

Newstan 2015 Colliery Independent Environmental Audit Action Plan

Non compliances and indeterminate compliance status's in relation to conditions in Project Approval 73_11_98, EPL 395 and CCL764 along with the required actions to achieve compliance are summarised in the following table.

Title	Condition No	Requirement	Comments	Compliance/ Recommendations	Action Required
DA-73-11-98	1	<p>General There is an obligation on the Applicant to prevent and minimise harm to the environment throughout the life of the project. This requires that all practicable measures are to be taken to prevent and minimise harm that may result from the construction, operation and, where relevant, decommissioning of the development.</p>	<p>Newstan has developed an Environmental Management Strategy and a number of Environmental Management Plans outlining the systems, processes and measures in place to prevent and /or minimise harm to the environment from Newstan operations.</p> <p>Other than where issues have been identified, in general the site appeared to be implementing its management system. An assessment of the implementation of the various management plans was conducted and is presented under the relevant Conditions and in the main section of this report.</p> <p>In 2013 Newstan constructed a Clean Water Plant (CWP) which it commissioned in early 2014. The CWP uses coagulation, flocculation, sedimentation and filtration to reduce turbidity and concentration of TSS prior to discharge to LT Creek via LDP001. Water that was previously discharged directly from the Fassifern underground Storage is now directed to and treated by the CWP as is surface runoff on-site. Newstan submitted the CWP project for the Engineers Australia Excellence Awards and the Australian Water Association Industry Awards in 2014 for leading practice incorporating extremely efficient design, full automation and low maintenance operation.</p> <p>During the audit period Newstan recorded a number of non-compliances and reportable incidents. Newstan was issued with two Penalty Infringement Notices (PINs) by the EPA for exceedances of TSS concentration limits at Point 1 and Point 2 on the 20.12.13. Newstan requested that the EPA review the PINS by letter dated 13.01.14 and they were subsequently revoked by the EPA. At the time of the audit, Newstan and the EPA were in arbitration over licence conditions. Incidents are discussed further in the main section of this report.</p> <p>While there was general compliance with the condition, on the basis of the reportable incidents occurring and the PINs issued by the EPA during the audit period, Newstan are considered non-compliant with the condition.</p>	<p>Non-compliant</p> <p>Refer to recommendations made throughout the report.</p>	<p>Noted and addressed below.</p> <p>As discussed in depth with the auditors, the PINs issued to Newstan by the EPA were revoked. Newstan does not agree it is non-compliant against this condition due to the issuing of PINs by the EPA as shown by the evidence provided.</p>
DA-73-11-98 3.2 (e)		(d) The Applicant shall also prepare the following environmental management plans: - Archaeology and cultural management plan (refer condition 3.3)	(e) The following plans had not been revised and approved within the 5 year timeframe: - Environmental Management Strategy (2010) (revised and submitted in 2014, awaiting DPE approval)	Non-compliant REC 04 NEWSTAN IEA 2015: Review, update and/or seek	Noted and addressed below.

Title	Condition No	Requirement	Comments	Compliance/ Recommendations	Action Required
		<ul style="list-style-type: none"> - Flora and fauna management plan (refer condition 3.4) - Erosion and sediment control plan (refer condition 3.5(a)) - Soil stripping management plan (refer condition 3.5(c)) - Landscape management plan (refer condition 3.7) - Bushfire management plan (refer condition 3.8) - Land management plan (refer condition 3.9(a)) - Wetland management plan (refer condition 3.9 (c)) - Site water management plan (refer condition 4.1) - Dust management plan (refer condition 6.1) - Noise management plan (refer condition 6.4(d)) <p>(e) The management plans are to be revised/updated at least every 5 years or as otherwise directed by the Director-General in consultation with the relevant government agencies. They will reflect changing environmental requirements or changes in technology/operational practices. Changes shall be made and approved in the same manner as the initial environmental management plan. The plans shall also be made publicly available at LMCC within two weeks of approval of the relevant government authority.</p>	<ul style="list-style-type: none"> - Erosion and Sediment Control Plan (2006) - Soil Stripping Management Plan (2010) - Bushfire Management Plan (2009) - Land Management Plan (2010) - Water Management Plan (2006) (revised in 2009 and called the Revised Water Management Plan – RWMP however this has not been approved by the DP&E). <p>On the basis of the above plans not been revised /approved in the last 5 years, this condition has been assessed as non-compliant.</p>	<p>approval of the following environmental management plans:</p> <ul style="list-style-type: none"> - Environmental Management Strategy - Erosion and Sediment Control Plan (2006) - Soil Stripping Management Plan (2010) - Bushfire Management Plan (2009) - Land Management Plan (2010) - Water Management Plan <p>Refer also to discussion of improvement opportunities of individual plans in main report.</p>	
DA-73-11-98 3.3 (A)		<p>Heritage Assessment and Management</p> <p>(A) The Applicant shall prior to construction of surface facilities or secondary workings within identified areas of archaeological sensitivity within the LEA:</p> <p>(i) Prepare an archaeology and cultural management plan which shall include, but not be limited to:</p> <p>(a) identification of any future salvage, excavation, monitoring, and protection of any heritage and archaeological items, within the area of the surface facilities, particularly the waste emplacement and coal stockpile areas, Awaba Colliery, and the area within the LEA prior to and during development;</p> <p>(b) measures to undertake test excavations along Lords Creek to verify the archaeological potential of those areas identified as having low archaeological sensitivity at least one year prior to finalisation of the route of channelisation or other</p>	<p>(A) Centennial Coal prepared an Aboriginal Cultural Heritage Management Plan (ACHMP) for its Northern Holdings which includes Newstan, Awaba, Myuna, Mannering and Mandalong mines. This Plan was approved by the DP&E by letter dated 26.11.12. In its letter the DP&E stated that the plan addresses the specific requirements of the development consent relating to Aboriginal heritage management.</p> <p>The Plan was developed in consultation with the various Aboriginal parties who had registered an interest to participate in the consultation processes for projects across Centennial's northern operations as well as OEH, LMCC and the CCC. A summary of the consultation process is presented in the ACHMP Aboriginal Consultation Log dated November 2012.</p> <p>An assessment of the adequacy of the plan is included in the main report.</p> <p>Newstan has also prepared an Archaeology and Cultural Management Plan for non-Aboriginal heritage which was last approved in 2006. It was reported that Newstan is in the process of revising this Plan for DP&E approval.</p>	<p>A (i) (b-f) Compliant</p> <p>A (i) (a) Non-compliant (non-Aboriginal)</p> <p>REC 02 NEWSTAN IEA 2015:</p> <p>Update the 2006 Archaeology and Cultural Management Plan to address the requirements of this Condition for non-Aboriginal heritage and cultural management.</p>	<p>Recommendations to be considered when updating the Archaeology and Cultural Heritage Management Plans.</p>

