Karijini National Park

Ophthalmia Dam

Port Hedland

Newman

LOCALITY

0 500 Kilometres

LEGEND

Ecohydrology Study Boundary
SEA Area of Interest
Karijini National Park
DoW Hydrographic Catchments
Ecohydrological Receptors
Ophthalmia Dam
Townships
BHPBIO Rail Corridor (current)
Third Party Rail Corridor (current)
Great Northern Highway
Other Roads
Major Drainage Lines
Minor Drainage Lines
BHPBIO Mining Areas (current)
Third Party Mining Areas (current)
BHP Billiton Iron Ore Existing Disturbance
Third Party Existing Disturbance
Great Northern Highway
Other Roads
Major Drainage Lines
Minor Drainage Lines
Marillana Creek Region
Central Pilbara Region
Eastern Pilbara Region
Fortescue Marsh Region
Fortescue Marsh Catchments included in surface water change assessment

NOTES:
The study area was partitioned into four regions for each of the BHP Billiton Iron Ore mining regions within the Pilbara Expansion. The boundaries of the regions were mainly based on surface water catchments.

ECOHYDROLOGICAL CHANGE ASSESSMENT
Study Area Location

The content of this map is conceptual only, of a general nature and does not purport to contain all information relevant to future project development associated with the Project. This map has been prepared solely for the purposes of informing environmental impact assessment pursuant to the Environmental Protection Act 1986 (WA) and Environment Protection and Biodiversity Conservation Act 1999 and is not intended for use for any other purpose.
Rainfall isohyets have been derived based on the SILO data set, 1961 to 2012 (Bureau of Meteorology).

Source: Major & Minor Drainage Lines
Geoscience Australia 250k Watercourse drainage hierarchy May 2006

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Liability
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This map has been compiled with data from numerous source with different levels of reliability and is considered by the authors to be fit for its intended purpose at the time of publication. However, it should be noted that the information shown may be subject to change and ultimately, map users are required to determine the suitability of use for any particular purpose.

Data Sources: DPaW Reserves (DPaW 2015); Roads (MRWA 2012) Aerial Image (BHPBIO); Third Party Disturbance digitised from Aerial imagery (Aug - Sept 2013) and Approval Documentations up to September 2014. All other data supplied by BHPBIO (2012); Yandicoogina mining area comprises Junction Central, Junction South East, Junction South West and the proposed Oxbow, Pocket and Billiard South mining areas.

Risk
The project has been undertaken in accordance with the project management plan and following standard operating procedures. The project management plan identifies and manages risk as per the project risk register.
LEGEND
- Ecohdyrogram Study Boundary
- Karijini National Park
- Ophthalmia Dam
- Ecological Receptors
- Approximate extent of Tertiary Detrital Aquifer
- Tertiary Detrital Aquifer overlying Dolomite Aquifer
- Approximate extent of the Dolomite Aquifer
- Paraburdoo Member of the Wittenoom Formation

Source:
Valley Fill - Distribution of Palaeovalleys in Arid and Semi-arid WA-SA-NT: managed by Geoscience Australia funded by National Water Commission
Paraburdoo Dolomite - 1:500 000 bedrock geology map: Department of Mines and Petroleum

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Resource Planning Hydrology
BHP BILLITON IRON ORE

ECHOHYDROLOGICAL CHANGE ASSESSMENT
Regional Aquifers

LOCALITY

 Port Hedland

Yandicoogina mining area comprises Junction Central, Junction South East, Junction South West and the proposed Oxbow, Pocket and Billiard South mining areas

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Source:
Beard, J.S., 1975, 1:1 000 000 vegetation series: Map Sheet 5 and Explanatory Notes. University of Western Australia Press, Western Australia

Data Sources: DPaW Reserves (DPaW 2015); Roads (MRWA 2012) Aerial Image (BHPBIO); Third Party Disturbance digitised from Aerial imagery (Aug - Sept 2013) and Approval Documentations up to September 2014. All other data supplied by BHPBIO (2012); Yandicoogina mining area comprises Junction Central, Junction South East, Junction South West and the proposed Oxbow, Pocket and Billiard South mining areas.
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Notes:
The EHU map was adapted based on the Pilbara land-systems mapping (Technical Bulletin No 92, Department of Agriculture, 2004).
The ratings reflect the sensitivity of landscape elements and ecosystem components to change in the groundwater regime. This is a function of ecohydrological connectivity and ecosystem water requirements. The ratings are for screening purposes and are precautionary.

Low = 1, 2, 3 and 4 EHUs
Moderate = 5 and 6 EHUs
High = 7, 8 and 9 EHUs

Notes:

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