



Report and recommendations of the Environmental Protection Authority



**Expansion to Limestone Quarry on
Mining Lease 08/06 Sub Lease 3H/034,
8 km southwest of Exmouth**

LG and HM McDonald

Report 1432

February 2012

Assessment on Proponent Information Environmental Impact Assessment Process Timelines

Date	Progress stages	Time (weeks)
21/03/2011	Level of assessment set	
05/08/2011	Scoping guideline issued by EPA	19
11/01/2012	Proponent's Final API document received by EPA	35
27/02/2012	Publication of EPA report (three days after report to Minister)	7
12/03/2012	Close of appeals period	2

Timelines for an assessment may vary according to the complexity of the project and are usually agreed with the proponent soon after the level of assessment is determined.

In this case, the Environmental Protection Authority met its timeline objective in the completion of the assessment and provision of a report to the Minister.



Dr Paul Vogel
Chairman

22 February 2012

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1. Introduction and background

This report provides the Environmental Protection Authority's (EPA's) advice and recommendations to the Minister for Environment on the proposal by LG and HM McDonald (the proponent), trading as Exmouth Quarries and Concrete, to make a small scale expansion to a previously mined limestone quarry on mining lease 08/06 sub lease 3H/034. The holder of mining lease 08/06 is Alcoa of Australia Ltd. The proposal area is located eight kilometres southwest of the Exmouth town (Figure 1) on the eastern side of the Cape Range peninsula, within the Shire of Exmouth.

Section 44 of the *Environmental Protection Act 1986* (EP Act) requires the EPA to report to the Minister for Environment on the outcome of its assessment of a proposal. The report must set out:

- the key environmental factors identified during the assessment; and
- the EPA's recommendations as to whether or not the proposal may be implemented and, if the EPA recommends that implementation be allowed, the conditions and procedures to which implementation should be subject.

The EPA may include in the report any other advice and recommendations as it sees fit.

The proponent has submitted a referral document setting out the details of the proposal, potential environmental impacts and proposed measures to manage those impacts.

The EPA considers that the proposal, as described, can be managed to meet the EPA's environmental objectives, subject to the EPA's recommended conditions being made legally binding.

The EPA has determined under Section 40 of the EP Act that the level of assessment for the proposal is Assessment on Proponent Information (API). This report provides the EPA advice and recommendations in accordance with Section 44 of the EP Act.



Figure 1: Regional location of mining lease 08/06 and Exmouth Water Reserve

2. The proposal

The proposal is to excavate limestone rock over an area of 3.7 hectares (ha), screen the material on-site, re-establish an access road and rehabilitate all of the disturbed areas. About 1.4 ha of the proposal area has previously been quarried by a different operator. The proponent primarily requires large sized armour rock from the excavation for local users. Smaller aggregates would be suitable for concrete production and road construction. All other rock would be used in the rehabilitation. The proponent has applied to the Department of Mines and Petroleum (DMP) for a miscellaneous lease (ML08/73) to use an existing road from the quarry site to Minilya-Exmouth Road. This would allow the direct transport of excavated rock to mining lease 08/46 for further processing (Figure 1). No further clearing would be required for the access road.

The proposal is located within the Stony Creek catchment. An ephemeral gully traverses the quarry area and would be removed as part of the proposal. A tributary along the northern boundary of the proposal area has had a pile of rocks placed on the eastern side to stop the flow of the creek by a previous operator. This tributary would not be impacted by the proposal. All creeklines would be restored and redirected into the natural channel during rehabilitation.

Conventional quarrying methods of excavation and blasting would be used. Quarrying would start at the base of a small ridge and continue in a westerly direction into the ridge. The proponent proposes to operate the quarry in three stages (Figure 2). As the excavation proceeds, the product stockpiles, laydown area, top soil and screening plant would be located on the previous stage. Stage one includes the area that was previously quarried. The proponent will voluntarily remediate this area by removing the pile of rocks that has dammed the tributary on the northern boundary, revegetating the northern section of the previously disturbed area and increasing the height of the previously excavated quarry floor from 48 metres Australian Height Datum (m AHD) to 50.1 m AHD.

The potential impacts of the proposal are discussed in the proponent's referral (API) document (ReJenn, 2012) (Appendix 3). The main characteristics of the proposal are summarised in the table below.

