| Ref. | Major Issues - Details | Seeking / Recommending / Clarification | Location of response in Supplementary Report |
|---|---|---|---|
| 1.1 | In the long run the dam will contribute to the extinction of Homo sapiens, through the destruction of wildlife habitat. Given increasing extinction of many species recently, would be sensible to adopt cautionary principle techniques. | The SEIS should adopt a precautionary principle approach; to maintain and restore wildlife habitat lost in the construction of the dam. | 3.5 |
| 1.2 | The development of water infrastructure creates a false sense of security about water supply, assumes rain will automatically fill new infrastructure, which may not be the case. | Recommend that instead of water infrastructure developments, the focus should be on reducing demand on existing supplies though technological innovation measures and a greater use of indigenous plant species to better cope with local climates. This would contribute to ecological restoration, increased biodiversity and long term economic survival and for the Homo sapien survival. | 2.2.3 |
| 1.3 | The proposed dam only reinforces notion that bureaucracies, must do things to justify their existence and enhance their power, so that the dam is not for water but for careers. Making it a mindless approach and a drain on our economy. | Please clarify the need for the dam demand against other options. | Noted |
| 1.4 | If we assume the need for the dam is driven by climate change (via induced drought), the building of the dam will only reduce to incentives towards climate change. Thereby contributing to future climate change disasters. | The EIS should provide more detail on the effects on climate change | 7.5 |
| 2.1 | The proposed placement of the picnic area is very close to the property of 376 Fletcher Rd. The concerns are:<br>- the level dust during construction will cause health problem for resident (chronic asthma) and likely pollution of their tank water<br>- the noise levels during construction will be a major disturbance on them day and night<br>- during operation: increased noise disturbance will be constant from visitors attracted to the area (families, teenagers, school and tourist groups) and increased traffic movement (car, bus, caravan & boat movement if a ramp is built)<br>- the new picnic area may also attract extra noise from overnight campers and party goers, in the unsupervised surroundings of the site<br>- concern of intrusion of property and safety concerns<br>- the proposed location of dam/ picnic infrastructure will impact on the value of their property. | Recommend the proponent to reconsider the location of the picnic grounds. | 11.4.1 |
| 3.1 | Need to ensure that the Emergency Action Plan (EAP) is consistent with local and district disaster management plans. | Recommend proponent to liaise closely with nominated representatives of Emergency Management Queensland to ensure EAP is prepared appropriately. | 19.4 |
| 3.2 | In the development of emergency planning, and especially changes to travel routes for emergency responses to the dam during construction, operations and to the surrounding communities must be in consultation with Dpeartment of Community Safety (DCS) ES. | Proponent will need to liaise closely with DCS during the development of emergency planning and particularly regarding changes planned. | 19.3 |
| 3.3 | Information on temporary and permanent road network changes must be reported to regional DES officers prior to any changes taking place. | All information is to be provided to the DES regional contact officers prior to any changes in road network taking place. | 14.1 |
| 3.4 | No further information is required in relation to state interests expressed in State Planning Policy 1/03: Mitigating the Adverse Impacts of Flood, Bushfire and Landslide. | Recommend in preparation of bushfire management plans, the proponent should contact the DES Regional Manager - Rural Operations, Queensland Fire and Rescue Service regarding advice in the preparation of bushfire management plans. | 19.2 |
| 4.1 | Concerned about the effects of the new dam proposal on the flow of the Severn River, the effects on habitat and on the environment if dam is built. Believes the new dam will restrict flows all year round, and thus destroy current ecology and habitat along the river system, which are already suffering from extinction. Believes the large amount of water being taken out of the river system will cause major damage (the Darling Downs is an example of these effects). | Limit the damage that is being caused to the river system | 7.5.4,<br>8.3.2,<br>11.2.5 |
| 4.2 | The river system has already suffered from increased population and farm run off over the last 100 years | Seeking further information on the effect of farm runoff | Noted |
| 4.3 | Opposes any dams on the Severn River. Believes that Stanthorpe Shire has ample water to survive any drought and the project only favours a percentage. Is deeply concerned about the flow of the Severn River and the impacts of the dam are that can't be mitigated. Suggests that impacts could include halting flow year round destroying the current ecology habitat and result in suffering to animals along the Severn that are currently on the brink of extinction. Also states the proposed dam will be drained dry if farmer in the region have access to it. | | Noted |
| 4.4 | Proposes several alternatives (some of which were described in EIS Chapter 2) such as buying water off or connecting pipelines to Glenlyon Dam, Connolly Dam or Leslie Dam or investigating underground water supply (such as tapping into the Great Artesian Basin). | Provide more information on alternatives to the dam option. | 2.4 |
| 5.1 | The proposed buffer areas is likely to cause significant negative impact and unreasonable economic and lifestyle hardship. Which is downstream of the dam wall on his property (Lot 1 RP 55215), on all of the northern side of Fletcher Road, backing onto the Severn River. | Seek clarification of full details for the buffer area. | 5.1 |
| 5.2 | The buffer area would create issues as the farm is divided by Fletcher Road, the southern side contains a stone fruit orchard, while the northern side has more orchard, two dams, irrigation pipes, pumps, a system of open drains feeding surface water into the dams, and an irrigation system that serves both sides of Fletcher Road. | The impacts of losing sections of land for the dam is critical on farming ability, due to the area's soil type and granite outcrops, increasing the need to conserve sustainable agricultural land (for orchard purposes). | 5.1 |
| 5.3 | The loss of control over the proposed buffer area on the whole of the northern section will have severe impacts to the farm; due to a reduction in number of fruit bearing trees, the area of cultivation retained for future replanting of new varieties, loss of water supply and income.<br><br>The proposed buffer will reduce the assets and result in farm not being viable | Recommend the buffer area along this section be reduced and please provide more information as to the reasoning for the large buffer area below the dam wall. | 5.1 |
| 5.4 | Investigations now show that Lot 1 RP 55215 is now a Remnant Vegetation Control Area, which includes the river frontage that is already an existing wildlife corridor. If a buffer is required for a wildlife corridor and ecological connectivity, is aware that agreements can be entered into... | From this - what is the reason to increase the area of proposed buffer right up to Fletcher Road, including part of road to access his property. | 5.1 |
| 5.5 | The EIS documents the buffer to be around 200 metres around the dam | Please clarify why buffer area is more than 200 metres below the dam right up to Fletcher Road. | 5.1 |
| 5.6 | Does not see the reasoning for a large buffer (greater than the 200m stated to be accepted through the EIS) below the dam wall. States the existence of a Remnant Vegetation Control Area on this part of his block and is an existing wildlife corridor. Believes that if the buffer is required for wildlife corridor and ecological connectivity within the region, existing control should be adequate. Requests that suggested buffer areas be reduced to a reasonable part of the Vegetation Control Area. | Recommend that the suggested buffer area be reduced to a reasonable part of the Vegetation Control Area along the river and that a simple exercise of using the lot boundaries is not adopted. | 5.1 |
| 5.7 | The buffer matter has been discussed with SDRC, but would request departmental officers to inspect the site with Mr Salata, to determine the best possible negative impact his farm and livelihood. | Officers to inspect the site with Mr Salata to determine impacts. | Noted |
| 6.1 | Concerns regarding proposed buffer zone on their property (168 Fletcher Road, RP 902806). Several options for this buffer area have been proposed by SDRC: full or partial purchase of the land or land remaining with current owners however subject to EPA nature reserve agreement. | Preference of options include: 1st pref - retain ownership with unrestricted use of entire property to inundation line, 2nd pref - buffer zone set as a nature reserve but less than 200m (assumed to still have ownership of land), 3rd pref - buffer zone as nature reserve at 200m (assumed to still have ownership of land). Oppose full or partial resumption of land; their reasons for opposing full resumption being the significant amount of time and effort expended to find the property and the inconvenience and costs associated with moving properties and against partial resumption, the amount of land left will be insufficient to maintain existing lifestyle and recreational facilities. | 5.1 |
| 7.1 | Likely profile of imported workers and people who will accompany them (age, gender, household type) expected during construction. | The EIS should include the likely profile of the imported workers and those who are likely to accompany them (age, gender, household type), particularly in the construction employment phase. | 15.1 |
| 7.2 | Housing and accommodation options for workers to reside during the construction stage | The EIS should include details on the options of nearest housing/accommodation options to the construction site, where workers will be likely to reside (e.g. Stanthorpe, Tenterfield, Warwick). | 15.2 |
| 7.3 | Information on workers likely places of residence, in relation to support services and social infrastructure needs (e.g. health, education or like services) and any increase demand that is likely to occur. | The EIS should include information on workers likely places of residence, their projected needs in terms of support services and other social infrastructure and what increased demand for such services is likely to occur. | 15.2 |
| 7.4 | What are the project social impact on Stanthorpe or surrounding towns/communities and their resident populations in terms of recreational and leisure pursuits (taking into account alcohol consumption trends, policing capacity etc). | The EIS needs to address projected social impact on Stanthorpe or surrounding towns/communities and their resident populations in terms of recreational and leisure pursuits (taking into account alcohol consumption trends, policing capacity etc) with consideration of appropriate mitigation strategies. | 15.4 |
| 7.5 | The EIS should address the project impact on surrounding towns/communities and their resident population from a real estate perspective (e.g. what will happen to residential properties in terms of both purchase and rental costs) along with possible ameliorative responses. | Address the project impact on surrounding towns/communities and their resident population from a real estate perspective along with possible ameliorative responses. | 15.6 |
| 8.1 | Too much emphasis has been placed on some of the native flora that may or may not be damaged. Acacia pubifolia and Grevillia scortechinii regenerates readily after disturbance. | | Noted |
| 8.2 | There are a lot unanswered questions relating to Melaleuca williamsii (syn. Callistemon pungens), with it being confused with "Happy Valley" plant. This would indicate a lot more work is needed before statements such as; "the dam site had the largest number of pungens in one area" could be considered correct. | Request that more survey during flowering time is still required. | 10.2.3 |
| 8.3 | There is no point in releasing water for environmental purposes unless all the licensed weirs in the Granite Belt are changed to volumetric licenses and the conditions of the licenses are strictly policed. Otherwise problems would occur where upstream users are not allowing small flows to bypass their weirs and down stream users are using the water released from the dam instead of allowing water to bypass their weirs. Result in net effect of no benefit to the environment and a decrease in the available water from the dam. | | Outside of project scope |
| 8.4 | Question the environmental benefit in constructing the larger dam and the irrigation pipeline. This would result in a very large pumps and infrastructure that is currently only being used sporadically. | Suggest to allow private operators to construct small storages on streams that are not over allocated. To use smaller, more efficient pumping units being kinder to the environment. | Outside of project scope |
| 9.1 | The map on page 5-4 shows other licensed winery premises that are in the catchment area, but does not correctly label the premises on Lot 6 at 257 Fletcher Road as being VINLAND ESTATE. | The location of VINLAND ESTATE to be added to the Figure 5-1 to adequately cover all land uses within the inundation area and surrounds | 5.2 |
| 9.2 | The map on page 5-4 also only shows the 2.6ha vineyard on Lot 6 as horticultural land, failing to show the remaining cultivation areas (currently fallow) on Lot 6 and Lot 7 including .7ha of vineyard on Lot 7 as horticultural land that will be affected. | Include full details of remaining cultivation areas on Lot 6 and Lot 7 that will be affected, as shown in attachment 1 of their submission. | 5.2 |
| 9.3 | Mitigation measures outlined recommend that SDRC review water quality protection measures as part of future Planning Scheme amendments in order to protect water quality within the catchment, but give no indication as to the nature of the amendments required or the likely restrictions that such amendments will have on land outside the buffer area but inside the catchment. | The EIS should provide more detail regarding the nature and impact of the amendments. | 5.3 |
| 9.4 | The management measures to mitigate noise of potential recreational uses of the dam facilities suggests limiting the speed, access time and allowed access areas for the use of motorised boats and bikes | Recommend that boating activities should be restricted to sailboats non-motorised craft and boats with electric motors, and not to permit the use of motorised recreation vehicles such as bikes, 4WDs or ATVs within the buffer zone except within the designated recreation area at the dam site. | 11.4.1 |
| 9.5 | Infrastructure fails to identify the need to maintain safe reliable functional irrigation infrastructure that currently exists to service the horticulture that will remain on VINLAND ESTATE at Lot 6 of RP222897 | Infrastructure that needs to be maintained includes; secure site for pump at all flood levels, access to maintain and operate the irrigation works, protection of irrigation mainline where it crosses the proposed pipeline and Fletcher Road and power supply service to the pump site. | Outside of project scope |
| 9.6 | Properties affected by the Project is referred back to the description of existing land uses of properties in Section 5. | Refer to our corrections to section 5 noted above. | 5.2 |
| 9.7 | Table 14-26 implies that there will be no restrictions on land use or farming practices except in the buffer area. | Further assessment and information is required. | 5.3 |
| 9.8 | The second paragraph, business enterprise impact of construction fails to identify VINLAND ESTATE as being located on Fletcher Road, but identifies other business establishments that are likely to experience less impact from the project. | Include VINLAND ESTATE into this paragraph | 21 |
| 9.9 | Recreational Uses indicates that "The Project may provide some opportunities to separate some of the less compatible water based activities between the Emu Swamp Dam and Storm King Dam." | As stated in 9.4: Motorised recreation vehicles should be restricted or prohibited on and around the reservoir. If the Council has problems with noise and other incompatible activities associated with recreational activities on Storm King Dam, moving those activities to Emu Swamp is not an acceptable solution. | Noted |
| 9.10 | Identification of Sensitive Receptors (page 16-11) incorrectly identifies "R4" as a "hobby farm", as does the title and description of R4 on bottom of page 16-14 is also incorrect and misleading. | Both sections require correction to the property activities; which involves 3.3ha of vineyards producing up to 30 tonnes of wine grapes annually, 8.7ha of mixed horticulture (currently fallow), Lot 6 of RP222897 is the premises for VINLAND ESTATE, licensed to produce and sell wines, and operational base for the vineyards is located on Lots 6 & 7. | 17.1 |

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| 9.11 | Table 16-10 on page 16-22; the title and description of R4 and associated impacts is incorrect and misleading. Proposed vegetation clearing in the inundation areas will create significant change in visual amenity, particularly given the proposed acquisition and removal of the vineyard on Lot 7 and removal of large trees and bush within the inundation area. Lot 7 is high in the reservoir area and relatively flat, hence likely to be subject to significant seasonal variation in water levels, with the expectation that we could be faced with a drowned landscape or mudflats depending on the season. | The title and description of the associated impacts need correcting to reflect actual impacts. | 17.1 |
| 9.12 | The surface water section mentions the potential for motor vehicle pollutants from surface runoff having the potential to compromise water quality, but fails to mention the potential impact of hydrocarbon and human waste pollution from recreational operation of the facility, particularly if the SDRC allows motorised recreation vehicles, powerboats and houseboats on the reservoir. | The potential impacts of other pollutants need to be considered in the EIS. | 8.4.1 |
| 10.1 | SSC indicated at meeting on 2 February 2008, that the principle purpose of the dam was to allow for support of commercial and industrial development in the shire and not to supply additional water to the community or for irrigation purposes. | | Noted |
| 10.2 | There has been no consideration as to whether any further commercial or industrial developments should be required to be water self sufficient of to even have water management plans. Council does not have a water management plan or any proposal to require the town to be water (more) self-sufficient. | It is critical for SDRC to develop plans for water management. | Outside of project scope |
| 10.3 | They are owners of the farm that is the site where the dam is going to be constructed and will suffer very significant loss. And so far have very little confidence in the validity of the arguments that have been proposed to support the project. Examples of the poor logic include;<br>- Absence of a water management plan by local council<br>- Lack of support by local council for use of rain water tanks in the town, which if used effectively would make the town water self sufficient anyway (at cost of $5M rather than $50M plus for the dam)<br>- Obvious gross waste of public funds. | | Noted |
| 11.1 | The statement 'Construction of the dam will not represent a significant change in fish movement opportunities to current' is incorrect. The dam will represent a complete blockage of the Severn River. While existing weirs impact fish movement, there are some fish passage opportunities at these structures during tailwater conditions. | Amend text to reflect the impacts of the dam on fish movement. | 11.2.4 |
| 11.2 | See section 76 G of *The Fisheries Act 1994* , which gives the basis upon which an approval may be issued. There is a "default" position that fish passage will be provided unless there are particular circumstances that warrant its exclusion. | Clarify the legislative requirements. | 1.4.5 |
| 11.3 | Dam description doesn't include headwater/tailwater difference. | Include the estimated headwater/tailwater difference at different flows (e.g. 75%, 50%, 25% or 1 in 0.5 year, 1 in 1 year, etc, also seasonal flows) | 7.2.4 |
| 11.4 | Retrofitting of fish transfer device if monitoring indicates this is needed. The EIS does not make an adequate case that fish passage at the works is not necessary or desirable for the best management, use, development or protection of fisheries resources and fish habitat, hence provision for fish movement via a fishway should be a requirement at this site. | If fish passage is not proposed then information is required that such a passage is not necessary or desirable to provide for the movement of fish across the works | 1.4.5 |
| 11.5 | Stocking of fish in Dam. | The appropriateness of any new proposal to stock would need to be considered against protocols and through a process within DPI&F before a permit to stock would be issued | 1.4.10 |
| 11.6 | Trap and transfer method of fish movement, including during low flow. | DPI&F does not support the use of trap and transfer for providing for fish passage excepting in demonstrably exceptional circumstances. A fish transfer device incorporated in the dam structure (e.g. a fish lock) is generally required | 1.4.5 |
| 11.7 | No information provided on fish transfer after decommissioning. | Clarify how decommissioning would be managed to ensure fish transfer | 3.2.2 |
| 11.8 | EIS not clear as to which barrier structures are confirmed as existing, which will be drowned out, methodology for assessing drown out. | More information needed on drown out characteristics of weirs. At what at FSL etc. Detail provided in technical report (e.g. limits of this table) should be highlighted in table 7-1 of the main report. | 7.2.4 |
| 11.9 | No information provided on flood heights at Ballandean gauge. | Clarify whether this information is available. | 7.3 |
| 11.10 | Diversion of flows during construction. | Fish passage should be provided throughout the construction period and this need to be taken into account when designing and setting up flow diversions. | 11.2.4 |
| 11.11 | Options for creek crossings during pipeline construction. | Directional drilling is the preferred option where possible to minimise disruption to flows and fish passage. Where trenching within the creek bed is employed, waterway barrier works approval under the *Fisheries Act* is likely to be required. | 3.3.2 |
| 11.12 | Need to provide more detail of the environmental release strategy. | Provide details of how flows will be released from the dam; discuss potential downstream impacts of flow regime on fish and propose how these impacts will be mitigated. | 7.5.3, 7.5.4 |
| 11.13 | The comment 'these releases are intended to provide environmental benefits and compensation flows for downstream water users' is not backed up by any evidence. | Provide a discussion on the environmental benefits for downstream water users and the adequacy of the environmental release strategy in maintaining downstream flows, particularly during medium flows along the 12km between the proposed dam and confluence of Accommodation Creek. | 7.5.3, 7.5.4 |
| 11.14 | Concern regarding the statement 'impacts from the dam are localised to between the dam and the confluence of Accommodation Creek. | Identify the impacts on fish and fish habitats along the 12km between the proposed dam and the confluence of Accommodation Creek. Discuss appropriate mitigation measures. | 11.2 |
