



## **ATTACHMENT 12**

Independent Planning Commission  
and Agency Issues Reconciliation Table

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**Table A12-1**  
**IPC Statement of Reasons (Previous Application) Reconciliation Table**

Aspect	Key Points to Address	How Key Point has been Addressed by the Dendrobium Mine Extension Project	EIS Reference
1	<b>Economics</b>	<ul style="list-style-type: none"> <li>• The Independent Planning Commission (IPC) concluded that the benefits of the previous application do not outweigh potential adverse impacts.</li> <li>• The IPC expressed uncertainty as to why it would be okay for the previous application to supply no Wongawilli Seam coal to BlueScope until approximately 2043 (from proposed Area 6) (Note – Area 6 [Wongawilli Seam] does not form part of the revised Project).</li> <li>• The IPC expressed uncertainty as to why BlueScope is reliant on an extension of the Dendrobium Mine specifically, in consideration that both IMC's Appin Mine and Peabody's Metropolitan Mine could continue to supply Bulli Seam coal to the steelworks.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Economic Assessment</b> based on the revised mine plan.</li> <li>• The NSW Government has declared the Project State Significant Infrastructure (SSI), therefore, confirming the significant socio-economic benefits of the Project and its importance to the broader Southern Coalfield economic ecosystem.</li> <li>• Illawarra Metallurgical Coal (IMC) has consulted with BlueScope in regard to the change from Wongawilli Seam coal to Bulli Seam coal for Area 5. In addition, BlueScope's previous submissions on the previous application have confirmed the importance of the continued supply of metallurgical coal from local sources in the Southern Coalfield.</li> <li>• Ultimately, the decision around coal supplies and blends as important ingredients for steelmaking lie with the end user and any coal supply arrangement is contingent upon future decisions by and agreements between the end user and supplier as to coal supply. However, current supplies of Wongawilli Seam coal from Dendrobium Area 3 will cease regardless of the Project. The Project would allow coal from Area 5 to be supplied (individually or in a blend with Appin Mine metallurgical coal) to both domestic and export customers.</li> <li>• Based on current approvals, non-IMC mines in the Illawarra Region will cease production by 2033. The BlueScope Blast Furnace No. 6 Reline Project, which has been declared Critical State Significant Infrastructure, describes that ongoing demand for metallurgical coal is likely to continue until approximately 2045.</li> <li>• Even if the Appin Mine continues to operate (if the Project is not approved), reliance on a single local metallurgical coal supply beyond 2033 may result in increased risk of supply discontinuity to the Port Kembla Steelworks, which operates on a "just-in-time" supply basis (e.g. if there were unforeseen extended production shutdowns at the Appin Mine due to gas management, geological structure, water management or other operations issues).</li> <li>• The continued operation of the Dendrobium Mine via the Project supports the financial sustainability of IMC and the broader Southern Coalfield economic ecosystem.</li> </ul>

**Table A12-1 (Continued)**  
**IPC Statement of Reasons (Previous Application) Reconciliation Table**

	Aspect	Key Points to Address	How Key Point has been Addressed by the Dendrobium Mine Extension Project	EIS Reference
2	Special Catchment Areas	<ul style="list-style-type: none"> <li>The IPC concluded that the previous application is incompatible with the Metropolitan Special Area (uncertainty in the quantum of surface water losses and impact to the catchment).</li> </ul>	<ul style="list-style-type: none"> <li><b>Surface Water Assessment</b> and <b>Groundwater Assessment</b> based on the revised mine plan demonstrating a reduction in impacts to water resources (approximately 78% reduction in peak annual surface water losses from the previous mine plan) through: <ul style="list-style-type: none"> <li>approximately 60% reduction in longwall mining area (from the previous application);</li> <li>reduced mine life;</li> <li>no predicted connective fracturing to the surface when calculated using the Tammetta Equation (which the Independent Advisory Panel for Underground Mining [IAPUM] has stated provides a conservative method for calculating the height of fracturing);</li> <li>no longwall mining beneath 3<sup>rd</sup>, 4<sup>th</sup> or 5<sup>th</sup> order (or above) streams; and</li> <li>approximately 50% reduction in the length of 1<sup>st</sup> and 2<sup>nd</sup> order streams longwall mined beneath.</li> </ul> </li> <li>Revised Project mine plan that results in the following additional benefits: <ul style="list-style-type: none"> <li>approximately 40% reduction in number of swamps (listed as threatened) longwall mined beneath (from the previous application);</li> <li>no longwall mining beneath identified key stream features;</li> <li>reduction in the number of previously identified Aboriginal heritage sites directly mined beneath from 22 sites to six sites;</li> <li>no longwall mining beneath previously identified high archaeological (scientific) significance Aboriginal heritage sites;</li> <li>longwall mining at least 400 metres (m) from named watercourses (i.e. the Avon River, Cordeaux River and Donalds Castle Creek);</li> <li>longwall mining at least 300 m from the Full Supply Levels of Sydney's water supply reservoirs; and</li> <li>longwall mining at least 1,000 m from dam walls.</li> </ul> </li> <li>Surface water offsets: <ul style="list-style-type: none"> <li>the Project would be consistent with Government policy to achieve "net gain" to water supplies (through surface water offsets);</li> <li>Government would need to create a licensing regime specifically for the Project consistent with the recommendations of the Independent Expert Panel for Mining in the Catchment (IEPMC) and the Minister's media statement, and supported by agency advice provided in the Secretary's Environmental Assessment Requirements (SEARs) by Department of Planning, Industry and Environment (DPIE) - Water and National Resource Access Regulator (NRAR); and</li> <li>the NSW Government has approved the development of a licensing regime, as described in the January 2022 status update of key actions from the <i>Mining in the Catchment Action Plan</i>.</li> </ul> </li> </ul>	Sections 7.5, 7.6 and 8 and Appendices B and C