Table 1: Summary of key proposal characteristics

Element	Description
Project life	5 - 20 years (dependant on demand)
Mining rate	10 000 tonnes per year
Pit depth	50.1 m AHD
Processing	Screening on-site
Disturbance area	Up to 3.7 ha (includes 1.4 ha previously disturbed)
Water requirement	100 kilolitres per day for dust suppression, sourced from the town water supply and stored in a water tank on-site
Pit face	15 m (bench height 6 - 8 m)
Access road	3.16 kilometres established road
Amount of fuel to be brought on-site at any time	Up to 240 litres

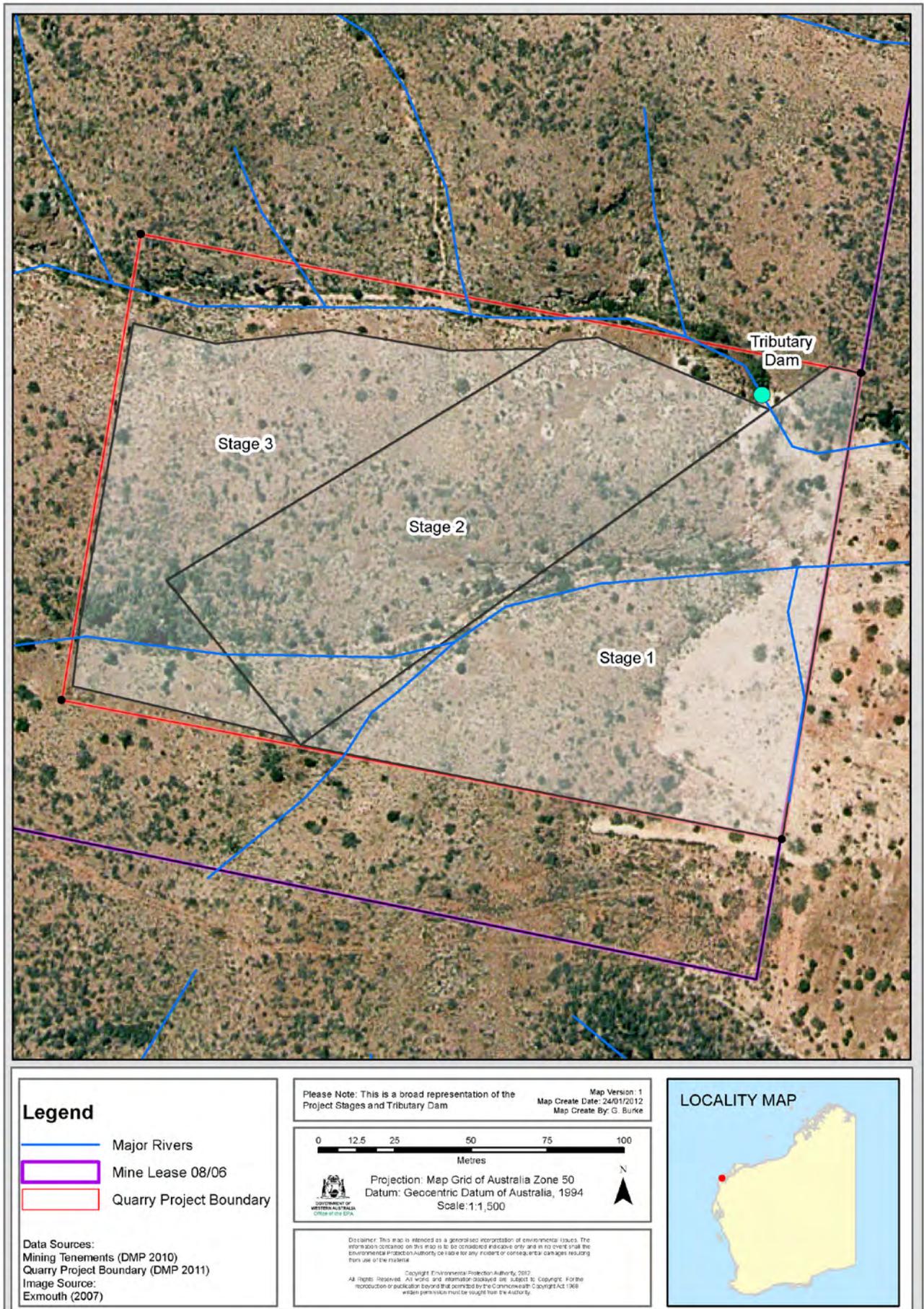


Figure 2: Quarry area within sub lease 3H/034

3. Consultation

During the preparation of the API document the proponent has undertaken consultation with the key stakeholders. The agencies, groups and organisations consulted, the comments received and the proponent's response are detailed in Table 15 of the proponent's API document (ReJenn, 2012) (Appendix 3).