| 11.15 | The statement ' the dam has minimal impact on the flow regime downstream of Accommodation Creek' downplays the impact of the dam on flow regime. Table (7-22) | Acknowledge this reduction in mean annual flows and the impacts of this on fish and fish habitat downstream. | 11.2.5 |
| 11.16 | Identical to 11.12. | Identical to 11.12. | 6.5.3, 6.5.4 |
| 11.17 | Identical to 11.13 | Identical to 11.13 | 6.5.3, 6.5.4 |
| 11.18 | Identical to 11.14 | Identical to 11.14 | 11.2 |
| 11.19 | The statement ' the dam has minimal impact on the flow regime downstream of Accommodation Creek' downplays the impact of the dam on flow regime. (Table 7-32). | Acknowledge this reduction in mean annual flows and the impacts of this on fish and fish habitat downstream. | 11.2.5 |
| 11.20 | The statement ' construction of dam will not represent a significant change in fish movement opportunities from present' is incorrect. This is due to the difference in scale of the proposed dam (13-18 m height) compared to the weirs upstream and downstream (up to 4.6 m height). Also the change in flow will reduce overtopping flows at downstream weirs and therefore fish passage opportunities around or over those weirs. | | 11.2.4 |
| 11.21 | Need to include provision for fish passage for the whole fish community across construction site throughout construction period. | Include restrictions on changes on water quality of water leaving the construction site, compared to water entering the site. Water generally has high turbidity at weir and dam construction sites, having subsequent impacts on downstream fish habitat. | 11.2.4 |
| 11.22 | Need to include information on:<br>- maintenance of fish passage, with all releases initially directed through fishway<br>- maximise fish habitat values e.g. retention of large woody debris and standing trees at dam edges<br>- minimise fluctuations as far as possible in dam water levels<br>- ensure that fish are able to exit tailwaters to prevent entrapment as flows recede<br>- operate the dam so to ensure that there are no sudden cessations in flow<br>- optimise survivorship of fish going over the spillway<br>ensure that releases made from the dam are from the best quality water, through use of multi-level offtake. | | 11.2, 11.3 |
| 11.23 | Concern regarding the correctness of the statement ' Murray Cod have been introduced into the catchment'. This contradicts the statement in the Technical Report (3.3.1.1, p 21) that Murray Cod were originally throughout the Murray-Darling Basin except for the upper reaches of the upland zone (reference is also missing from reference list).<br>There is insufficient information about barrier effect of the Nundubbamere Falls. | | 11.1.5, 11.1.2 |
| 11.24 | Need to include an assessment of all habitats to be impacted by the dam. | Include an assessment of all habitats to be impacted by the dam, including a summary of the relative proportions of different habitat types in the project region to allow for impacts on habitat diversity to be addressed. | 11.1.2, 11.2.3 |
| 11.25 | Provide more information on the methodology used to model weir drownout characteristics and its possible shortcomings. | Update Table 10-5 | 7.2.4 |
| 11.26 | Need to include a summary of habitat types and potential impacts of the dam during construction and operation on these habitats. | Include a summary of the relative proportions of habitat types to be lost and those habitat types that will remain in the system due to dam construction and operation. The impacts of removal of each habitat type on fish communities should be identified and discussed.<br><br>Include areas of wetland adjacent to the Severn River that may potentially lose function due to insufficient water flows for wetland filling and flooding. | 11.1.2 |
| 11.27 | The statement 'the fish fauna are likely to resemble that in weir pools currently in the system' is likely to be incorrect. The construction of the dam will result in a significant alteration of existing pool habitats. | | 11.2.3 |
| 11.28 | The retention of weirs to trap water as levels recede will need to be balanced with the barrier effect these weirs may have on fish moving in and out of the tributaries. The height of weirs may need to be lowered. | | 11.2.4 |
| 11.29 | Consider the installation of a fishway on the barrier which would open up the 5.5km upstream of the dam to fish passage during flows. | | 1.4.5 |
| 11.30 | Need to identify changes in mean annual flows and the impacts of these changes on fish and fish habitats. | Identify changes in mean annual flows and discuss the impacts of these changes for fish and fish habitats downstream. | 7.5.4, 10.3, 11.2.5 |
| 11.31 | Need to discuss the changes in flow regime on drown-out frequency of weirs both upstream and downstream of the proposed dam. | Discuss the changes in flow regime on drown-out frequency of weirs both upstream and downstream of the proposed dam. | 7.2.4, 7.5.3 |
| 11.32 | The dam may cause significant impacts to fish movement, should a fishway not be installed and the dam be totally impassable. | | 1.4.5 |
| 11.33 | Need to provide evidence of the complete barrier effect of the Nundubbamere Falls downstream on migratory fish. | Provide more information on the falls including photos, behaviour of tailwaters etc. | 11.1.2 |
| 11.34 | The credibility of the drown-out modelling has not been demonstrated. The construction of complete barriers to fish movement is no longer acceptable practice which has changed since the construction of Campbells Weir. Waterway barrier works approval is required under the *Fisheries Act 1994* . | | 7.2.4 |
| 11.35 | No sites on the Severn River were flowing at the time of either survey. | Provide comment on the limitations of the survey e.g. drought conditions, lack of replicates, available/accessible sites, equipment used etc. In particular, how the system behaves during flow events such as weir drownout, operation of high flow bypasses and movement of fish at these times. | 11.1,<br>Appendix G |
| 11.36 | Include details of the relative proportions of different habitat types in the project region, to allow for impacts on habitat diversity to be addressed. | | 11.1.2 |
| 11.37 | Anomalies in water resource development data should be highlighted out in the main body of the EIS. | | 7.4.3 |
| 11.38 | High flow bypasses at the weirs at 269.9km AMTB and 270.6 km may be used as bypasses by fish as well. | | Noted |
| 11.39 | Modelling limitations need to be highlighted. | | 7.4.3 |
| 11.40 | The degree of change from pre-development is beyond the DNR & W 2/3 rule of thumb. It appears the system is already being exploited above sustainable levels. The dam will exacerbate any existing unsustainable management of flows. | | Noted |
| 11.41 | The statement 'Nundubbamere Falls would be impassable at any low' appears to be based on the HECRAS modelling of the other weirs. This assumption is very coarse, as the drown-out characteristics of the falls depend on channel conditions at and below the falls. | Explain how fish passage may occur before drown-out of the falls in the EIS. | 11.1.2 |
| 11.42 | The statement 'southern purple-spotted gudgeon is not known to migrate' is incorrect. This species has been recently trapped in the Paradise Dam fishway on the Burnett River indicating that they will move upstream. | | 11.1.5 |
| 11.43 | The statement ' Murray Cod formerly present throughout the Basin except the upper reaches of upland zone tributaries' contradicts the statement that cod were not present in the Severn River catchment and are an introduced species in section 10.3.2. | | 11.1.5 |
| 11.44 | Agree with the statement 'one way movement of fish may eventually isolate gene pools and jeopardise local populations. | | Noted |
| 11.45 | Fish movement should be catered for at all times that there are flows across the dam site. Fish trapped within the site need to be salvaged and relocated. | Develop management actions to minimise the impacts on fish movement and fish at the dam site. | 11.2, 11.3 |
| 11.46 | There should be a commitment to provision of downstream flows and maintenance of fish passage during the filling stage (should it be required). The commitment should acknowledge that the filling phase may extend for much longer than one year. | | 11.2.3 |

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| 11.47 | The statistics on the impacts of flows in Table 13 and 14 show that impacts on flows are significant and compounding an already significantly impacted situation. | | Noted |
| 11.48 | Comment has been removed on Qld Fisheries request, 3 September 2012. | | N/A |
| 11.49 | Need to acknowledge that migration and movement are terms that are used interchangeably, but that they should not be. | Acknowledge that migration and movement are terms that are used interchangeably, but that they should not be. | 11.2.4 |
| 11.50 | New stocking proposals will need to be undertaken under a general fisheries permit issued under the *Fisheries Act 1994*. | | Noted |
| 12.1 | In section 1.8.2 - page 15, the 2nd sentence states "a permit is required under the *Transport Infrastructure Act* (TIA) to work in or interfere with a State-controlled road". It is not clear under which section of the TIA approval will be given, i.e. for upgrading of the intersection of Fletcher Rd with the New England Hwy. | Section 42 TIA deals with this situation and can be provided if DTMR is satisfied the intersection design adequately deals with the traffic requirements for the project | 14.1 |
| 12.2 | Once an agreed preliminary design for the intersection is completed, the proponent should also ensure road reserve requirements are sufficient to accommodate the layout. | | 14.2 |
| 12.3 | Section 1.8.2 - This section also states permits will be required to construct pipelines in the New England Hwy road corridor | The Proponent needs to clarify whether project pipelines constitute "public utility plant". If so, AWE provisions in the TIA would not apply, rather s77-83 which empower the Chief Executive administering the TIA to set requirements regarding the presence of public utility plant in the road reserve | Appendix C |
| 12.4 | If the Irrigation Pipeline is constructed by a private consortium, the status of that pipeline network should be clarified (whether it will be considered a "public utility plant" or not) as this will have a bearing on which section of the TIA apply. | Appendix B: Statutory Permits and Development Approvals page 2 should be amended accordingly | 1.5.2 |
| 12.5 | Page 19 - The 2nd last paragraph indicates the pipeline will be buried approx 1m with cover a minimum 600mm. | Proponent should liaise with the MR district office about their requirements for depth and cover of pipe in the road reserve and method of crossing roads (e.g. boring rather than trenching). Reference should also be made to the DTMR "Road Planning & Design Manual" available on the MR website under: Suppliers & Partners >Technical Publications> Technical Reference Centre | 3.3.2 |
| 12.6 | Road Link Impact Assessment: p18, the last paragraph on the page asserts the traffic analysis finds the intersection operates within the acceptable Degree of Saturation range, stating that there is considerable spare capacity and no other remedial works are required to improve the intersection performance. However under Table 13-15 the text suggests several safety and accessibility measures. | Given the Fletcher Rd/New England Hwy intersection has vertical and horizontal alignment constraints, the proponent should liaise with the District Office to ensure the proposed intersection treatment adequately deals with road safety and traffic efficiency impacts resulting from project construction and operation traffic. | 14.2.2 |
| 12.7 | Road surfacing requirements for the intersection should also be discussed and agreed to. | Discuss and agree to road surfacing requirements. | 14.2.2 |
| 12.8 | This section does not provide sufficient written justification for proposing the AUR intersection treatment is the appropriate solution to mitigate project impacts and adequately provide for traffic during the construction and operational phases. | Main Roads believes the CHR(S) is more appropriate than an AUR configuration as discussed in Chapter 13.4.2 of DTMR's "Road Planning & Design Manual". | 14.2.3 |
| 12.9 | Operational Phase Traffic Impact: p20, the 2nd paragraph indicates that Fletcher Rd intersection will be upgraded upon commissioning of the dam. Main Roads is concerned that leaving the upgrade until completion of the dam will not address traffic impacts during construction of the project. | To ensure road safety and efficiency of the intersection during the construction phase the intersection should be upgraded at commencement of construction of the project | 14.2.1 |
| 12.10 | No other sections within the EIS appear to discuss requirements for ongoing access from state-controlled road reserves to the pipeline "right of way" for maintenance purposes. Main Roads is concerned that unplanned for access/egress by pipeline maintenance personnel to/from the road reserve, for example, in places with poor visibility, may affect road safety. | Ongoing access requirements for pipeline maintenance should be discussed with the district and agreement on safe operations should be documented in the EMP | 14.3 |
| 12.11 | It is unclear in the EIS whether existing patterns of haulage of water throughout the district will change (increase or decrease) under different project/pipeline development scenarios, for example if the irrigation pipeline does not proceed or a temporary failure in water supply develops. | The EIS should briefly discuss any potential for change in water haulage patterns on state-controlled or local roads as a result of the project, to scope any potential significant increase in impacts on road safety or efficiency. | 14.4 |
| 12.12 | In section 13.2.3 Potential Infrastructure Impacts & Mitigation Measures (page 22) - This and subsequent sections discuss in the road corridor alongside other services such as telecommunications and power. Services in road corridors may limit Main Roads ability to maintain and/or widen state-controlled roads. It is understood that preliminary surveys of proposed alignments for pipelines in road corridors have been conducted. | The proponent should liaise with DTMR Warwick office as early as possible regarding proposed locations of pipelines in road reserves to ensure the potential for conflict of pipe alignments with other services in the road corridor is minimised. | 14.2 |
| 12.13 | Need to provide plans to DTMR. | Once pipelines are constructed, the proponent must provide Main Roads with "as constructed" plans. | Noted |
| 12.14 | While the EIS focuses risk assessment on the project site, it does not appear to address the potential risk in the road reserve of a) pipeline rupture from structural faults, b) accidental damage from vehicles, c) intentional damage/vandalism resulting in rupture. | This section and the EMP should assess these risks and suggest appropriate mitigation responses where appropriate. | 19.1 |
| 12.15 | Transport and Roads EMP: The Performance Criteria section focuses on impacts during the construction phase, although the last dot point: "Corrective measures implemented in response to traffic impacts subsequent to construction works" alludes to but is not explicit about post-construction impacts. | The final EMP should explicitly deal with project traffic impacts both for the construction and operational phases, ensuring adequate levels of road safety and traffic efficiency are maintained. | 14.3 |
| 13.1 | Insufficient detail is given in the EIS on the effects of raising the Storm King Dam wall to meet Stanthorpe's demand for water. | | 2.4 |
| 13.2 | No consideration given to the construction of a new wall downstream of the existing Storm King Dam structure as means of increasing water supplies for Stanthorpe. | | 2.4 |
| 13.3 | The proponent should consider investment in additional demand management techniques before consideration of major infrastructure projects. These include water use efficiency techniques in the irrigation industry, options for storm water use, recycling, compulsory retrofitting of domestic water saving devices and rainwater tanks. | | 2.2.3 |
| 13.4 | The economic costs of the damage caused by detrimental ecological, hydrological and geomorphic impacts from flow regulation are consistently underestimated (assumed that the submitter is referring to the EIS). | The proponent to address the magnitude of economic impact of the outlined impacts in an SEIS. | Outside of project scope |
| 13.5 | The proposed storage is relatively shallow and subject to high rates of evaporation in summer months making the proposed storage inefficient and the water yields relatively expensive. | | Noted |
| 13.6 | The proposed dam will sever the bioregional corridor identified in the EIS and undermine measures (set forth by the QEPA / QPWS's Biodiversity Planning Assessment) to protect and conserve biodiversity. | | 10.5 |
| 13.7 | The mitigation measures proposed in the EIS will take considerable time and are not sufficient to reinstate the corridor, maintain habitats and ensure wildlife can move and migrate freely and safely within the New England. | The proponent should be aware of this impact and realise that proposed mitigation measures are insufficient. | 10.5.2 |
| 13.8 | The community is becoming increasingly angry with actions that demonstrate a total disregard for valuable knowledge, informed community input and genuine participation in consultation outcomes. | The proponent to acknowledge the perceived shortcomings of its consultation process. | Noted |
| 13.9 | The proposed mitigation strategies for matters of national environmental significance (MNES), particularly those for the inundation area and downstream from the dam wall are vague and inadequate to meet the condition (to provide a stand-alone report that exclusively and fully addresses MNES) and protect these conservation values. | The proponent to provide adequate and descriptive mitigation strategies for MNES | Appendix H |
| 13.10 | Surveys are required to determine the range and full extent of populations of the freshwater turtle *Elseya belli* . | The proponent to perform further surveys to determine the range and full extent of *Elseya belli*. | 11.1.4 |
| 13.11 | Additional work is needed to determine whether the *Elseya belli* species found is the same species as the one found in northern NSW or is genetically distinct. | The proponent to perform additional work on *Elseya belli*. | 11.1.4 |
| 13.12 | The EIS makes no reference to the possibility nor the potential for the *Elseya belli* to be listed it in its own right if found to be a different species. | Reference this possibility in the EIS. | 11.1.4 |
| 13.13 | The EIS does not discuss how the interaction between identified barriers and fish migration could affect native fish in the study area. The combination of this with introduction of predatory species, altered river flows and cold water pollution due to the project should be described in terms of its disastrous impact. | The proponent should detail properly the impact of the project on native fish. | 11.2 |
| 13.14 | The project will create conditions that will undermine the objectives of the Native Fish Strategy. | The proponent to note how the project undermines these objectives. | 11.2.6 |
| 14.1 | The EIS relates only to the proposed dam site and pipelines and does not take into account its impact on the entire district. | | Noted |
| 14.2 | A secure water supply will allow more development of small lifestyle blocks. There is a conflict of land use between preserving the iconic nature of the remnant vegetation in the district and any future development. Construction of Emu Swamp Dam will encourage housing development and eventually a cap will be required (i.e. eventually water will be a major constraint to population growth again even with Emu Swamp Dam in place) | The proponent to note. This comment follows directly after 14.1 however, the EIS details that the extra water will support future planned land use development. Submitter is using this comment to build a case against dam development. | Noted |
| 14.3 | The irrigation component will not increase viability for small farmers - it will only benefit a few large-scale corporate agri-businesses that are able to afford the scheme and who bring only small benefit to the community. | The proponent to justify statement made in Section 14.3.5.2 (opposing submitter's comment) in SEIS | Outside of project scope |
| 14.4 | The farms have already taken their fair share of overall available water through large on farm dams - this overland flow capture already diminishes the Emu Swamp Dam capability. | The proponent to acknowledge the effect of the on farm dams on the capability of Emu Swamp Dam. | Outside of project scope |
| 14.5 | The larger footprint at Emu Swamp of additional 10,000 ML [actually is 6,500 ML] for irrigators will damage a larger amount of vulnerable ecosystem. | | Noted |
| 14.6 | Proposed purchase of cleared farm land within 20km of the dam site, to rehabilitate and compensate for the loss of valuable ecosystem, is flawed due to the difficulty of rehabilitating fragile granite soils disturbed by farming or mining. | | Appendix I |
| 14.7 | The extra water allocation (irrigation component) would be too expensive pump very far from the dam and would only be exploited by a few already rich irrigators. | | Noted |
| 14.8 | Any growth in the Stanthorpe district needs to be truly environmentally sustainable with little to no further impact on the high percentage of remnant vegetation left in the past due the rocky granite terrain. | | Noted |
| 14.9 | Potentially disastrous compensation claims by the irrigators from the Government could occur in future extreme drought conditions due to the urban requirements overshadowing the needs of irrigators. The legal document would be cumbersome and expensive to the Government. | | Outside of project scope |
| 14.10 | The irrigation component of 10,000 ML [actually is 6,500 ML] is not viable, as the environment further downstream is entitled to its own water rights, already denied by excessive overland flow and weir capture in the Granite Belt. | Proponent to acknowledge impacts on downstream users. | 7.5.4, 10.3.2, 11.2.5 |
| 14.11 | The community at large should have priority to any extra allocation. | Readdress its water policy. Don't proceed with the Irrigation component of the project. | Outside of project scope |
| 14.12 | Agri-businesses should not be allowed to destroy valuable ecosystems that are not contained within their own boundaries. | Refer to the submission for context | 2.3,<br>20 |
| 14.13 | The irrigation pipeline, which is proposed to be laid along many roads and laneways of the district will further damage the remnant vegetation and its valuable ecosystems. This is a failing of the EIS in which the submitter believes is wrong, lacking and irresponsible of the Government. | | 10.8 |
| 14.14 | The submitter is disappointed by landowner consultation approach. At no time have all landowners been brought together at a common meeting. The divide and rule approach can keep information at a minimum to individuals, e.g. are landowners going to be treated equitably for compensation? | | 1.2,<br>Appendix A |
| 14.15 | Submitter feels he has the right to stay on his land adjacent to the buffer zone. Part of his land is covered by the buffer zone and would like that part to be a wildlife refuge encumbrance, with the remaining land to stay in his possession. | The proponent to let the submitter keep his land. | 5.1 |
| 14.16 | Compensation for any acquisition, no matter how generous, will still be valued at the pre-dam price. Construction of the dam will increase the value of the adjacent land and any compensation should take that into account. | The proponent to offer compensation at post-dam prices. | 5.1 |