**Table A12-1 (Continued)**  
**IPC Statement of Reasons (Previous Application) Reconciliation Table**

	Aspect	Key Points to Address	How Key Point has been Addressed by the Dendrobium Mine Extension Project	EIS Reference
2	<b>Special Catchment Areas (Continued)</b>	<ul style="list-style-type: none"> <li>The IPC concluded that the previous application is incompatible with the Metropolitan Special Area (uncertainty in the quantum of surface water losses and impact to the catchment).</li> </ul>	<ul style="list-style-type: none"> <li>IPC concluded that the previous application satisfied Neutral or Beneficial Effect (NorBE) (i.e. accepted the previous application would have a neutral or beneficial effect to water quality in the catchment [including post-mining]). The reduced mine plan for the Project would also reduce potential water quality impacts by reducing surface disturbance from 28.5 hectares (ha) to approximately 20 ha.</li> </ul>	Sections 7.5, 7.6 and 8 and Appendices B and C
		<ul style="list-style-type: none"> <li>The IPC concluded that the previous application is incompatible with the Metropolitan Special Area (uncertainty in the prediction and magnitude of subsidence impacts of the previous application).</li> </ul>	<ul style="list-style-type: none"> <li><b>Subsidence Assessment</b> based on the revised mine plan demonstrating a reduction in subsidence impacts (as per above). The maximum predicted vertical subsidence for the Project is approximately 20% less than the maximum predicted values based on the previous mine plan (inclusive of Area 6), due to the lower extraction height in Area 5. In addition, the extent of the longwall mining area for the Project has been reduced and the extents of the natural and built features affected by subsidence are less than those based on the previous mine plan.</li> <li>Subsidence impacts are not uncertain as predictions are based on industry best practice methodology and site-specific data from the current operations which have been updated for the revised mine plan, and conservative assumptions where necessary.</li> <li>Independent Peer Review of <b>Subsidence Assessment</b> concluded that the assessment adopted a conservative modelling approach with subsidence predictions representing an upper-bound of expected subsidence effects.</li> </ul>	Section 7.3 and Appendix A



**Table A12-1 (Continued)**  
**IPC Statement of Reasons (Previous Application) Reconciliation Table**

Aspect	Key Points to Address	How Key Point has been Addressed by the Dendrobium Mine Extension Project	EIS Reference
3 <b>Groundwater/ Mine Closure</b>	<ul style="list-style-type: none"> <li>The IPC expressed uncertainty that the Dendrobium Mine and Project can be adequately sealed.</li> <li>The IPC concluded that risks and impacts of groundwater recovery on the surface water environment post-closure are uncertain.</li> </ul>	<ul style="list-style-type: none"> <li><b>Groundwater Assessment</b> based on the revised mine plan that considers groundwater recovery and potential water quality impacts post-closure, including analysis of site-specific data from the Dendrobium Mine.</li> <li>Specific <b>Mine Closure Study</b> to identify feasible “sealing” options and locations and water management options to achieve the following objectives: <ul style="list-style-type: none"> <li>restrict groundwater re-pressurisation to limit connectivity and seepage into historic mine workings, including legacy shafts and portals, to control seepage at the Illawarra Escarpment;</li> <li>facilitate reporting of mine water outflows to controlled locations at the surface for subsequent management; and</li> <li>safely prohibit public access to the mine workings consistent with relevant standards and policies.</li> </ul> </li> <li>Groundwater modelling to reflect closure study water management concepts and modulation bulkhead designs including portal discharge management.</li> <li>The revised mine plan includes areas of reduced extraction height and higher depths of cover such that the recommended groundwater conceptualisation means there will be a constrained zone above Area 5 which would, therefore, limit potential for groundwater from the coal seam to reach the surface.</li> <li>General: <ul style="list-style-type: none"> <li>mine closure is an issue with or without the Project (i.e. historical catchment wide issue);</li> <li>IAPUM recommended a Mine Closure Plan to address closure issues, which was adopted by the DPIE. The Environmental Impact Statement (EIS) outlines clear closure management concepts and engineering basis of design for post-closure water management;</li> <li>IMC holds groundwater licences under the <i>Water Management Act 2000</i> to account for ongoing groundwater take, including post-mining; and</li> <li>proposed surface water offsets provide an upfront payment for post-mining surface water losses (i.e. based on predicted or estimated surface water losses into perpetuity).</li> </ul> </li> <li>IPC concluded that the previous mine plan satisfied NorBE and, therefore, inherently accepted the previous application could have a neutral or beneficial effect to water quality in the catchment (including post-mining), which would be the case for the Project.</li> </ul>	Section 7.5, 7.6 and Attachment 11 and Appendices B and Q

**Table A12-1 (Continued)**  
**IPC Statement of Reasons (Previous Application) Reconciliation Table**

	Aspect	Key Points to Address	How Key Point has been Addressed by the Dendrobium Mine Extension Project	EIS Reference
4	Surface Water	<ul style="list-style-type: none"> <li>The IPC expressed uncertainty in the ability to accurately predict the quantum and impact of surface water loss from the catchment.</li> <li>The IPC expressed uncertainty that surface water losses can be addressed by mitigation measures/conditions of consent.</li> </ul>	<ul style="list-style-type: none"> <li><b>Surface Water Assessment</b> and <b>Groundwater Assessment</b> based on the revised mine plan will demonstrate reduction in impacts (approximately 78% reduction in peak annual surface water losses from the previous mine plan) (as per Item 1).</li> <li>Surface water loss and groundwater modelling has been refined during several subsequent longwall extraction Subsidence Management Plan (SMP) applications and has general acceptance by major stakeholders such as WaterNSW and the DPE.</li> <li>As per previous application, the surface water offset proposal for the Project (via Planning Agreement with the Minister for Water) is consistent with Government policy to achieve “net gain” to water supplies (through surface water offsets).</li> </ul>	Sections 7.5 and 7.6, Appendices B and C
5	Biodiversity	<ul style="list-style-type: none"> <li>The IPC concluded that the previous application does not meet the “avoid” principle in its mine plan.</li> <li>The IPC expressed uncertainty that long-term biodiversity impacts can be addressed via offsets (including like-for-like offsets for upland swamps).</li> </ul>	<ul style="list-style-type: none"> <li><b>Biodiversity Development Assessment Report (BDAR)</b> and <b>Aquatic Ecology Assessment</b> based on the revised mine plan will demonstrate reduction in potential impacts to biodiversity (as per Item 2).</li> <li>Additional avoidance measures (reduction from 26 to 15 upland swamps directly mined beneath): <ul style="list-style-type: none"> <li>removal of Area 6 (avoidance of all upland swamps directly mined beneath in Area 6 [i.e. avoidance of mining beneath five swamps]); and</li> <li>refinement to Area 5 layout (avoidance of six additional swamps directly mined beneath).</li> </ul> </li> <li>IAPUM acknowledges that complete avoidance of swamps/streams is not possible: <i>The Panel recognises that not all streams, swamps or other ecological assets can be protected while still having a viable mining plan.</i></li> <li>Biodiversity impacts may be offset via the NSW Biodiversity Offset System and consistent with Government policy – as is required for all State Significant Development/SSI projects.</li> <li>Like-for-like offsets for swamps are available for the Project via IMC’s offset property.</li> <li>IMC has secured an offset property in order to offset project swamp impacts on a like-for-like basis. This exceeds NSW Government policy requirements, which allow proponents to pay into the Biodiversity Conservation Fund to offset impacts.</li> </ul>	Section 7 and Appendices D and E