The EPA considers that the consultation process has been appropriate and that reasonable steps have been taken to inform the stakeholders about the proposal.

4. Key environmental factor

It is the EPA's opinion that the key environmental factor relevant to the proposal, that requires evaluation in this report is groundwater. The key environmental factor is discussed in Section 4.1. The description of the factor shows why it is relevant to the proposal and how it will be affected by the proposal. The assessment of the factor is where the EPA decides whether or not the proposal meets the environmental objective set for that factor.

The EPA notes that subterranean fauna and karst systems are important in the Cape Range region. However, for this proposal the EPA does not consider that it is a significant factor given the small scale of the proposal. Nevertheless, the EPA has recommended a condition where if any significant karst system is exposed during excavation, operations are to cease in the area of the karst, and the Office of the EPA is to be notified.

4.1 Groundwater

Description

The proposal is located within the Exmouth Water Reserve. The reserve is proclaimed under the *Country Areas Water Supply Act 1947* to protect the public water supply source from contamination. It is essential to protect this water source as the town of Exmouth's water resources are limited (WRC, 2000).

The Exmouth Water Reserve is managed by the Department of Water (DoW) as a Priority 1 source protection area. Priority 1 areas are defined to ensure that there is no degradation of the water source and are declared over areas where the provision of the highest quality public drinking water is the prime beneficial land use (WRC, 2000). The DoW has produced a Drinking Water Source Protection Plan and review for the water reserve (WRC, 2000; DoW, 2011). The DoW has also prepared Water Quality Protection Note 15 on *Extractive industries near sensitive water resources* (DoW, 2009), which provides guidance on acceptable practices to protect the quality of water resources.

The proposal is located within the Exmouth Central Subarea bore field. The Exmouth town water supply is sourced from production bores within this bore field. A wellhead protection zone with a radius of 500 metres (m) is defined around each production bore (a wellhead is the top of a bore used to draw groundwater). Figure 3 shows the proximity of the bores to the proposal area.

The majority of the proposal area is located within the 500 m wellhead protection zone for bores 14/97, 8/87 and 10/87. The DoW advised the EPA that it supports the proponent operating within 500 m of the protection zone for this proposal, provided that conditions to manage potential impacts on the Exmouth Water Reserve are imposed.

The aquifer supplying the bore field is located within the Mandu Limestone Formation. This unconfined aquifer is highly vulnerable to contamination because of its karstic nature, which can provide a channel for the rapid transport of contaminants to the aquifer (WRC, 2000). The proposal requires the excavation of Tulki and Trealla Limestone, which is located above the Mandu Limestone. Therefore the proposal would not intersect the Mandu Limestone or the aquifer.

Recharge of the aquifer is by infiltration from rainfall and surface flows. Only heavy rainfall produces flows in the creeks. The DoW advised the EPA that monitoring data indicates the groundwater levels are highly responsive to rainfall. Water levels in the closest production bore (14/97, about 350 m to the south-east of the proposed quarry) reached about 2.5 m AHD following heavy rain in 2008. If excavation is restricted to above 50.1 m AHD, this would maintain a separation distance of about 47.5 - 50 m to the groundwater table. The DoW also advised that this separation would be adequate provided that conditions to manage potential impacts on the Exmouth Water Reserve are imposed.

Excavation of limestone for the proposal has the potential to contaminate the aquifer through: increased erosion and sedimentation from vegetation clearing; spills and leaks from refueling and servicing of vehicles; and changes to surface water flows and recharge pathways from alterations to the landscape.

The proponent has identified measures to manage the potential impacts in the API document (ReJenn, 2012). Management measures include no mining below 50.1 m AHD, fitting of erosion and sediment controls, progressive vegetation clearing and rehabilitation to minimise exposed areas, no storage of fuels on-site, management of refuelling and servicing of vehicles on-site (the screen does not require any fuel or servicing), and rehabilitation of creeks to reinstate the surface flow pathways. The maximum capacity of the refuelling bund is 450 litres. The total amount of fuel that would be brought onto the site at any time for vehicle refuelling would be 240 litres. The proponent is also liaising with the Commonwealth Scientific and Industrial Research Organisation (CSIRO) on contamination modelling in relation to the nature of the soil to absorb any contaminated material.