| 15.1 | The submitter recommends (based on his professional experience) that the clearing of the storage area be completed before the completion of the dam wall. The dam of that size can be filled in one rain event and effect of organic matter on water quality is adverse. Also snags within the water are undesirable from recreation perspective. | | 3.3.1 |
| 15.2 | Future herbicide usage may be deleterious to urban water supply, and planning for restricting herbicide usage should be under way now. | Information from North Pine Dam be consulted as a useful historic guide. | Outside of project scope |
| 15.3 | The bed load in the Severn River is largely coarse granitic sand. This material could be excavated during periods of low supply level, thus extending the useful life of the storage. | | 4.7 |
| 15.4 | The statement "There are mountains on either side of the Severn River at the proposed dam location" is not a valid description. | | 4.1 |
| 16.1 | Surveying maps indicate that a buffer area is planned between the picnic area and our property. We are concerned for the likely increase in noise, visitors (families, teenagers, school groups, tourist groups and boating enthusiasts), vehicle movement (car, bus, caravan, boats) at all hours of the day. From this increased activity we think it is fair to assume that party groups will enjoy the unsupervised surroundings and although camping is prohibited at Storm King Dam, overnight campers can be often observed. With no law enforcement close by, the grounds lend themselves to a certain kind of abuse, meaning a threat to our security and safety. | Suggest that the picnic area or our property be fenced with an aesthetically appropriate secure fence to keep out intruders. | 15.3 |

| Ref. | Major Issues - Details | Seeking / Recommending / Clarification | Location of response in Supplementary Report |
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| 16.2 | 2nd last paragraph (16.2.4) states "In the long term a range of tourist and recreation uses may become available on the water and the surrounding land. These additional land uses could be considered beneficial in adding to the variety and interest in the landscape increasing public access to elements that are currently largely unseen, inaccessible and private." Because of our age, personal safety is of a real concern to us. | Suggest that the picnic area or our property be fenced with an aesthetically appropriate secure fence to keep out intruders. | 15.3 |
| 16.3 | Concerned for the level of noise associated with water crafts, jet skies etc being used on the dam and racing past our property. We have observed the activities at Storm King Dam, and the noise emanating from the visitors, power boats and jet skies at all hours of the day (and night) is extreme and highly unpleasant. Both Table 14.36 and 16.2.7 do not allow for any mitigation measures to alleviate this probable impact. | Suggest that water crafts only be allowed on Storm King Dam and for Emu Swamp Dam be restricted to only non-motorised water craft. This would further enhance the appeal of the Emu Swam Dam as an alternative recreational venue encouraging a broader range of activities in the Stanthorpe region. | 11.4.1 |
| 16.4 | Figure 13.3 highlights that vehicles accessing the construction site will be immediately beside our property, bringing increased noise and dust despite all proposed mitigation measures set out in 13.1.6. We are concerned that the existing measures have not responded to the impact on us, as raised here and later in 14.3.5.3 (Socio-Economic - Residential Uses) states "The use of Fletcher Road by construction vehicles and the haulage of construction materials could also impact on the amenity for local residents, particularly from increased traffic noise and dust." | Suggest that the access road to the construction site, be located on the same site as the final access road to the recreation area. The proposed recreation area access road joins Fletcher Road approximately 350m past the entrance to our home. | 13.3, 15.5 |
| 16.5 | The programmed blast frequency is one blast per day in the afternoon to minimise disturbance on neighbours. | Suggest that the mitigation measures will be strictly adhered to during construction and that possible additional measures such as a monitoring station and temporary acoustic screens are installed.<br>That we are provided with the supply and installation of appropriate thermal double glazed window/doors and ducted air conditioning unit throughout the house. To enable us to close our home to the dust and outside noise, especially at night and during summer months. | 11.3 |
| 16.6 | The EIS Summary stated that "concrete batching at night during the Left Half RCC Wall Construction exceeded the night time noise goal at one sensitive receiver." It is conceded that during this period of three months, when the RCC Wall construction is being undertaken, the nightly noise levels will exceed the night time noise goal. | Suggest that the mitigation measures will be strictly adhered to during construction and that possible additional measures such as a monitoring station and temporary acoustic screens are installed. That we are provided with the supply and installation of appropriate thermal double glazed window/doors and ducted air conditioning unit throughout the house. To enable us to close our home to the dust and outside noise, especially at night and during summer months. | 11.3 |
| 16.7 | "The Project will occur in stages so the potential impacts of the construction phase will vary accordingly. The likely sources of impacts on landscape character and visual amenity include - construction of temporary works and other activities within the inundation area.." We are concerned by the potential cumulative impact of noise, dust and light during the night. | Suggest that we are provided with the supply and installation of appropriate thermal double glazed windows/doors and ducted air conditioning unit throughout the house. | 17.2 |
| 16.8 | As our home is the closest sensitive receiver to the dam, our lives will be disturbed by the ongoing noise of construction equipment, blasting, batching and crushing around the clock. The suggestion that we should keep our windows and doors closed for well over a year to escape the intruding noises is unreasonable. | Suggest that we are provided with the supply and installation of appropriate thermal double glazed windows/doors and ducted air conditioning unit throughout the house. | 11.3 |
| 16.9 | Buffer Area: states: "The Nature Refuges will be managed by the landholders to comply with conservation agreements negotiated with EPA." | Request further clarification on the implications of the statement. Would we be responsible for the buffer area and nature strip alongside our property? | 5.1 |
| 16.10 | Urban and Irrigation Pipelines and Potential Irrigation Properties: 2nd paragraph states: "The proposed pipelines are generally to be located within State or SDRC controlled road reserves." Concerned if the pipeline extends past our property access & is above ground, how can aesthetic look be achieved? It is also likely to devalue our property. | Request further clarification on the proposed location of pipelines. Which side of Fletcher Road, whether it will be under-ground or above-ground. | 1.4.6 |
| 16.11 | Operation: The potential noise impact, states "not expected to exceed EPA guidelines", which does not mean that is a certainty that the noise levels will not exceed those guidelines. The sheer number of heavy machinery makes it certain that noise impact will be substantial - due to the closeness of our property to the construction site. | Recommend that the access road to the construction site, be location on the same site as the final access road to the recreation area, which joins Fletcher Road approximately 350m past the entrance to our home. | 11.2.3 |
| 16.12 | Page 11-1 states: "The project has the potential to generate air quality impacts at sensitive receivers as a result of construction works. There will be no significant air emission contributions from the operation of the project." | We disagree with this statement. How can a construction project which involves the movement of soil, blasting activities etc not impact on the air quality in the surrounding area? | 12.1 |
| 16.13 | Air Quality Guidelines (11.2): We appreciate that an air quality policy has been adopted to achieve NEPM goals, the adopted 120 mg/m2/day figure is still unacceptable in our case as my wife suffers from asthma. | Recommend that air quality monitored at our property on a continuous basis and the health of my wife be considered and the mitigation measures proposed in 17.2.5 "Dust from waste stockpiles will be managed through measures such as water application, or other temporary stabilisation techniques" - be strictly adhered to. | 12.2 |
| 16.14 | Construction Activities and Air Emissions Sources (page 11-8, table 11-3) - It is clear that various construction activities will impact our daily lives. Of particular concern is the stockpile situated only 50m behind our property. The approaching and unloading of heavy vehicles would create noise and dust movement close to our property.; | To take control measures to counter wind erosion by wetting the stockpile on a daily and regular basis or shifting the stockpile to another location. | 12.2 |
| 16.15 | General Dust Generation: Dust will also be generated from excavation of rock and overburden, drilling and blasting operations, clearing trees and topsoil, sand screening, the concrete batch plant, haul trucks, the dam wall construction, inundation area clearing and pipeline construction. | Suggest that we are provided with the supply and installation of appropriate thermal double glazed windows/doors and ducted air conditioning unit throughout the house. | 12.2 |
| 16.16, 16.17, 16.18, 16.19 | Diesel and Smoke Emissions: Diesel emissions from haul trucks and water trucks will impact us directly as will the burning of trees/timber during clearing works (17.3.2). The burning of cleared vegetation will generate CO, Nox, PM10 and odour as the EIS states. | Suggest that we are provided with the supply and installation of appropriate thermal double glazed windows/doors and ducted air conditioning unit throughout the house. - all mitigation measures are implemented as indicated in 11.4.5, - advance warning of burn events is required to enable us to remove washing from the line, close windows and to prepare accordingly, - to reduce the speed limit of haul trucks to 40 km/hr not only on-site but also on Fletcher Road and access roads to reduce diesel emissions and wheel-generated dust | 12.2 |
| 16.20 | The project proposes noise level between 52 - 58 dB(A). This proposed night time construction noise level assessment criterion is unacceptable. Currently measured night noise level is between 22 and 26 dB(A). To accept and increase from 26 dB(A) to 52dB(A) is more than double the present level. | As indicated in 12.3.4 where ERAs are proposed, detailed noise impact assessment be required by SDRC. | 11.1 |
| 16.21 | The project proposes noise level between 52 - 58 dB(A). This proposed night time construction noise level assessment criterion is unacceptable. Currently measured night noise level is between 22 and 26 dB(A). To accept and increase from 26 dB(A) to 52dB(A) is more than double the present level. | - A noise monitor be installed near the house during the construction period to produce evidence of noise levels created. | 11.1 |
| 16.22 | The project proposes noise level between 52 - 58 dB(A). This proposed night time construction noise level assessment criterion is unacceptable. Currently measured night noise level is between 22 and 26 dB(A). To accept and increase from 26 dB(A) to 52dB(A) is more than double the present level. | Suggest that we are provided with the supply and installation of appropriate thermal double glazed windows/doors and ducted air conditioning unit throughout the house. | 11.1 |
| 16.23 | Defines the maximum noise levels for blasting activities "(a) must not be more than 115 dB (linear) peak for nine out of any ten consecutive blasts, regardless of the interval between blasts; and (b) must not exceed 120 dB(linear) for any blast." | 1. Prior warning needs to be given before each blasting - as one of the landholders wears a hearing aid and could be adversely affected.<br>2. The sound level must never exceed 120 dB<br>3. That a maximum charge size of no more than 5 kg to be adopted and the noise levels constantly be monitored<br>4. That a temporary sound barrier be erected between the construction and our property to filter the noise levels. | 11.2.2 |
| 16.24 | From comments made on page 7, 9 & 13. We are concerned of the foundation of our home becomes unstable or shifts in any way because of the disturbance of soil & blasting works, or raising groundwater during rainfalls, who will be responsible for any structural damage? | We would like a written assurance that the major stakeholder's insurance will cover any such event. | 11.2.2 |
| 16.25 | There is potential of blasting materials falling on our property or even our home. | We would like a written assurance from the major stakeholder that its insurance will cover any such event and that materials on our property will be removed and our grounds reinstated to its original condition by the stakeholder/contractor. | 11.2.2 |
| 16.26 | Construction traffic is estimated at 30 heavy vehicle movements per day over 12 hour periods. Total traffic generated during construction phase is 370 light vehicles. This appears to be understated, and does not seem to be a true estimation, considering the site office will be located just beyond the boundary of our property. Fletcher road is too small to cope with heavy vehicles and is unsafe. | The road need to be widened before construction to avoid any potential accident happening as a result of the increased traffic. - A temporary sound barrier be erected between our property boundary and Fletcher Road. | 14.2.2, |
| 16.27 | Concerned by the noise generated by truck reversing devices during construction and at the stockpile. Depending on how close the trucks are, the noise of the reversing device would affect one owner's hearing aid & create ongoing nuisance sound in our home | Recommend that 'smart alarms' which adjust the volume depending on the ambient level of noise or to be replaced with 'broadband' or 'quacker' alarms to operate with less annoying sound. | 11.3 |
| 16.28 | As stated previously, we are concerned regarding noise and security/safety aspects of the picnic grounds and for the management of measures controlled by the SDRC and the development of the management plans. | Recommend that we be consulted and involved in the development of the management plans in regards to access, noise levels, recreation area and animal management. | 15.3 |
| 16.29 | Regarding the construction of the Left Half RCC Wall, our sleep disturbance criterion will be exceeded at the closest sensitive receiver. We recommend the following: | 1. That a consultation and communication process be agreed upon prior to construction commencing;<br>2. That if previously established mitigation measures prove to be ineffective then temporary relocation will be considered, especially during the months of the Wall construction. The temporary accommodation should not be too far away from our property, as we would need to check our home on a daily basis. All necessary outgoing costs (i.e. rent, motel costs, fuel etc) be reimbursed to us. | 11.3 |
| 16.30 | The dust will most likely contaminate our water supply, because of dust settling on the roof, rain will wash the dust into our tanks. | Recommend constant monitoring and sampling of our water supply to ensure personal safety. We also request a written assurance from the Local Council that our drinking water will be replaced with town water in case of dust contamination in our rainwater tanks and following the completion of the construction that our rainwater tanks be professionally cleaned - all to be completed without any financial encumbrance to us. | 12.2 |
| 16.31 | The present SDRC Planning Scheme defines in 5.21 the Material Change of Use in the Community Infrastructure Zone and the acceptable solutions. | We request a guarantee that no access road will be constructed past our property and that no buildings designed for public use will be built in close proximity to our property line. | Outside of project scope |
| 17.1 | The EIS is contradictory, inconsistent & inadequately justifies the proposed projects claimed urban need. As the project claims to meet future urban water demand, while the EIS states that Stanthorpe's urban population will be constrained & industrial & other non-residential users of water will gain increasing benefit from the proposed dam over time. | Recommend the EIS must identify & comprehensively address any potential environmental impacts from the end use of water provided by the proposed project, including urban, industrial, all other non-residential uses of water. | 2.2.2 |
| 17.2 | Stanthorpe's primary growth sector is not urban, but rural residential property developments that largely are not connected to town services & are predominantly water self reliant, casting additional doubt on the proponent's urban water demand projections. | Further rationale to validate additional urban water supply is needed for the EIS to adequately address issues associated with change of future water use. | 2.2.2 |
| 17.3 | Of concern is the EIS adoption of South East QLD Regional Water Supply Strategy (SEQRWSS) & the South East QLD Regional Plan (SEQRP) water demand planning frameworks, which the key priorities are to meet rapidly growing urban development demands, which is clearly not the case in Stanthorpe as the EIS itself states that Stanthorpe's urban water demand will decline over time. | Further rationale to validate additional urban water supply is needed for the EIS to adequately address issues associated with change of future water use. | 2.2.2 |
| 17.4 | The EIS fails to identify or address a wide range of issues associated with provision of additional irrigation water, such as:<br>No water pricing & affordability analysis, No cost benefit analysis of alternatives, such as farm dam evaporation control measures, further irrigation efficiencies & reuse of tailing water, No analysis of infrastructure development & operations cost, No recognition of climate change implications predicted to result in 10% decline in water availability (Water Availability in the Border Rivers, CSIRO 2007), No detailed assessment of water quality (proposed dam storage) impacts resulting from increased agricultural runoff & No detailed analysis of environmental impacts resulting from proposed pipeline routes & operation. | | 15.9,<br>7.5,<br>8.3.1,<br>8.6<br>21 |
| 17.5 | The EIS does not satisfactorily identify, address or integrate viable water demand reduction options. We note that the proponent's water demand reduction initiatives have resulted in measurable water savings, we believe that further water demand reductions are entirely feasible based on the recent per capita water use reductions by SEQ residents. | Recommend the proponent must undertake cost benefit analysis of comprehensive & integrated water demand reductions measures incorporating all end users of water provided by the proposed project, including urban, industrial, other non-residential & agricultural users of water. | 2.2.3 |
| 17.6 | Reducing water consumption across the region could be achieved by:<br>- requiring all industrial & non-residential water users to develop & implement water use efficiency plans<br>- adoption of Water Sensitive Urban Design for all new urban residential development<br>- integration & enhancement of water saving education programs & initiatives<br>- requiring all residential & commercial buildings to have installed water efficient appliances, fixtures & rainwater tanks<br>-allow urban grey-water reuse. | Recommend the proponent broaden the legislative requirement of all new dwellings have installed water efficient appliances, fixtures & rainwater tanks to include all existing residential & commercial buildings in order to maximise equitable reduced water consumption across the region. | Outside of project scope |
| 17.7 | The proposed pipeline route following local road networks is concerning, as roadside vegetation often contains the last remaining remnants of vulnerable regional ecosystems. | Suggest detailed assessment of roadside vegetation must be undertaken prior to clearing to determine likely impacts to biodiversity values through loss of key habitat. | 10.8,<br>Appendix I |
| 17.8 | Concerned about the apparent inconsistencies regarding the pipeline routes as stated in Section 2.2.1 Urban Water Demand of the EIS, clearly states the primary objective of the proposed project is to supply water to Stanthorpe town, whilst supplying water to other urban centres in the shire is considered not part of this project. | Describe each section of the proposed pipelines relationship to each stage of the overall proposed project & must include construction & operation cost details, identify all likely impacted ecological communities & describe reduction, avoidance & mitigation measures of all likely environmental impacts resulting from the pipelines construction & operation. | 3.1.2 |
| 17.9 | The Border Rivers Water Resource Plan (WRP) does not provide a sustainable framework which equitably manages the regions water resources, as regional climate change implications of increased evaporation rates, reduced rainfall & declining water availability are not identified or addressed as key risks. | Recommend the proponent be required to reassess the proposed projects yield and reliability utilising revised inflow data which incorporates predicted regional rainfall and water availability decline. | 7.6.1 |

| Ref. | Major Issues - Details | Seeking / Recommending / Clarification | Location of response in Supplementary Report |
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| 17.10 | The IQQM only utilises historic data from 1890 to 1996, whilst rainfall data from 1996 to present or climate change implications are not considered. We consider the proposed projects viability to be already significantly compromised by current mean monthly evaporation being greater than mean monthly rainfall (figure 7-5), which when considered in conjunction with climate change predictions of hotter temperatures & declining rainfall casts further doubt on the proposed projects reliability. | Recommend the proponent be required to undertake comparative analysis of the proposed projects reliability against predicted increased evaporation losses & declining rainfall resulting from climate change. | 7.6.1 |
| 17.11 | The Borders Rivers WRP does not adequately provide a sustainable framework that equitable balances consumptive water requirements & the needs of the environment, it fails to incorporate climate change implications of reduced rainfall & water availability, casting doubt on the reliability of un allocated water identified in it. | As yields in many Qld dams are being down graded due to climate change implications. Recommend the proponent be required to reassess the proposed projects yield & reliability utilising downgraded yield figures similar to amended yield figures applied to other dams throughout the state. | 7.6.1 |
| 17.12 | The EIS claims the proposed project will have little impact on the Border Rivers WRP environmental flow objectives, we are concerned about reductions to Beneficial Flooding Flows and in 1 & 2 Year Floods. In particular the likely environmental impacts from altered flow regimes between the proposed dam & confluence of Accommodation Creek primarily how flow regimes necessary for ecological processes required to preserve aquatic & riparian ecosystems will be maintained. | Recommend the proponent be required to identify & address environmental impacts from altered flow regimes, specifically between the proposed project & confluence of Accommodation Creek on the Severn River. | 7.5.4 |