**Table A12-1 (Continued)**  
**IPC Statement of Reasons (Previous Application) Reconciliation Table**

	Aspect	Key Points to Address	How Key Point has been Addressed by the Dendrobium Mine Extension Project	EIS Reference
6	Aboriginal Heritage	<ul style="list-style-type: none"> <li>The IPC concluded that impacts to Aboriginal cultural heritage sites are unacceptable and do not meet the principles of ecologically sustainable development (ESD).</li> </ul>	<ul style="list-style-type: none"> <li><b>Aboriginal Cultural Heritage Assessment (ACHA)</b> based on the revised mine plan that demonstrates reduction in potential impacts.</li> <li>The revised mine plan that results in a reduction in previously identified sites directly mined beneath from 22 sites to six sites including through: <ul style="list-style-type: none"> <li>refinement of Area 5 layout which reduces impacts to sites (reduction from 16 sites to six sites directly mined beneath);</li> <li>avoidance of mining under all sites previously identified as high archaeological significance in Area 5; and</li> <li>removal of Area 6 (avoidance of six Aboriginal cultural heritage sites).</li> </ul> </li> <li>While the Project seeks to mine beneath a number of Aboriginal heritage items, there is a low (~10%) likelihood of significant impacts to sites (based on extensive monitoring from the Southern Coalfield).</li> <li>The EIS includes reference to IMC's recently developed company-wide policy statement <i>Our Approach to Australian Aboriginal and Torres Strait Islanders' Cultural Heritage</i> and IMC's guiding principles and management measures outlined in regard to management of Aboriginal cultural heritage.</li> <li>Revised <b>ACHA</b> in consultation with registered Aboriginal parties.</li> </ul>	Section 7.10 and Appendix F
7	Bushfire	<ul style="list-style-type: none"> <li>The IPC concluded that inadequate assessment of increased bushfire risk is a result of the previous application and is not consistent with principles of ESD.</li> </ul>	<ul style="list-style-type: none"> <li><b>Greenhouse Gas Assessment</b> which considers potential risk of bushfire.</li> <li>Bushfire risk assessment has been undertaken to inform the location and setbacks of ventilation shaft and gas drainage/flaring infrastructure. Bushfire management and mitigation measures have been developed to minimise bushfire risk to and from Project infrastructure.</li> <li>EIS considers Commonwealth Scientific and Industrial Research Organisation (CSIRO) data regarding increased risk of bushfires, changes in rainfall and evaporation due to global climate change – noting that these changes are not attributable to the Project (except insofar as the Project's Scope 1 and 2 emissions contribute to global greenhouse gas emissions).</li> <li>The <b>BDAR</b> assesses potential hydrological changes to upland swamps and identifies offset requirements accordingly – in consideration of site-specific data for swamps previously mined beneath that have been subject to bushfire.</li> </ul>	Section 7.22 and Appendices M and N



**Table A12-1 (Continued)**  
**IPC Statement of Reasons (Previous Application) Reconciliation Table**

	Aspect	Key Points to Address	How Key Point has been Addressed by the Dendrobium Mine Extension Project	EIS Reference
8	Statutory Context	<ul style="list-style-type: none"> <li>The IPC concluded that the previous application did not satisfy the objects of the EP&amp;A Act.</li> <li>The IPC concluded that the previous application did not satisfy the principle of intergenerational equity and triggered the precautionary principle.</li> </ul>	<ul style="list-style-type: none"> <li>The EIS describes: <ul style="list-style-type: none"> <li>strategic importance of the Project (refer to Item 1);</li> <li>statutory context;</li> <li>measures to be implemented to avoid impacts (i.e. changes to the revised mine plan);</li> <li>conservatism in modelling methodology to predict impacts; and</li> <li>mitigation and management measures and offsets to address potential impacts, consistent with Government policy.</li> </ul> </li> <li>Objects of the EP&amp;A Act addressed in Section 8 of the EIS.</li> <li>Addressing Items 1 to 7 (refer to rows above) assists in demonstrating that ESD, intergenerational equity and the precautionary principle are addressed by the revised mine plan.</li> </ul>	Section 8

**Table A12-2**  
**Agency Issues (Previous Application) Reconciliation Table**

Aspect		Key Points to Address	How Key Point has been Addressed by the Dendrobium Mine Extension Project	EIS Reference
WaterNSW				
1	Surface Water	<ul style="list-style-type: none"> <li>WaterNSW expressed uncertainty regarding consideration of alternative mine designs that would prevent the height of free drainage from extending to the surface (and therefore resulting in reduced surface water losses).</li> </ul>	<ul style="list-style-type: none"> <li>Consideration of Project alternatives provided in <b>Attachment 11</b>.</li> <li><b>Surface Water Assessment</b> and <b>Groundwater Assessment</b> based on the revised mine plan demonstrating a reduction in impacts to water resources (approximately 78% reduction in peak annual surface water losses from the previous mine plan) through: <ul style="list-style-type: none"> <li>approximately 60% reduction in longwall mining area (from the previous application);</li> <li>reduced mine life;</li> <li>no predicted connective fracturing (or free drainage) to the surface when calculated using the Tammetta Equation (which the IAPUM has stated provides a conservative method for calculating the height of fracturing);</li> <li>no longwall mining beneath 3<sup>rd</sup>, 4<sup>th</sup> or 5<sup>th</sup> order (or above) streams; and</li> <li>approximately 50% reduction in the length of 1<sup>st</sup> and 2<sup>nd</sup> order streams longwall mined beneath.</li> </ul> </li> <li>Revised Project mine plan that results in the following additional benefits: <ul style="list-style-type: none"> <li>approximately 40% reduction in number of swamps (listed as threatened) longwall mined beneath (from the previous application);</li> <li>no longwall mining beneath identified key stream features;</li> <li>reduction in the number of previously identified Aboriginal heritage sites directly mined beneath from 22 sites to six sites;</li> <li>no longwall mining beneath previously identified high archaeological (scientific) significance Aboriginal heritage sites;</li> <li>longwall mining at least 400 m from named watercourses (i.e. the Avon River, Cordeaux River and Donalds Castle Creek);</li> <li>longwall mining at least 300 m from the Full Supply Levels of Sydney's water supply reservoirs; and</li> <li>longwall mining at least 1,000 m from dam walls.</li> </ul> </li> <li>As per the previous application, the surface water offset proposal for the Project (via Planning Agreement with the Minister for Water) is consistent with Government policy to achieve "net gain" to water supplies (through surface water offsets).</li> </ul>	Sections 7.5, 7.6 and Appendices B and C