The proponent has included a groundwater monitoring program in the API document (ReJenn, 2012). Baseline information on groundwater levels and quality to identify seasonal trends is already available from the monitoring of existing production bores, operated by the Water Corporation and others operated by the proponent (ReJenn, 2012).

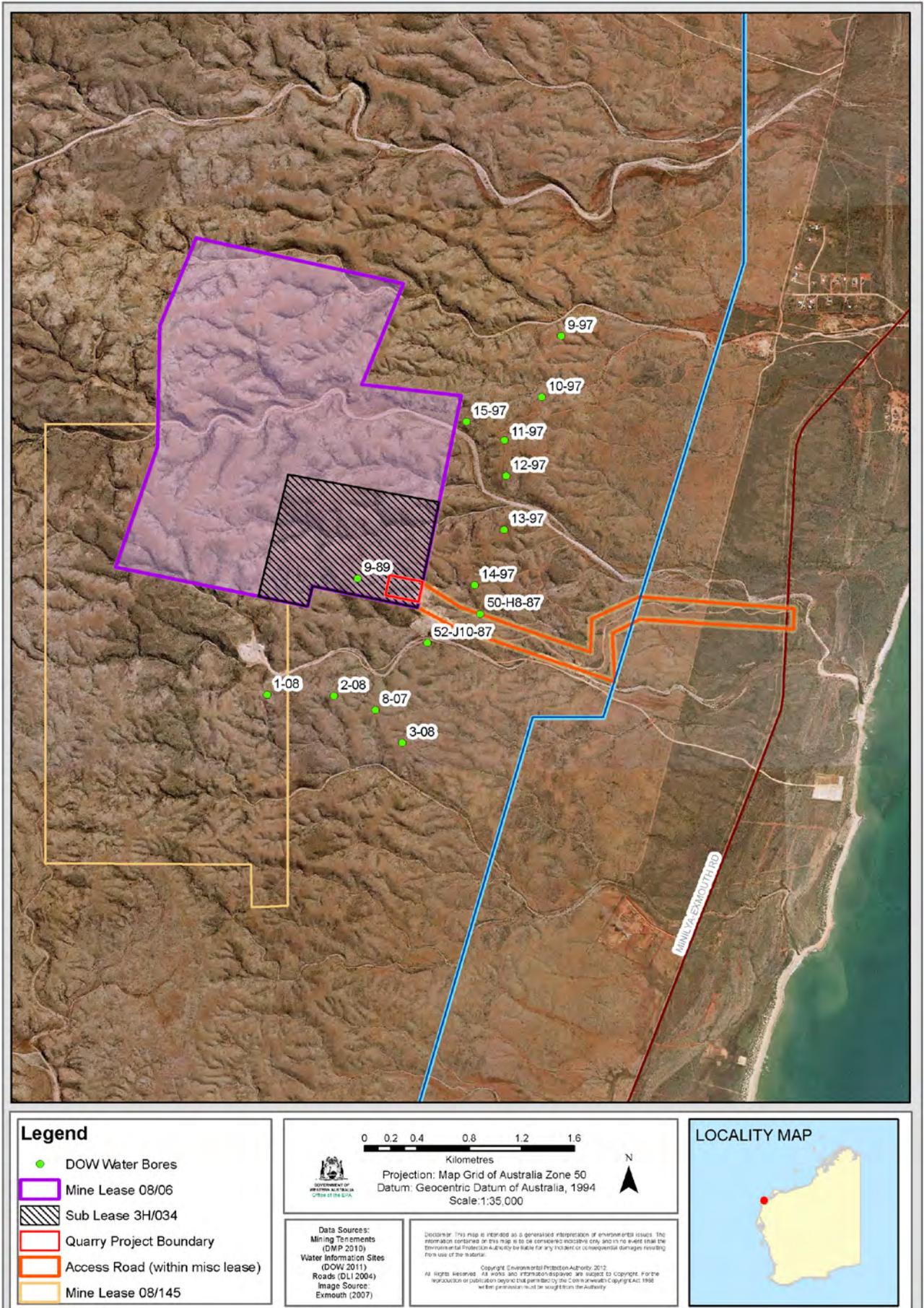


Figure 3: Proximity of proposal area to water bores

Assessment

The area considered for assessment of groundwater is the limestone aquifer beneath the Exmouth Water Reserve.

