Wells–Gawler Road would also use this freeway thereby saving considerable costs, with a shorter route, less pollution, less noise and less road maintenance on the Gawler–Two Wells Road.	ER 5.1.5 ER 6	Alternative route costs are given in the Environmental Report Section 5, and for the proposed route selected in Section 6. Routes west of Angle Vale would not be economically viable and therefore would not meet the project's strategic objectives. A route from Sheoak Log Road to the Port Wakefield Road bypass would be longer and cost more than the proposed route. See response to PS029.11.
PS034.5	In the future are we going to get another highway that runs east–west, or is there something about which we are not being informed? A huge distribution centre near Roseworthy? Is this why the rail link to Darwin was completed so fast?	NA	There are no known proposals for a future east–west route in the study area outside the northern Adelaide urban areas. A council Draft Plan Amendment Report for the Industry (Kingsford Regional Estate) Zone currently being processed by Planning SA will provide for a wide range of industrial, warehousing, storage and transport land uses.
PS034.6	In the meeting held on 22 March 2007 at the Playford Civic Centre, we were told that no trees are going to be planted along the Expressway, the only exceptions being around the overpasses, interchanges and the Macdonald Park urban area. However, the Executive	ER 7.4.11	Section 7.4.11 of the Environmental Report and the <i>Urban Design, Landscape and Visual Assessment Technical Paper</i> provide details of the Urban and Landscape Design Strategy and indicative landscape concept plans for the Expressway corridor.

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	Summary states that a combination of semi-advanced tree planting, tubestock planting, hydro-seeding and direct seed seeding techniques will be used to establish vegetation along the Northern Expressway.		<p>Much of the landscape planting will be concentrated around the interchanges, where large tracts of land require stabilisation and revegetation.</p> <p>The midblock sections between interchanges will be hydro-seeded using a standard dryland grass mix with a selection of native grass seed added, or with low-growing chenopod species.</p> <p>During the detailed design phase, trees and shrubs may be considered in some areas within these midblock sections to provide visual screening to local residents or to enhance areas of remnant vegetation.</p>
PS034.7	The respondent quoted, from <i>The Advertiser</i> , March 24 2007, Trees for Life Chief Executive, Carmel Dundon who stated that 'planting trees was a simple way to offset emissions because they absorb [carbon] dioxide in the air'.	ER 7.4.11 SR 3.9	<p>Noted.</p> <p>Refer to Section 3.9 in this Supplement Report.</p>
PS034.8	The reasons given for why we need the Expressway include 'reduce the environmental impact of freight transport and commuter traffic on suburban areas, and regional communities.' This is admitting to these problems and you are dumping these on intensive farming communities.	ER 4 ER 5	Improved road infrastructure for freight/commuters is needed. The location of the corridor was selected following detailed investigations which sought to create the optimal solution, balancing efficiency and effects on communities, including rural areas.
PS034.9	We do not wish to see or hear the Northern Expressway traffic. Please place a double line of low branched trees the full length of this Expressway; this would dull sound and pollution would be absorbed by the foliage – carbon banks please.	ER 14 SR 3.9 <i>Urban Design, Landscape and Visual Assessment Technical Paper, Section 4</i>	<p>Section 4 of the <i>Urban Design, Landscape and Visual Assessment Technical Paper</i> provides details of the proposed urban and landscape design vision for the Northern Expressway.</p> <p>A key design principle is to merge the Expressway into the scale and pattern of the local landscape (which is flat with a grid-like layout of existing roads and paddocks). Therefore, the landscape design aims to avoid dense 'corridor planting' that would highlight the curvilinear form of the Expressway through this landscape.</p> <p>Another key design principle is to enhance the journey experience for road users. This will be done by maximising mid-ground and distant views to the Mount Lofty Ranges through the use of low-growing species such as small shrubs, groundcovers and grasses in areas between interchanges. Localised tree planting may also occur in some areas to provide screening for local residents.</p> <p>Trees provide very poor attenuation of noise at low frequencies, which are the predominant frequencies for road traffic noise. The noise reduction of a double line of trees would be negligible, with 100 m of densely planted trees required for any noticeable reduction in road traffic noise.</p>

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PS034.10	The Expressway runs through declared horticultural and agricultural land, where much night works are carried out. Most lights have to be on, many times on high beam, to dodge irrigation hydrants, lines, fences, other machinery and vegetation. We believe that where tractors or other vehicles have to turn 90 degrees or more these lights could momentarily flash across the Expressway, which could be dangerous to oncoming traffic. The Highways (Department) is responsible if this situation arises. Please put in trees or embankments.	ER 7	See response for PS034.6. Many roads (including high-speed motorways, freeways and expressways) in semi-rural or rural Australia are located in areas where farmers carry out work at night.