| 17.13 | We are concerned the proposed environmental release schedule will not replicate natural flow regimes or natural water quality necessary to trigger ecological functions required to maintain downstream ecosystems. Of particular concern are the likely environmental impacts resulting from altered flow regimes to the Severn River between the proposed project & confluence of Accommodation Creek, primarily in light of reduced Beneficial Flooding Flows & 1 in 2 Year Floods, which are vital to ensure riparian & aquatic downstream ecosystem.<br>As well as concerned that the implication of predicted rainfall reductions & water availability decline are not fully considered in the proposed environmental release strategy. | Recommend the proponent be required to undertake assessment of predicted climate change impacts on proposed environmental release strategies. | 7.6.1 |
| 17.14 | The EIS fails to identify or address risk of cumulative water quality impacts to the proposed projects storage from increased urban, industrial, other non-residential use & agricultural runoff, which has significant bearing on water treatment costs & quality of environmental flow releases. | Recommend detailed assessment of cumulative water quality impacts to the propose projects storage including water quality risk to environmental releases and consequential downstream environmental impact from contaminated environmental water releases. | 8.4.1 |
| 17.15 | Concern regarding the potential long-term incremental changes that may result in unforseen impacts to groundwater dependent ecosystems overtime. | Recommend proponent be required to undertake ongoing measures as suggested in section 8.3.2 of the EIS for a minimum of 12 months prior to necessary to determine long-term environmental condition trends that my impact localised groundwater resources & dependent ecosystems. | 9.1 |
| 17.16 | The location within a regional wildlife corridor (EPA 2007) is likely to result in significant losses of riparian habitat critical to maintain regional fauna movements. The EIS conclusion of minimal impacts to fauna movements does not include any detailed assessment of endemic fauna's reliance on habitat & food sources provided by the ecological communities affected by project. | Recommend the proponent must undertake detailed assessment of ecosystem services provided by ecological communities in the project area, & assess impacts to the wider environmental values from loss of ecosystem services provided by the ecological communities the project affects. | Outside of project scope |
| 17.17 | The offsetting of 'endangered' & 'of concern' regional ecosystems need to be protected & not further eroded. Offsets provided away from impact area are not supported, as they do not compensate for loss of localised environmental values & ecosystem services. | Recommend the following points be included in the proponents offset criteria & conditions; - Environmental offsets must be provided as close to impact site as feasible - The proponent must begin to secure offsets at least 5 years prior to occurrence of impacts in order to minimise time lags between impact occurrence & full environmental effectiveness of offsets - The proponent must actively maintain & monitor environmental offsets for a minimum 25 years post project construction - Genetic material from impacted ecological communities must be utilised in establishment of offsets to ensure regional species variance is not eroded | Appendix I |
| 17.18 | Sampling of the upper Severn River aquatic flora & fauna has not been undertaken as the EIS states that data specific to the upper Severn River is sparse, & relies on data from other sources. This questions the accuracy of conclusions regarding the aquatic ecological values. | Further survey work is required | 11.1 |
| 17.19 | The EIS fails to identify & address the potential impacts to Bell's Turtle. | Extensive studies must be undertaken to determine its range, extent, population density & to clarify if the turtle found downstream is the same species as found in northern NSW or is genetically distinct. | 11.1.4 |
| 17.20 | The EIS identifies and describes water quality adequately, though we do not consider that maintaining downstream ecological process by ensuring environmental releases replicate natural flows as adequate. | We recommend the following;<br>- Undertake detailed seasonal assessment & sampling of aquatic flora & fauna, both within & downstream of project area<br>- Undertake detailed studies of Bell's Turtle to determine the proposed projects likely impacts to the species range, movement & populations<br>- Undertake detailed assessment of down stream ecologies to ensure environmental releases replicate ecological triggers | 11.1 |
| 17.21 | The Green house gas assessment fails to identify & address all point sources of emissions from the project. The EIS fails to identify & address the QLD Government's 2007 commitment of 60% state-wide GHG emission reductions by 2050. | We recommend the following; - Undertake a full and comprehensive GHG emissions audit of the proposed project - Develop a carbon management plan outlining measures to meet the states target 60% GHG emissions reduction by 2050 - Undertake detailed assessment of carbon sequestered within vegetation & soils that will be released to atmosphere as a result of the proposed project | 12.4 |
| 17.22 | The derived conclusions regarding the projects vulnerability to climate change, fails to consider the wide range of climate change implications likely to affect the proposed dams yield, performance & reliability. | The projects vulnerability should be reassessed against the following factors; - as stated in recommendations above (17.21) - The Australian Governments recent signing of the Kyoto Protocol - The QLD Governments 60% GHG emissions reduction by 2050 target | 7.6 |
| 17.23 | The potential surface waters cumulative impacts from increased urban, industrial, non-residential & agricultural contaminated runoff have not been fully identified or addressed. | Recommend the proponent be required to undertake detailed assessment of cumulative impacts to surface waters from increased contaminated runoff, specifically focused on risks to downstream ecosystems from potentially contaminated environmental releases. | 8.4.1 |
| 17.24 | The cumulative impacts from loss of ecosystem services provided by affected regional ecosystems have not been fully identified or addressed. | Recommend the proponent must undertake detailed assessment of ecosystem services provided by affected regional ecosystems in order to ensure that lost ecosystem services are fully replicated through environmental offsets | Outside of project scope |
| 17.25 | The cumulative impacts to aquatic ecologies affected by the project have not been fully identified or addressed, in particular Bell's Turtle. | Recommend the proponent be required to undertake detailed studies of Bell's Turtle & downstream aquatic ecosystems. | 11.2, 11.2.7 |
| 17.26 | Water Availability: The EIS fails to identify & address cumulative impacts of declining water availability resulting from climate change implications. | Recommend the proponent be required to undertake detailed comparative assessment of predicted climate change implications against the proposed projects stated yield & reliability | 7.5 |
| 17.27 | The EIS contains no specific details on the environmental management of the projects ongoing operations & maintenance phases. | | Appendix J (Section 5) |
| 17.28 | The EIS fails to include details on management of environmental offsets, in particular how the affected EPBC listed ecological community is proposed to be offset & managed. | | Appendix I |
| 17.29 | Believe the proponent must develop & implement a carbon management plan, thereby ensuring the proposed project progresses towards being carbon neutral overtime. | | 12.5 |
| 18.1 | Lack of information on future water demand (res. And non-res.) including how growth in SDRC modelled. Concern re linear, 6 fold increase in non-residential demand when the grown in residential demand would be essentially zero. | SEIS should provide a detailed evaluation of projected demand for urban water in Stanthorpe area, including the data, assumptions and modelling used to derive the projections | 2.2.2 |
| 18.2 | Alternative water supply options are given inadequate discussion, and EIS does not address the ToR requirements for this section. | SEIS should address the TOR by providing proper and full evaluation of alternatives to the project proposal. | 2.4 |
| 18.3 | While the EIS states on p.3-23 that the proposed Emu Swamp Dam project would satisfy the three Desired Environmental Outcomes (DEO) of the Stanthorpe Shire Council Planning Scheme, the EIS does not demonstrate how | SEIS to address the three Desired Environmental Outcomes identified in the Stanthorpe Planning Scheme | 5.1, 5.3 |
| 18.4 | Table 7-1 shows eight minor barriers with capacity of less than 10 ML in the study area. In pre-EIS meetings with the consultant and the Department of Infrastructure and Planning, EPA officers requested that removal of weirs be considered as a remedial or offset activity to compensate for the destruction of the riverine habitat that would be caused by the proposed dam. | The EIS should discuss the potential for removal of weirs as an off-set for impacts on aquatic ecosystems particularly down stream of the dam wall | 11.2.4 |
| 18.5 | The dam is stated as having incremental impact on the basis of flow data from the dam site, downstream of the Accommodation Creek confluence, and at Farnbro. However, the EIS gives no information on flows between the dam and the Accommodation Creek confluence, a reach of around 12 km | The EIS should include data, or modelling based estimates on flows through the Severn River between the proposed dam wall and the Accommodation Creek confluence. In the longer term, consideration should be given to establishing a stream gauging facility immediately upstream of the Accommodation Creek confluence | 7.4.4 |
| 18.6 | The EIS states that the dam will cause minimal change in the magnitude and variability of the flow regime. However, "minimal" has not been quantified. While the change might be small, its impact could well be significant | The EIS should be expanded to include and quantify an assessment of the environmental impacts associated with the changes to flow regimes that are otherwise only described qualitatively | 7.4.4 |
| 18.7 | Both section 7.2.6 and the Environmental Management Plan in Chapter 20 suggest water quality parameters to be monitored, but do not develop water quality objectives or performance criteria that would, for example, trigger corrective action. The development of water quality objectives and performance criteria is a necessary part of the EIS | The EIS and Environmental Management Plan should develop and include quantifiable water quality objectives, performance criteria and corrective action. | 8.3.1 |
| 18.8 | In general, Chapter 9 inadequately addresses the TOR. The TOR state that "it is essential that the main text of the EIS must address all relevant matters concerning environmental values, impacts on those values and proposed mitigation measures. No relevant matter must be raised for the first time in an appendix". Yet there is much substantial material that is provided only in the appendices on the CD version of the EIS and not provided in the main text and not at all in the printed version of the EIS. This issue relates as much to the description of environmental values as it does to the assessment of impacts and proposals for mitigation measures | This is such a significant failing that Chapter 9 should be rewritten, much expanded and adequately illustrated in a supplementary report rather than being addressed in the tabular form that responses to submissions typically use | 10 |
| 18.9 | While the field survey did not identify any populations of *Boronia repanda* , an endangered species, it has been previously recorded at Pozieres Road and Pfrunder Road along which the proposed irrigation pipeline would be constructed. Consequently, Table 9.11 is incorrect and contradicts other parts of the EIS, such as section 9.5.2.1 (para 6 on p.9-47) and Table 9.20 | Table 9.11 should be corrected to indicate that *Boronia repanda* has been previously recorded on Pozieres Road and Pfrunder Road | 10.2.2 |
| 18. 10 | The description of the environmental value of regional and local corridors does not adequately address the TOR.<br>Some of the discussion is ambiguously written. For example, section 9.4.2.5 contains the sentence "The impoundment would not cause any significant disruption to this major corridor". However, it is not clear whether "this major corridor" refers only to the major area of vegetation between Sundown National Park and State Forest to the west of Glen Aplin or to the corridor of remnant vegetation that crosses the Severn River and links Girraween National Park with that other major area.<br>If it means the former, then the EIS has failed to provide any assessment of the existing value of the cross-river corridor as a regional corridor; while it if means the latter then (a) it refers to impacts in the section that should be describing existing values; and (b) it is wrong and contradicts other parts of the EIS that state there will be an impact on the viability of the Severn River as a wildlife corridor and as a wildlife refuge within an otherwise fragmented landscape. | The EIS should adequately address the TOR and provide a detailed description of the existing values of remnant vegetation that provides a cross-river link between Girraween National Park and Sundown National Park, and State Forest to the west of Glen Aplin | 10.6 |
| 18.11 | The TOR requires that the EIS "must outline the significance of clearing each species listed under the NCA [*Nature Conservation Act 1992* ] according to the impact on local, regional and State populations. The practicality of relocating each species should be discussed in the context of suitable habitat and soil profile requirements, using examples of relocation success elsewhere, where available". The TOR then goes on to require other things in respect of listed species. While Table 9-20 provides a summary of relevant species, their occurrence and brief comment on the potential for impacts, section 9.5.2 as a whole does not provide the information and discussion required by the TOR. | The EIS should address species listed under the NCA in the way required by the TOR particularly with regard to the relocation of listed species | 10.2.4, 10.2.5 |
| 18.12 | For several species for which the potential for impacts is assessed as high, the EIS comments that the extent of the impact will be dependent on design, mitigation and management. These species include Acacia pubifolia (vulnerable), Boronia repanda (endangered), Grevillea scortechinii subsp scortechinii (vulnerable), and Melaleuca williamsii (vulnerable). At least two of these species are heavily dependant for their survival on populations that exist in road reserves. Destruction of any significant portion of these populations would be of serious conservation concern | It is inadequate to postpone a full assessment of the impact of pipeline construction on these species until some later date when detailed construction planning is underway. The impacts of the pipeline construction should be dealt with in detail in this EIS so that conditions can be developed and recommended before any project approval is given | 10.2.4 |
| 18.13 | While acknowledging that impacts on the flow regime and terrestrial flora will be greatest between the proposed dam site and the Accommodation Creek confluence, the EIS presents no assessment of those impacts, nor of measures that might be take to avoid, manage or mitigate such impacts | The impacts of the proposed dam downstream to the Accommodation Creek confluence should be assessed in detail and measures proposed for their avoidance, management, or mitigation | 10.3.2 |

| Ref. | Major Issues - Details | Seeking / Recommending / Clarification | Location of response in Supplementary Report |
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| 18.14 | The discussion in section 9.5.2.4 of measures to mitigate impacts due to the dam inundation area provides no substantial proposals but rather refers to an offset strategy to be prepared at some time in the future and mentions only a few options that the strategy is likely to involve. This section inadequately addresses the TOR, which require a full description of options for compensatory habitat measures and offsets to be provided now in the EIS | The EIS should provide a full description of options for compensatory habitat measures and offsets as required by the TOR. | 10.8 |
| 18.15 | The tables in section 9.5.3.8 provide a "Preliminary Impact Assessment" and no more. It is the purpose of the EIS to provide a full and detailed assessment of the impacts rather than a preliminary assessment as there will be no other opportunity to undertake further assessment | The EIS should provide the full and detailed assessment of the impacts required by the TOR | 10.2.5 |
| 18.16 | The proposal to mitigate impacts on the disruption of the regional wildlife corridor is limited to the statement "habitat rehabilitation and restoration to enhance regional wildlife corridor". There is no discussion of options or their feasibility, no detail of how offsets would be achieved, no mention of costs nor of other matters required by the TOR | The EIS should provide a full description of options for compensatory habitat measures and offsets as required by the TOR | 10.8 |
| 18.17 | The discussion of downstream impacts focuses on the Environmental Flow Objectives (EFO) performance indicators at Farnbro, which is approximately 65km downstream of the proposed dam site and approximately 53km downstream of the major influence on the Severn River's hydrology due to the inflow of Accommodation Creek.<br>The proposed environmental release strategy would truncate flows at 30ML/day until the dam filled and spilled. This would significantly reduce the number of flushing flows greater than 30ML/day in the 12km of the Severn River between the dam and the confluence with Accommodation Creek, yet the EIS provides no assessment of the impacts of that effect on aquatic ecology | The EIS should address the impacts of the proposed dam on aquatic ecology in the 12km of the Severn River between the dam and the confluence with Accommodation Creek | 11.2 |
| 18.18 | Tables 12-3 and 12-7 state operational noise limits for regulated devices supposedly obtained from section 6X of the Environmental Protection Regulation 1998. However, those limits are not from that section of the Regulation | The EIS should explain how the proposed noise limits have been derived | 11.1 |
| 18.19 | The night-time period is wrongly shown as '10pm to 7am' in section 12.3.7 Summary of Noise and Vibration Goals. | Change the period to '10pm to 6am' | 19 |
| 18. 20 | The assessment of potential sleep disturbance due to noise exclusively discusses a maximum noise value and does not address a limit applicable to the whole eight hour noise period. The World Health Organisation recommends an indoor limit of 30dB(A)LAeq, which, allowing the +7dB factor for partially closed windows noted in the EIS, would give a 37dB(A)LAeq (night) noise limit outside a noise sensitive place. | The 37dB(A)LAeq (night) noise limit should be included in the text and Table 12-6, and addressed in the assessment of impacts on sleep disturbance | 11.1 |
| 18.21 | In section 12.4.6, operational noise impacts from the pumping stations were dismissed as being "minimal" but without any quantitative evaluation of the potential noise emissions or any discussion of the feasibility of mitigation measures for any potential impacts. Given the relatively low background noise levels in the area, noise from the pumping stations could be intrusive at sensitive locations during the night and should be properly addressed in the EIS | The EIS should provide an adequate prediction and assessment of operational noise at night time. As required by the TOR, particular consideration must be given to emissions of low-frequency noise; that is, noise with components below 200Hz | 11.4.2 |
| 18.22 | The EIS presents a chapter on landscape character and visual amenity without once providing an illustration of either option for a dam. It is impossible to evaluate the assessment of impacts on landscape character and visual amenity without some depiction of the structures and the impoundment | The EIS should provide illustrations of the proposed structures and the impoundment and assess their impacts on landscape character and visual amenity | 17.3 |
| 18.23 | In general the Environmental Management Plans are lacking in substance, qualitative rather than quantitative in nature, and lack the auditable commitments that can be translated into conditions for any approval that may be given for the project. | The Environmental Management Plans should be revised to include all the commitments made in the revised EIS, provide auditable commitments and include the performance standards and associated measurable indicators required by the TOR. In particular, improvements are needed in the measures for the management of impacts on flora and fauna | Appendix J |
| 18.24 | The EIS proposes that measuring, monitoring and evaluating will be undertaken during the execution of the project. This is taken to cover the period of construction and commissioning only. The impacts of the project are likely to develop well beyond commissioning of the proposed dam. In addition, the effectiveness of mitigation, restoration and offset activities will be uncertain for a considerable number of years after commissioning the proposed dam | The EMPs for Water Quality (20.3.5) should establish long term monitoring programs covering at least water flows and quality, downstream aquatic and riparian ecosystems, weed and pest management programs, the success of projects to restore habitat through environmental offsets, the success of any translocations, the success of captive breeding and release programs, and any propagation and planting programs. This monitoring should be continued for a minimum ten year period or longer if a proper assessment of potential impacts in the revised EIS indicates that impacts and mitigation measures could develop over a period in excess of ten years | Appendix J |
| 18.25 | Annual reporting for only the first three years is inadequate. Reporting should be on-going and specifically address the issues outlined in section 10.5 until they are resolved | The EMP should require the preparation of an annual Environmental Summary Report every year, not just for the first three years. Each report should address issues raised in the EIS until such time are they are resolved. | Appendix J |
| 19.1 | Qld Health requests that the proponent and future dam owner develop and implement strategies to manage dam's catchment and protect source water, including supporting and, where appropriate, leading changes in farming and land-use planning and practices in the catchment | The strategies outline should be discussed in the SEIS or include commitments to develop prior to operation. | 8.5 |
| 19.2 | The EIS provides the results for particular herbicide concentrations in the waters of the Emu Swamp Dam catchment (page 7-71). However, sufficient information has not been provided on the sampling methodology, including the rationale for including only these particular herbicides and excluding other pesticides. | The proponent should provide further information on the rationale for sampling particular pesticides in the Emu Swamp Dam catchment. | 8.2.1 |
| 19.3 | The EIS identifies construction noise as a potential impact on nearby residential dwellings and as a potential cause of sleep disturbance at particular times. To assist in managing this potential impact, the proponent has set construction noise goals (page 12-8). However, it appears that consideration has not been given to setting acceptable noise levels inside a dwelling (e.g. bedrooms, living areas). | The proponent should set construction noise goals for inside bedrooms and dwelling and communicates these goals in the SEIS. | 11.1 |