Title	Condition No	Requirement	Comments	Compliance/ Recommendations	Action Required
		<p>proposed works along Lords Creek;</p> <p>c) details of proposed investigations of rock shelters and grinding groove sites identified as having potential to contain archaeological deposit to be undertaken prior to mining being undertaken in the vicinity of the identified sites. The investigation will include test excavations undertaken in accordance with a permit issued under section 87 of the National Parks and Wildlife Act 1974, under a research design which is acceptable to the Aboriginal community and OEH;</p> <p>(d) measures to protect Aboriginal sites from subsidence and mine working impacts, in consultation with OEH, the Aboriginal community and local residents to ensure integration of measures to protect Aboriginal sites;</p> <p>(e) identification and documentation of Aboriginal cultural heritage issues;</p> <p>(f) details of a monitoring program to document the effects of subsidence and mining works on Aboriginal sites and areas of archaeological sensitivity.</p> <p>The plan shall be prepared in consultation with OEH, the Local Aboriginal Land Council, LMCC, and to the satisfaction of the Director-General, and shall be considered by the Applicant when completing the final underground mine layout.</p>			
DA-73-11-98 3.4(a)		<p>Flora and Fauna Assessment and Management</p> <p>(a) The Applicant shall prior to commencement of any construction works for surface facilities in the relevant area or secondary workings within the LEA, prepare and implement a Flora and Fauna Management Plan for the management of flora and fauna issues for the areas of the proposed surface facilities and LEA. The Plan shall be prepared in consultation with OEH and LMCC, and to the satisfaction of the Director-General, and shall include but not be limited to:</p> <p>(i) a detailed assessment of the current characteristics and ecological values of existing ecosystems likely to be affected by the development;</p> <p>(ii) strategies to minimise the net loss of ecologically significant vegetation communities within DA area as a result of the development, including the provision of compensatory areas of</p>	<p>(a) The Flora and Fauna Management Plan was revised and submitted to the OEH and LMCC for consultation by letter dated 21.05.14. A letter was received from the OEH stating that it does not review management plans (11.06.14). No comments were received by the LMCC. The DP&E reviewed the plan and requested minor amendments (by email dated 22.07.14). The Plan was amended accordingly and approved by the DP&E by letter dated 25.08.14.</p> <p>Table 1 of the Plan lists where in the document these requirements have been addressed. A review of the adequacy of the management plans is provided in the main section of the report.</p> <p><u>Implementation</u></p> <p>No major clearing had occurred during the audit period. Some clearing was required for the installation of two permanent monitoring stations upstream and downstream of the mine water discharge that flows into an unnamed creek ultimately flowing into Stony Creek. Hunter Eco was engaged to assess the ecological impacts of the disturbance and conduct a 7-part test.</p>	<p>Compliant (preparation)</p> <p>Non-compliant (implementation)</p>	<p>The Annual Ecological Monitoring Report has been undertaken since the audit which will satisfy this condition as being compliant.</p>

Title	Condition No	Requirement	Comments	Compliance/ Recommendations	Action Required
		<p>equivalent ecological and habitat value where necessary;</p> <p>(iii) strategies to provide increased security for existing habitats and communities (including the strengthening of riparian communities, the management of <i>Tetratheca juncea</i> plants in the vicinity of the proposed surface facilities, particularly in and around the northern and southern reject emplacement areas), and LEA, and habitats of other threatened species such as the Squirrel Glider and Threatened Bat Species identified in the species impact statement;</p> <p>(iv) strategies to manage the impact of surface water management, erosion and sediment control measures, and flooding mitigation measures on flora and fauna, including the impact of heavy machinery;</p> <p>(v) details of monitoring the mine's impacts on native vegetation and threatened fauna and flora, and outline contingency measures should impacts be identified as occurring (refer also condition 8.5);</p> <p>(vi) measures to monitor the impacts on threatened species populations shall address:</p> <ol style="list-style-type: none"> 1. methods of clearing near existing vegetation and measures to protect existing vegetation from the edge affects. Consideration of buffers is essential, especially near drainage lines. 2. measures to reduce sediment into drainage lines. 3. subsidence impacts on <i>Tetratheca juncea</i> through a monitoring program. This program will be co-ordinated with a surveyed and levelled line to determine drops in the terrain, following mine subsidence; 4. development of a program to specifically monitor the success or otherwise of proposed ameliorative measures in relation to the threatened flora and fauna species over five years from the commencement of construction in the relevant area. The monitoring is to be undertaken by experienced Botanist(s)/ Zoologist(s). Annual progress reports and a final report outlining the implementation and success or otherwise of the ameliorative measures shall be included in the AEMR during the monitoring period. <p>(vii) measures to maintain trees with denning</p>	<p>Newstan's Permit to Clear or Disturb Land form had been completed and signed off by the Environment and Community Manager (dated 12.02.13).</p> <p>The revised Plan states that nest boxes will be erected to replace hollows which cannot be salvaged at a ratio of one box per hollow bearing tree. No nest boxes were installed during the audit period as no hollow bearing trees were reportedly removed.</p> <p>Weed management was undertaken by Hunter Land Management (HLM) for large areas and SNK for minor areas. A copy of HLM's weed spraying report for the 4-6th March 2015 was sighted.</p> <p>The 2006 Flora and Fauna Management included a requirement for</p> <ul style="list-style-type: none"> - Monitoring of the condition and composition of vegetation communities in the subsidence area. - Monitoring of forest and woodland areas in the study area to ensure that habitat for native flora and fauna is maintained. - Undertake vegetation monitoring on an annual basis and report in the AEMR. - Monitoring of rehabilitation areas on an annual basis to assess the development and success of the rehabilitation and implement any necessary remedial works. - Following construction, surveys will be conducted for a period of five years to monitor the effect of the development on threatened fauna identified as occurring in the area. <p>The 2012 IEA assessed this Condition as non-compliant on the basis that the above requirements of the Plan had not been implemented. This Plan was still relevant for part of the audit period (April 2012 to May 2014) prior to the approval of the revised plan.</p> <p>The revised Plan includes a comprehensive monitoring program including annual vegetation and fauna surveys and biennial habitat health assessment. At the time of the audit site inspection, Newstan was awaiting the draft report of the first annual ecological survey. <i>Tetratheca juncea</i> monitoring above longwalls 22-24 (in accordance with the previous version of the management plan) continued during the audit period (sighted reports for surveys conducted in 2012, 2013 and 2014).</p> <p>Whilst it is noted that the commencement of the monitoring program would demonstrate compliance with this requirement going forward, the lack of ecological monitoring (with the exception of <i>Tetratheca juncea</i>) during the audit period in accordance with the 2006 Plan has resulted in this Condition being assessed as non-compliant with regards to implementation.</p>		

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		<p>hollows for the protection of threatened arboreal fauna species such as the Squirrel Glider and small Bats. In the event that trees and/or nesting value relevant to these species are felled and tree hollows relocated to augment habitat, and/or in the event that individual animals are captured and relocated during construction, this work shall be undertaken by a Zoologist with knowledge and experience in the implementation of such ameliorative techniques for these species;</p> <p>(viii) a large scale plan showing quadrat number locations for <i>Tetratheca juncea</i> together with a table showing sub-population sizes and their relevant co-ordinates. In particular, this information is required where populations will be lost by the Northern and Southern Reject Emplacement Areas;</p> <p>(ix) strategies to maintain and enhance wildlife corridors around and through the site for the movement of fauna particularly for arboreal mammals, small birds, and squirrel gliders.</p> <p>(x) development of a protocol for identifying and managing significant impacts on any threatened flora and fauna species not identified in the EIS, during development through construction or operation of the coal mine.</p>			
DA-73-11-98 3.4(e)		(e) Any fencing of native vegetation which is to be retained shall not consist of barbed wire fencing.	Most of the fencing used on site is barbed wire boundary fencing to deter unauthorised access onto the site. It was reported that native vegetation to be retained is generally not fenced. The extent of the use of barbed wire fencing was not able to be determined during the audit site inspection.	Indeterminate	Noted.
DA-73-11-98 3.5 (a)		a) The Applicant shall prepare Erosion and Sediment Control Plans for the surface facilities, particularly the waste reject emplacement areas, and the LEA in consultation with LMCC and to the satisfaction of DWE and Director-General, and submit these Plans to the EPA as part of applications for a licence under the Protection of the Environment Act. The Plans shall be prepared and implemented prior to the commencement of work in the relevant areas.	<p>Newstan had prepared an Erosion and Sediment Control Plan (ESCP) in 2006 prior to the commencement of work in the relevant areas. Consultation and approval of the 2006 plan was assessed in previous IEA.</p> <p>The ESCP was revised in 2012 and a Draft submitted to LMCC for consultation by letter dated 21.12.12. The LMCC conducted a site visit to assist in assessing the Plan and provided comments by letter dated 15.02.13. Newstan was yet to revise the plan to address the LMCC comments and seek approval of the revised plan.</p> <p>On the basis that the 2012 Plan was yet to be approved and the 2006 approved plan no longer reflecting the operations taking place at the time of the audit site inspection, this requirement has been assessed as non-compliant.</p>	<p>Non-compliant</p> <p>REC 05 NEWSTAN IEA 2015:</p> <p>Revise the ESCP to incorporate LMCC comments and changes that have occurred on site since 2012 and obtain relevant approvals.</p>	<p>Noted.</p> <p>Erosion and Sediment Control Plan to be updated and resubmitted for approval.</p>