The EPA's environmental objective for this factor is to ensure that the quantity of groundwater is maintained to agreed levels, and that the quality is maintained consistent with the Australian Drinking Water Guidelines.

The EPA recognises that the local groundwater flow patterns are difficult to predict because they may be affected by karstic features. Therefore, if there were any impacts on the aquifer, it would be difficult to determine if they were from the proponent or other nearby operations. Consequently, it is vital to ensure that appropriate measures are in place by the proponent to avoid erosion, sedimentation and hydrocarbon contamination affecting the aquifer.

The EPA notes that the proposal is a small scale operation, requiring clearing of less than 3.7 ha to supply limestone to local users. The EPA commends the proponent for committing to remediate the area previously disturbed by a different operator. The remediation works of removing the Stony Creek Tributary dam, reinstating the creekflows and revegetating the previously disturbed area would greatly improve the landscape from its current state. The proponent has included a number of management measures to address the potential impacts of erosion and sedimentation during mining and rehabilitation.

The EPA also notes that the proposal is consistent with the recommendations of the Exmouth Water Reserve Water Source Protection Plan and review (WRC, 2000; DoW, 2011) and Water Quality Protection Note 15 (DoW, 2009). The support of DoW for this proposal is contingent on the implementation of conditions to ensure that the Exmouth Water Reserve is protected from contamination. The EPA has previously considered the proposal by Whitecrest Enterprises (now Exmouth Limestone) to develop a limestone mine on the adjacent mining lease 08/145. This proposal was assessed by the EPA in Bulletin 846 (EPA, 1997). The DoW's Exmouth Water Reserve Water Source Protection Plan promotes the consideration of the conditions previously applied to the Exmouth Limestone proposal when assessing future mining proposals.

In view of the above, the EPA has recommended a condition for the protection of the groundwater. The condition requires the preparation of a Groundwater Management and Monitoring Plan. The EPA recommends that the proponent incorporate the management measures described in the API Document (ReJenn, 2012) as well as the following actions in the Plan in order to meet the EPA's objectives:

- Incorporation of the findings from CSIRO's contamination modelling.
- No wash-down of vehicles or the screen within the Exmouth Water Reserve.
- Refuelling of vehicles to occur in a lined, bunded containment area.
- No routine servicing of vehicles or the screen on site.

- Spillage of any potential contaminant of soil or groundwater to be immediately cleaned up and the contaminated material removed from the Exmouth Water Reserve. The proponent is to maintain equipment and absorbent material on-site for the immediate cleanup of any spills. The proponent is also to notify the Water Corporation immediately when the proponent becomes aware of an event that may adversely affect the quality of the groundwater.
- Vehicles and the screen to be parked on a bunded, low-permeability hardstand area that is elevated above flood level whenever practical.
- In the event of a cyclone, the vehicles and the screen to be removed from the Exmouth Water Reserve or located on a bunded, low-permeability hardstand area that is elevated above flood level.
- The barriers to surface flow within the Stony Creek tributary to be removed such that the natural drainage pattern is restored and the risk of flooding and inundation of the quarry site is reduced.
- Surface drainage to be diverted away from any significant cavern uncovered during operations which may allow the rapid infiltration of potential contaminants to the groundwater. This requirement shall not apply to any cavern that is filled with soil and not capable of carrying sufficient flow to the groundwater table.
- No storage of surface waters on the proposal area, except within silt traps and containment bunds as approved by the Department of Water, and maintained to enable their effective operation.

Summary

Having particular regard to the:

- proposal not directly impacting on the aquifer by abstracting from or dewatering the aquifer;
- proponent's proposed management measures; and
- advice from the DoW,

it is the EPA's opinion that the proposal can be managed to meet the EPA's environmental objective for this factor provided that the recommended condition in relation to the protection of the Exmouth Water Reserve is implemented.

5. Recommended conditions

Having considered the information provided in this report, the EPA has developed a set of conditions that the EPA recommends be imposed if the proposal by Exmouth Quarries and Concrete to expand a previously mined limestone quarry on mining lease 08/06 sub lease 3H/034 is approved for implementation. These conditions are presented in Appendix 2.