| 20.1 | The comment is made that Stanthorpe has experienced "*a long history of water supply uncertainty and challenge* ". This is not unique to Stanthorpe and SDRC, in comparison to other local authorities facing similar water situations, has failed over many years to address underlying issues of demand management and alternative strategies. It has focused almost exclusively on a new dam development as the solution to urban water supply issues. It has failed to determine an appropriate, environmentally sustainable, urban water use level for the community. | | 2.2.2 |
| 20.2 | There is no data in Section 2.1.2 (Background information on Urban and Irrigation Water Supply Option) that shows the level existing water extraction on the Severn River catchment. | The proponent to include figures in SEIS | 2.22 |
| 20.3 | The basis for the residential water demand figures (Section 2.2) are flawed. They have been adopted from South East Queensland Regional Water Supply Strategy and SEQ Regional Plan which are not applicable to Stanthorpe due to the unique cooler climate there that does not require as great of magnitude of residential water usage. The justification for the dam is based on meeting an environmentally unsustainable level of demand and the water supply issue can be dealt with through implementation of effective demand strategies. | The proponent to justify use of residential water demand figures or amend in the SEIS. | 2.2.2 |
| 20.4 | The trend in recent non-residential development in Stanthorpe Shire has seen industries that will not result in a significant increase in water consumption - this conflicts with what is stated in the EIS. | The proponent to justify use of non-residential water demand figures or amend in the SEIS. | 2.2.2 |
| 20.5 | The statement in Section 2.3.1.1 "*If the project did not proceed, Stanthorpe town would have to cap and reduce its level of development* " is incorrect. Many other communities have successfully continued to grow in an ecologically sustainable fashion by use of appropriate technologies and self-sufficiency measures. | The proponent to further justify statement made in the SEIS. | 2.2 |
| 20.6 | Section 2.3.1.2 documents demand reduction techniques that SDRC has implemented in the past. The submitter feels that as a resident for the past 11 years, demand reduction techniques haven't been particularly apparent and SDRC has been reluctant to adopt water conservation measures including public education practices or subsidies for water saving measures until dam levels reduced significantly. | | 2.2.3 |
| 20.7 | The local dam and pipeline options examined in section 2.3.1 have entirely focused on infrastructure to meeting a perceived demand in which limits a rational appraisal of all of the options available (such as raising Storm King dam wall). | The proponent to note and address in a SEIS | 2.4 |
| 20.8 | Some quantification of the anticipated water savings from developing irrigation efficiency (section 2.3.2.1) would be helpful along with cost comparisons between investing in major infrastructure. | The proponent to address in a SEIS | 2.2.3 |
| 20.9 | The basis for future development of Stanthorpe Shire is dependent on greater water use by all sectors (outlined in Section 2.3.4.1 of EIS) is flawed. Many other communities have demonstrated ecologically sustainable growth with reduced demand on natural resources (reiterates comment 5). The development of tourism industry need not be dependent on "*reliable urban water supply* ". | The proponent to justify the assumptions made in this section. | 2.2.2 |
| 20.10 | The statement in Section 2.4.1.2 that "*local residents are generally supportive of the Project* " is made without any supportive data - there have been no public opinion surveys, meetings or proper education of impacts. | | 15.8 |
| 20.11 | There is no information provided on energy requirements and greenhouse gas implications of water piping for urban option (section 3.1.2). | | 12.4 |
| 20.12 | There is no information provided on energy requirements and greenhouse gas implications of water piping for irrigation option (section 3.1.3). | | 12.4 |
| 20.13 | No information provided about how the pipeline routes were determined and what consultations, if any, have occurred with residents along the proposed routes. | | 3.1.3 |
| 20.14 | Detail needs to be provided about how weed infestation of the site is to be prevented given the significant movement of vehicles on and off the site during construction activities. | Detail how weed infestation of the site is to be prevented given the significant movement of vehicles on and off the site during construction activities. | 10.7 |
| 20.15 | The comment "*clearing in selected phases to encourage fauna movement to areas that are not to be cleared* " assumes that suitable areas of comparable habitat exist to support such fauna translocations and that territorial species will not come into conflict with other already well established. | | 10.2.5 |
| 20.16 | The greenhouse gas implications of clearing and flooding of the vegetation on the dam site have not been accounted for or quantified. | | 12.3 |
| 20.17 | Detail needs to be provided about how weed infestation of the site is to be prevented given the significant level of disturbance during the pipe laying activities. | Detail how weed infestation of the site is to be prevented given the significant movement of vehicles on and off the site during construction activities. | 10.7 |
| 20.18 | Detail needs to be provided in Section 3.2.1 about the loss of, and disturbance to, native vegetation and how weed infestation of the site is to be prevented given the significant level of disturbance during the pipe laying activities. | The proponent to provide detail on impact on native vegetation and weed management during construction of pipe in the SEIS. | 10.7 |
| 20.19 | The proposal that the buffer area surrounding the dam will become a Nature Refuge need to be justified considering that there are high requirements for this program and some of the proposed land is significantly degraded and might not meet those requirements. | The proponent to provide more detail on the requirement of the Nature Refuge program for the buffer area and its implications in the SEIS. | 5.1 |
| 20.20 | Information needs to be provided on the impact on landholders if their property becomes part of a Nature Refuge - adequate compensation, assistance from SDRC for buffer management advisory or financial assistance. | The proponent to provide more detail on the requirement of the Nature Refuge program for the buffer area and its implications in the SEIS. | 5.1 |
| 20.21 | The comment "*management and monitoring of the rehabilitation will be undertaken by the Stanthorpe Shire Council* " needs to be justified considering no SDRC staff have specific expertise in bushland management or rehabilitation | Justify the comment "management and monitoring of the rehabilitation will be undertaken by the Stanthorpe Shire Council". | 10.8.2 |
| 20.22 | The project responses to the National Strategy for Ecological Sustainable Development show a fundamental lack of understanding of ESD principles. | | 3.5 |
| 20.23 | All indications are that current water use of agriculture is ecologically unsustainable (current mean annual flow is 56% of the predevelopment flow) and yet this dam proposal seeks to increase it. | | Outside of project scope |
| 20.24 | A comment needs to be made about the likely environmental quality of the water at the Emu Swamp Dam site in comparison to that currently being extracted from Storm King Dam taking into consideration the greater potential for lower quality water at Emu Swamp. | | Outside of project scope |
| 20.25 | The water intake for Emu Swamp Dam is expected to contain run-off from farming operations which would results in water not fit for consumption. Not all pollutants have been monitored by SWAMP. Additional levels of water treatment may be required to make it suitable for human consumption. | The proponent to examine the likelihood of farm runoff and associated water treatment. | 8.5 |
| 20.26 | The proposed vegetation management offset strategy by SDRC and other recommended measures will have to be well funded and technically competent if they are going to compensate for the loss of significant vegetation communities and individual EVR species. It is not certain whether Species Management Plans will prove effective. | | 10.8 |
| 21.1 | The urban demand issue has not been fully investigated - a significant proportion of SDRC survives without access to 'town water', relying on water tanks, small dam and self imposed water restrictions for domestic and business / agricultural purposes. | | Noted |
| 21.2 | The proposal to effectively double the urban water supply is a short-term and short-sighted stop gap which will discourage good water conservation practices and support unwise, unchecked and unsustainable consumption leading to the same problem in 20 years time. | | Noted |
| 21.3 | Further detailed investigations are required into efficient water usage across the board but particularly in non-residential sector, installation of water tanks by individuals, businesses and on public buildings in town, collection of significant quantities of storm water run-off from the town area, permitting the use of composting toilets, encouraging greywater diversion / recycling / primary treatment by consumers, etc. | | 2.2.3 |
| 21.4 | Concern that no evidence is displayed that if additional source of up to 1384 ML/yr is available, it will not results in increased plantings over an increased area to generate more profit without a change in farming practices. | | Outside of project scope |
| 21.5 | Concern that perennial crops (apples, stone fruit, grapes) have and are being replaced by intensive high water use vegetable crops with the trend increasing with more water and an inevitable water shortage in a short time. | | Outside of project scope |

| Ref. | Major Issues - Details | Seeking / Recommending / Clarification | Location of response in Supplementary Report |
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| 21.6 | The following options should be full investigated: more efficient farming practices (e.g. erosion control, dam covers), better irrigation practices (e.g. timers and methods of irrigation), more sustainable farming practices (including less crop wastage), review of crops planted in view of the probable effects of climate change, programmes to educate farmers as to best practice in the above areas, subsidies / incentives to assist farmers to change and adopt sustainable, water conserving methods of farming. | | 2.2.3 |
| 21.7 | The selection of the site for topographical reasons is seriously flawed. The length of the dam wall and the absence of 'mountains' on either side of the river as stated in the EIS make the proposal little more than a glorified weir. The dam will be very shallow about both FSLs with the raising of the dam walls between the two options an exceedingly inefficient means of storing water. The effects of sun and wind on evaporation levels of these shallow waters should be fully investigated. | | 4.1,<br>7.4.1 |
| 21.8 | The issue of soil permeability has not been adequately addressed. Figure 4.6 showed high permeability in a typical soil profile which is not conducive to water collection through runoff. | | 4.3 |
| 21.9 | Concern that paragraph 4.3.2.1 inadequately addresses the issue of plant cover growing on stockpiles and stockpile erosion. Submitter disagrees that sandy granite soils of the area have low erosion potential and believes that this issue needs further investigation. The issue of weeds, particularly invasive, exotic species growing on stockpiles needs to be more thoroughly addressed. | | 4.5,<br>Appendix J (4.1) |
| 21.10 | Regarding Table 4.7, concern that proposal for "mitigation of possible saline / sodic affected run-off" is inadequate and that question of mitigation has not been addressed for a scenario where downstream monitoring does not show impact from sedimentation and/or salinity and/or pH change. The details of such monitoring (e.g. how far downstream, at what intervals in time and distance such monitoring is to occur, should be properly dealt with and appropriate mitigation strategies devised. | | 4.6,<br>Appendix J (4.1) |
| 21.11 | The likely effects of storm activity now occurring as a result of climate change have not been adequately addressed. Concern that the design of sedimentation traps and detention basins for a "24 hour storm event of a return period of 10 years" (Table 4.7) is not realistic in the light of current and likely further climate patterns and believe that this issue needs to be more fully researched. | | 4.5 |
| 21.12 | Concern that "temporary erosion control works" (Table 4.7) have not been described and further that these should be in place whether or not rain is "imminent" and that these matters should be properly addressed. | | 4.5,<br>Appendix I (4.1) |
| 21.13 | The proposal to "consider options to maximise vegetation preservation" (Table 4.7) is vague and uncertain and that such options need to be fully developed and detailed. | | 4.5,<br>Appendix I (4.1) |
| 21.14 | The proposal for "hydroseeding or other appropriate processes to provide a protective cover" (Table 4.7) is vague and uncertain as is "as soon as possible" and that rigorous practices need to be developed and outlined. | | 4.5 |
| 21.15 | Concern that paragraph 4.4.2 reveals no studies of sedimentation at the site and believes that this needs to be addressed. | | 4.7 |
| 21.16 | Concern for suggestion that Storm King Dam be used as an alternative supply during any necessary desilting operations. If dam is built and predicted growth in demand occurs, the alternative water supply would be inadequate. This is no solution and needs to be properly dealt with. | | 4.7 |
| 21.17 | Regarding paragraph 7.1.1.6, concern that no flow records since 1996 have been used as submitter believes that in the view of climate change influencing rainfall totals and rainfall patterns the omission of the last decade's data gives a very inaccurate picture and this needs to be addressed by fully researching the matter. | | 7.4.1, 7.5.4 |
| 21.18 | Regarding paragraph 7.1.2.7 and 7.1.3.7, concern that the question of environmental flow releases has not been adequately addressed. Concern that the ephemeral nature of the river together with the effect of at times significant flooding has not been adequately considered. | This needs to be properly investigated to provide a more realistic and natural flow release regime particularly for the area upstream of Accommodation Creek, a lot of which is 'endangered'. | 7.5.3 |
| 21.19 | Regarding paragraph 7.2.4, concern that EIS does not adequately address the issues of pollution from the township upstream from herbicides from farm run-off, "cocktails" of chemicals at low density and the bioaccumulation of herbicides and pesticides, nor the additional impact that can be expected to occur if further irrigation water is made available -. | These issues need to be more fully addressed. | 8.4.1 |
| 21.20 | Concern that construction mitigation measures for erosion and sedimentation in paragraph 7.2.6 are inadequate and give insufficient detail. | This needs to be addressed. | 4.5 |
| 21.21 | Regarding 9.3.2, concern that the field surveys conducted in December 06 and June 07 are seriously inadequate. Further surveys need to be done, especially in spring and autumn and in varying climatic conditions and that details of observations on each field trip need to be provided to give a more comprehensive picture as to the nature of the surveys and of the data collected. | The proponent to conduct further field surveys and provide the level of detail required in the SEIS. | 10.4 |
| 21.22 | Concern that Table 9.3 of EVR species "with potential to occur" is misleading in that "not recorded" is treated as "not occurring" which is not necessarily the case. Likewise in Table 9.14 regarding "likelihood of occurrence of fauna, "unlikely" should not be interpreted to mean "not occurring". e.g. underwoodisaurus. | | 10.2.1 |
| 21.23 | The EIS too readily dismisses the importance of suitable habitat for EVR species which the surveys did not find. | | 10.2.4, 10.2.5 |
| 21.24 | The surveys need to be continued and all results reassessed and that in general ecological aspects need to be more keenly examined. | The proponent to perform more surveys. | Outside of project scope |
| 21.25 | Inadequate attention has been given to the possible impact of the exotic species listed in Table 9.12 as many of the 49 species listed are very invasive and likely to speedily colonise any disturbance at the expense of native flora with consequent difficulty of eradication of the introduced species and likely detrimental effect on endangered vulnerable or rare native flora. | | 10.7 |
| 21.26 | The mitigation of the impact on White Box-Yellow Box-Blakely's Red Gum Woodland community has been inadequately covered in Appendix C 4.3.1. It is a MNES yet no specific or realistic mitigation strategies are proposed. The proposals to purchase and manage existing vegetation and revegetate / rehabilitate is too vague and needs to be presented in detail with reference to specific occurrences of this community. There is no detail as to how the proposal relating to "reinstating pre-clearing vegetation types" is to be implemented. | This needs to be addressed. | 10.8.1 |
| 21.27 | The claim that there will be "reduction in overall extent of the community in the short term but not long term" is false and deliberately misleading. The inundation of 77 ha represents a permanent and irreplaceable loss of a significant area of a critically endangered community. The alleged "appropriate compensatory habitat strategy" is neither appropriate nor compensatory as it purports only to protect other existing protected areas or those in the early / later stages of regrowth - also existing, that is, no increase in existing areas, thus a permanent net decline in the overall extent of this community. | | 10.3, 10.8 |
| 21.28 | Regarding Appendix C paragraph 4.3.2, concern that the impact of the proposal on the population of Melaleuca Williamsi has not been adequately addressed. The details on the proposed compensatory habitat need to be fully presented. | The species specific management plan and the details as to how it is proposed to establish on ex situ population needs to be developed and presented now. The "substantial patches of preferred habitat [which] occur downstream" needs to be identified and issues as the effect of the Environmental Flow Regime on them and the proposal ex situ population needs to be fully addressed. Concern that the formal review as to suitability for the translocation and a Translocation Plan have not be undertaken / developed and submitter believes this needs to be attended to. | 10.2.3, 10.8.3 |
| 21.29 | Regarding Appendix C paragraph 4.3.3, concern that there is not yet any certainty that the proposed pipeline will not impact on populations of Grevillea scortechinii. Concerned that this needs to be determined now. The translocation is not feasible and that a Translocation Plan has not been developed and this needs to be addressed. | | 10.2.4, 10.8.3 |
| 21.30 | Submitter has similar concerns (as with comment 28) regarding Eucalyptus McKieana, Boronia repanda and Acacia pubifolia and believes that they need to be addresses with regard to each of these species. | | 10.2.4, 10.8.3 |
| 21.31 | Regarding Appendix C paragraph 4.3.8, matters relating to Elseya belli have not been adequately addressed. Concerns about claim that this turtle has a low probability of occurrence and that therefore there will be no significant impact. Concerned at the assumption that the individual was recorded was itinerant and that there is no resident population. These assumptions are unfounded and more research needs to be done now. Concerned that the proposal to do further research as a mitigation measure addresses this matter inadequately as there is no detail as to what further research is proposed or when it would occur, or what might be done following such research. The proposal as it stands would not actually have the effect of mitigating anything. | | 11.1.4, 11.2 |
| 21.32 | Regarding Appendix C 4.3.9-11 and 4.4.1-5 and 4.4.9, concern that mitigation proposals relating to the impact on the granite belt thick-tailed gecko, spotted tailed quail, large-eared pied bat, grey headed flying fox, painted snipe, squatter pigeon, swift parrot, regent honeymaker and greater long-eared bat are inadequate. The questions of effect and restoration of habitats, spotter / catcher during clearing, and feral predator control management plans have not been adequately addressed. These matters need to be fully investigated and outlined in detail. | | 10.2.5 |
| 21.33 | Regarding Appendix C paragraph 4.4.6, concern that no mitigation is proposed in respect of possible destruction of habitat of the Black-Throated Finch; this needs to be addressed. | | 10.2.5 |
| 21.34 | Regarding Appendix C Part 5, concerns that the details of compensatory habitat are inadequate. | | Appendix I |
| 21.35 | Regarding matters of greenhouse emissions, concern that the question of emissions during construction and operation including pumping of water 23 km uphill have not been sufficiently dealt with. | | 12.4 |
| 21.36 | The question of greenhouse emissions from this project as opposed to emissions likely from alternative means of securing water supply (e.g. manufacture and installation of tanks in town) need to be rigorously researched and presented. | | Outside of project scope |
| 22.10 | The question of the need for the dam has not been adequately addressed. The proposed dam is not a sustainable solution, considering the unstable climatic conditions of prolonged drought which is likely to continue. The EIS claim that the dam (urban supply) has a 50-60% likelihood of filling within the first year is unsubstantiated. It is foolish to rely on proposed dam to meet the towns &/or local irrigator water needs as drought periods are expected to occur in 20-60 years with projected demand growth. | The SEIS need to address alternative strategies, including; More economical use of water, Means of reducing non-residential water use, More research into ways of conserving water, water recycling, composting toilets, Water catchment of individual buildings (i.e. tanks) to utilize the extensive roof areas of structures both residential & non-residential in Stanthorpe Shire, Research into encouraging growth that is conservative of water, Sustainable solutions to ensure the communities water demands will not continually threaten to exceed availability, Education of farmers concerning better water conservation practices (e.g. dam covers), Encouragement of farmers through subsidies to grow crops which are more drought tolerant/less water reliant than tomatoes, lettuce etc; to grow more perennial crops & change their water consumption practices | 2.2.3 |
| 22.2 | Concerned that the contours shown in Figure 4.1 & the high permeability of typical soil shown in Figure 4-6 indicate that even if the proposed dam reaches full capacity (i.e. if sufficient runoff reaches it) it will be very shallow & for most of the area - no greater than 2 metres deep. The question of evaporation or the issue of permeability in granite soils has not been adequately addressed. Thus the topography alone makes the choice of the dam site seriously flawed and the EIS does not examine sufficiently. | The SEIS needs to provide further information on this concern ; | 4.3 |
| 22.3 | The mitigation measures of likely environmental problems matters need further clarification, further reasoning &/or development of actual mitigation proposals. | Mitigation measures need to be provided for;<br>-invasive weed species growing & proliferating on stockpiles & disturbed areas<br>-erosion of stockpiles & disturbed areas<br>-downstream monitoring on water quality<br>-sedimentation | 10.7 |
