Proposal Content Document

Greater Paraburdoo Iron Ore Hub

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| **Proposal Details:** |
| **Proposal title**  Greater Paraburdoo Iron Ore Hub |
| **Proponent name**  Ebony Zhang |
| **Short description**  Hamersley Iron Pty Limited (the Proponent) operates the existing Paraburdoo and Eastern Range iron ore mines which are located approximately 6 km south of the town of Paraburdoo in the Pilbara Region of Western Australia (WA) (Figure ES 1). The Proponent proposes to sustain production by expanding these existing operations and also developing a new deposit at Western Range. These developments collectively make up the Greater Paraburdoo Iron Ore Hub (the Proposal). This Proposal is an integral part of the Rio Tinto Group (Rio Tinto) integrated network of iron ore mines in the Pilbara. |
| **Proposal Elements:** | |
| Element 1: open pit(s) (above water table)-801   * Maximum Extent: AWT pits at Western Range ( ha), at Paraburdoo ( ha) and Eastern Range ( ha). * Associated activity element 1: Clearing of native vegetation   + Phase   Construction   * + Maximum extent, range or capacity of this activity   See Figure ES-2 for the proposed pit footprints. 2000 ha of native vegetation will required to be cleared for mine pits.   * Associated activity element 2: Excavation and blasting of rock/ore   + Phase   Operational   * + Maximum extent, range or capacity of this activity   5000 tonnes of iron ore will be excavated from the mine pits and will be transported and processed. The AWT footprints will be 2000 ha (figure ES-2).   * Associated activity element 3: Mine pit backfill   + Phase   Decommissioning   * + Maximum extent, range or capacity of this activity   Progressive rehabilitation will occur after all ore has been excavated from the mine pits. Mine pit closure plans and rehabilitation summary are presented in attachments A5-1 to A5-4.   * Associated activity element 4: Mine pit revegetation   + Phase   Decommissioning   * + Maximum extent, range or capacity of this activity   Progressive rehabilitation will occur after the mine pits have been backfilled. The rehabilitation plans are presented in appendix A5-1 to A5-5. All 2000 ha of open pits will be revegetation to the appropriate standards.  Element 2: processing plant-801   * Maximum Extent: * Associated activity element 1: Clearing native vegetation   + Phase   Construction   * + Maximum extent, range or capacity of this activity   50 ha of native vegetation will be cleared for the processing plant.   * Associated activity element 2: Decommissioning and removal of processing plant.   + Phase   Decommissioning   * + Maximum extent, range or capacity of this activity   After operations have finished, the decommissioning stage will begin where the processing plant will be removed.   * Associated activity element 3: Processing ore   + Phase   Operational   * + Maximum extent, range or capacity of this activity   3000 tonnes of iron ore will be processed at the processing plant. The location of the plant is seen in Figure 2-4   * Associated activity element 4: Revegetation   + Phase   Decommissioning   * + Maximum extent, range or capacity of this activity   After the processing plant is removed post-operational stage, revegetation efforts will ensure the site is restored to an adequate condition.  Element 3: stockpile topsoil-801   * Maximum Extent: 100 ha * Associated activity element 1: Clearing of native vegetation   + Phase   Construction   * + Maximum extent, range or capacity of this activity   100 ha of Native vegetation will be cleared to allow for topsoil to be stored.   * Associated activity element 2: Rehabilitation of topsoil   + Phase   Decommissioning   * + Maximum extent, range or capacity of this activity   Progressive rehabilitation will be performed after the operational stage, where topsoil will be transported and backfilled into the mine pits.   * Associated activity element 3: Storage of topsoil   + Phase   Operational   * + Maximum extent, range or capacity of this activity   Waste dump sites are located in Figure 2-1 and 2-2. Approximately 100 ha of land will be needed for topsoil storage, which will host up to 1000 ha of topsoil separated by soil profiles.  Element 4: supporting Infrastructure (eg offices, workshops, hardstand)-801   * Maximum Extent: 100 ha * Associated activity element 1: Clearing of Native Vegetation   + Phase   Construction   * + Maximum extent, range or capacity of this activity   100 ha   * Associated activity element 2: Construction of supporting infrastructure   + Phase   Construction   * + Maximum extent, range or capacity of this activity   Supporting infrastructure will be constructed with a maximum extent of 20 ha. | |
| **Proposal Stages:** | |
| **Maximum proposal life**  20 | |