6. Other advice

Rehabilitation

The proponent has identified measures to rehabilitate the disturbed areas in the API document (ReJenn, 2012). These include the use of erosion and sediment control structures, progressive clearing and rehabilitation to minimise exposed areas, and rehabilitation of creeks to reinstate the surface flow pathways. The EPA supports progressive rehabilitation to establish a self-sustaining and functional ecosystem based on local species.

To avoid duplication, the EPA has not recommended a condition on rehabilitation for this proposal because adequate conditions can be imposed by Department of Mines and Petroleum (DMP) under the *Mining Act 1978*.

Karst

The EPA notes that the proposal is located within the Cape Range, which is recognised nationally for its important subterranean karst formations. The EPA acknowledges the proponent's management action, that if a significant karst system is identified during operations, activities would cease and the findings would be reported to the Department of Environment and Conservation (DEC) (ReJenn, 2012). The EPA has recommended a condition where if any significant karst system is exposed during excavation, operations are to cease in the area of the karst, the Office of the EPA is to be notified and advice sought from the DEC on measures to manage and monitor the significant karst system.

If the proponent intends to further expand the proposed quarry operations to areas outside this current proposal, adequate surveys of the subterranean karst system would need to be carried out in consultation with the DEC.

Mining tenement condition

Tenement conditions issued by DMP exist over mining lease 08/06. Condition 4 states that "No mining be carried out within 800 metres of any bore." The EPA notes that the proponent is liaising with the DMP, the DoW and the Water Corporation to allow mining within the wellhead protection zone to ensure consistency of government approvals for this proposal.

The EPA recommends that the DMP consider including the following conditions in relation to site access and other matters, suggested by the DoW, on the tenement conditions for the mining lease:

- only dust suppressants acceptable to the DoW should be used to ensure there is no risk of contamination to the groundwater;
- all Water Corporation and DoW access tracks required for servicing water supply facilities should be maintained in a trafficable condition at all reasonable times;
- authorised officers of the Water Corporation and the DoW should have rights of access onto the tenement at all times for the purposes of water resource investigations and operational requirements;

- signs should be erected to state that the quarry is located within the Exmouth Water Reserve, that restrictions apply to protect the reserve and that access is restricted to authorised personnel only;
- information to the satisfaction of the DoW should be included in the site induction program for all staff and contractors outlining site management practices in place to protect the Exmouth Water Reserve; and
- any solid and liquid wastes generated during operation and maintenance activities should be collected and disposed of outside of the Exmouth Water Reserve, in accordance with regulatory requirements.

7. Conclusions

The EPA has considered the proposal by Exmouth Quarries and Concrete to expand a previously mined limestone quarry on mining lease 08/06 sub lease 3H/034.

The EPA considers that adequate management measures have been identified to minimise any potential impacts of contamination of the groundwater. These include restricting the depth of excavation to above 50.1 m AHD to ensure a separation distance of 47.5 - 50 m from the quarry floor to the groundwater table, ensuring no fuel is stored on-site, restricting the amount of fuel to be brought into the site at any time, managing any hydrocarbon spills and leaks and monitoring groundwater.

The EPA has concluded that the proposal can be managed to meet the EPA's environmental objective, provided there is satisfactory implementation by the proponent of the recommended conditions set out in Appendix 2.

8. Recommendations

The EPA submits the recommendations listed below to the Minister for Environment.

1. The Minister notes that the proposal being assessed is for a small scale expansion to a previously mined limestone quarry on mining lease 08/06 sub lease 3H/034.
2. The Minister considers the report on the key environmental factor set out in Section 4.
3. The Minister notes that the EPA has concluded that the proposal can be managed to meet the EPA's environmental objective, provided there is satisfactory implementation by the proponent of the recommended conditions set out in Appendix 2.
4. The Minister imposes the conditions and procedures recommended in Appendix 2 of this report.