Title	Condition No	Requirement	Comments	Compliance/ Recommendations	Action Required
DA-73-11-98 3.5 (b)		<p>(b) The Erosion and Sediment Control Plans shall include:</p> <p>(i) consideration and management of erosion and sedimentation of surface watercourses/water bodies, including LT Creek and all creeks within the LEA; and</p> <p>(ii) consideration of LMCC's Erosion and Sediment Control Policy and Code of Practice.</p> <p>(iii) a program for reporting on the effectiveness of the sediment and erosion control systems and performance against objectives contained in the approved erosion and sediment control management plans, and EIS. (refer also condition (d) (i) below)</p>	<p>The LMCC comments on the Draft 2012 ESC stated that the plan generally complies with the requirements of the "Blue Book" however it requested that minimum design criteria for the sediment basins be changed from the 90th percentile to the 95th percentile to reflect the sensitivity of the receiving environment. The LMCC also requested that the plan include more recent figures at a scale showing finer detail (1:2000 – 1:5000 was recommended). As discussed above at the time of the audit site inspection the Plan had not been revised to incorporate the LMCC comments and reflect changes that have occurred on site since 2012. On this basis this requirement has been assessed as non-compliant. Refer also to assessment of adequacy in the main section of this report.</p>	As above	<p>Noted.</p> <p>Erosion and Sediment Control Plan to be updated and resubmitted for approval.</p>
DA-73-11-98 4.1 (a)		<p>Water Management</p> <p>(a) The Applicant shall:</p> <p>prior to the commencement of construction of each of the new surface facilities at Newstan Colliery, and prior to first workings within the LEA, prepare water management plans for the relevant developments, in consultation with DWE, EPA, LMCC, and DRE and to the satisfaction of the Director-General, which shall include, but not be limited to, the following matters:</p> <p>(i) management of the quality and quantity of surface and ground water within the areas covered by the water management plans, which shall include preparation of monitoring programs as provided by CoC 8.2.</p> <p>(ii) management of stormwater and general surface runoff diversion to ensure separate effective management of clean and dirty water; (refer also condition 3.5 (d) (ii)).</p> <p>(iii) measures to prevent the quality of any surface waters being degraded below the relevant water quality prior to construction, particularly in LT Creek and all creeks within the LEA due to the operation of the mine workings;</p> <p>(iv) investigation into opportunities to reduce the mine water discharge into LT Creek in consultation with the EPA and include the results of such investigations in the Annual Environmental Management Report;</p> <p>(v) identification of any possible adverse effects on water supply sources of surrounding land holders,</p>	<p>The Water Management Plan was prepared and approved by the DP&E on the 28.09.06. The 2006 plan was reviewed during previous IEAs in 2006 and 2009.</p> <p>In 2008 a Pollution Reduction Program (PRP) was added to Newstan's EPL requiring a Revised Water Management Plan (RWMP) (this was later removed by variation dated 13.07.11). The 2012 IEA assessed the consultation requirements of this plan however at the time, the Plan (Revision 9) was yet to be approved by DP&E.</p> <p>The RWMP has not been updated since 2009 and has not been approved by the DP&E. On this basis, this condition has been assessed as non-compliant.</p> <p>The 2012 IEA reviewed the RWMP and found it to generally include the matters outlined in this CoC with the following exceptions:</p> <p>(xi) Plan states that monitoring in the vicinity of natural watercourses and longwall mining areas is undertaken on a continual basis. The Plan should be more specific about what type of monitoring is undertaken and at what frequency.</p> <p>(xiii) The Plan refers to Centennial's EMS as a means for reporting and recording against environmental performance. The Plan should include a program for specifically assessing and reporting against the effectiveness of the water management system and performance against RWMP objectives and EIS. Since the above review, the following changes have occurred on site relating to water management:</p> <ul style="list-style-type: none"> - construction and operation of the CWP - upgrade of the FPCD - increase to the daily discharge limit from LDP 1 - Stony Creek pipeline now a licensed discharge point (Point 7) <p>The RWMP does not reflect the above changes as well as the</p>	<p>a) Non-compliant</p> <p>REC 03 NEWSTAN IEA 2015:</p> <p>Revise the RWMP to reflect the changes that have occurred on site since this time (2009) and obtain relevant approvals of the document.</p>	<p>The WMP is required to be updated as part of the NCLP which is required to be submitted for approval to DoPE by March 2016. This will satisfy this condition as being compliant by the next audit.</p>

Title	Condition No	Requirement	Comments	Compliance/ Recommendations	Action Required
		<p>as a result of the underground mining operations in the LEA and surface mine works, and implementation of mitigation measures as necessary;</p> <p>(vi) identification of changes in flow of surface waters including all creeks within the LEA, particularly in Lord's Creek, due to subsidence, and LT Creek particularly due to the southern and northern waste emplacement areas and coal stockpiling areas;</p> <p>(vii) identification of any stream rehabilitation works required to ameliorate subsidence effects on stream flows within Lords Creek;</p> <p>(viii) contingency plans for managing adverse impacts of the development on surface and groundwater quality, including the matter in condition 4.1(d)(iv);</p> <p>(ix) identification of the fresh quality groundwater resources within the project area, including the development of appropriate protection strategies;</p> <p>(x) projection of potential groundwater changes during mining (short term) and post-mining (long term) with particular attention given to the affect of changes to groundwater quality and mobilisation of salts;</p> <p>(xi) a monitoring and remediation strategy for all streams which may be adversely affected by subsidence including bed fracturing and/or degradation of the stream channel. Where the monitoring indicates any adverse impacts due to mining, the company shall implement the remediation strategy to the satisfaction of DWE.</p> <p>(xii) consideration of the State Wetlands Management Policy for all significant downstream wetlands that may be effected by mining activity within the LEA or the relevant area.</p> <p>(xiii) a program for reporting on the effectiveness of the water management systems and performance against objectives contained in the approved site water management plans, and EIS;</p>	<p>recommendations from the previous IEA. Further details of the adequacy of the plan and opportunities for improvement are provided in the main section of this report.</p>		