PS034.11	We have been informed that aircraft use for top dressing or spraying cannot operate near the Sheoak Log Road because of accidents (rubber necks). This might be reasonable where land is not so valuable, or intensively farmed, but in this declared horticultural area where it costs millions to set up a vineyard, thousands for almonds, vegetable seed and fertilisers, exceptions will have to be made, especially in the case where heavy rains prohibit the use of tractors, when there are plagues of insects or where crops are too tall. Downy mildew on vines or fungus infestations on almonds will wipe out one year's work, unless carried out in a few days. This also applies to vegetables – six months' work gone. Put in embankments or plant trees to screen.	ER 7	Aircraft use must be undertaken in accordance with Civil Aviation Safety Authority requirements. Landscape treatment and any provision of mounds will be finalised during the detailed design stage.
PS034.12	<i>The Advertiser</i> reported on goats dying after consuming rubbish blowing from the then new bypass road, Port Wakefield Road, around Virginia. Highways (Department) was held responsible. We are sure that rubbish, particularly plastic bags, will be carried by wind across land between the overpass at Angle Vale Road, north to Hillier Road to end up in our lucerne. We will not be held responsible for deaths, veterinarian bills or any costs incurred by the ingestion of rubbish by livestock coming from this Expressway or the loss of hay by mould or combustion caused by plastic bags containing trapped moisture. Naturally we would seek legal advice and compensation. Plant more tree shrubs that will catch this rubbish.	ER 7	Litter is collected as part of the ongoing maintenance and management activities of DTEI.
PS034.13	Land sited between the overpass at Angle Vale Road, north to Hillier Road is thoroughly infested with the declared noxious weed, caltrop. If the Highways, any contractor or other persons transport this weed seed (which is illegal under the Pest Plant Act) from the above mentioned paddocks, or road verges or anywhere else along Hillier or River Banks roads, legal action will be swift. We grow basic lucerne for some of the top trotting, racing and dressage horses and we cannot sell infested hay.	ER 23 ER Table 41.1	A Weed Management Plan will be included as part of the Environmental Management Plan for the project. General principles that will be adhered to in order to minimise the spread of weeds during construction and operation are provided in Table 41.1 of the Environmental Report.

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PS034.14	If the Expressway blocks any of the existing channels, severe flooding will take place east of the road. If you consolidate two or more channels into one area redirecting this to one or more culverts or pipes, the resulting exit velocity of the water will jet outwards, not only in cut trenches, but also depositing mud and churning up debris onto our land contaminating or killing our lucerne.	ER 20 SR 3.8.1	Refer to Section 3.8.1 (Gawler River) in this Supplement Report.
PS034.15	Wingate Road channel only works if the said channel and pipes are clear of rubbish and the Gawler River is not flooding. Flood reports will state that the river is in full flood, but huge rolls of floodwater are still coming due to cloud bursts into North Para and South Para rivers and along the hills to Adelaide. For any alterations carried out by the Highways Department to these channels or spurs resulting in damage to property and loss of income done by increased water velocity or redirection, we will seek legal advice and compensation.	ER 20 SR 3.8.1	Refer to Section 3.8.1 (Gawler River) in this Supplement Report.
PS035.1	I disagree with the stated aim of the Northern Expressway to 'improve the northern regional economy'. Cutting up currently productive agricultural and horticultural properties will reduce the amount of local produce available in Adelaide (and environs). Thus whilst businesses and economies may be helped at either end of the Expressway, the area(s) it goes through won't be.	ER 4 SR 3.3 SR 3.4	The effects on agricultural and horticultural activities in the study area were considered in weighing up the relative effects of the route options. Refer also to Section 3.3 of this Supplement Report regarding secondary economic effects.
PS035.2	I disagree with the stated aim of the Northern Expressway to 'reduce the impact of freight transport on suburban areas'. Residents who bought properties along Main North and Heaslip roads, knew that they were buying next to a main thoroughfare that may one day be expanded.	ER 5	Noted.
PS035.3	In light of the current drought, and the high likelihood that River Murray-reliant agricultural businesses will have their water allocations cut shortly, commented on the statement that 'The Expressway will improve access to Adelaide for freight transport travelling via the Sturt Highway. This includes freight coming from key areas such as the Barossa Valley and the Riverland.' This statement should be revised to include 'Should there be any Riverland produce available requiring road transportation'.	ER 4	Noted. Freight transport will also be generated beyond the Riverland and will travel through the Riverland.