**Table A12-2 (Continued)**  
**Agency Issues (Previous Application) Reconciliation Table**

Aspect		Key Points to Address	How Key Point has been Addressed by the Dendrobium Mine Extension Project	EIS Reference
WaterNSW (continued)				
	<b>Surface Water (continued)</b>	<ul style="list-style-type: none"> <li>WaterNSW expressed uncertainty the previous application met the NorBE test for water quality, including in consideration of water quality impact post-closure.</li> </ul>	<ul style="list-style-type: none"> <li>IPC concluded that the previous application satisfied NorBE (i.e. accepted the previous application would have a neutral or beneficial effect to water quality in the catchment [including post-mining]).</li> <li>Reduced mine plan for the Project would also reduce potential water quality impacts by reducing surface disturbance from 28.5 ha to approximately 20 ha.</li> <li><b>Groundwater Assessment</b> based on the revised mine plan that considers groundwater recovery and potential water quality impacts post-closure, including analysis of site-specific data from the Dendrobium Mine.</li> <li>Specific <b>Mine Closure Study</b> identifies feasible sealing options and locations and water management options.</li> <li>Groundwater modelling to reflect closure study water management concepts and sealing designs including portal discharge management.</li> <li>The revised mine plan includes areas of reduced extraction height and higher depths of cover such that the recommended groundwater conceptualisation means there will be a constrained zone above Area 5 which would, therefore, limit potential for groundwater from the coal seam to reach the surface.</li> </ul>	Sections 7.5 and 7.6 Appendices B, C and Q

**Table A12-2 (Continued)**  
**Agency Issues (Previous Application) Reconciliation Table**

Aspect		Key Points to Address	How Key Point has been Addressed by the Dendrobium Mine Extension Project	EIS Reference
WaterNSW (continued)				
2	Special Catchment Areas	<ul style="list-style-type: none"> <li>WaterNSW expressed uncertainty regarding potential impacts to “significant” watercourses, including 3<sup>rd</sup> order and above streams.</li> </ul>	<ul style="list-style-type: none"> <li><b>Surface Water Assessment</b> and <b>Groundwater Assessment</b> based on the revised mine plan demonstrating a reduction in impacts to water resources (approximately 78% reduction in peak annual surface water losses from the previous mine plan) through: <ul style="list-style-type: none"> <li>approximately 60% reduction in longwall mining area (from the previous application);</li> <li>reduced mine life;</li> <li>no predicted connective fracturing to the surface when calculated using the Tammetta Equation (which the IAPUM has stated provides a conservative method for calculating the height of fracturing);</li> <li>no longwall mining beneath 3<sup>rd</sup>, 4<sup>th</sup> or 5<sup>th</sup> order (or above) streams; and</li> <li>approximately 50% reduction in the length of 1<sup>st</sup> and 2<sup>nd</sup> order streams longwall mined beneath.</li> </ul> </li> <li>The revised mine plan results in no longwall mining at least 400 m from the Avon River, Cordeaux River and Donalds Castle Creek.</li> <li><b>Attachment 11</b> considers avoidance of water courses defined by WaterNSW as significant (i.e. 3<sup>rd</sup> order or above) and demonstrates that avoidance is not economically viable, consistent with the IAPUM conclusion.</li> <li>IAPUM acknowledges that complete avoidance of swamps/streams is not possible: <i>The Panel recognises that not all streams, swamps or other ecological assets can be protected while still having a viable mining plan.</i></li> </ul>	Sections 7.5 and 7.6, Attachment 11 and Appendices B and C

**Table A12-2 (Continued)**  
**Agency Issues (Previous Application) Reconciliation Table**

Aspect		Key Points to Address	How Key Point has been Addressed by the Dendrobium Mine Extension Project	EIS Reference
WaterNSW (continued)				
2	Special Catchment Areas (continued)	<ul style="list-style-type: none"> <li>WaterNSW expressed uncertainty regarding potential impacts to the hydrological and ecological function of upland swamps.</li> </ul>	<ul style="list-style-type: none"> <li><b>BDAR and Aquatic Ecology Assessment</b> based on the revised mine plan demonstrates reduction in potential impacts to biodiversity (as per Item 1).</li> <li>Potential impacts to upland swamps assessed consistent with the <i>Biodiversity Conservation Act 2016</i> (BC Act), with residual impacts offset accordingly.</li> <li>Additional avoidance measures in the revised mine plan (reduction from 26 to 15 upland swamps directly mined beneath): <ul style="list-style-type: none"> <li>removal of Area 6 (avoidance of all upland swamps directly mined beneath in Area 6 [i.e. avoidance of mining beneath five swamps]); and</li> <li>refinement to Area 5 layout (avoidance of six additional swamps directly mined beneath).</li> </ul> </li> <li>IAPUM acknowledges that complete avoidance of swamps/streams is not possible: <i>The Panel recognises that not all streams, swamps or other ecological assets can be protected while still having a viable mining plan.</i></li> <li>Potential impacts to upland swamps assessed consistent with the previous application.</li> <li>Biodiversity impacts may be offset via the NSW Biodiversity Offset System and consistent with Government policy – as is standard with all State Significant Development/SSI projects.</li> <li>Like-for-like offsets for swamps are available for the Project via IMC's offset property.</li> <li>IMC has secured an offset property in order to offset project swamp impacts on a like-for-like basis. This exceeds NSW Government policy requirements, which provide for proponents to pay into the Biodiversity Conservation Fund to offset such impacts.</li> </ul>	Sections 7.7 to 7.9 and Appendices D and E