Title	Condition No	Requirement	Comments	Compliance/ Recommendations	Action Required
DA-73-11-98 4.1 (c)		c) obtain a license with DWE under part 5 of the Water Act (1912) prior to construction of all new excavations, test bores and production bores (including dewatering bores) that intersect the groundwater.	c) The previous IEA reported that Newstan proposed (letter dated 09.07.10) to relinquish the 25 monitoring bore licences held (listed in Table 1 of the letter) and replace them with licenses with alternative conditions for 16 of the bores (listed in Table 2 of the letter). Newstan also applied for monitoring bore licences for two existing bores (listed in Table 3 of the letter). In addition, Newstan proposed to relinquish the extraction licence applying to the By-wash Dam and extraction from LT Creek as several conditions of the licence were considered to no longer be valid and requested that a new licence be issued. Newstan also applied for an additional 3 extraction licences. It was reported in the 2012 IEA that, despite numerous repeated requests, no response was provided by NOW. Further to the above, during this audit period, the licence application was re-submitted on the 16.10.13. A meeting was held with NOW on the 15.02.15 at which Newstan was requested to provide additional information. On the basis that the resolution of the licence relinquishment and additional licence application is unknown this condition has been assessed as Indeterminate.	c) Indeterminate REC 06 NEWSTAN IEA 2015: Continue to work with NOW to resolve groundwater extraction licence relinquishment and additional licence application.	Newstan will continue to correspond with NOW to obtain water licences for Newstan Colliery.
DA-73-11-98 4.1		General Terms of Approval EPA (ii) Discharge Concentration Limits The Applicant shall only discharge water from the development in accordance with the provisions of a current Environmental Protection Licence.	(ii) Newstan reported exceedances of the discharge concentration limits specified by its EPL during the audit period. Refer to assessment of compliance with EPL.	(ii) Non-compliant Refer to recommendations in main section of report and EPL compliance assessment table	Newstan has continued to progress upgrades to the water management system since the last audit most notably with the construction of the Clean Water Plant in 2013.
DA-73-11-98 4.2		Assessment of LT Creek and Water Re-use Options The Applicant shall undertake an assessment of water quality and stream health in LT Creek and mine water re-use options to the satisfaction of the Director-General. This assessment must: (a) be prepared in consultation with the CCC, EPA, NOW and LMCC and be submitted to the Director-General by the end of March 2013 for approval; (b) review the history of operations at Newstan Colliery and describe any historical impacts from discharges from the Colliery on water quality and stream health in LT Creek; (c) identify the source(s) of exceedances of ANZECC water quality criteria for waters discharged from the site; (d) establish appropriate water quality criteria for waters discharged from the site;	Newstan commissioned GHD to undertake an assessment of water quality and stream health to meet the requirements of this Condition. The Draft report (LT Creek Water Quality and Newstan Reuse Assessment March 2013) was submitted for consultation to the CCC, EPA, NOW and LMCC by letters dated 20.03.13. It was reported that no comments were received from any of the agencies and the report was submitted to the DP&E for approval on the 28.03.13. The DP&E reportedly requested further consultation with the agencies and so letters were sent to the EPA, LMCC and NOW asking if further information was required. It was reported that the Environment and Community Coordinator had a meeting with the LMCC to discuss the report in December 2013 however no further action has been taken since this time. It was reported that Newstan intends to resubmit the report to the DP&E for approval. On the basis of this report not being resubmitted to the DP&E, nor approved by the DP&E this Condition has been assessed as non-compliant.	Non-compliant REC 07 NEWSTAN IEA 2015: Re-submit the LT Creek Water Quality and Newstan Reuse Assessment Report (March 2013) to the DP&E for approval. If required, work with DP&E to achieve approval.	Newstan to resubmit the LT Creek Water Quality and Newstan Reuse Assessment Report to DP&E.

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		(e) identify any reasonable and feasible options for the improvement of water management at Newstan Colliery including water treatment, re-use or transfer; and (f) provide a proposed timetable for the implementation of reasonable and feasible measures identified in (d) above.																																						
DA-73-11-98 6.4A		<p>Operational Noise Criteria The Applicant shall ensure that noise from the development (excepting the Newstan ventilation shaft site at Awaba) does not exceed the noise criteria in Table 4.</p> <table border="1" data-bbox="477 571 976 890"> <caption>Table 4 - Noise criteria</caption> <thead> <tr> <th>Location</th> <th>Shoulder dB(A) <i>L_{Aeq}(15 min)</i></th> <th>Day dB(A) <i>L_{Aeq}(15 min)</i></th> <th>Evening dB(A) <i>L_{Aeq}(15 min)</i></th> <th>Night dB(A) <i>L_{Aeq}(15 min)</i></th> </tr> </thead> <tbody> <tr> <td>NC1 – Davis</td> <td>35</td> <td>35</td> <td>35</td> <td></td> </tr> <tr> <td>NC2 – Culgarn</td> <td>38</td> <td>38</td> <td>35</td> <td></td> </tr> <tr> <td>NC3 – Orrock</td> <td>39</td> <td>39</td> <td>37</td> <td></td> </tr> <tr> <td>NC4 – Phelps</td> <td>35</td> <td>35</td> <td>35</td> <td></td> </tr> <tr> <td>NC5 – Pamela</td> <td>35</td> <td>35</td> <td>35</td> <td></td> </tr> <tr> <td>NC6 – Fassifern Primary School</td> <td>N/A</td> <td>35</td> <td>N/A</td> <td></td> </tr> </tbody> </table> <p>Notes: -To interpret the locations referred to in Table 4, see Figure 1 in Appendix 2; and -Noise generated by the development is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy. - Day is defined as the period from 7am to 6pm; - Evening is defined as the period from 6pm to 10pm; - Night is defined as the period from 10pm to 6am: and - Shoulder is defined as the period from 6am to 7am.</p> <p>However, these criteria do not apply if the Applicant has an agreement with the relevant owner/s of these residences/land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this</p>	Location	Shoulder dB(A) <i>L_{Aeq}(15 min)</i>	Day dB(A) <i>L_{Aeq}(15 min)</i>	Evening dB(A) <i>L_{Aeq}(15 min)</i>	Night dB(A) <i>L_{Aeq}(15 min)</i>	NC1 – Davis	35	35	35		NC2 – Culgarn	38	38	35		NC3 – Orrock	39	39	37		NC4 – Phelps	35	35	35		NC5 – Pamela	35	35	35		NC6 – Fassifern Primary School	N/A	35	N/A		<p>The operational noise criteria specified by this CoC came into effect with MOD 4 on the 16.03.12. Newstan reported exceedances with these criteria in the 2012, 2013 and 2014 AEMRs as summarised in the noise section of the main report.</p> <p>No exceedances were recorded at any monitoring locations during any periods in December 2014 and Quarter 1 2015 (reviewed noise monitoring reports by Global Acoustics). Based on the non-compliances reported, this Condition has been assessed as non-compliant. Further discussion of measures implemented to minimise noise is provided under Condition 6.4B below and in the main section of this report.</p>	Non-compliant	<p>Noted.</p> <p>Newstan Colliery has continued to implement operational upgrades to decrease noise from its operations including the installation of triple vfd drives throughout the washery.</p> <p>Newstan has also installed a real time noise monitor which will assist the site to manage noise from its operations.</p>
Location	Shoulder dB(A) <i>L_{Aeq}(15 min)</i>	Day dB(A) <i>L_{Aeq}(15 min)</i>	Evening dB(A) <i>L_{Aeq}(15 min)</i>	Night dB(A) <i>L_{Aeq}(15 min)</i>																																				
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NC5 – Pamela	35	35	35																																					
NC6 – Fassifern Primary School	N/A	35	N/A																																					

Title	Condition No	Requirement	Comments	Compliance/ Recommendations	Action Required
DA-73-11-98 6.4B		<p>agreement.</p> <p>Operating Conditions The Applicant shall: (ii) regularly assess the real-time noise monitoring and meteorological forecasting data and relocate, modify, and/or stop operations on site to ensure compliance with the relevant conditions of this consent; (iii) minimise the noise impacts of the development during temperature inversions;</p>	<p>(ii) At the time of the audit, the real-time noise monitor was yet to be installed. It is understood that the original site nominated by Centennial's noise experts was not practical as it was not on land owned by Centennial and there was no power supply to the site. Centennial, in consultation with its experts have selected a new site on Centennial land (adjacent to the rail loop). These changes to the location of the monitoring location compounded to delays in installing the monitor. It was reported that the monitor had been ordered at the time of the audit and civil works had commenced to lay power to the site, however on the basis that it was not operational during the audit period, this Condition has been assessed as non-compliant. It was reported that the real time noise monitor is scheduled to be operational by the end of July 2015.</p> <p>(iii) During attended monitoring, consultants use the data logged by the on-site meteorological station to identify temperature inversions. However this is done and provided to Newstan with the quarterly noise monitoring reports and is therefore not able to be used to minimise impacts during the temperature inversion. On this basis, this requirement has been assessed as non-compliant. It was reported that updates were going to be made to the meteorological station so that it can have these capabilities in the future.</p>	<p>(ii) Non-compliant (iii) Non-compliant</p>	<p>The real time noise monitor has been installed and is currently in a calibration phase.</p>
DA-73-11-98 8.2		<p>Surface and Groundwater (a) (ii) The Applicant shall prepare a detailed monitoring program in respect of ground and surface water quality and quantity, including water in and around the Newstan mine site, Northern and Southern Emplacements, and LEA, and also consistent with condition 4.1(b)(iv), during construction works, mine operations and post mine operations in consultation with DWE, EPA, and to the satisfaction of the Director-General. The monitoring program shall also include surveys of drainage channels within the LEA to update information obtained in the preparation of Property Subsidence Management Plans. The monitoring program shall be prepared prior to commencement of construction in the relevant area.</p>	<p>(a) ii) The surface water monitoring program is included within the Revised Water Management Plan (RWMP, 2009). The RWMP was prepared in consultation with the OEH and NOW and submitted to the DP&E for approval, however was not formally approved by the DP&E (refer also to CoC 4.1). On the basis that the RWMP and the Plan has not been approved by the DP&E and has not been updated since 2009 this part of the condition is considered Indeterminate.</p>	<p>(a) (ii) Indeterminate REC 03 NEWSTAN IEA 2015: Revise the RWMP to reflect the changes that have occurred on site since 2009 and continue to seek relevant approvals of the Plan from DP&E. REC 08 NEWSTAN IEA 2015: Update the surface water monitoring program in the RWMP to include the requirements of the current EPL.</p>	<p>The WMP is required to be updated as part of the NCLP which is required to be submitted for approval to DoPE by March 2016. This will satisfy this condition as being compliant by the next audit.</p>