PS035.4	The project justification read like an excuse for putting the 'main road' in first and then backfilling any empty areas with residential housing and new subdivisions.	ER 4 SR 3.4	The justification of the Northern Expressway is based on a great deal of detailed investigation and evaluation against a number of criteria including environmental effects, property acquisition, economic benefits and costs. Some remaining vacant land in the vicinity of the Northern Expressway is already identified for residential development. No change in zoning is proposed with the Northern Expressway.

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PS035.5	Having lived in the Virginia district for over 15 years, the traffic along Heaslip Road and Port Wakefield Highway has always been during the metropolitan peak hours. Outside of these hours, there are no congestion or traffic flow problems worth mentioning.	ER 4	Angle Vale Road and Heaslip Road carry a high number of heavy trucks such as semi-trailers and B-doubles, which pass through Angle Vale. Without the Northern Expressway and the upgrade of Port Wakefield Road, traffic volumes will increase on these roads and Main North Road: they will not be able to cope with the forecast traffic and will provide a poor level of service for traffic, particularly regional freight traffic to the Port of Adelaide.
PS035.6	A significant buffer zone will be needed either side of the Expressway, as the surrounding area is almost entirely flat and sound always travels a long way from its source.	ER 14	See response to LGS004.10. As outlined in Section 7.4.1 of the Environmental Report, the road corridor will generally be 70 m wide with some sections being up to 100 m wide to accommodate earthworks, landscaped mounds or wider or deeper stormwater drains to accommodate major storm events. Part D, Section 14 of the Environmental Report outlines the approach to managing road traffic noise for the Northern Expressway. The nature of noise treatments adjacent to the Northern Expressway will be determined during detailed design and will depend on the amount of noise reduction that is required to achieve the noise criteria. DTEI is discussing with Planning SA possible changes to development assessment policies within Councils to require future development of sensitive land uses in the vicinity to meet noise attenuation standards.
PS035.7	The air quality in the area(s) on either side of the Expressway will be reduced, as the additional vehicular airborne particulates will be above current levels. This will have a negative health impact on persons living in these areas. The stated point of 'improved air quality for Main North Road' is only made possible by shifting the pollution problem to the Northern Expressway.	ER 21	See response to Proforma A.1.
PS036.1	The Expressway is going to be right next to my property. How extensive will your help be in the reduction of the noise?	ER 14 SR 3.5 SR 4.2.9	Section 14 of the Environmental Report outlines the approach to managing road traffic noise for the Northern Expressway. The Northern Expressway study area is generally characterised by very quiet background noise levels, due to its predominantly rural setting. It is acknowledged that the Northern Expressway will alter the noise environment within the study area. There will be increased traffic noise exposure adjacent to the Expressway and a reduction in noise along parts of the existing network such as Angle Vale Road, Heaslip Road and Main North Road. The nature of noise treatments adjacent to the Northern Expressway will be determined during

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			<p>detailed design and will depend on the amount of noise reduction that is required to achieve the noise criteria.</p> <p>Individual noise treatment packages will be designed for each dwelling that does not meet the specific target noise criteria. The level of treatment will depend on the amount of noise reduction that is required to achieve the noise criteria. An acoustic engineer will be engaged to develop the specific noise treatment measures during the detailed design phase of the project.</p>
PS036.2	<p>The Expressway is going to be right next to my property. How much will my health suffer because of carbon monoxide emissions? Will there be trees and shrubs planted to help with this?</p> <p>The Expressway will pass directly through our property resulting in ... air pollution increasing dramatically.</p>	<p>ER 21</p> <p>ER 7.4.11</p> <p>SR Figures 2.8–2.16</p>	<p>See response to Proforma A.1.</p> <p>Section 7 of the Environmental Report outlines the proposed landscaping scheme for the Northern Expressway. Figures 2.8–2.16 of this Supplement Report indicate typical landscape plantings.</p>
PS036.3	The Expressway is going to be right next to my property. How much will the value of my property and its resale value decrease?	ER 12.3.1	Experience of other major road construction including local projects, such as the South Eastern Freeway in the Adelaide Hills and the Southern Expressway, and interstate experience suggest that purchasers consider the improved accessibility provided by the close proximity of an expressway to be a major advantage. The short period since the announcement of the project has resulted in strong sales and asking prices rather than a diminishing loss in property values.