**Table A12-2 (Continued)**  
**Agency Issues (Previous Application) Reconciliation Table**

Aspect		Key Points to Address	How Key Point has been Addressed by the Dendrobium Mine Extension Project	EIS Reference
Biodiversity Conservation Division (BCD)				
3	Mine Design	<ul style="list-style-type: none"> <li>The BCD expressed uncertainty regarding consideration of alternative mine designs, in particular one that demonstrates that the “avoid” principle has been met (in regard to threatened species and ecological communities).</li> </ul>	<ul style="list-style-type: none"> <li><b>BDAR and Aquatic Ecology Assessment</b> based on the revised mine plan will demonstrate reduction in potential impacts to biodiversity (as per Item 1).</li> <li>Additional avoidance measures (reduction from 26 to 15 upland swamps directly mined beneath): <ul style="list-style-type: none"> <li>removal of Area 6 (avoidance of all upland swamps directly mined beneath in Area 6 [i.e. avoidance of mining beneath five swamps]); and</li> <li>refinement to Area 5 layout (avoidance of six additional swamps directly mined beneath).</li> </ul> </li> <li>IAPUM acknowledges that complete avoidance of swamps/streams is not possible: <i>The Panel recognises that not all streams, swamps or other ecological assets can be protected while still having a viable mining plan.</i></li> <li>The Department concluded regarding the previous application: <i>... the only avoidance measure that can largely protect upland swamps is setbacks from longwall voids (of any width). Undermining at a narrower void width would not protect upland swamps (6.6.40).</i> <i>...</i> <i>Based on the above, the Department is satisfied that South32 has adequately addressed the requirements of the NSW Biodiversity Offsets Policy for Major Projects to avoid and minimise impacts on biodiversity (6.6.41).</i> <i>...</i> <i>The Department concludes that reducing longwall void width is not an effective means of reducing, much less eliminating, the environmental impacts of the Project. This position is confirmed by the Mining Panel's conclusions (6.2.58).</i></li> </ul>	Sections 7.7 to 7.9 and Appendices D and E



**Table A12-2 (Continued)**  
**Agency Issues (Previous Application) Reconciliation Table**

Aspect		Key Points to Address	How Key Point has been Addressed by the Dendrobium Mine Extension Project	EIS Reference
Biodiversity Conservation Division (BCD) (continued)				
4	Biodiversity	<ul style="list-style-type: none"> <li>The BCD expressed uncertainty that the proposed mitigation measures rely on methods and approaches similar to the existing Dendrobium Mine and lack details/supporting evidence of recent success.</li> </ul>	<ul style="list-style-type: none"> <li>The mitigation and management measures recommended in the <b>BDAR</b> and <b>Aquatic Ecology Assessment</b> represent industry best practice and have been developed in consideration of previous experience at the Dendrobium Mine and the outcomes of recent mitigation studies/trials.</li> <li>The offset strategy in the BDAR does not rely on mitigation measures for swamps or streams.</li> </ul>	Sections 7.7 to 7.9 and Appendices D and E
		<ul style="list-style-type: none"> <li>The BCD concluded that the Swamp Offset Policy has not been applied satisfactorily and a “worst-case” scenario of total loss of upland swamps is required.</li> </ul>	<ul style="list-style-type: none"> <li><b>BDAR</b> based on the revised mine plan demonstrates reduction in potential impacts to biodiversity (as per Item 1), and assesses a partial loss scenario for potential impacts to upland swamps and for offsetting consistent with the Swamp Offset Policy and the previous application.</li> <li>The Department concluded regarding the previous application: <i>...the BAR's position that the 'worst-case scenario' in upland swamps is partial loss of vegetation is reasonable and supported by the evidence. Further it considers that the BAR's numerical quantification (using the BBCC) of this partial loss of biodiversity value is also reasonable. BCD has not questioned the accuracy or reasonableness of this quantification, only whether the Upland Swamp Offsets Policy (and associated NSW Offsets Policy, FBA and BBCC) provide the opportunity to apply it (6.6.122).</i></li> </ul>	Sections 7.7 to 7.9 and Appendix D
		<ul style="list-style-type: none"> <li>The BCD concluded that swamp offsets must be provided via “like-for-like” offsets.</li> </ul>	<ul style="list-style-type: none"> <li>Biodiversity impacts may be offset via the NSW Biodiversity Offset System and consistent with Government policy – as is standard with all State Significant Development/SSI projects.</li> <li>Like-for-like offsets for swamps are available for the Project via IMC's offset property.</li> <li>IMC has secured an offset property in order to offset project swamp impacts on a like-for-like basis. This exceeds NSW Government policy requirements which provide for proponents to pay into the Biodiversity Conservation Fund to offset such impacts.</li> </ul>	
		<ul style="list-style-type: none"> <li>The BCD concluded that the Koala should be assumed present and offset accordingly where suitable habitat is proposed to be cleared.</li> </ul>	<ul style="list-style-type: none"> <li>The Project <b>BDAR</b> has assumed presence of Koala following the results of additional survey effort and IMC proposes to provide offsets for suitable habitat associated with clearing for surface disturbance activities.</li> </ul>	Sections 7.7 to 7.9 and Appendix D

**Table A12-2 (Continued)**  
**Agency Issues (Previous Application) Reconciliation Table**

Aspect		Key Points to Address		How Key Point has been Addressed by the Dendrobium Mine Extension Project		EIS Reference	
Independent Advisory Panel for Underground Mining (IAPUM)							
5	Mine Design	<ul style="list-style-type: none"><li>The IAPUM expressed uncertainty that alternative panel widths have not been adequately considered in mine design.</li></ul>	<ul style="list-style-type: none"><li>Consideration of Project alternatives provided in <b>Attachment 11</b>.</li><li>The Department concluded regarding the previous application: <i>The Department concludes that reducing longwall void width is not an effective means of reducing, much less eliminating, the environmental impacts of the Project. This position is confirmed by the Mining Panel's conclusions (6.2.58).</i></li></ul>				Attachment 11
		<ul style="list-style-type: none"><li>The IAPUM expressed uncertainty regarding the appropriateness of the criteria used to identify key features and the development of setbacks.</li></ul>	<ul style="list-style-type: none"><li>The <b>EIS</b> provides a transparent and accurate description of the features considered to be relatively more significant, the relevant setbacks from longwall mining to these significant features, the likelihood of impacts and the associated consequences, and contingency measures that would be implemented (e.g. remediation) if impacts do occur.</li><li>The revised mine plan for the Project results in:<ul style="list-style-type: none"><li>approximately 60% reduction in longwall mining area (from the previous application) (i.e. inherently avoiding a number of key features);</li><li>no longwall mining beneath 3<sup>rd</sup>,4<sup>th</sup> or 5<sup>th</sup> order (or above) streams;</li><li>approximately 50% reduction in the length of 1<sup>st</sup> and 2<sup>nd</sup> order streams longwall mined beneath;</li><li>approximately 40% reduction in number of swamps (listed as threatened) longwall mined beneath (from the previous application);</li><li>no longwall mining beneath identified key stream features;</li><li>reduction in the number of previously identified Aboriginal heritage sites directly mined beneath from 22 sites to six sites;</li><li>no longwall mining beneath previously identified high archaeological significance Aboriginal heritage sites;</li><li>longwall mining at least 400 m from named watercourses (i.e. the Avon River, Cordeaux River and Donalds Castle Creek);</li><li>longwall mining at least 300 m from the Full Supply Levels of Sydney's water supply reservoirs; and</li><li>longwall mining at least 1,000 m from dam walls.</li></ul></li></ul>				Sections 4 and 7 and Appendices A to S