Appendix 1

References

- DoW (2009). *Water Quality Protection Note 15. Extractive industries near sensitive water resources*. Department of Water. Perth, Western Australia.
- DoW (2011). *Exmouth Water Reserve. Drinking water source protection review. Exmouth town water supply*. Department of Water. Perth, Western Australia.
- EPA (1997). *Limestone mine, quicklime plant and use of existing port facility (Point Murat), Shire of Exmouth*. (Bulletin 846). Environmental Protection Authority. Perth, Western Australia.
- ReJenn (2012). *Expansion to Limestone Quarry on Mining Lease 08/06 Sub Lease 3H/034 Exmouth WA. Assessment on Proponent Information*. Unpublished report prepared for Exmouth Quarries and Concrete.
- WRC (2000). *Exmouth Water Reserve Water Source Protection Plan. Exmouth Town Water Supply*. Water and Rivers Commission. Perth, Western Australia.

Appendix 2

Identified Decision-Making Authorities and Recommended Environmental Conditions

Identified Decision-Making Authorities

Section 45(1) requires the Minister for Environment to consult with decision-making authorities, and if possible, agree on whether or not the proposal may be implemented, and if so, to what conditions and procedures, if any, that implementation should be subject.

The decision-making authorities listed below have been identified for this consultation.

Decision-Making Authority	Approval
1. Department of Environment and Conservation	Works Approval and Licence <i>Environmental Protection Act 1986</i>
2. Department of Mines and Petroleum	Mining Proposal <i>Mining Act 1978</i>
3. Shire of Exmouth	Extractive Industry Licence

Section 44(2) of the *Environmental Protection Act 1986* specifies that the EPA's report must set out (if it recommends that implementation be allowed) the conditions and procedures, if any, to which implementation should be subject. This Appendix contains the EPA's recommended conditions and procedures.

RECOMMENDED ENVIRONMENTAL CONDITIONS

**STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED
(PURSUANT TO THE PROVISIONS OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

Expansion to Limestone Quarry on Mining Lease 08/06 Sub Lease 3H/034,
8 kilometres south west of Exmouth

Proposal: To excavate limestone, screen the material on-site, re-establish an access road and rehabilitate all of the disturbed areas.

The proposal is further documented in schedule 1 of this statement.

Proponent: LG and HM McDonald

Proponent Address: PO Box 41
EXMOUTH WA 6707

Assessment Number: 1874

Report of the Environmental Protection Authority: Report 1432

The proposal referred to in the above report of the Environmental Protection Authority may be implemented. The implementation of that proposal is subject to the following conditions and procedures:

1 Proposal Implementation

1-1 The proponent shall implement the proposal as documented and described in schedule 1 of this statement subject to the conditions and procedures of this statement.

2 Proponent Nomination and Contact Details

2-1 The proponent for the time being nominated by the Minister for Environment under sections 38(6) or 38(7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal.

2-2 The proponent shall notify the Chief Executive Officer (CEO) of the Office of the Environmental Protection Authority of any change of the name and address of the proponent for the serving of notices or other correspondence within 30 days of such change.

3 Time Limit of Authorisation

- 3-1 The authorisation to implement the proposal provided for in this statement shall lapse and be void five years after the date of this statement if the proposal to which this statement relates is not substantially commenced.
- 3-2 The proponent shall provide the CEO of the Office of the Environmental Protection Authority with written evidence which demonstrates that the proposal has substantially commenced on or before the expiration of five years from the date of this statement.

4 Compliance Reporting

- 4-1 The proponent shall prepare and maintain a compliance assessment plan to the satisfaction of the CEO of the Office of the Environmental Protection Authority.
- 4-2 The proponent shall submit to the CEO of the Office of the Environmental Protection Authority the compliance assessment plan required by condition 4-1 at least six months prior to the first compliance report required by condition 4-6, or prior to implementation, whichever is sooner.

The compliance assessment plan shall indicate:

- 1 the frequency of compliance reporting;
 - 2 the approach and timing of compliance assessments;
 - 3 the retention of compliance assessments;
 - 4 the method of reporting of potential non-compliances and corrective actions taken;
 - 5 the table of contents of compliance assessment reports; and
 - 6 public availability of compliance assessment reports.
- 4-3 The proponent shall assess compliance with conditions in accordance with the compliance assessment plan required by condition 4-1.
 - 4-4 The proponent shall retain reports of all compliance assessments described in the compliance assessment plan required by condition 4-1 and shall make those reports available when requested by the CEO of the Office of the Environmental Protection Authority.
 - 4-5 The proponent shall advise the CEO of the Office of the Environmental Protection Authority of any potential non-compliance within seven days of that non-compliance being known.