| 22.4 | Water quality, the urban water supply & the environmental flow releases have not been adequately addressed. I am concerned of herbicides & the likelihood of the presence of chemicals even in 'safe' quantities can have a very toxic effect on the environment when chemicals combine. | Further research should be conducted to address this matter. | 8.4.1 |
| 22.5 | The proposed mitigation practices for rare & threatened species/communities are vague & unrealistic (e.g. in the case of translocation), & are unlikely to be successful. Also no proper management strategies have been developed. The site contains significant area of critically endangered species of flora & fauna. Melaleuca Williamsii has a known population in Qld of fewer than 350 individuals, most of which occur in or near the proposed site. Which have recently been protected by a threatened flora recovery plan highlighting their need for protection. | The mitigation measures need to be re-assessed. | 10.8 |
| 22.6 | Greenhouse gas emissions has not been adequately addressed. The amount of emissions from the construction & operation of the dam (pumping uphill to Stanthorpe) and emissions from the body of water. Emissions need to be reduced to 90% of 2000 levels by 2050. | The issue of Greenhouse gas emission needs to be re-examined. | 12.3, 12.4 |
| 23.1 | Question the process that has selected the Emu Swamp site; partially to the dual nature of the project. The size & location of the project is highly dependent on the irrigators succuss in providing funding. | With the 2nd option of a combined urban & irrigation project. The question arises, does the Urban water supply option need to be in the same location. | 2.4 |
| 23.2 | Urban Water Supply Dam & No Project Alternative: both state that existing supply is limited & additional storage will be required soon & make reference to Storm King Dams low (December 2007) level - expected to run dry in early 2008. | Please address the implications of recent rainfall, leaving Storm King Dam full. | 2.2.1 |
| 23.3 | The projected non-residential demand, (depicted in Figure 2-3) despite claiming to be half the assumed high growth scenario, seems optimistically high. The high future estimate sets a high additional yield required (1500ML) totalling 2100ML and Council initially adopting half the capacity (750ML) from the Emu Swamp Dam. | Does this mean non-residential sector is not accountable to many water saving techniques or restrictions that the residential community has increasingly become accustomed to? | 2.2.2 |
| 23.4 | Despite the SDRC support for existing programmes & thorough water restrictions, it is unknown how active & successful it has been compared to other SE Qld Councils. If the future non-residential demand envisaged is any indication, this shows where room for improvement is required. | Water saving programs need to be compared against other areas in SE Qld to determine how active & successful the program has been. And highlight where any improvements could be made to the programs. | 2.2.3 |

| Ref. | Major Issues - Details | Seeking / Recommending / Clarification | Location of response in Supplementary Report |
|---|---|---|---|
| 23.5 | Local Dam & Pipeline Options: Section appears to raise more questions than it answers, as it only addresses the Urban Water Supply option. It lists past investigated dam sites - No map has been provided to indicate relative positions & size (dam & catchment) of these alternatives. The decision of sites appears to be based on yield (refer table 2-5) which leaves the choice of the larger (+4m) Storm King Dam (dismissed despite achieving yield) & the two largest sites on the Severn River = ESD & Ballandean. | | 2.4 |
| 23.6 | On the table 2-5 two of the options of Kia Ora site & the Maryland River are missing. In the paragraph it states; "not considered viable" despite initially saying "at full development the site may be able to provide the required water supply" (refer page 2-10, first paragraph). Does not appear to be sufficient investigation. Overall, factors other than yield, have not been more influential in the choice of dam site. | The series of comments indicates that it has not been sufficiently investigated. The comparison should show comparative size, cost, location, property or RE impacts of site options in tabulated format. | 2.4 |
| 23.7 | Also other combinations of mid-size, lower impact sites are not considered as a viable or more affordable alternative. Such as; Storm King Dam - raised 1 metre & Kia Ora, or Storm King Dam - raised 4 metres & dual Emu Swamp or Kia Ora & dual Emu Swamp | | 2.4 |
| 23.8 | Combined Urban & Irrigation Project; A factor not discussed in the impact for consideration is the amount of energy (subsequent increase of greenhouse gases) required to pump water on a pipeline system which is almost entirely uphill & not assisted by gravity. | | 12.4 |
| 23.9 | Primary concern of the loss of terrestrial flora by the dam inundation area. Despite the extensive offset & mitigation strategies outlined in the management of impacts, the loss cannot be replaced. | | Noted |
| 23.10 | The urban & irrigation pipe along road reserves give cause for concern, particularly weed management issues on better quality sections of RE. Care a specific location, notably Grevillea scortechinii subsp.scortechinii (as detailed on page 9-47) at the NE section of the proposed irrigation pipeline, is particularly important for the species future survival. | | 10.7 |
| 23.11 | The affect of large project in an regional ecosystem, brings a question of the choice of location, especially if the irrigation component is not realised & only the urban option is pursued. | A less intrusive & less costly site deserves more consideration | 2.4 |
| 24.1 | Against a dam that is to be financed by the rate & tax payers of Qld. | | Noted |
| 24.2 | The project area will impact on critically endangered regional ecosystem along the river (white box, yellow box, blakely's red gum, grassy woodland, as well as 3 'endangered' & 1 'of concern' regional ecosystems. The inundation area and pipeline routes will also impact upon a number of threatened plant species & on the potential habitat of rare Bell's turtle. | | Appendix I |
| 24.3 | There is a lack of adequate assessment of the alternatives to a new dam e.g. demand management & conservation measures; the environmental sustainability of the project; its greenhouse gas impacts & water quality issues. | | 2.4 |
| 24.4 | This use of resources needs further justification on the basis that other energy efficient & ecologically sustainable solutions have been tried & failed. Individual land-holder solar systems & on-site water storage must take precedence over megalomaniac centrally directed State or Capitalist dinosaurs. Excessive irrigation farming has already destroyed the normal ecology of our inland rivers. | | Noted |
| 25.1 | The EIS does not adequately explore alternatives to the proposed dam, other than alternative dam sites. Alternatives such as the utilisation of storm water in the town centre, compulsory rainwater tanks for all houses & factories, farming methods such as increasing soil organic matter which is significantly reduces water requirements, raising the height of the wall on Storm King Dam & increasing the level of compliance to current extraction volume limits, should be explored. | Options, other than other dam sites needs to be fully considered in the EIS. | 2.4 |
| 25.2 | The EIS quotes figures on per capita use of water to justify the dam, but does not give the source of the statistics. | Provide the source of statistics. | 2.2.2 |
| 25.3 | The claim that irrigators simply want water security, & do not intend to increase production seems dubious. There is a risk that irrigators will favour water demanding vegetable production over the lesser demand of growing fruit tress & grape vines. | | Noted |
| 25.4 | The claim that the future demand increase will be mainly for the tourism industry is not logical. Already the bulk of vegetables on the Granite Belt are grown in effect hydroponically, with the soil used merely to hold up the plant. The new dam is likely to result in increased production of low quality produce, at the expense of tourism as the natural beauty of this unique area, that attracted tourists in the first place - will be gradually eroded. | | Noted |
| 25.5 | The soils in the Granite Belt are notoriously low in organic matter, the current scarcity of water encourages good farming practices to make best use of the available water, & to produce a quality product. Extra water, would encourage bad farming practices & short-term profits for a few, over long-term sustainability & the survival of the majority. | | Noted |
| 25.6 | The building of the dam & associated pipelines & irrigators, will leave a big carbon footprint from the amount of clearing involved of vegetation that will be inundated, the use of heavy machinery, & the energy requirements to pump the water to where is will be used. The EIS does not indicate any plans to trade off these carbon emissions by, for example, tree planting elsewhere. | | 12.5 |
| 25.7 | From predictions of climate change, there is expected to be a 9% reduction in rainfall in Australia. As the dam site is quite broad & shallow, there will be high losses due to evaporation. The EIS ignores the almost total lack of flows in the Severn River in the ten years preceding the January 2008 floods. | The likelihood that the dam will ever fill up needs to be addressed in the EIS. | 7.4.1, 7.5.1, 7.6.1 |
| 25.8 | Concerned that the issues of habitat destruction has not been adequately addressed in the EIS, & measures to offset the damage are not sufficiently budgeted for. The pipeline puts a risk to several endangered plants which are currently only just surviving because of their existence on roadsides. The strategies listed for impact mitigation are vague & unconvincing. It is extremely difficult to relocate native plants & the shrinking habitat & loss of corridors will inevitably result in immeasurable loss of native fauna, which is already under severe stress. | | 10.8 |
| 25.9 | The impact on downstream users has not been adequately addressed by the EIS. Building a dam on a heavily vegetated site is likely to lead to the build up of the heavy metals, including Mercury, which could be detrimental to downstream users of the waterway. | | 8.4.1 |
| 25.10 | The EIS appears inadequate in many areas & flawed in its conclusion, given the huge cost of the dam in terms of taxpayer's money, arable land & areas of ecological significance. | | Outside of project scope |
| 26.1 | The EIS states that the initial capacity of the proposed dam has been adopted for 'short term affordability reasons", & that "in the longer term Council anticipates the need to increase water supply capacity'. The EIS also states that the location "has the potential for a larger dam development". | The likelihood that this additional increase in capacity will be delivered by the raising of the Emu Swamp Dam, & associated increase of inundation area, will need to be addressed in the SEIS. | 3.1.1 |
| 26.2 | Concerned regarding the scale of impacts on critically endangered ecological community of; White Box, Yellow Box, Blakely's Red Gum grassy woodland & derived native grasslands. The EIS states that between 40ha & 77ha of the community will be directly impacted as a result of the proposed action, depending on the final FSL. | The potential impacts to the ecological community may extend beyond the immediate inundation area, & include the areas fragmented by associated linear infrastructure & potentially affected by adjacent works or changes such as saturation of soils immediately adjacent to full supply level. | 10.3 |
| 26.3 | Further information is required to assist in the assessment of the scale of impacts on the ecological community. To enable the Department to analyse & determine the acceptability of proposed mitigation & offset measures. | Further information regarding the quality & structure of impacted areas of this community, as well as the extent of the community at the local & regional landscape level is required. Information on the location, quality & ecological value of any proposed offset is also required. | 10.3.5 |
| 26.4 | The EIS identifies populations of greater than 1000 individuals of *Callistemon pungens* present within the inundation area. | The regional significance of this vulnerable species & potential for fragmentation of the population will require more comprehensive details regarding the location & methodology for the proposed mitigation & offset strategies. | 10.1 |
| 26.5 | The aquatic ecology report states 'Stanthorpe Shire Council (SSC) proposes to undertake further monitoring to determine the distribution and abundance of the Bell's Turtle to determine the need to for further investment in infrastructure which permits free movement of turtles upstream and downstream of the dam. | The department requires further information on:<br>- the distribution and abundance of the Bell's Turtle within the project area<br>- the extent of habitat suitable for the Bell's Turtle within and downstream of the inundation area<br>The information that would come from the proposed survey will be required to complete the assessment of potential impacts of this proposal. | 11.1.4<br>Appendix G |
| 26.6 | Although MNES have been identified within the EIS, a number of matters require further elaboration. | When considering potential impacts on listed species & communities, the EIS should address issues including but not limited to; - condition, number, & size of the individuals/populations being impacted - regional significance of the impacted population/community - likely effects & extent of the impact at a local & regional level | 10.2, 10.3 |
| 26.7 | Any secondary impacts associated with MNES impacts should be considered in the EIS. I.e. analysis of the extent of the potential impacts resulting from edge effects, fragmentation, & downstream impacts to matters of NES will be necessary to support a decision on the proposal. | All potential impacts need to be explored and discussed, with mitigation measures proposed where appropriate. Information regarding the connectivity and regional significance of species and ecological communities present at the project location should be also be presented. | 10.2.3, 10.2.4, 10.2.5, 10.3.2 |
| 26.8 | More certainty regarding the location of infrastructure associated with the proposal, such as supply pipelines is required, including analysis of the potential impacts on MNES. | Provide a greater discussion on the location of associated infrastructure and its potential impacts on MNES. | 10.2, 10.3 |
| 26.9 | The extent of potential downstream impacts of the project on MNES does not appear to have been quantified in detail. | The SEIS should give consideration to the extent to which the operation of the impoundment and associated water extraction will result in downstream impacts to MNES. | 10.3.2, 10.2.3 |
| 26.10 | The Department requires analysis of the anticipated effectiveness of proposed mitigation measures. Information may be drawn from examples of previous successful use, scientific studies or papers, or comparisons with similar activities. Where success is uncertain, mitigation and offset programs should include a variety of measures to ensure that the necessary benefit to the species or community is realised. | | 10.8.3 |
| 26.11 | The proponent needs to discuss and asses the consistency of the proposed offset strategy with the Draft Policy Statement: Use of environmental offsets under the Environmental Protection and Biodiversity Conservation Act 1999. | | 10.8 |
| 26.12 | Further detail regarding the proposed offset strategy for approximately 40-77 ha White Box, Yellow Box, Blakely's Red Gum grassy woodland and derived native grasslands ecological community is required. | The proposed location, size, condition, security of tenure and active management arrangements of the proposed offset locations should be discussed. The Department also requires information regarding the scientific certainty, demonstrated effectiveness & probable success of any proposed offsets. | 10.8 |
| 26.13 | The proponent should consider the potential application of section 527E of the EPBC Act, relating to indirect consequential impacts. The Minister is obliged to consider potential impacts that may occur as a result of this project, e.g. additional land clearing or water quality/run-off issues that may arise in relation to the expansion of irrigation farming activities. | As irrigation farms is an objective of the larger dam option, such potential impacts should be analysed and discussed to the extent that they are reasonably foreseeable. Section 527E is also relevant of ESD being extended. | 20 |
| 26.14 | The EIS states that the Fletcher/Ballandean dam site has the potential to deliver comparable town and irrigation supplies, however Emu Swamp Dam was preferred due to higher costs of infrastructure relocation for the combined urban and irrigation supply, and marginally better yield. It is stated the Fletcher/Ballandean site was likely to impact a similar amount of endangered vegetation as the Emu Swamp Dam. | The EPBC status of the vegetation likely to be affected at this site should be discussed. | 2.4 |
| 26.15 | There is some inconsistency in Section 3 & 4 of Appendix C regarding the location of Grevillea scortechinii susps. Scortechinii. There is also some confusion as to whether the EIS is referring to Acacia pubilolia (EPBC listed) (Table 9-20) or Acacia pubiflora (not EPBC listed) (Appendix C, Section 4). | The SEIS to clarify the species. | 10.2.1 |
| 26.16 | Goodenia macbarronii is not an EPBC listed species; however it was listed as vulnerable under the EPBC Act in Table 9-20 & in Appendix C. | | 10.2.1 |
| 26.17 | Information regarding matters of MNES has been drawn together in Appendix C, is appreciated, though needs to be backed up by supporting documents. | Any statements regarding the certainty and scale of impacts should however be referenced to supporting information from elsewhere in the EIS and related technical appendices. | Appendix H |
| 26.18 | A supplementary report will be required to ensure adequate consideration is given to matters of MNES. The response of the proponent to comments raised during the submission period is required by the bilateral agreement between the Australian & Qld Governments | | Appendix H |
| 27.1 | The statement in the EIS "*The increased irrigation water from the project will not lead to increased cropping areas*" is perhaps unrealistic as greater reliability will potentially lead to a modest expansion of the irrigation area either on farm or as a result of trading. | It should be noted that where a Land and Water Management Plan (LWMP) is to be undertaken it should include not only the area that is currently being irrigated but also any proposed future expansion areas. If this is done then the approved LWMPs will not have to be amended at a future date. | 1.5.2.6 |
| 27.2 | In the third paragraph there is mention of the two components of supply; urban and irrigation. These are described as "water entitlement licences". This is incorrect as these would be issued as water allocations under the Resource Operations Plan (ROP) not as licensed entitlements. | The provisional nature of these allocations—subject to processes under the ROP—needs to be acknowledged. | 21 |

| Ref. | Major Issues - Details | Seeking / Recommending / Clarification | Location of response in Supplementary Report |
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| 27.3 | *Section 1.7.1 Key points:* Point 1 - Suggest this point be amended to read "unallocated irrigation water may be provided from a dam" rather than "is to be". | | 21 |
| | Point 4 - The draft ROP does not limit trading but supplies a framework under which trading can occur particularly within river zones. Trading between zones is however more tightly constrained. | Stating that under the ROP "there will be limited, if any" trading is misleading and incorrect. | 21 |
| | Point 5 - This is a community attitude and not a point drawn from the Draft ROP. | Statement should not be included here. | 21 |
| | Point 6 - The ROP will contain an amendment clause which will allow the document to be amended to include the Resource Operation licence for the operator of the infrastructure when this licence has been prepared. This will be post the release of the final ROP and will be at around the time the dam may be constructed if it proceeds. | All properties that acquire new water will have to prepare a LWMP (under section 73 of *Water Act, 2000* ) and the plans will have to be in place prior to the use of that new water. Economic and engineering feasibility and suitability should be addressed prior to the acquisition of the irrigation water. Land suitability assessments should be undertaken as part of the LWMP requirements prior to the purchase by a landholder | Noted |
| 27.4 | Water Act 2000: Development permit also required for taking, or interfering with water; and for quarrying in a watercourse. | Clearing of vegetation under the *Water Act 2000* that requires a Riverine Protection Permit may also require authorisation under the VMA 1999. New water allocations for irrigation purposes will require a Land and Water Management Plan to be developed by the users for approval. | Appendix C, 1.5.2 |
| 27.5 | Land Act 1994: The EIS incorrectly states, "Permits to clear vegetation on State-owned land are administered under the Land Act 1994", this is incorrect. It is the Vegetation Management Act 1999 that administers permits to clear vegetation. | This section needs to be corrected. | 21 |
| 27.6 | Should make reference to the *Forestry Act 1959* .<br>As well as the proposed use of quarry materials from a Water Reserve (as detailed below in Section 3.2.1.1) there are also small quantities of forest products on State lands within the proposed inundation area. DAFF Forest Products requires SDRC to consult with DAFF Forest Products in regards to these forest products.<br>The clearing of the shire roads for the purpose of laying pipelines may also involve some forest products. | The SEIS will need to make reference to the *Forestry Act 1959*. | 1.5.2.8 |
| 27.7 | Urban Water Supply Dam -<br>*First paragraph:* Suggest more detailed description of the location of Storm King dam is included for clarity. | The SEIS to clarify the location of Storm King dam. | 2.2.1 |
| 27.8 | • The planning horizon of the 2007 report is out to 2070. This seems somewhat ambiguous. It is suggested a planning horizon to meet demands to 2040 might offer more credibility to the projections.<br>• The projection for the non-residential demands seems questionable. The projections for low, medium and high have been calculated simply by adding 110, 220 or 440 ML per annum to the demand every 10 years.<br>• This assumes that the current level of growth being experienced in the town will continue at the same rate far beyond what can be considered a foreseeable future. | This section needs some further analysis to back up the future demand projections. | 2.2.2 |
| 27.9 | The No Project Alternative -<br>Third paragraph is no longer relevant. Suggest this be replaced with projections of how long it would take Storm King Dam to empty with a reoccurrence of drought conditions. | The SEIS needs to take into account the recent rains that have changed drought situation. | 2.4 |
| 27.10 | Local Dam & Pipeline Options - More information should be provided on the assessed alternatives and the reasons why they were considered not suitable. | The SEIS needs to provide more information on the assessed alternatives and the reasons why they were not considered suitable | 2.4 |
| 27.11 | Local Dam & Pipeline Options - As the irrigators have not committed to the project at this stage, further detail should be provided on the suitability of the other sites/alternatives for an urban only water supply, taking into account any amended projections for the non-residential water demand (as a result of further analysis as requested in Section 2.2.1). Other sites may be more suitable with fewer environmental impacts. | The SEIS needs to provide further detail on the suitability of the other sites/alternatives for an urban only water supply, taking into account any amended projections for the non-residential water demand | 2.4 |