**Table A12-2 (Continued)**  
**Agency Issues (Previous Application) Reconciliation Table**

Aspect		Key Points to Address	How Key Point has been Addressed by the Dendrobium Mine Extension Project	EIS Reference
Independent Advisory Panel for Underground Mining (IAPUM) (continued)				
5	Mine Design (continued)	<ul style="list-style-type: none"> <li>The IAPUM expressed uncertainty that the levels of impact on the natural and built features cannot be appropriately managed.</li> </ul>	<ul style="list-style-type: none"> <li>The <b>EIS</b> details proposed mitigation and management measures as well as offsets, consistent with industry best practice and in consideration of previous experience at the Dendrobium Mine.</li> <li>Management of potential impacts would be addressed via specific performance measures which would be included in any Approval for the Project and detailed Trigger Action Response Plans would be prepared to demonstrate how these performance measures will be achieved (subject to approval of the Project).</li> </ul>	Section 7 and Appendices A to S
6	Risk Assessment	<ul style="list-style-type: none"> <li>The IAPUM expressed uncertainty that the risk assessment was not undertaken consistent with recommendations of previous Panels and relevant standards (e.g. MDG-1010 [2011] and ISO 31000 [2009]).</li> </ul>	<ul style="list-style-type: none"> <li><b>Environmental Risk Assessment</b> undertaken in consideration of the Project SEARs, previous Panel recommendations and AS/NZS ISO 31000: 2019 Risk Management – Principles and Guidelines which considers potential risks to key natural and built features in consultation with relevant experts.</li> </ul>	Appendix M
7	Surface Water	<ul style="list-style-type: none"> <li>The IAPUM expressed uncertainty regarding cumulative impacts on reservoir water quality.</li> </ul>	<ul style="list-style-type: none"> <li>The <b>EIS</b> details proposed mitigation and management measures as well as offsets, consistent with industry best practice and in consideration of previous experience at the Dendrobium Mine.</li> <li>Management of potential impacts would be addressed via specific performance measures that would be included in any Infrastructure Approval for the Project and detailed Trigger Action Response Plans would be prepared to demonstrate how these performance measures will be achieved (subject to approval of the Project).</li> <li>IPC concluded that the previous application satisfied NorBE (i.e. accepted the previous application would have a neutral or beneficial effect to water quality in the catchment [including post-mining]) and reduced mine plan for the Project would also reduce potential water quality impacts by decreasing surface disturbance from 28.5 ha to approximately 20 ha.</li> <li>The IEPMC concluded (2019): <i>Although surface fracturing elevates metal loads in watercourses, there is no evidence that mining in the Special Areas is currently compromising the ability of WaterNSW to meet raw water supply agreement standards.</i></li> <li>The Department concluded regarding the previous application: <i>They [limited amounts of dissolved iron and related metals] are not expected to lead to any water quality issues which inhibit the use of those waters for their principal purpose, which is the provision of safe, clean and crystal-clear drinking water for the people of Sydney and Wollongong (6.3.102).</i></li> </ul>	Section 7 and Appendix C

**Table A12-2 (Continued)**  
**Agency Issues (Previous Application) Reconciliation Table**

Aspect		Key Points to Address	How Key Point has been Addressed by the Dendrobium Mine Extension Project	EIS Reference
Independent Advisory Panel for Underground Mining (IAPUM) (continued)				
7	Surface Water (continued)	<ul style="list-style-type: none"> <li>The IAPUM concluded that quantification of surface water losses is not conservative.</li> </ul>	<ul style="list-style-type: none"> <li><b>Surface Water Assessment</b> and <b>Groundwater Assessment</b> based on the revised mine plan demonstrating a reduction in impacts to water resources (approximately 78% reduction in peak annual surface water losses from the previous mine plan).</li> <li>Revised groundwater model developed using site-specific data and builds on previous Dendrobium Mine models (which are regularly reviewed and updated as part of the SMP process) and accepted by WaterNSW and DPE. <ul style="list-style-type: none"> <li>The revised Project results in no predicted connective fracturing to the surface when calculated using the Tammetta Equation (which the IAPUM has stated provides a conservative method for calculating the height of fracturing).</li> </ul> </li> </ul>	Sections 7.5 and 7.6, Appendices B and C
8	Groundwater and Mine Closure	<ul style="list-style-type: none"> <li>The IAPUM concluded that potential long-term impacts to water quality and quantity and ecology (at points of groundwater emergence) post-closure have not been quantified.</li> <li>The IAPUM expressed uncertainty regarding the feasibility to seal mine and options to manage seepage post-closure.</li> </ul>	<ul style="list-style-type: none"> <li><b>Groundwater Assessment</b> based on the revised mine plan that considers groundwater recovery and potential water quality impacts post-closure, including analysis of site-specific data from the Dendrobium Mine.</li> <li>Specific <b>Mine Closure Study</b> to identify feasible sealing options and locations and water management options.</li> <li>Groundwater modelling to reflect closure study water management concepts and sealing designs including portal discharge management.</li> <li>General: <ul style="list-style-type: none"> <li>mine closure is an issue with or without the Project (i.e. historical catchment wide issue);</li> <li>IAPUM recommended a Mine Closure Plan to address closure issues which was adopted by DPE. The EIS will outline clear closure management concepts and engineering basis of design for post-closure water management;</li> <li>IMC holds groundwater licences under the <i>Water Management Act 2000</i> to account for ongoing groundwater take, including post-mining; and</li> <li>surface water offsets provide an upfront payment for post-mining surface water losses (i.e. based on surface water losses into perpetuity).</li> </ul> </li> </ul>	Section 7.5 and Appendices B, C and Q