Title	Condition No	Requirement	Comments	Compliance/ Recommendations	Action Required
DA-73-11-98 8.5		<p>Flora and Fauna Monitoring The Applicant shall prepare a detailed monitoring program of habitat areas, including any wetlands and aquatic habitats, during the development and for a period after the completion of the development to be determined by the Director-General in consultation with LMCC, OEH and DRE.</p> <p>The program shall monitor impacts attributable to the development and include monitoring of the success of any restoration or reconstruction works. The Applicant shall include the monitoring program in the Flora and Fauna Management Plan (condition 3.4). The Applicant shall carry out any further works required by the Director-General as a result of the monitoring. A summary of monitoring results shall be included in the AEMR.</p>	<p>The monitoring program is outlined in Section 5 of the Flora and Fauna Management Plan (2014). The program was expanded to include details of additional monitoring to address the requirements of Condition 3.4 that were not included in the previous version of the plan. This includes:</p> <ul style="list-style-type: none"> - Annual Photo monitoring - Annual Vegetation surveys (species diversity, species abundance, dominant species and vegetation height and presence of dieback) - Annual Bird surveys - Annual Bat surveys - Annual General fauna (camera traps) - Biennial habitat health assessment <p>The previous Plan (2006) committed to annual vegetation monitoring, monitoring of rehabilitation areas, subsidence areas and fauna surveys but did not include details on the type of monitoring proposed at what frequency and which locations. The 2012 IEA assessed this Condition as non-compliant on the basis that ecological monitoring (other than <i>Tetratheca juncea</i>) was not undertaken and made a number of recommendations relating to expanding the monitoring program and revising the Plan.</p> <p>During this audit period annual <i>Tetratheca juncea</i> surveys over longwalls 22-24 and in the NREA and SRE continued with the following reports sighted:</p> <ul style="list-style-type: none"> - <i>Monitoring of Tetratheca juncea over longwalls 22-24 and in buffer areas NREA and SREA – 2013 season</i> (Hunter Eco, October 2013) - <i>Monitoring of Tetratheca juncea over longwalls 22-24 for years 2006-2014</i> (Hunter Eco, October 2014) - <i>Monitoring of Tetratheca juncea at the Northern and Southern Reject Emplacement Areas</i> (Hunter Eco, October 2014). <p>However other ecological monitoring did not commence until 2015. At the time of the audit site inspection, Newstan was awaiting the draft report of the first annual ecological survey from the ecological consultants engaged to undertake this work (RPS). The auditors sighted the proposal provided by RPS to undertake the annual ecological survey and noted it included the monitoring committed to in the Plan.</p> <p>On the basis that ecological monitoring (with the exception of <i>Tetratheca juncea</i>) had not been undertaken during the audit period, this condition has been assessed as non-compliant. The commencement of the monitoring program is noted and would ensure this requirement is compliant in future audits.</p>	Non-compliant No action required as monitoring now commenced.	The Annual Ecological Monitoring Report has been undertaken since the audit which will satisfy this condition as being compliant.

Title	Condition No	Requirement	Comments	Compliance/ Recommendations	Action Required
DA-73-11-98 8.8 (ii) (g)		(ii) The Applicant shall, at its own expense: (g) forward a copy of these minutes to the Director-General; and	The CCC minutes were not forwarded to the DP&E.	(g) Non-compliant REC 09 NEWSTAN IEA 2015: Ensure CCC meeting minutes are forwarded to the DP&E.	Minutes to be forwarded to DP&E.
DA-73-11-98 8.9		Independent Environmental Audit (iii) Within 3 months of submitting the audit report to the Director-General, the Applicant shall review, and if necessary revise the strategies/plans/programs required under this consent to the satisfaction of the Director-General.	(iii) The Flora and Fauna Management Plan was still at a draft stage in December 2012, it was approved in August 2014. Other plans updated and approved during this audit period include: - Air Quality and Greenhouse Gas Management Plan (December 2012) - Noise Management Plan (December 2012) - Pollution Incident Response Management Plan (October 2014) Not all of the management plans were revised following the 2012 IEA to address the recommendations from the adequacy review (e.g RWMP and Aboriginal Cultural Heritage). Refer also to main section of report and Appendix B. On the basis of these actions remaining outstanding, this requirement has been assessed as non-compliant.	(iii) Non-compliant REC 01 NEWSTAN IEA 2015: Develop process for managing non-compliances identified from audits (internal and external), and closing out recommendations	Newstan will continue to manage its compliance through the site compliance database.
EPL 395 L1.1		Pollution of Waters Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.	Newstan reported non-compliance with this condition in its 2012 and 2013 Annual Returns on the following occasions: - 6.03.12 to 7.09.12: unlicensed discharge to Stony Creek - 1.03.13: turbid water discharge from LDP002 - 18.11.13: turbid water discharge from LDP001 In addition, Newstan reported the following incidents to the EPA via the pollution hotline in 2015: - 09.04.15: seepage of water into LT Creek through electrical pit - 21.04.15 to 23.04.15: overflow of turbid water from FPCD through LDP002 Based on the above incidents and related exceedance of the EPL criteria, this Condition was assessed as non-compliant during the audit period. Incidents and water management are discussed further in the main report.	Non-compliant	Stony Creek has been licenced on the Newstan EPL since the date of the recorded non compliances. Newstan has continued to progress upgrades to the water management system since the last audit specifically with the construction of the Clean Water Plant in 2013.
EPL 395 L2.1		Concentration Limits For each monitoring/discharge point or utilisation area specified in the table/s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.	During the audit period Newstan recorded a number of exceedances of these concentration limits (refer Error! Reference source not found.): In December 2013 / January 2014 Newstan commissioned a Clean Water Plant (CWP). The CWP uses coagulation, flocculation, sedimentation and filtration to reduce turbidity and concentration of TSS prior to discharge from LDP001. At the time of the audit Newstan was in arbitration with the EPA regarding the pollutant concentration limits imposed by this EPL. This is discussed further in the main report.	Non-compliant	Newstan has continued to progress upgrades to the water management system since the last audit specifically with the construction of the Clean Water Plant in 2013.