| 27.12 | Local Dam & Pipeline Options - Section 10 refers to the fragmentation of the river environs due to the existence of numerous small weirs along the course of the river, every 1.5 km, and therefore concludes a transfer device is not necessary. Given the proposed height of the dam this structure will form a significantly larger interruption to the movement of fish and other aquatic fauna. | Further consideration for transfer of aquatic species across the dam wall may be necessary – this could add considerably to the cost of the dam. This may be better managed by adopting an alternative such as an offstream storage to limit the interruption along the river. | 1.4.5 |
| 27.13 | If the project cannot be delivered on a fully commercial basis then it will need to comply with the Policy Framework for Community Service Obligations and be consistent with a Department's Cabinet Budget Review Committee (CBRC) approved outcomes and funding priorities and considered in the context of other Departments' outputs. (Refer –Guidelines for Financial and Economic Evaluation of New Water Infrastructure.) | Proponent to consider policy framework if the project can not be delivered as a fully commercial operation. | 15.10 |
| 27.14 | Construction Activities - Emu Swamp Dam - Clearing: If debris is spread back over the reaches of the inundation area or is windrowed, care must be taken to ensure timber does not concentrate overland flow that has the potential to increase erosion. | The SEIS to consider potential increases to erosion from land clearing | Appendix J (4.1) |
| 27.15 | Quarrying and Sand Extraction -<br>The EIS details the intention to use quarry materials in the construction of the dam. The proposed quarrying falls partially within Lot 39 BNT1522 (location of the intended quarrying is shown on page 10 Section 5 Planning & Land Use). This particular Lot is a Water Reserve with the Stanthorpe Council as Trustee. The main gazetted purpose for this reserve is water. There may be conditions under that tenure which permit the use of quarry material from the reserve to construct a dam on the Water Reserve. However it is likely that at least some of the quarry material will be used on land which is currently freehold. At the very least, this quarry material would attract royalty payment under the Forestry Act 1959. | Use of the quarry material on land not part of the Water Reserve would raise Native Title implications. These implications need to be sorted prior to any interference. SDRC should liaise with DAFF Forest Products in respect to the use of quarry materials. Quarry and sand extraction within a watercourse will require approval under the Water Act 2000. | Appendix C, 1.5.2 |
| 27.16 | Concrete Manufacture - The EIS is not specific regarding the sources of water for the concrete manufacture. This may involve the take of water from a watercourse, lake, spring, groundwater supplies or overland flow sources. The take or interference with water from any of these sources may need an authority. | SDRC should contact DNRM's Warwick office to obtain the appropriate authority, if required, before taking any water. | Appendix C |
| 27.17 | Roads - The dedication of a new road requires assessment of Native Title which may require an ILUA. This can be a lengthy process. | Provide information on the formal process and likely timing. | Appendix C, 1.5.2 |
| 27.18 | Water Supply and Storage - Emu Swamp Dam water may have a greater risk of contamination from Stanthorpe township than water from Storm King Dam. While the urban supply will be treated and therefore unlikely to be an issue, this could be a issue for the irrigators depending on the form of contamination from an urban environment. | Consider the potential implications further. | 8.4.1 |
| 27.19 | Further testing of the site by way of pits and trenches across the dam axis is required to ensure sound cut-off conditions can be established within the estimated costs for the project, before the project receives final approval. | Further testing to ensure sound cut-off conditions can be established within estimated costs is required before project receives final approval. | 4.3 |
| 27.20 | Soils of the Inundation Area - "Non-sodic and saline" should be referred to as "non-sodic or not saline" | Correct entry on page 4-12 & 4-14. | 19 |
| 27.21 | Pipeline - The EIS has identified a moderate environmental risk where texture contrast soils are encountered. | These soils—as well as saline areas—should be identified along the pipeline routes and appropriate management actions identified to safeguard the pipeline trench from accelerated erosion. | 4.2, 4.5, 4.6, Appendix J (4.1) |
| 27.22 | Pipeline routes - Care should be taken to minimise soil disturbance, and surface soils should be reinstated to natural ground level with sufficient compaction to reduce the likelihood of subsidence. Subsidence can lead to flow diversion and concentrated runoff that may cause erosion and land degradation at the site of works. Backfill will need to be compacted and spread to ensure that excess spoil does not divert surface runoff resulting in erosion. | | 4.5, Appendix J (4.1) |
| 27.23 | In table 5-4 (5) Strategies for Rural Zone in SDRC Planning Scheme - it states that land is subdivided into lots that reflect its capability and suitability. | DNRM would prefer that whole properties are acquired rather than create small lots as a result of partial acquisitions and provision are made for amalgamations of remnant parcels if subsequently sold. | 5.1, 5.3 |
| 27.24 | Landuse Suitability and Good Quality Agricultural Land - The project has not satisfied the principles of SPP1/92, as overriding need and alternative location principles have not been adequately addressed | The SEIS needs to provide further information on the need and alternative location principles. | 5.4 |
| 27.25 | Table 5-14 Land Use Suitability and GQAL Summary - A map showing Soil Map Units A, B and C should have been provided in the EIS | This section should include a map showing the different soil types. | 4.2 |
| 27.26 | Inundation Area and Surrounds - There is scope for acquisition of affected lots and amalgamation/subdivision of remnants post-construction | | 5.1, 5.3 |
| 27.27 | Operation - Inundation Area and Surrounds - "Good quality agricultural land would be affected however there is little scope for avoiding this impact". The overriding need and alternative location principles of SPP 1/92 has not been satisfied. They need to be satisfied. Where only partial acquisition is undertaken suggest purchase of whole lots and amalgamation of remnants. | The SEIS needs to provide further information on the need and alternative location principles. | 5.4 |
| 27.28 | Paragraph 8 - Creation of smaller lots created by the realignment of Stalling Lane is not preferred. It is suggested that remnant lots of amalgamated. | | 5.1, 5.3 |
| 27.29 | The modelling results in the introduction are presented as absolutes with no comment on the potential accuracy. Hydrologic modelling is not absolute in nature. It is suggested that some form of comment/disclaimer be used to indicate the limitations of the modelling and data used. | Include the following disclaimer in the document as per the Clause 13 of the HYDROLOGY MODEL (GRANITE MODEL), LICENCE AGREEMENT BETWEEN THE STATE OF QUEENSLAND AND SINCLAIR KNIGHT MERZ Special Licence No: 2005/050729:<br>While every care is taken to ensure the accuracy of Hydrology Information supplied by the Department of Natural Resources and Water, it makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which might be incurred as a result of the Hydrology Information being inaccurate or incomplete in any way and for any reason. | 7.4.3 |
| 27.30 | There may be some confusion of the term 'Existing Entitlements' used in this section. In the WRP/ROP, this term includes all existing licences as well as the unallocated water outlined in the WRP within the Granite Belt. In Section 7, the use of existing entitlements and dam scenarios could have readers assuming that the existing entitlement within the Water Planning process does not include the unallocated water. | Relabel this case or scenario to remove confusion. | 7.5.4 |
| 27.31 | Question whether evaporation and seepage loss from the storage taken has been into account in the hydrology study.<br>Concern related to the ability of the project to perform during extended drought conditions as highlighted in Report where for a period of some 13 years between 1908 and 1916 the urban only and combined dams fail to meet the targeted supply objectives. | Detail figures if evaporation and permeability loss has been taken into account.<br><br>Acknowledge this potential limitation in the EIS so there is transparency in the disadvantages as well. | 7.4.3 |
| 27.32 | The catchment area for the Border Rivers of 42,000 square kilometres quoted in section 7.1.1.1 is not represented in figure 7-1 which only has the Queensland component of the catchment highlighted. The Queensland contribution is only a part of the 42,000 square kilometres.<br>The statement "1.4% of the Border Rivers catchment in Queensland" in the second paragraph should be amended to reflect this as well. The "in Queensland" should be removed. | Amend text. | 21 |
| 27.33 | A check of this table has shown that several (Adopted Middle Thread Distances) AMTD's are different although not significantly so. There is however three weirs shown that do not correspond with any specifications held in DNRM's Water Entitlement Register Database. There are also 3 weirs specified in the Water Entitlement Register Database that do not appear on the list. There is a need to check this, as they may be the same structures with different attributes. | Review text. | Noted |
| 27.34 | The figures presented need to be shown relative to bed levels at points where AHD for ARI has been specified to indicate depth of flows. This will give some meaning to the figures i.e. indicator of depth of the flows. | | 7.3 |
| 27.35 | The first paragraph under the heading of the Water Resource Plan would more closely reflect the WRP Outcomes if the first sentence was amended to:<br>'The Border Rivers WRP provides a framework for sustainable management of water to achieve a balance between the consumptive needs and the needs of the environment.' | Amend text. | 21 |
| 27.36 | The figure quoted in the EIS "it is estimated …… volumetric licenses of 1800 ML currently exist…" is incorrect as it should be approximately 1930ML and it applies to the nominal volumes of the proposed water allocations not "volumetric licences". There are very few 'volumetric licences' on the Granite Belt at this time. The volumes will not appear until the ROP is finalised. Quoting 'volumetric licence' figures is pre-empting the ROP. The draft ROP is aimed at converting licences to allocations. The term licence is used incorrectly on numerous occasions. | Amend text. | 21 |

| Ref. | Major Issues - Details | Seeking / Recommending / Clarification | Location of response in Supplementary Report |
|---|---|---|---|
| 27.37 | Edit the last paragraph to:<br>Accommodation Creek combines with the Severn River approximately 12 km downstream of the dam. Accommodation Creek and its tributaries contribute significantly to the inflows as they drain the Girraween National Park which has an approximate catchment area of 118 km2. The Accommodation Creek inflows substantially increase the existing entitlements scenario monthly median flows. At Node J the existing entitlements scenario monthly median flows are further increased by inflows.<br>The last sentence also needs some clarification. What "inflows" are increasing the scenario flows? Is this a double up on the reference to the Accommodation Creek inflows? | Amend text. | 21 |
| 27.38 | There is some confusion regarding the allocation of 1500 ML and use of a 750 ML stage capacity. This needs some further clarification to understand the meaning of this section.<br>The 750ML is not a capacity, it is a staged yield or alternatively the capacity of the dam is to be staged to give a yield of 750ML. | Provide greater clarification. | 7.5.1 |
| 27.39 | In table 7.18, the 1500ML is called up as a licence volume. This is somewhat misleading and should be retitled to better represent the provisional nature of this supply at this time. Additionally this would not be issued as a licence but as a water allocation. This terminology "water entitlement licence" appears several times in the text of the document and is incorrect. | Amend terminology. | 7.5.1 |
| 27.40 | In table 7.19 & 7.29 the mean number of days of spill per year seems very high for both scenarios, particularly in light of the reliability that has been indicated. | Review text. | 7.5.3 |
| 27.41 | Table 7-20 is entitled EFO Performance Indicators – Node J (Farnbro AMTD 198.6km), this table appears to present the EFOs as outlined in the WRP. However, the percentage change from existing entitlements (i.e. the last column) seems to present changes from Dam Scenario divided by Existing Entitlements which is not linked with the EFOs of the WRP. This column should present the EFOs at node J under the WRP. To do this the following calculation should be used (Dam Scenario indicator divided by Predevelopment indicator) minus (Existing Entitlements indicator divided by Predevelopment indicator). | | Refer to Table 7-21 in EIS |
| 27.42 | As with Table 7-20, Table 7-21 final column could be changed to reflect the change between development scenarios with the pre-development condition. | | Noted |
| 27.43 | It is suggested that these figures be amended to better illustrate the impact of the dam relative to the current development. The current graphs seem to indicate that there is no impact. Suggest just a scale change may be required. | Amend figures. | 7.5.4 |
| 27.44 | Paragraph should read: The Border Rivers draft ROP, released in January 2007, outlines the provision for unallocated water as outlined above for town water supply and for irrigation and associated industry. The Explanatory Notes for the draft ROP, Chapter 2, provide a breakdown of the maximum volumes of unallocated water available in each sub catchment, expressed as a long term average annual take. | Amend text. | 21 |
| 27.45 | Concern regarding the statement 'The dam will have no impact on existing flows upstream of the inundation area' on whether the comment applies to the urban or the combined dam or both. | | 7.5.4 |
| 27.46 | Consideration should be given to the impacts of drought conditions on the 2006-07 data (SWAMP). Poor weather conditions could result in lower crop production, less fertilizer use, less runoff and therefore less nutrient loss to water courses i.e. "normal" conditions may result in much higher nutrient concentration in the streams. | | 8.2.2 |
| 27.47 | Consultant should revisit the original major ions data and report the correct numbers for Copper, Zinc, Original data for Aluminium and Manganese, indicates figures like < 30 ug/l which means the concentration is below the detection limit or not present. | | 8.2.2 |
| 27.48 | Dot point 3 - Nutrient concentrations that are likely to occur in Emu Swamp Dam would be higher than those reported for Quart Pot Creek in Storm King Dam due to the higher level of intensive horticulture upstream of Emu Swamp Dam plus urban environment, compared to Storm King Dam. | | Noted |
| 27.49 | Agree with the routine and event monitoring proposed during the construction phase; however Total Suspended Solids should also be measured. Also, more detail should be provided on how the event sampling will be done e.g. manually or with pump samplers and where will this occur. | | 8.3, 8.3.1 |
| 27.50 | For the operational phase, monitoring of nutrients, algae and pesticides are essential. Also need to include TSS and should have a "broad scan" analysis of pesticides conducted not just limit it to diuron which is how the document reads. | | 8.3 |
| 27.51 | EIS mentions in Operation Stage (page 7-75 and 20-35) using a "fixed site" water quality meter with telemetry. More detail should be provided on what this means. Will it measure turbidity and/or sediment. If the intention is to measure turbidity there is a need to get a turbidity sediment relationship as sediment is the issue not just turbidity. | | 8.3 |
| 27.52 | Those requirements that cannot be satisfied by a vegetation offset must provide a rigorous level of information to meet the requirements of the code.<br>The EIS makes no mention of how the following Performance Requirements (PR) for salinity, erosion and connectivity are to be addressed (these PR's cannot be satisfied by proposing a vegetation offset).<br>The planting of vegetation to connect remnant areas to maintain connectivity will not satisfy the requirements of the performance requirement.<br>Figure 9-19 shows the inundation area as one of two highly fragmented east-west corridors. The removal of one of these corridors (through the inundation) may not provide suitable connectivity. | Performance Requirements under the Regional Vegetation Management Code (RVMC) must be addressed when applying for development approval.<br>Address the performance requirements for salinity, erosion and connectivity that cannot satisfied through a vegetation offset.<br>Detail how impacts of erosion associated with clearing of vegetation in the inundation area will be mitigated.<br>As the connectivity cannot be offset, if the proposed 200 metre buffer area is to be used as the connectivity corridor it must consist entirely of remnant vegetation.<br>Provide more information on how connectivity will be maintained to ensure ecological processes, biodiversity, ecosystem function and connectivity to adjacent neighbouring vegetation are maintained by the remaining vegetation in the application/proposal area. | 10.5 |
| 27.53 | The extent of remnant regional ecosystems to be cleared, as listed in tables 9-16 and 9-17 are significantly different from those calculated by DNRM using the inundation area GIS shape file provided by SKM.<br><br>The EIS does not consider the impact of the changed hydrology on the vegetation bounding the FSL. Vegetation located immediately adjacent to the inundation area may be affected through water logging of the root zone and therefore death of the vegetation resulting in clearing.<br><br>Area of impact could also include relocation of telephone and power lines if clearing of assessable vegetation will be involved. | Provide further discussion and explanation on the calculations to ensure the extent of clearing is accurately recorded and assessed – See attached table in Appendix 1 for comparisons. | 10.3.2, 10.6 |
| 27.54 | As stated in the Policy for Vegetation Management Offsets (28 September 2007), the proponent has requested a Deed of Agreement as a legally binding mechanism to identify and secure the offset requirement. To meet this offset requirement the applicant must demonstrate "high level of community benefit at a local, regional or state level and locating/identifying the offset would unreasonably delay the project".<br>The irrigation component of the dam remains uncertain including the price of water and commitment by irrigators. Given that the irrigation component is for the purpose of securing long-term water supply (current irrigators use independent supplies), a delay in locating offsets would not appear to have a significant impact on this component of the proposal. Therefore, the explanation as to why a Deed of Agreement is required needs to be strengthened.<br><br>If the requirements of – "high level of community benefit at a local, regional or state level and locating/identifying the offset would unreasonably delay the project" – cannot be demonstrated then the applicant will be required to locate and secure offsets as per requirements 1-7 of the Vegetation Management Offsets Policy. | If the proposal does not ultimately include the irrigation supply component and alternative options (such as an off-stream storage) and alternative locations are considered, the extent of impact on remnant vegetation of any alternative compared with the current site needs to be given consideration. | Appendix I |
| | The offsets will need to be found for remnant and non-remnant regional ecosystems including those associated with wetlands, watercourses. Offsets must also be found for areas of cleared essential habitat.<br>Until a legally binding mechanism is signed by both parties, the development approval cannot be granted. If a Deed of Agreement occurs as the agreed best course of action for vegetation offsets, then the Deed of Agreement Document must be signed by the applicant and Chief Executive of the Department of Natural Resources and Water. | As part of the Vegetation Management Offsets Policy, where a Deed of Agreement is proposed, a Financial Security must be provided. The applicant must provide at least one quote for the securing and management of the offset for the purposes of determining financial surety. The surety can be calculated using the Guideline available from the Department of Natural Resources and Mines (DNRM). If another method is used there needs to be sufficient explanatory information to enable the Department to review the appropriateness of the method. | Appendix I |
| 27.55 | All native vegetation proposed to be cleared—other than non-remnant vegetation on freehold land—must be assessed. This includes road and other reserves. | Offsets will be required on road reserves where clearing 'Endangered' and 'Of Concern' vegetation is greater in width than 10 metres, 0.5 hectares in size and where it is listed as a dense regional ecosystem, mid-dense wet sclerophyll, melaleuca, or wetland regional ecosystem under the Regional Vegetation Codes. | 10.6 |
| 27.56 | Vegetation surveys were generally restricted to dam infrastructure and inundation footprint area (and pipeline areas). The important riparian vegetation community identified in the dam footprint area is a newly described RE 13.3.1x1 which contains riparian shrub-land on braided stream channels (A2a and A2ax). Water dependant vegetation communities such as A2a undoubtedly occur downstream of the dam infrastructure, however surveys did not incorporate these communities which would be impacted by reduced (duration and volume) flows. The EIS is deficient in not assessing the impact of infrastructure on downstream vegetation communities.<br><br>The electronic version of consultants report "Tec_2_Terrestrial Flora. pdf" contains a misleading illustration. Figure 9a: Conservation Status in the dam inundation contains shows that significant areas are "not of concern" where they are in fact "of concern" category. Misalignment within the legend seems to have caused this.<br><br>The TOR (Section 4.7.3.1 Description of Environmental Values) for EIS requires the consultant to provide "a description of the habitats and flora compositions (using maps) potentially impacted by the Proposal"<br>and includes a number of specified items. Many of these habitat descriptions have been addressed through<br>State of the Rivers reporting methodology by EM; however there is no flora mapping or descriptions available.<br>Aquatic vegetation (submerged, semi emergent and emergent) was only minimally surveyed as part of the<br>aquatic ecosystem report. Mention of species at survey sites was restricted to general observation and desktop recording.<br>There is no description of habitats and floral compositions other than those provided in the terrestrial survey. | The type and extent of these vegetation communities needs to be mapped down to the limit of hydrological impact and added to the overall study conclusions.<br><br>A detailed survey and mapping of aquatic plant communities is required to establish the presence and distribution of rare or vulnerable species in this component of the ecosystem and as a base for the assessment of impact. | 10.3.2,<br>10.8.2 Figure 10-8,<br>11.1.3 |