**Table A12-2 (Continued)**  
**Agency Issues (Previous Application) Reconciliation Table**

Aspect		Key Points to Address	How Key Point has been Addressed by the Dendrobium Mine Extension Project	EIS Reference
Independent Expert Scientific Committee (IESC)				
9	Bushfire	<ul style="list-style-type: none"> <li>The IAPUM expressed uncertainty regarding the risk of permanent losses to upland swamps due to bushfire.</li> </ul>	<ul style="list-style-type: none"> <li><b>Greenhouse Gas Assessment</b> which considers potential risk of bushfire.</li> <li>Bushfire risk assessment has been undertaken to inform the location and setbacks of ventilation shaft and gas drainage/flaring infrastructure. Bushfire management and mitigation measures have been developed to minimise bushfire risk to and from Project infrastructure.</li> <li>EIS considers CSIRO data regarding increased risk of bushfires, changes in rainfall and evaporation due to global climate change – noting that these changes are not attributable to the Project (except insofar as the Project's contribution to global greenhouse gas emissions).</li> <li>The <b>BDAR</b> assesses potential hydrological changes to upland swamps and will identify offset requirements accordingly – in consideration of site-specific data for previously mined beneath swamps that have been subject to bushfire.</li> </ul>	Section 7.21 and Appendices D and R
10	Mine Design	<ul style="list-style-type: none"> <li>The IESC concluded that additional consideration of alternative mine plans (including setbacks from features and alternative panel widths) is required.</li> </ul>	<ul style="list-style-type: none"> <li>Consideration of Project alternatives provided in <b>Attachment 11</b>.</li> <li>The revised mine plan for the Project results in approximately 60% reduction in longwall mining area from the previous application (i.e. inherently avoiding a number of additional key features) (refer to Item 5).</li> <li>The Department concluded regarding the previous application: <i>The Department concludes that reducing longwall void width is not an effective means of reducing, much less eliminating, the environmental impacts of the Project. This position is confirmed by the Mining Panel's conclusions (6.2.58).</i></li> </ul>	Attachment 11
11	Groundwater	<ul style="list-style-type: none"> <li>The IESC expressed uncertainty regarding adequacy of the groundwater model.</li> </ul>	<ul style="list-style-type: none"> <li>Dendrobium groundwater model has been regularly reviewed and updated throughout the life of the mine through the development of SMPs and has been accepted by WaterNSW and DPE.</li> <li>The Department concluded regarding the previous application: <i>Subject to these important additions to standard conditions, the Department accepts that the groundwater model is fit for purpose, appropriately conservative, adequately informs assessment of the Project and can be relied upon for the ongoing adaptive management of the Project (6.5.39).</i></li> <li>Project groundwater model updated incorporating site-specific data and has been peer-reviewed by an independent and experienced hydrogeologist and groundwater modeller as per the Australian Groundwater Modelling Guidelines (Barnett et al., 2012).</li> <li>The revised Project results in no predicted connective fracturing to the surface when calculated using the Tammetta Equation (which the IAPUM has stated provides a conservative method for calculating the height of fracturing).</li> </ul>	Appendix B

**Table A12-2 (Continued)**  
**Agency Issues (Previous Application) Reconciliation Table**

Aspect		Key Points to Address	How Key Point has been Addressed by the Dendrobium Mine Extension Project	EIS Reference
Independent Expert Scientific Committee (IESC) (continued)				
12	Surface Water Quality	<ul style="list-style-type: none"> <li>The IESC expressed uncertainty regarding potential water quality impacts to streams and reservoirs pre- and post-mining.</li> </ul>	<ul style="list-style-type: none"> <li>IPC concluded that the previous application satisfied NorBE (i.e. accepted the previous application would have a neutral or beneficial effect to water quality in the catchment [including post-mining]) and reduced mine plan for the Project would also reduce potential water quality impacts by reducing surface disturbance from 28.5 ha to approximately 20 ha.</li> <li><b>Groundwater Assessment</b> based on the revised mine plan that considers groundwater recovery and potential water quality impacts post-closure, including analysis of site-specific data from the Dendrobium Mine.</li> <li><b>Surface Water Assessment</b> incorporating additional site-specific data from the Dendrobium Mine.</li> <li>Specific <b>Mine Closure Study</b> to identify feasible sealing options and locations and water management options.</li> <li>Groundwater modelling to reflect closure study water management concepts and sealing designs including portal discharge management.</li> <li>The Department concluded regarding the previous application: <i>They [limited amounts of dissolved iron and related metals] are not expected to lead to any water quality issues which inhibit the use of those waters for their principal purpose, which is the provision of safe, clean and crystal-clear drinking water for the people of Sydney and Wollongong (6.3.102).</i></li> </ul>	Section 7 and Appendices B, C and Q
13	Biodiversity	<ul style="list-style-type: none"> <li>The IESC expressed uncertainty regarding the likely success of proposed remediation measures for swamps and streams.</li> </ul>	<ul style="list-style-type: none"> <li>The <b>EIS</b> details proposed mitigation and management measures as well as offsets, consistent with industry best practice and in consideration of previous experience at the Dendrobium Mine.</li> <li>Impacts to swamps are proposed to be offset under the BC Act.</li> <li>Mitigation and remediation measures for the Project would be informed by the outcomes of trials undertaken at the Dendrobium Mine.</li> <li>Specific performance measures would be included in any approval for the Project and detailed Trigger Action Response Plans would be prepared to demonstrate how these performance measures will be achieved (subject to approval of the Project).</li> </ul>	Sections 7.5 and 7.6 and Appendices A to S
		<ul style="list-style-type: none"> <li>The IESC expressed uncertainty regarding potential impacts on surface water resources (e.g. streams) and resulting impacts to biodiversity.</li> </ul>	<ul style="list-style-type: none"> <li><b>Surface Water Assessment</b> and <b>Groundwater Assessment</b> based on the revised mine plan demonstrating a reduction in impacts to water resources (approximately 78% reduction in peak annual surface water losses from the previous mine plan).</li> <li><b>BDAR</b> and <b>Aquatic Ecology Assessment</b> based on the revised mine plan will demonstrate reduction in potential impacts to biodiversity (as per Item 1).</li> </ul>	Section 7.5, 7.6 and Sections 7.7 to 7.9 and Appendices B, C, D and E