| **Proposed start date**  6/25/2022 12:00:00 AM | |
| **Proposed end date**  12/6/2042 12:00:00 AM | |
| **Construction phase length**  1 | |
| **Commissioning schedule**  As many of the supporting infrastructure is existing for the proposal, the commissioning schedule will begin with clearing of the mine pits and construction of the processing plant | |
| **Operations phase length**  18.5 | |
| **Decommissioning phase length**  Ongoing after mine pits are excavated, until 6 months post-operational stage. | |
| **Decommissioning schedule**  The mine pits and waste dumps will be progressively rehabilitated over the lifetime of the proposal, with topsoil backfilled into the pits. After the operational stage is complete, the supporting infrastructure will be completely removed over 6 months. | |
| **Rehabilitation schedule**  Mine pits will be re-vegetation through seeding techniques after topsoil has been deemed adequate for natural land processes, compaction is suitable for revegetation.  Native title owners and rehabilitation experts will be consulted throughout the process of the mine operations. Revegetation will be performed by a third party. A summary of the rehabilitation process for each mine sector is presented in appendixes A5-1 to A5-5. | |
| **Greenhouse gas emissions:** | |
| **Construction**  **Total Scope 1 greenhouse gas emissions**  40000 | |
| **Scope 1 emissions source and quantification method**  Based on an average of predicted emissions from 2025 to 2036  (when production at Greater Paraburdoo is being sustained by  Western Range and 4EE at a rate of 25 Mtpa), the Proposal will bring  the total Scope 1 emissions for the Greater Paraburdoo Hub to  approximately 115,217 tonnes CO2-e per year. This equates to a 7%  increase from the existing approved activities. The small increase is  due to the fact that production from Western Range and 4EE will  replace existing mining operations (particularly Channar and Eastern  Range) as those mines reach the end of their life. | |
| **Total Scope 2 greenhouse gas emissions**  12000 | |
| **Scope 2 emissions source and quantification method**  The Proposal will bring the total Scope 2 emissions for the Greater  Paraburdoo Hub to approximately 48,230 tonnes CO2-e per year,  which is comparable with Scope 2 emissions from the existing  approved activities. This is due to the ongoing utilisation of  processing plant infrastructure at Paraburdoo. Additionally,  processing infrastructure at Western Range and the new overland  conveyor will replace similar infrastructure at Channar and Eastern  Range as those facilities reach the end of their life. | |
| **Total scope 3 greenhouse gas emissions**  0 | |
| **Scope 3 emissions source and quantification method**  No scope 3 | |
| **Operation**  **Total Scope 1 greenhouse gas emissions**  200000 | |
| **Scope 1 emissions source and quantification method**  Based on an average of predicted emissions from 2025 to 2036  (when production at Greater Paraburdoo is being sustained by  Western Range and 4EE at a rate of 25 Mtpa), the Proposal will bring  the total Scope 1 emissions for the Greater Paraburdoo Hub to  approximately 115,217 tonnes CO2-e per year. This equates to a 7%  increase from the existing approved activities. The small increase is  due to the fact that production from Western Range and 4EE will  replace existing mining operations (particularly Channar and Eastern  Range) as those mines reach the end of their life. | |
| **Total Scope 2 greenhouse gas emissions**  76000 | |
| **Scope 2 emissions source and quantification method**  The Proposal will bring the total Scope 2 emissions for the Greater  Paraburdoo Hub to approximately 48,230 tonnes CO2-e per year,  which is comparable with Scope 2 emissions from the existing  approved activities. This is due to the ongoing utilisation of  processing plant infrastructure at Paraburdoo. Additionally,  processing infrastructure at Western Range and the new overland  conveyor will replace similar infrastructure at Channar and Eastern  Range as those facilities reach the end of their life. | |
| **Total scope 3 greenhouse gas emissions**  0 | |
| **Scope 3 emissions source and quantification method**  No scope 3 emissions | |
| **Supporting documents:** | |
| **Attachments** *(no confidential attachments if being made publicly available, but should be included if officer or proponent is exporting to this template)*   * Development Envelope.zip * Disturbance Footprint.zip * Appendix 5-5 Mine closure plan.pdf * A5\_3 Western Range Closure Plan (Rio Tinto 2019e).pdf * A5\_2 Paraburdoo Closure Plan (Rio Tinto 2019d).pdf * A5\_1 Eastern Range Closure Plan (Rio Tinto 2019c) Part 2.pdf * A5\_1 Eastern Range Closure Plan (Rio Tinto 2019c) Part 1.pdf * A5\_4 GP Progressive Rehabilitation Summary (Rio Tinto 2019k).pdf | |