| 27.57 | The aquatic ecology survey included only two field surveys, one in Spring 2006 and one in Autumn 2007. Both surveys were undertaken under drought conditions which have biased observations towards depauperate fauna in depleted pools, and an increase in terrestrial biota components. | | 11.1 |
| 27.58 | The Nature Conservation Act lists the platypus as a "Special Least Concern Species". The aquatic ecology study does not mention platypus when it could have been expected to be a significant fauna species. Platypus is considered a species of cultural significance and need to be afforded greater attention in both survey and assessment sections. Given that it is highly likely that populations do exist downstream and prior to the junction with Accommodation Creek, it is recommended that the terrestrial fauna survey be extended to this sensitive area to detect populations of platypus which may be impacted by the proposal.<br>Section 4.7.1 of the Terms of Reference defines Sensitive Environmental Areas. These are areas regarded as sensitive with respect to fauna and flora and have one or more of a number of features (and which must be identified, mapped, avoided or risks minimised). One such feature is sites containing feeding, breeding, resting areas for populations of species of special cultural significance (e.g. platypus). | | 11.1.6 |

| Ref. | Major Issues - Details | Seeking / Recommending / Clarification | Location of response in Supplementary Report |
|---|---|---|---|
| 27.59 | The consultant has failed to note River blackfish is also a regulated species under the Fisheries (Freshwater) Management Plan 1999. Possession of this species is illegal. It places this species alongside the lungfish and Mary River Cod in conservation significance. | | Table 11.10 |
| 27.60 | The statement that Murray Cod have been introduced into the catchment is incorrect as they are native in the system to at least Nundubbermere Falls. They may have been introduced above Nundubbermere Falls by early settlers to supplement local fish populations. | | 11.1.5 |
| 27.61 | One specimen of Bell's Turtle was captured downstream of the proposed infrastructure. The occurrence of this EPBC listed species immediately downstream warrants further investigation to determine if a separate population exists in the area. The information on Bell's Turtle and Murray Cod has been transposed in Table 8 of Section 2.2.4 in the Appendices leading to misinterpretation. | | 11.1 |
| 27.62 | Both Eel-tailed Catfish and Murray Cod are species of management concern. Catch of both species is restricted to five per fisher in Queensland freshwaters through the Fisheries (Freshwater) Management Plan 1999. Restrictions on the take of all three species indicate the uniqueness of the upland zone fish community. The lack of information on the distribution of these species in the Granite Belt catchments warrants, as suggested by the consultant, a thorough seasonally based survey. | Conduct such a survey as part of the supplementary EIS information requirements. | 11.1, 11.2 |
| 27.63 | The EIS does not adequately describe aquatic habitats. Section 10.2.2.1 indicates that "descriptions of the aquatic habitat descriptions" were included in the field sampling program. These are addressed in Section 10.4.1 Aquatic habitats of the EIS.<br>10.4.1.1 Stream Condition<br>10.4.1.2 Water Quality<br>10.4.1.3 Hydrology<br>While survey sites are described in the Technical Report, none of these sections above provide a descriptions of the habitats nor do they indicate relative distributions of habits. Such descriptions need be provided for sensitive habitat within the dam infrastructure footprint as well as downstream to Accommodation Creek. | | 11.1.4 |
| 27.64 | A section of 600m downstream from the dam wall was examined and it was found that "a minor impoundment of the Severn River, present approximately 2 km downstream from the Fletcher Crossing causeway, has severely impacted the integrity of riparian vegetation in the vicinity." Hence the scale of the proposed infrastructure could have significant and larger scale downstream effects on riparian vegetation. Potential downstream impacts including dieback and loss of critically endangered and vulnerable species are indicated in Appendix F of the report. A detailed survey and assessment of the downstream riparian areas is warranted given the potential impact as well as potential remediation and mitigation opportunities through environmental flow release. | Conduct a detailed survey and assessment of downstream riparian areas and identify potential for remediation and mitigation opportunities. | 11.1, 11.2 |
| 27.65 | In the Table10-11 Key statistics for Emu Swamp Dam, the percentages of surface area are confusing and do not add to 100% for below and above 5 metres.<br>The statement that "the stocked predatory fish are generally considered to have more significant movement/migratory needs" [than upland species] requires revision in that a draft report on a recent study on meso-scale movement of small and medium sized fish in the Murray-Darling Basin (Hutchinson et al 2007) has shown that "Hypseleotris spp [gudgeons] were recorded moving up to 13km upstream and over 5km downstream. Movements by Hypseleotris were as rapid as 2km in 4 days." | | 11.1.5 |
| 27.66 | Several statements refer to the impact of existing weirs on fish populations. While this may be true in individual situations, remediation of the situation is feasible and desirable through the retrofitting of fishways to existing structures, the existing situation should not deter the construction of fish passage infrastructure to allow fish movement in both directions.<br>There is sufficient evidence to indicate that fish passage would benefit populations of native species through gene pool mixing and species mixing.<br>There are no performance measures which deal with aquatic fauna and flora other than those dealing with pollutants and weeds. One key performance requirement is that the infrastructure does not adversely impede the movement of native fish species. The establishment of a fish passage structure will ensure that fish passage is maintained. Fishway monitoring will enable the demonstration of the effectiveness of the infrastructure mechanism.<br>Monitoring programs for riparian vegetation downstream of the infrastructure (to assess effectiveness of the flow releases), fish passage infrastructure (to report and assess effectiveness of environmental flow release)<br>and water quality (to ameliorate downstream any physiochemical impacts) is required to enable reporting and<br>assessment by the infrastructure operator. | | 11.2, 11.3 |
| 27.67 | Detail of offset strategies for RE 13.3.1x1 has not been provided for riparian vegetation communities. Such a strategy may involve the protection of similar adjoining riparian vegetation communities as an offset option. | | Appendix I |
| 27.68 | Waterways, riparian zone, and littoral zone are regarded as environmentally sensitive localities. The fauna and flora must be described (Section 4.7.1.1 of the TOR). The EIS has failed to recognise that waterways and associated riparian vegetation and fauna immediately downstream of the infrastructure will potentially be impacted by the proposed infrastructure and must be surveyed and assessed accordingly. Neither the terrestrial nor the aquatic ecology surveys cover the sensitive downstream areas adequately.<br>The range of native species in this unique upland zone warrants the installation of a fish passage mechanism in the infrastructure. The existing structures do impede fish movement however this should not be used as a benchmark for future development. Retrofitting of existing weirs would enhance movement and other aquatic organisms markedly. | The EIS requires supplementary information on the description and mapping of riparian and aquatic vegetation communities below the proposed infrastructure which will be impacted by the operation of the infrastructure. The supplementary report should also contain an assessment of impact and remediation opportunities. The unique nature of the native fish community warrants further survey. Further survey work is required to establish the distribution and abundance of platypus and Bell's Turtle below the infrastructure area to Accommodation Creek. | 11.2, 11.3 |
| 27.69 | If clearing of assessable vegetation is required for the relocation of the telephone lines approval may be required.<br>If clearing of assessable vegetation is required for the relocation of the power lines approval may be required. | | Noted |
| 27.70 | No details are provided on the cost of the water to the irrigators and the expected returns. An assessment of the long-term viability of particular sites to be used for irrigation should be done. | | 11.2, 11.3 |
| 27.71 | Care must be taken with the disposal of cleared vegetation to ensure the timber does not concentrate overland flow that has the potential to increase erosion. | | Appendix J (4.1) |
| 27.72 | SWAMP water quality data may not be representative of runoff quality over a wider range of climate conditions because it was mainly collected during a period of below average rainfall. | | 8.2.2 |
| 27.73 | Should include reference to the *Forestry Act 1959* . | Include reference to the *Forestry Act 1959* . | 1.5.2.8<br>Appendix J (2.3) |
| 27.74 | Stanthorpe Shire needs to develop a process to determine who is eligible for the water allocation. | | 1.4.3 |
| 27.75 | Ensure overland flows are not concentrated by vegetation debris. | | Appendix J (4.1) |
| 27.76 | Surface soils should be reinstated to natural ground level with sufficient compaction to reduce the likelihood of subsidence. Subsidence can lead to flow diversion and concentrated runoff that may cause erosion and land degradation at the site of works. | | 4.5,<br>Appendix J (4.1) |
| 27.77 | Ensure overland flows are not concentrated by vegetation debris. | | Appendix J (4.1) |
| 27.78 | • Routine water quality monitoring in the dam should be ongoing for the life of the operation not just the first 3 years.<br>• Broad scan of pesticides should also be analysed, as well as the major ions analysis not just the limited elements mentioned<br>• for the fixed site monitoring, need to outline how and what parameters are to be measured<br>• for the event based monitoring need to identify what will be measured and how. | | 8.3.1 |
| 27.79 | Operational Works – Clearing Of Remnant Vegetation | Clarify in detail how the applicant proposes to meet the requirements of section 74 'existing development control plans and special facilities' of the Vegetation Management Act 1999 as stated under this section of the EIS. | 1.5.2.5 |
| 27.80 | Mention the *Forestry Act 1959* in regards to the allocation of quarry material. | Include reference to *Forestry Act 1959* . | Appendix C |
| 28.1 | The recommended mitigation measure stated in Table 14-28 "Early consultation with community support agencies should be undertaken to ensure that housing impacts, particularly for low income earners, can be appropriately managed", should be included as a condition in the Coordinator-General's evaluation of the EIS process. | Include as a Coordinator-General condition. | 15.6 |
| 29.1 | The EIS indicates the potential for impacts on several state significant biodiversity values (SSBVs) as defined under Appendix 1 of the Queensland Biodiversity Offset Policy (QBOP). These SSBVs include;<br>- remnant ecosystems (endangered and or of concern)<br>- high value regrowth regional ecosystems (endangered and or of concern)<br>- essential habitat (remnant), *Nephrurus sphyrurus* (Border thick-tailed gecko) and *Chalinolobus dwyeri* (large eared pied bat)<br>- watercourses and associated regional ecosystems<br>-protected animals - Neophema pulchella (turquoise parrot-near threatened), Nephrurus sphyrurus - near threatened, *Lophoictinia isura* (square-tailed kite - near threatened and *Chalinolobus dwyeri* - near threatened<br>- protected plants - *Homoranthus montanus* (vulnerable) | Conduct a detailed assessment to identify additional state significant biodiversity values (SSBVs) in the project area. | 10.8.2 |
| 29.2 | The SEIS should propose a detailed offset package addressing the criteria referenced in the section 10 of the BOP . | Propose a detailed offset package. This package should include information required under section 10 (pages 25-27) of the BOP (Part A Criteria: A3 Information requirement) including: general assessment requirements; specific requirements for offset proposals; and any other specific requirements relevant to the application. | Appendix I |
| 29.3 | The departments 2008 comments regarding the Regional Vegetation Management Code (RVMC) and Policy for Vegetation Management Offsets (PVMO) are still relevant. However the RVMC and PVMO and the act they support (*Vegetation Management Act 1994* ) have been since amended. | Review the performance requirements and criteria of the Regional Vegetation Management Code (RVMC) and Policy for Vegetation Management Offsets (PVMO) and assess how they relate to the Emu Swamp Dam project.<br><br>Address the requirements of the recently released Regrowth Vegetation Code (RVC). | Appendix I |
| 29.4 | Need to provide information in addition to the 2008 submission information requirements including:<br>- assessment of the impacted area against spatial assessment tools released since 2008<br>- assessment of environmental impacts to include all aspects of the New England Tableland Biodiversity Planning Assessment, Version 2.3<br>-assessment of dam inundation area and areas immediately adjacent to the inundation area. | Assess the impacted area against more recent spatial assessment tools, e.g. Qld Murray-Darling Basin Aquatic Conservation Assessment for riverine and non-riverine watercourses and wetlands.<br><br>Ensure the assessment of environmental impacts (inundation area and adjacent areas) includes all aspects of the New England Tableland Biodiversity Planning Assessment, Version 2.3.<br><br>Ensure that all impacts are assessed in the inundation area and the areas immediately adjacent to the inundation area. | 10.2,10.3, 10.5, 10.6 |
| 29.5 | SEIS should include information requested in the 2008 submission. The Border Rivers Water Resource Plan and Resource Operation Plan do contain unallocated water for this area, however requirements for allocation of this water are to ensure that the objectives of the plans are adhered to (e.g. water allocation security objectives and environmental flow objectives). | Provide a more detailed hydrological proposal to allow impacts to be assessed using the hydrological model for the system. | 7.5.1, 7.5.4 |
| 29.6 | Since a Failure Impact Assessment will be required, the works are assessable development under schedule 3, part 1, table 4, item 4 of the *Sustainable Planning Regulation 2009*. If the Dam is referable, proposed conditions for the dam could be provided to the Coordinator-General based on preliminary designs. | Provide URS's preliminary designs for the dam to enable drafting of suitable conditions. | Appendix C |
| 29.7 | The proposed dam has a height above eight metres and >500 megalitre storage capacity a 'Failure Impact Assessment' (FIA) would be required under s343(1) of the *Water Supply (Safety and Reliability) Act 2008.* | Conduct a FIA of the dam. | Appendix C |

| Ref. | Major Issues - Details | Seeking / Recommending / Clarification | Location of response in Supplementary Report |
|---|---|---|---|
| 29.8 | A legislative and planning framework commenced 2012 to protect strategic cropping land (SCL). The Development footprint for Emu Swamp Dam lies within the southern protection area and in on land mapped as potential SCL on the trigger map. The applicant may elect to accept the extent of potential SCL identified on the trigger map or may elect to refine the extent of SCL (on-ground validation assessment against the relevant zone criteria). This validation must be lodged to the Department of Natural Resources and Mines and should be completed during the EIS process. | Address the requirements of the *Strategic Cropping Land Act 2011* (SCL Act) AND State Planning Policy 1/12: Protection of Queensland's strategic cropping land under the *Sustainable Planning Act 2009* .<br><br>Submit an exceptional circumstances application to the CG under the SDPWO Act if permanent impacts on potential SCL in a protection area cannot be avoided. | 4.4 |
| 30.1 | If the project cannot be delivered on a fully commercial basis then it will need to comply with the Policy Framework for Community Service Obligations and be consistent with a Department's Cabinet Budget Review Committee (CBRC) requirements. | Provide an analysis (data, modelling, assumptions) to justify future demand projections.<br><br>Provide further detail on the suitability of other sites/alternatives for an urban-only water supply, taking into account any amended projections for the non-residential water demand. | 15.10 |
| 31.1 | Concern regarding the impacts of the dam on the hydrology at the site. | Need to provide information on the modelled behaviour of the dam water levels at different flow events: -<br>headwater/tailwater fluctuations<br>- rate of headwater rise and recession<br>- spill frequency, depth over crest and duration<br>tailwater levels at commence to spill<br>full time series of daily flow data plotted to show (with crest of spillway/FSL, bed level and height of downstream control marked<br>extraction regime (volumes, frequency, timing)<br>proposed downstream releases including environmental release requirements e.g. inflow/outflow model interactions between the Severn and Accommodation Creek that look at daily flow data comparing flows below confluence. | 7.2.4 |
| 31.2 | Need to more adequately define site specific issues relevant to the provision of fish passage. | Provide details on dam site (from downstream control up to Full Supply Level (FSL) including:<br>- topography (include cross sections at site) and geology<br>- details of downstream control (natural or man-made, levels stability)<br>- access and power to the site<br>Provide details on weirs within the proposed dam FSL and their crest height in relation to minimum operating and/or dead storage levels and their proposed management. | 7.2.4 |
| 31.3 | Requires clarification on who would be the owner and operator of the dam and whether there is capacity to maintain the operation of the fishway during throughout the life of the project. | Confirm who the dam owner and operator will be.<br><br>Ensure capacity to maintain and operate the fishway in good working order for the life of the dam. | 3.4.1 |
| 31.4 | Concern that information relating to fish safety at the dam, in particular safe fish passage over the spillway and across the apron or any dissipation devices needs to be updated. Fish passage will need to be a consideration for the whole dam design. | Provide a discussion on how concept designs for the dam have considered or will incorporate safe upstream and downstream fish passage in the development of the spillway, apron, stilling basin, dissipation design, screening and offtake works. | 1.4.5 |
| 31.5 | Adequate screening will be required at offtake to prevent fish entering or outlet works. Screens with small aperture can have significant maintenance requirements. | Ensure commitment to the adequate maintenance of screens. | 1.4.5 |
| 31.6 | Construction should not commence before the issue of a waterway barrier works approval under the *Fisheries Act 1994* and the *Sustainable Planning Act2009* . Fish passage provisions and designs will need to be signed off prior to construction starting. | Provide revised timelines for the project acknowledging the restrictions on construction until a waterway barrier works approval is provided and give realistic timelines for the development and modelling of fish passage design solutions. | 3.3.3 |
| 31.7 | Upstream and downstream fish passage will need to be adequately provided. Trap and transfer for fish passage is generally not supported due to the level of uncertainty with long-term resourcing, adequate operation and access during periods of high flows.<br><br>Need to consider interactions with other instream fauna including turtles and platypus with fishway design. | Consult with fisheries in the design process for fish passage in accordance with the 'Fish Passage Design Implementation Process and Criteria' protocol. Design engineers and fishway biologist must be involved in this process. | 1.4.5 |
| 31.8 | Need to update information on the current route and construction methods associated with the pipeline. | Update information on the current route and construction methods associated with the pipeline. | 3.1.3 |
| 31.9 | Surveys on fish communities and movement at the site were conducted for the EIS during a period of prolonged drought. | Detail any subsequent or proposed sampling of fish and fish movement at the site and upstream and downstream from the site. | 11.1.2, 11.1.5 |
| 31.10 | Offsets may be required for residual impacts on fisheries resources or fish habitats, as a condition of waterway barrier works approval under the *Fisheries Act1994* .<br>Offset are required for residual impacts on fisheries values, (including fish movement, fish habitat and ecological processes that maintain fish habitat, fish communities and diversity fisheries productivity high value fish species etc.) after all possible impact minimisation and mitigation steps have been taken. | Consider fish habitat and fish passage restoration-based offset options. Develop the offset package in consultation with Fisheries Qld.<br>Offset packages may include:<br>- enhancement of fish movement within the catchment or any other catchment e.g. restoration of passage at downstream and upstream barriers (look at potential to replace downstream weirpools with piped water supply<br>- fish habitat enhancement, restoration, rehabilitation or creation<br>- allocation or purchase of water for downstream release specifically for enhancement of downstream fish habitat e.g. flooding of wetlands, enhanced drought refugia etc<br>- provision of good quality fish habitat protection provided by the proponent including buffer areas (fish habitat exchange). | 11.2, 11.3 |
| 32.1 | SEWPaC has developed a new draft offset policy, 'EPBC Act Environmental Offsets Policy - Consultation Draft ' since the 2008 submission. The offsets policy can be found at http://www.environment.gov.au/epbc/publications/consultation-draft-environmental-offsets-policy.html | SDRC should consider the draft policy in the development of the SEIS. | Appendix I |
| 32.2 | Bring up to date, flora and fauna survey data for MNES as presented in Appendix C of the EIS. Use current information on the relevant species where possible. These survey guidelines should be used in conjunction to the significant impact guidelines. Both of these guidelines can be found at http://www.environment.gov.au/epbc/guidelines-policies.html | Update data using new survey guidelines for Nationally Threatened Species. These guidelines should be read in conjunction with the Significant Impact Guidelines - Matters of National Environmental Significance. | Appendix E,<br>Appendix F,<br>Appendix G |
| 32.3 | Need to update the discussion and assessment of impacts and mitigation measures for MNES included in Appendix C of the EIS. This should address changes which have occurred since the publication of the EIS due to factors such as climate, rainfall, fire, flood, urban or agricultural development in the region. | Update the discussion and assessment of impacts and mitigation measures for MNES included in Appendix C of the EIS, addressing any changes which have occurred since the publication of the EIS due to factors such as climate, rainfall, fire, flood, urban or agricultural development in the region. | Appendix H |
| 33.1 | The Emu Swamp Dam project is within the Queensland Border Rivers surface water sustainable diversion limits resource unit. | Ensure the dam is consistent with the provisions of the state's Border Rivers Water Resources Plan. | Noted |