Title	Condition No	Requirement	Comments	Compliance/ Recommendations	Action Required															
EPL 395 L3.1		<p>Volume and Mass Limits For each discharge point or utilisation area specified below (by a point number), the volume/mass of:</p> <p>(a) liquids discharged to water; or; (b) solids or liquids applied to the area; must not exceed the volume/mass limit specified for that discharge point or area:</p> <p>Point 1: 11,000 kilolitres per day</p>	<p>In December 2013 Newstan installed a CWP and upgraded its pipeline and pumping system. The CWP allows for greater control of the water level within the Fassifern Seam and better management of surface water across the site using the CWP CITECT system. A v-notch weir was installed at LDP001 to monitor volume discharged. If the limit at LDP001 is reached, the discharge to LDP001 is switched off and alarms raised to investigate. Newstan personnel are able to log on to the CWP CITECT system and check dam levels, start / stop pumps etc. The Discharge limit at LDP001 was increased from 7,000 kL to 11,000 kL by EPL variation dated 15.10.12. Since this time, Newstan has reported the following exceedances with the volume limit:</p> <ul style="list-style-type: none"> - 2.03.13: 12,384 kL discharged following a significant rainfall event (152 mm in 27 hours prior to discharge). - 22 to 23.04.15: 11,519 kL discharged following major storm. <p>While Newstan have been typically compliant with the condition, based on the two exceedances listed, Newstan are considered non compliant with this condition.</p>	Non-compliant	Upgrades to the water management system since the last audit through the installation of the clean water plant, are designed to prevent exceedances of concentration limits specified by the EPA by automation of the site water management system.															
EPL 395 M2.2		<p>Air Monitoring Requirements</p> <p>POINT 7,8,9,10,11,12,13,14</p> <table border="1" data-bbox="517 783 965 855"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>Particulates - Deposited Matter</td> <td>grams per square metre per month</td> <td>Monthly</td> </tr> </tbody> </table> <p>POINT 15,16</p> <table border="1" data-bbox="517 919 965 1015"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>Particulate matter</td> <td>micrograms per cubic metre</td> <td>Every 8 days</td> </tr> <tr> <td>Total suspended particles</td> <td>micrograms per cubic metre</td> <td>Every 8 days</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Particulates - Deposited Matter	grams per square metre per month	Monthly	Pollutant	Units of measure	Frequency	Particulate matter	micrograms per cubic metre	Every 8 days	Total suspended particles	micrograms per cubic metre	Every 8 days	<p>A non-compliance was reported with this Condition in the 2012 and 2013 EPL Annual Returns as the following air quality monitoring was not undertaken:</p> <ul style="list-style-type: none"> - TSP at EPA Monitoring point 16-HVS2 on 09.01.12 - PM₁₀ at EPA Monitoring point 16-HVS2 on 11.09.12 due to a power outage; - TSP at EPA Monitoring point 16-HVS2 on 11.09.12 due to a power outage; - Particulates – deposited matter at EPA Monitoring Point 13-D7 for the monthly sample of 20 March to 19 April 2012 due to vandalism of the dust gauge. - PM₁₀ at EPA Monitoring point 16-HVS2 on the 15.03.15, 21.05.13 and 27.05.13 due to an electrical failure within the sampler - Particulates – deposited matter at EPA Monitoring Point 10-D4 for the monthly sample of 18 March to 18 April 2013 due to vandalism of the dust gauge. <p>AM-19 refers to AS 3580.10.1-1991. Depositional dust monitoring was undertaken by AECOM. AECOM developed a procedure, Ambient Measurement Procedure – Dust Deposit Gauges which references AS 3580.1.1:2003. AM-18 refers to AS 3580.9.6-1990 and AM-15 refers to AS 2724.3-1984.</p> <p>The February 2015 Environmental Monitoring Report of TSP, PM₁₀ and PM_{2.5} provided by Carbon Based stated that the following Australian Standards were used:</p>	Non-compliant	<p>Upgrades have been made to the power supply to the HVAS to prevent power outages.</p> <p>Newstan will continue to manage airborne dust from site as per the AQ&GHG Management Plan.</p>
Pollutant	Units of measure	Frequency																		
Particulates - Deposited Matter	grams per square metre per month	Monthly																		
Pollutant	Units of measure	Frequency																		
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Title	Condition No	Requirement	Comments	Compliance/ Recommendations	Action Required
			<p>- AS3580.9.3 for TSP - AS3580.9.6 for PM₁₀ AS 3580.9.3 is not listed within the EPA publication, <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> however it is noted AS3580.9.6 has superseded AS 2724.3-1984 and the EPA publication has not been reviewed since January 2007. On the basis of the non-compliances reported in the 2012 and 2013 Annual Returns this condition was deemed non-compliant.</p>		
EPL 395 M2.3		<p>Water and/ or Land Monitoring Requirements Summarised below (see EPL 365 for full requirements) <u>Point 1 (LDP001)</u>: - Metals: weekly by composite sample. - Conductivity: daily by composite sample - Total suspended solids, oil and grease and pH: weekly by composite sample - Turbidity: weekly by grab sample <u>Point 2 (LDP002)</u> - Metals: weekly during any discharge by grab sample. - Conductivity, oil and grease, pH, total suspended solids and turbidity: within the first 6 hours of any discharge occurring; and every seven days thereafter for the duration of the discharge <u>Point 3, 4, 6, 20 (ambient water quality)</u> - Metals: monthly during discharge by grab sample. - Conductivity, oil and grease, pH, total suspended solids and turbidity: within the first 6 hours of any discharge occurring; and every seven days thereafter for the duration of the discharge <u>Point 17 (Stony Ck Pipeline Outlet)</u> -Metals: within the first 6 hours of any discharge occurring; and every seven days thereafter for the duration of the discharge - Conductivity, temperature and turbidity: continuously during any discharge (subject to the following note) - oil and grease, pH and total suspended solids: within the first 6 hours of any discharge occurring; and every seven days thereafter for the duration of the discharge</p>	<p>A non-compliance was reported with this Condition in the 2012 and 2013 Annual Returns as the sampling method and frequency for LDP001 and Point 19 (WMP03) was not in accordance with the requirement. The Licence Variation dated 15.10.12 changed the sampling method from grab sampling to composite sampling and the frequency from weekly to daily. Newstan continued to use weekly grab sampling whilst it was in the process of procuring, installing and commissioning the composite samplers. These were installed in April 2013. The composite samplers at LDP001 and Point 19 were observed during the audit site inspection. <u>Note re Special Frequency 1</u> Newstan has developed a procedure (EWP002– Environmental Monitoring During Discharge Events) which outlines the step by step process for sampling during discharge events. This was reviewed by the auditors and considered to be a comprehensive and well written procedure. Some opportunities for improving the procedure were identified (refer to recommendations). It was reported that where Newstan is required to take a sample within the first 6 hours of any discharge occurring this is managed in the following way: - water levels are monitored in the CWP CITECT system; - If either the FPCD, Graunchs, Fassifern’s storage or Connolly’s dam gets to 80% an alarm sounds and an automated phone call is made to a prioritised list of Newstan personnel on rotation until someone answers the call. - Newstan personnel are able to log on to the CWP CITECT system and check dam levels, start / stop pumps etc. - if it becomes apparent that a discharge is imminent, the Environmental Coordinator takes the grab sample and stores it for pick up by AECOM for preparation and analysis by the laboratory as per Procedure EWP002. In 2015, the requirement for monitoring within the first 6 hours of any discharge was triggered during the following events:</p>	<p>Non-compliant REC 10 Newstan IEA 2015 Update EWP002- Environmental Monitoring During Discharge Events, to include the plan referenced in the EPL for monitoring locations (plan NS3303). Also ensure procedure includes monitoring requirements for EPA Monitoring Point 20 (WMP 16) during discharge events).</p>	Noted.