**Table A12-2 (Continued)**  
**Agency Issues (Previous Application) Reconciliation Table**

Aspect		Key Points to Address	How Key Point has been Addressed by the Dendrobium Mine Extension Project	EIS Reference
Independent Expert Scientific Committee (IESC) (continued)				
14	Geology	<ul style="list-style-type: none"> <li>The IESC concluded that characterisation of geological structures requires further consideration.</li> </ul>	<ul style="list-style-type: none"> <li><b>Geological Structures Review</b> that incorporates the outcomes of recent geological investigations at the Dendrobium Mine and the Project underground mining area.</li> <li><b>Geotechnical Assessment</b> prepared for the Project.</li> </ul>	Appendices P and S
15	Subsidence	<ul style="list-style-type: none"> <li>The IESC expressed uncertainty regarding the adequacy of the subsidence model.</li> </ul>	<ul style="list-style-type: none"> <li><b>Subsidence Assessment</b> based on the revised mine plan demonstrating a reduction in subsidence impacts.</li> <li>Subsidence impacts are not uncertain as predictions are based on site-specific data from the current operations which has been updated for the revised mine plan, and conservative assumptions where necessary.</li> <li>Independent Peer Review of <b>Subsidence Assessment</b> concluded that the assessment adopted a conservative modelling approach with subsidence predictions representing an upper-bound of expected subsidence effects.</li> </ul>	Appendix A
16	Bushfire	<ul style="list-style-type: none"> <li>The IESC expressed uncertainty regarding potential risk of increased bushfire impacts on upland swamps.</li> </ul>	<ul style="list-style-type: none"> <li><b>Greenhouse Gas Assessment</b> which considers potential risk of bushfire.</li> <li>Bushfire risk assessment has been undertaken to inform the locations and setbacks of ventilation shaft and gas drainage/flaring infrastructure. Bushfire management and mitigation measures have been developed to minimise bushfire risk to and from Project infrastructure.</li> <li>EIS considers CSIRO data regarding increased risk of bushfires, changes in rainfall and evaporation due to global climate change – noting that these changes are not attributable to the Project (except insofar as the Project's contribution to global greenhouse gas emissions).</li> <li>The <b>BDAR</b> assesses potential hydrological changes to upland swamps and will identify offset requirements accordingly – in consideration of site-specific data for swamps previously mined beneath that have been subject to bushfire.</li> </ul>	Section 7.21 and Appendices D and R

**Table A12-2 (Continued)**  
**Agency Issues (Previous Application) Reconciliation Table**

Aspect		Key Points to Address	How Key Point has been Addressed by the Dendrobium Mine Extension Project	EIS Reference
DPIE-Water				
17	Groundwater	<ul style="list-style-type: none"> <li>DPIE-Water expressed uncertainty regarding adequacy of groundwater model. Suggested requirement to progressively update.</li> </ul>	<ul style="list-style-type: none"> <li>Dendrobium groundwater model regularly reviewed and updated throughout the life of the mine through the development of SMPs and accepted by WaterNSW and DPE.</li> <li>The Project groundwater model updated incorporating site-specific data and has been peer-reviewed by an independent and experienced hydrogeologist and groundwater modeller as per the Australian Groundwater Modelling Guidelines (Barnett et al., 2012).</li> <li>The Department concluded regarding the previous application: <i>Subject to these important additions to standard conditions, the Department accepts that the groundwater model is fit for purpose, appropriately conservative, adequately informs assessment of the Project and can be relied upon for the ongoing adaptive management of the Project (6.5.39).</i></li> <li>As the Project mine layout is refined during the development of Extraction Plans for the Project (e.g. as a result of mine design setbacks, adaptive management, etc.), the groundwater model would continue to be updated.</li> </ul>	Attachment 5 and Appendix B
18	Surface Water Licensing	<ul style="list-style-type: none"> <li>DPIE-Water expressed uncertainty regarding the ability of the Project to license surface water take.</li> </ul>	<ul style="list-style-type: none"> <li>Government would need to create a licensing regime specifically for the Project consistent with the recommendations of the IEPMC and the Minister's media statement, and supported by agency advice provided in the SEARs by DPIE-Water and NRAR.</li> <li>The NSW Government has approved the development of a licensing regime, as described in the January 2022 status update of key actions from the Mining in the Catchment Action Plan.</li> </ul>	Section 8

**Table A12-2 (Continued)**  
**Agency Issues (Previous Application) Reconciliation Table**

Aspect		Key Points to Address	How Key Point has been Addressed by the Dendrobium Mine Extension Project	EIS Reference
DPIE-Water (continued)				
19	Special Catchment Areas	<ul style="list-style-type: none"> <li>DPIE-Water expressed uncertainty regarding the classification of key features and potential impacts to lower order streams (i.e. 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> order streams) and proposed remediation.</li> </ul>	<ul style="list-style-type: none"> <li>The <b>EIS</b> provides a transparent and accurate description of the features considered to be relatively more significant, the relevant setbacks from longwall mining to these significant features, the likelihood of impacts and the associated consequences, and contingency measures that would be implemented (e.g. remediation) if impacts do occur.</li> <li>The revised mine plan for the Project results in: <ul style="list-style-type: none"> <li>approximately 60% reduction in longwall mining area (from the previous application) (i.e. inherently avoiding a number of key features);</li> <li>no longwall mining beneath 3<sup>rd</sup>, 4<sup>th</sup> or 5<sup>th</sup> order (or above) streams; and</li> <li>approximately 50% reduction in the length of 1<sup>st</sup> and 2<sup>nd</sup> order streams longwall mined beneath.</li> </ul> </li> <li>Department concluded regarding the previous application: <p><i>The Department has not been presented with any evidence that suggests that South32's threshold definitions for key stream features are not reasonable or acceptable (6.3.62).</i></p> </li> <li>The Project would implement mitigation and remediation measures for subsidence impacts on streams, as required, incorporating any learnings and experience from existing operations and using an adaptive management approach.</li> </ul>	Sections 4 and 7
20	Aquatic Ecology	<ul style="list-style-type: none"> <li>DPIE-Water expressed uncertainty regarding potential impacts on aquatic ecology and adequacy of survey effort.</li> </ul>	<ul style="list-style-type: none"> <li><b>BDAR and Aquatic Ecology Assessment</b> based on the revised mine plan demonstrating a reduction in potential impacts to biodiversity (as per Item 1).</li> <li>Macroinvertebrate sampling was undertaken in accordance with the Australian River Assessment System Rapid Assessment Protocol.</li> <li>No threatened aquatic ecology species under the <i>Fisheries Management Act 1994</i> or <i>Environmental Protection and Biodiversity Conservation Act 1999</i> were recorded during the baseline surveys.</li> </ul>	Sections 7.7 to 7.9 and Appendices D and E