PS037.1	I support the project especially the route but have some concerns and suggestions.		Noted.
PS037.2	It is disappointing that although the intersection of Port Wakefield Road and Globe Derby Drive is being upgraded, the Mawson Connector is not being linked to the intersection. If the Mawson Connector was linked, it would not only provide an obvious link between Main North Road and Port Wakefield Road, it would take vehicles (especially heavy vehicles) away from the residential area of Parafield Gardens. I realise that it is possible that this may occur in the next upgrade in 2015, but I believe it would be more beneficial to bring this connection forward whether it connects into the Globe Derby Drive intersection or slightly further up Port Wakefield Road.	ER 28	<p>The corridor for the planned Mawson Connector is available between Salisbury Highway and Port Wakefield Road, connecting in south of Martins Road. The Northern Expressway is part of the AusLink network and jointly funded with the Australian Government. The Mawson Connector is a State project and not part of the AusLink network.</p> <p>The Port Wakefield Road Upgrade does not include the Mawson Connector. The Mawson Connector retains its status as a planned project; however, the extensive traffic network modelling indicates that this connection is not needed in the foreseeable future.</p> <p>The proposed works on Port Wakefield Road have been analysed extensively to allow satisfactory traffic operation. Any additional connection such as the Mawson Connector within the proposed life of these works would have a significant negative effect on traffic movement along Port Wakefield Road.</p> <p>DTEI considers that the Mawson Connector is not required/justified within the time frame of the</p>

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			Port Wakefield Road Upgrade component of the project.
PS037.3	I support the idea of making Ryans Road and Martins Road effectively operate as one road with right turn into one and right turn out of the other. Given that this will mean there will be three sets of traffic signals within about 500 m, I call for these signals to be synchronised.	ER 28	<p>The close proximity of signalised intersections on Port Wakefield Road is acknowledged and signal coordination between them is required.</p> <p>Through the design process, intelligent transport system (ITS) initiatives will be developed and implemented as part of this project. This will include the opportunity to link the operation of traffic signals at the southern end of Port Wakefield Road to improve traffic flow.</p> <p>The proposed traffic signals will be coordinated (synchronised).</p>
PS037.4	The intermodal will have an impact on Heaslip Road with the introduction of further heavy vehicles which may travel north along Heaslip Road to enter/exit the Northern Expressway at intersection 2 or may travel to Port Wakefield Road via Heaslip Road and Waterloo Corner Road.	ER 13 SR 3.2.2	An intermodal terminal is proposed for land in the vicinity of Huxtable Road, Taylors Road, Pellew Road and Heaslip Road. Modelling suggests that while this will attract some traffic to Heaslip Road, overall traffic on Heaslip Road will be reduced by the Northern Expressway.
PS037.5	<p>The introduction of left turn only at the intersections of Angle Vale Road [Crescent] and Port Wakefield Road, and Burton Road and Port Wakefield Road is undesirable. It will be dangerous for heavy vehicles that will have to travel the length of Angle Vale Road [Crescent] onto Waterloo Corner Road and then Port Wakefield Road as the roads are narrow and there is a mass of cars and trucks parked on a daily basis along the length of Angle Vale Road (Crescent).</p> <p>The proposal for left in/left out at Burton Road will redirect traffic along Angle Vale Crescent to Waterloo Corner Road. Angle Vale Crescent is a local council road.</p>	ER 28 SR 2.2.6	<p>See response to PS0008.1.</p> <p>Following further consultation with the Burton business community, it is proposed to allow right turn into Burton Road from Port Wakefield Road south for vehicles up to the size of semi-trailers. Right turn out of Burton Road will be prohibited and a safe, alternative access via Angle Vale Crescent and Waterloo Corner Road is proposed.</p> <p>Angle Vale Crescent is a local road; however, it is gazetted as a B-double route from Thompsons Road to Waterloo Corner Road. There may need to be a change to the status south of Thompsons Road to facilitate the northbound movement.</p> <p>The issue of parking on Angle Vale Crescent is a council matter.</p>
PS037.6	I call for Heaslip Road to not be forgotten in the process of installing the Northern Expressway. I call for DTEI to closely examine the intersection of Edinburgh Road and Heaslip Road and the impact of the proposed intermodal.	ER 13 SR 3.2.2	<p>See response to PS037.4.</p> <p>The strategic transport model used to develop the project incorporates official Planning SA data for population and employment forecasts. The model was also adjusted to incorporate other 'projects' that could impact on traffic volumes. This included the proposed intermodal terminal. The project takes these movements into account.</p> <p>The junction of Heaslip Road and Wyatt Road has recently been upgraded including improving the sight distances. When the Northern Expressway is constructed, traffic on Heaslip Road will reduce. It is not considered necessary to make further improvement.</p>