Title	Condition No	Requirement	Comments	Compliance/ Recommendations	Action Required
		<p><u>Point 18 (ambient water quality)</u> -Temperature: continuously during any discharge (subject to the following note – b) <u>Point 19 (ambient water quality)</u> - Metals: weekly by composite sample <u>Note</u> Special Frequency 1 means in the event of a discharge, a grab sample of the water discharged must be collected: a) within the first 6 hours of any discharge occurring; and b) every seven days thereafter for the duration of the discharge; Special Frequency 2 means continuous sampling during any discharge, subject to the following in respect of Point 17 and Point 18. (a) A continuous monitoring system will be implemented by 31 March 2013, weather permitting. It is noted that, to minimise the possibility of a flow of mine wastewater through the pipeline during installation and excavation works, the installation of continuous monitoring equipment will not commence until there is a two (2) metre buffer from the water level in the seam to the Stony Creek pipeline inlet. (b) In the event of a discharge occurring prior to the implementation of continuous monitoring being installed, hourly monitoring must be carried out. This monitoring will commence within the first six (6) hours of any discharge occurring.</p>	<p>- 21.04.15 – overflow of Graunchs Dam through LDP001 - 21.04.15 – overflow of FPCD through LDP002 - 23.04.15 – overflow of Clean Water Dam In its written report for the 21-23 April 2015 incident to the EPA dated 5.05.15, Newstan stated the dates and times of the discharges and the dates and times sampling was undertaken. Based on this information Newstan undertook sampling within 6 hours of the discharges occurring at all but one location (Point 6) where it was deemed unsafe to collect samples late at night during extreme storm conditions. Samples were taken at this location at 8:45am the next day when it was safe to do so. <u>Note re Special Frequency 2</u> (a) The continuous monitoring system was installed at Stony Creek on the 15.10.13. The EPA was notified of the completion of its installation by letter dated 8.11.13. The EPA was previously notified (by letter dated 11.03.13 that there would be a delay in the implementation of the monitoring system due to significant rain which raised the water levels in the Fassifern seam to within the 2m buffer of the inlet to the Stony Creek pipeline. b) Newstan reported that Point 17 (Stony Creek pipeline) commenced discharging on the 22.03.13. This was prior to the continuous monitoring system being completed as discussed above. It was reported that for this event, environmental consultants AECOM were undertaking hourly monitoring to satisfy this condition. In addition Newstan reported that Point 17 commenced discharging on the 11.05.15 at 8:20am. By this stage the continuous monitoring system had already been installed. The auditors were provided with a spreadsheet (“Stony Creek 2015) which included the half hourly temperature, conductivity and turbidity monitoring data for Point 17 for the period 8 am 11.05.15 to 03.06.15. Based on the non-compliances reported by Newstan in 2012 & 2013 as indicated above, Newstan were considered to be non-compliant with this condition.</p>		
EPL 395 U2.1		<p>PRP6 Macroinvertebrate and Eco-toxicological Monitoring Program The licensee must implement an environmental monitoring program that will monitor the impacted sites of LT and Stony Creeks against control, where control means a system of the same Riverstyle™ (Brierley & Fryirs) as LT and Stony Creek monitoring reaches but not impacted by point source mining groundwater discharges or other major point source discharges. The monitoring program must be undertaken by a</p>	<p>At the time of the audit site inspection Newstan and the EPA were in arbitration and as advised by letter from Newstan’s lawyers Ashurst Australia dated 18.05.15 it was agreed by both parties that Conditions U2 and E1 are not to have effect until the Court finally resolves the proceedings.</p>	Not to have Effect – subject of arbitration at time of audit.	

Title	Condition No	Requirement	Comments	Compliance/ Recommendations	Action Required
		<p>suitably qualified and experienced person and:</p> <p>a) include macroinvertebrate monitoring twice a year (Autumn and Spring) at:</p> <p>i) four or more locations downstream of LT Creek licensed discharge point 1 that includes site within the intertidal estuarine zone; and</p> <p>ii) two or more locations downstream of Stony Creek licensed discharge point 17 that includes a site within the intertidal estuarine zone; and</p> <p>iii) at a number of control locations that are the same Riverstyle™ (Brierley & Fryirs) as the impacted monitoring site reaches, which must include an estuarine non impacted site;</p> <p>b) include ecotoxicological assessment 3 times within a 6 month period from the date of the issue of this licence, with the timeframe between sampling events more than 7 weeks, that includes assessment of the toxic effects of the clean water treatment plant at licensed discharge point 1 to Eastern Rainbow Fish embryo development and post-hatch survival (10d exposure), freshwater shrimp (<i>Paratya australiensis</i>) survival (10d exposure) and freshwater cladoceran <i>C.dubia</i> reproductive impairment (8d exposure); thence</p> <p>c) ecotoxicological assessment twice annually, with the timeframe between sampling events more than 4 months, that includes assessment of the toxic effects of the clean water treatment plant at licensed discharge point 1 to Eastern Rainbow Fish embryo development and post-hatch survival (10d exposure), freshwater shrimp (<i>Paratya australiensis</i>) survival (10d exposure) and freshwater cladoceran <i>C.dubia</i> reproductive impairment (8d exposure).</p> <p>Note 1: Control does not mean 'natural' and unimpacted by humans in the context of this study.</p>			

Title	Condition No	Requirement	Comments	Compliance/ Recommendations	Action Required
EPL 395 U2.2		The licensee must prepare an ecotoxicological report for monitoring undertaken at condition U2.1 b) that is prepared by a suitably qualified and experienced person. This report must be provided to the EPA's Regional Manager Hunter at Hunter.region@epa.nsw.gov.au within two months from completion of the ecotoxicological assessment in condition U2.1 b).	As above	Not to have Effect – subject of arbitration at time of audit.	
EPL 395 U2.3		The licensee must prepare a macroinvertebrate and ecotoxicological report prepared by a suitably qualified and experienced person that reports on the monitoring undertaken in Condition U2.1 a) and Condition U2.1 c). The report: a) must be provided to the EPA with the Annual Return (noting that from the commencement of this Licence, only the Spring macroinvertebrate monitoring would have taken place within the 2014 licence period); and b) analysis must incorporate, but must not be limited to a beyond before after control impact (beyond BACI) style assessment comparing impacted and control sites but also include an assessment of macroinvertebrate assemblage dissimilarity between impacted and control sites highlighting the taxa / impact responsible for the majority of the dissimilarity. At the completion of two years and then three years of monitoring the macroinvertebrate and ecotoxicological report must incorporate temporal analysis of the preceding data dating back to the commencement of the environmental study. This PRP must be completed by 27 February 2017.	As above	Not to have Effect – subject of arbitration at time of audit.	

Title	Condition No	Requirement	Comments	Compliance/ Recommendations	Action Required
EPL 395 E1.1		<p>Special Conditions</p> <p>Water Treatment Plant Commissioning Study</p> <p>The licensee must undertake a Water Treatment Plant (WTP) Commissioning Study for the Newstan Clean Water Treatment Plant prepared by a suitably qualified and experienced person. The study must:</p> <p>a) monitor daily inflow to the WTP and daily outflow from the WTP testing for the pollutants identified in condition U1.1 c), and including the total fraction of individual metals mentioned in condition U1.1 c) for 7 consecutive days; thence after</p> <p>b) monitor weekly inflow to the WTP and weekly outflow from the WTP testing for the pollutants identified in condition U1.1 c), for eight weeks (using a range of days of the week); and that this monitoring must include</p> <p>i) a range of volumetric throughputs to test treatment efficiencies and residence time.</p> <p>Note: The laboratory analytical tests must be able to test the pollutants (analytes) at an appropriate level of detection such that change can be detected. The results of "<LOR" are not acceptable in a commissioning study where the intention is to detect a reduction.</p>	<p>Newstan sought clarification (by letter dated 07.01.14) regarding the note in this condition re LOR reporting. It also advised the EPA that it would not be able to complete the report within the stipulated timeframe and sought an extension. Court proceedings have since commenced between Newstan and the EPA and as advised by letter from Newstan's lawyers Ashurst Australia dated 18.05.15 it was agreed by both parties that Conditions U2 and E1 are not to have effect until the Court finally resolves the proceedings.</p>	<p>Not to have Effect – subject of arbitration at time of audit.</p>	
EPL 395 E1.2		<p>On completion of the monitoring identified in condition E1.1 the licensee must provide a report to the EPA, prepared by a suitably qualified and experienced person. The report must:</p> <p>a) analyse and report the efficiency of the clean water treatment plant in removing pollutants at a variety of flow rates and residence times and include near maximum flow rates that would be discharged in accordance with the maximum volumetric licence limit (11,000ML/day);</p> <p>c) compare and contrast the monitoring results to the targeted design treatment concentrations identified in Condition U1.1 c); and</p> <p>b) include recommendations of the most effective flow rate and the resultant treatment reductions that can be achieved.</p> <p>Note: The laboratory analytical tests must be able to test the pollutants (analytes) at an appropriate level of detection such that change can be</p>	<p>As above</p>	<p>Not to have Effect – subject of arbitration at time of audit.</p>	

Title	Condition No	Requirement	Comments	Compliance/ Recommendations	Action Required
		<p>detected. The results of "<LOR" are not acceptable in a commissioning study where the intention is to detect a reduction. The Report must be provided to the EPA's Manager Hunter Region at hunter.region@epa.nsw.gov.au within 3 months of the issue of this licence variation (17 December 2014).</p>			
CCL 764 2		<p>Environmental Harm The proponent shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or rehabilitation of the development.</p>	Refer to DA 73-11-98 Condition 1	Non-compliant Refer to recommendations made throughout the report	Noted.
CCL 764 18		<p>Prevention of Soil Erosion and Pollution Operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution (including sedimentation) or soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan. For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwaters. The lease holder must observe and perform any instructions given by the Director-General in this regard.</p>	<p>Newstan operates under an Environmental Protection Licence (EPL395) which outlines criteria for water quality discharges and monitoring requirements for dust and water quality. Refer to assessment of compliance with EPL. Newstan has developed a number of management plans to manage the environmental impacts of its operations, specifically a Revised Water Management Plan, Erosion and Sediment Control Plan and Air Quality and Greenhouse Gas Management Plan. Refer to main report for further discussion of these issues Newstan had undertaken significant works during the audit period to upgrade its water management system, including:</p> <ul style="list-style-type: none"> - increasing the capacity of the Final Pollution Control Dam - completing the clean water diversion drain around the SREA - installing a Clean Water Treatment Plant - upgrades to the pipeline and pumping system and increases in pumping capacity - upgrades to the CITECT system following construction of the CWP. The CWP CITECT system allows for remote management and movement of water across the site and incorporates alarms when trigger levels are reached. - increasing the daily discharge limit (volume) in its EPL from 7ML/day to 11 ML/day from LDP001. <p>The previous IEA (2012) identified an area of erosion at the</p>	Non-compliant	Noted.

Title	Condition No	Requirement	Comments	Compliance/ Recommendations	Action Required
			<p>discharge of the clean water diversion drain where the northern arm drains into LT Creek. The IEA reported that the clean water diversion drain had diverted water into an undefined drainage line which has as a result eroded in some areas down to bedrock and potentially led to some sediment build up in LT Creek. During the audit site inspection on the 11.05.15, the auditors inspected this area and observed that works had been undertaken to extend the rock lined channel approximately, 10m, however the auditors were not able to gain access to the land (as this was private land) to observe the drainage line beyond this point. Newstan noted that no works had been undertaken beyond the area sighted due to it being on private land.</p> <p>No areas of significant erosion were observed during the site visit on the 11.05.15.</p> <p>On the basis of the non-compliances with the EPL relating to water pollution, Newstan is considered Non-compliant with this condition.</p>		
ML 1452 33 (a)		<p>Catchment areas - (a) Operations shall be carried out in such a way as not to cause any pollution of the Lake Macquarie Catchment Area.</p>	<p>(a) Newstan operates under an Environmental Protection Licence (EPL 395) which outlines criteria for water quality discharges and monitoring requirements for dust and water quality. Refer to assessment of compliance with EPL. Some aspects of the licence have not been complied with and some pollution events have been reported. While Newstan are generally compliant with this condition, on the basis of some events of pollution occurring, Newstan are considered Non Compliant with this condition. Full details are presented in the compliance assessment of the EPL.</p>	(a) Non-compliant	Noted. Addressed in conditions of EPL.

Newstan 2015 Colliery Independent Environmental Audit Recommendations

Audit recommendations in relation to conditions in Project Approval 73_11_98, EPL 395 and CCL764 along with the required actions to achieve compliance are summarised in the following table.

Approval & EPL Condition Number	Rec. #	Recommendation	Action Required / Comment
DA 73-11-90 3.2	REC 11	Follow up with DP&E regarding the status of the approval of the Strategy. Once approval is received ensure copies are provided to the relevant agencies within 14 days.	Newstan to follow up with DP&E.
DA 73-11-90	REC 12	Revise the Bushfire Management Plan to ensure it remains up to date.	Newstan is required to develop an Emergency Management System to include bushfire for the NCLP by March 2016. This will satisfy this condition as being compliant by the next audit.
DA 73-11-90	REC 13	Revise the Land Management Plan to ensure it remains up to date. Newstan should ensure that the OEH, NOW, and DRE are consulted with on the next version of the LMP. See recommendations below regarding rehabilitation as provided by DRE.	Newstan will ensure compliance against the Development Consent. Newstan will comply with the requirements of the consent condition for consultation on management plans.
DA 73-11-90	REC 14	Follow up the status of approval of the Groundwater Monitoring Program with the DP&E, and work with DP&E to address any comment required to approve the document.	Noted.
DA 73-11-90	REC 15	Include discussion of how/ when the effectiveness of the real –time noise management system will be evaluated and reported on within the NMP.	NMP to be updated once installation and calibration of the real time noise monitor is complete.
DA 73-11-90	REC 16	As per recommendation in 2012 IEA, it is considered that the AEMR should include a list of groundwater monitoring and extraction licences under Section 1.1 Consents Leases and Licences of the AEMR.	Newstan will continue to meet the requirements of the Annual Review report.
DA 73-11-90	REC 17	Request clarification from DP&E on whether historical data is required to be maintained on the website and for what period of time.	Noted.
DA 73-11-90	REC 18	Ensure that copies of the approved management plans and IEAs are provided to all of the relevant agencies (and not just the DP&E as the approving agency and the LMCC for public exhibition). The auditors consider the relevant agencies to be the agencies for which consultation was required (typically OEH, DRE, NOW, LMCC and DP&E). Alternatively, Newstan could inform the relevant agencies as part of the consultation that approved plans will be available on the Newstan website once approved.	Newstan will continue to consult with relevant approving agencies as required by each individual condition
EPL395 L4.1	REC 19	Revise Procedure EWP005 to include discussion of the receipt of ENM (in accordance with the ENM Exemption 2014(and updated environmental coordinator contact details.	Procedure to be updated.
DRE Consultation on rehabilitation	REC 20	As per correspondence from DRE received during the audit consultation dated 27/8/15: <ul style="list-style-type: none"> • Continue to improve rehabilitation standards. • Complete a topsoil and subsoil material balance to verify availability of material for rehabilitation. Evaluate soil and growth medium requirements for site and develop a soil amelioration methodology. • Review and modify rehabilitation methodologies based on performance of existing rehabilitation. • Continue to develop and refine performance indicators and quantifiable completion criteria in the Mining Operations Plan. 	Newstan will continue to meet its MOP objectives and requirements with DRE.
CCL746 5	REC 21	It is recommended that the AEMR's report against progress in respect of the Performance Indicators and Completion Criteria presented in the current MOP.	Newstan will continue to meet the requirements of the Annual Review report.

CCL746 7	REC 22	Develop and Implement a rehabilitation monitoring program (to be conducted by suitably qualified people (to assess performance against performance indicators and quantifiable completion criteria as developed in the MOP and in consultation with DRE.	Newstan is currently underway to developing a Mine Closure Plan with the assistance of suitably qualified expertise.
Other Section 6.4	REC01	Develop process for managing non-compliances identified from audits (internal and external), and closing out recommendations.	Newstan will continue to manage its compliance through the site compliance database.