PS037.7	I am extremely sceptical about the removal of right turns on Port Wakefield Road in favour of U-turns. I don't believe that this will make Port Wakefield Road any safer because we will still	ER 28 SR 2.2.6	It is proposed that some right-turn movements be removed. Alternative access would be via alternative road network connections or some U-turn facilities.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	have vehicles having to merge with traffic travelling at 90 km/h. I call for this strategy to be re-examined especially in the instances of Shepherdson Road, Burton Road and Angle Vale Crescent.		<p>There is not sufficient physical separation between all of the existing intersections with Port Wakefield Road to provide them with full standard acceleration and deceleration lanes into turn slots.</p> <p>The safety of vehicles making the right-turn movement across Port Wakefield Road is proposed to be improved through the removal of this opportunity in a number of locations (e.g. Daniel Avenue and Victoria Drive). Where an alternative access is available then this can be made at signalised intersections.</p> <p>Where the local network is fragmented and unable to provide a reasonably close alternative access, U-turn facilities are proposed. The scheme proposes to remove seven existing U-turn or right-turn facilities, adding four U-turn facilities and retaining three uncontrolled right-turn facilities.</p> <p>In addition to this, any U-turn facility will be improved so that vehicles making the turn have the opportunity to accelerate outside the through traffic up to a speed that will make it easier to merge.</p> <p>This issue was carefully examined as part of the project development and concept design. It is considered that U-turns with proper standard acceleration and deceleration lanes are safer than right turns at junctions where there are also in general two conflicting turns: right in with right out, which is not the case with a U-turn.</p>
PS037.8	The intersection of Heaslip Road and Edinburgh Road is dangerous for vehicles turning right from Edinburgh Road onto Heaslip Road. There is very limited sight of traffic travelling north on Heaslip Road due to a residential property. I believe the best option is to introduce a speed limit of 60 km/h on Heaslip Road between Huxtable Road and Waterloo Corner Road. This will make it easier and safer for traffic turning out of Edinburgh Road. I call for the speed limit to be reduced as a matter of urgency.	ER 13 SR 3.2.2	<p>This intersection has not been examined as part of the project. Overall, traffic volumes on Heaslip Road are projected to fall substantially with the project.</p> <p>Traffic volumes on Heaslip Road are reduced by the Northern Expressway. The question of traffic safety and speed zoning on Heaslip Road after the construction of the Northern Expressway will be dealt with by DTEI as part of its regional traffic management process.</p> <p>The appropriateness of and changes to speed limits (and other management controls) are monitored by DTEI regularly in light of traffic operations.</p>
PS038.1	The Expressway will pass directly through our property resulting in noise and air pollution increasing dramatically.	ER 14	<p>Noise – see response to PS036.1.</p> <p>Air quality – see response to Proforma A.1.</p>
PS038.2	Our rainwater will now become contaminated... we will have to buy it (drinking water) just to have something that is safe to drink.	ER 20	See response to RBS001.4.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
PS038.3	Our livestock are in danger of ingesting waste thrown from passing vehicles.	ER 7.4.1	Noted. Littering is an offence. DTEI manages roads it controls throughout the State. The Northern Expressway will have a wide corridor enabling the effective management of litter.
PS038.4	Air pollution from diesel has been scientifically proven to be harmful, especially in young children whose lungs are still developing. According to research, there is no safe level of the PM10 particles found in diesel exhaust. As the Expressway is going to be passing within 1 km of two school campuses as well as a kindergarten, this is a very worrying fact.	ER 21	See response to Proforma A.1.
PS038.5	Road closures will cause residents to travel much longer distances to get to local shopping centres, schools and medical facilities.	ER 10 SR 4.2.7	Also see response to PS029.20. It is acknowledged that the Northern Expressway and the resultant closure of Petherton Road and other roads will inconvenience and reduce the level of accessibility of a small number of residents, and these affected residents will need to travel some extra distance for some trips. The extra distance will vary, depending on the resident's location, mostly from a few hundred metres up to 2 km. Given that reasonable alternative local routes are available and the relatively high cost of overbridges, it is considered that further bridges are not warranted.
PS038.6	Petherton Road which is a major thoroughfare for local people travelling to and from Munno Para will be closed. This will force local traffic onto other roads not necessarily suited to extra traffic volumes, such as Julian Road... If the Expressway must be put through Petherton Road, we need a flyover as is planned for Angle Vale and Two Wells roads.	ER 10	See responses to PS029.20 and PS038.5.
PS038.7	Curtis Road will also have increased traffic due to locals having to use it, as well as the new residential developments and Expressway access.	ER 13	See responses to LGS002.6, LGS002.9, RBS001.3 and PS029.16.
PS038.8	Supposedly there will be access for emergency vehicles to travel across the Expressway at Petherton Road through locked gates. Concerned about the practicality of this and the implications if the crews forget the key or if the lock is rusted.	ER 7 ER 7.8.9 SR 2.2.5	See response to LGS001.11. This issue is being discussed further and in more detail with all emergency services to ensure that their specific response requirements are adequately met.
PS038.9	Many people whose roads flow directly onto Port Wakefield Road will now only be having left in and left out access. They will either have to take back roads to the few roads where they can turn right or they will have to try to do U-turns across increased traffic in designated areas. A large amount of these people have horse or boat trailers and therefore need extra time to get across traffic. There is real potential for an	ER 28	Direct access to Port Wakefield Road, with the additional traffic volumes that the Northern Expressway will generate, is not considered appropriate. There is not sufficient separation between many adjacent intersections to provide adequate acceleration and deceleration lanes. See response to PS037.7.

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (SR)	Response
	increase in accidents from these areas...		
PS038.10	You say the Expressway is going ahead as planned without any changes. Why then are you bothering to take submissions about the environmental impact study (Environmental Report) if you don't plan on taking any notice of them?	ER 3	See response to PS029.

Table A5

Proforma submissions

Submission number	Issue summary	Reference in Environmental Report (ER)/ Supplement Report (S)	Response
Proforma A.1	Concerned about the problem of pollution from vehicles travelling along this road, especially diesel vehicles. The emissions from diesel vehicles have been proven to be harmful especially to children as the compounds released from diesel vehicles stunt the growth of children's lungs. Since there are many children living and going to school close to the Expressway, they will be put at risk.	ER 21	Part D, Section 21 of the Environmental Report outlines the air quality assessment. The air quality objectives for the assessment adopted the NEPM limits which are designed to protect public health, and took diesel emissions into account in defining the PM10 and PM2.5 limits for particulates. The air quality model predictions for the Northern Expressway have determined that the air quality concentrations will not exceed any of the NEPM limits at the nearest sensitive receptor in 2011 and 2021.
Proforma A.2	The number of road closures along the proposed route of the Expressway especially Petherton Road will disrupt the lives of many residents. Closing Petherton Road will restrict access to schools, doctors, hospitals and shopping centres. It will add extra kilometres and time for residents.	ER 10.6	See responses to PS029.20 and PS038.5.
Proforma A.3	Will be subjected to a significant increase in noise pollution. Live in Macdonald Park because of the quiet rural environment. Putting the Northern Expressway here will increase the noise and destroy our quiet location.	ER 14 SR 3.5	See response to PS036.1.
Proforma A.4	Would like to know what type of freight will be transported along the road. Has recently read a newspaper article and believes that another major reason for building the Northern Expressway is for the transport of uranium from Curnamona Province which includes the Beverley mine and the yet-to-begin Honeymoon mine. This being the case, does not believe it is wise to bring the Expressway into such rapidly expanding residential areas as Gawler and districts, Andrews Farm, Munno Para West, Angle Vale, Macdonald Park, Penfield and all towns between Port Adelaide and Curnamona.	ER 13	The Northern Expressway is not being provided for a single specific purpose. It will be a freeway standard road that will be constructed to cater for the full range of vehicles from passenger cars to large freight trucks. The transport of dangerous goods via the national, State and local road networks within Australia routinely takes place for a variety of commercial and industrial applications. It is the responsibility of road users carrying these goods to ensure they are transported safely in accordance with relevant regulations and standards.
Proforma A.5	The proposed location is having serious social effects on the local residents, both those who will lose part of or all of their property and those who will be left living nearby. This is causing stress and disunity within families and social upheaval, which was not present prior to the announcement of the proposed Northern Expressway.	ER 10.6 SR 4.2.1	It is acknowledged that some people may find the process of property acquisition and relocation difficult. Property owners requiring support have been offered counselling. Anyone requiring additional support will be referred to appropriate agencies. Information will be provided via the 1300 Information Line (1300 658 621).