- 4-6 The proponent shall submit to the CEO of the Office of the Environmental Protection Authority the first compliance assessment report fifteen months from the date of issue of this Statement addressing the twelve month period from the date of issue of this Statement and then annually from the date of submission of the first compliance assessment report.

The compliance assessment report shall:

- 1 be endorsed by the proponent's Managing Director or a person approved in writing by the CEO of the Office of the Environmental Protection Authority, delegated to sign on the Managing Director's behalf;
- 2 include a statement as to whether the proponent has complied with the conditions;
- 3 identify all potential non-compliances and describe corrective and preventative actions taken;
- 4 be made publicly available in accordance with the approved compliance assessment plan; and
- 5 indicate any proposed changes to the compliance assessment plan required by condition 4-1.

5 Public Availability of Data

- 5-1 Subject to condition 5-2, within three months of the issue of this Statement and for the remainder of the life of the proposal the Proponent shall make publicly available, in a manner approved by the CEO of the Office of the Environmental Protection Authority, all validated environmental data (including sampling design, sampling methodologies, empirical data and derived information products (e.g. maps) relevant to the assessment of this proposal and implementation of this Statement.

- 5-2 If any data referred to in condition 5-1 contains particulars of:

- a secret formula or process; or
- confidential commercially sensitive information,

the proponent may submit a request for approval from the CEO of the Office of the Environmental Protection Authority to not make this data publically available. In making such a request the Proponent shall provide the CEO with an explanation and reasons why the data should not be made publically available.

6 Karst

6-1 In the event that a significant karst system is discovered during excavation, the proponent shall cease excavation, in the area where the karst is identified and:

- 1 report the findings to the CEO of the Office of the Environmental Protection Authority immediately; and
- 2 seek advice from the Department of Environment and Conservation on measures to manage and monitor the significant karst system, and state the actions proposed with associated timelines within 28 days of the karst system being discovered.

6-2 The proponent shall implement the actions identified in condition 6-1(2) and continue to implement such actions until CEO of the Office of the Environmental Protection Authority determines, on advice of the Department of Environment and Conservation, that the remedial actions may cease.

7 Groundwater

7-1 The proponent shall prepare a Groundwater Management and Monitoring Plan prior to commencing operations to the requirements of the CEO of the Office of the Environmental Protection Authority on advice of the Department of Water. The objectives of the Plan are to:

- 1 ensure that activities associated with the proposal do not adversely affect the quantity and quality of the water in the Exmouth Water Reserve, by identifying measures to manage refuelling of vehicles on-site, identifying measures to manage any spills and leaks on-site and monitoring the groundwater;
- 2 ensure there is no storage of fuel, oil, explosives or toxic and hazardous substances on the proposal site; and
- 3 ensure that once excavation is completed, surface water flows are reinstated as close as possible to the natural flow paths that existed prior to quarrying occurring on the sublease 3H/034.

7-2 The proponent shall implement the Groundwater Management and Monitoring Plan required by condition 7-1.

7-3 In the event that monitoring required by condition 7-2 indicates that the objectives of condition 7-1 are not being met, the proponent shall report such findings to the CEO of the Office of the Environmental Protection Authority within 14 days of adverse impacts being identified, and state the actions and associated timelines proposed to be taken to remediate these impacts.

7-4 The proponent shall implement the actions identified in condition 7-3 and continue to implement such actions until the CEO of the Office of the Environmental Protection Authority determines, on advice of the Department of Water, that the remedial actions may cease.

The Proposal (Assessment No. 1874)

The proposal is to excavate limestone, screen the material on-site, re-establish an access road and rehabilitate all of the disturbed areas.

The main characteristics of the proposal are summarised in Table 1 below.

Table 1: Summary of Key Proposal Characteristics

Element	Description
Project life	Up to 20 years (dependant on demand)
Pit depth	Up to 50.1 metres Australian Height Datum
Disturbance area	Up to 3.7 hectares (includes 1.4 hectares previously disturbed) as shown in Figure 2
Water requirement	Up to 100 kilolitres per day for dust suppression, sourced from the town water supply and stored in a water tank on-site
Pit face	Up to 15 metres (bench height 6 - 8 metres)
Amount of fuel to be brought on-site for vehicle refuelling at any time	Up to 240 litres

Figure 1. Regional location of mining lease 08/06 and Exmouth Water Reserve

Figure 2. Quarry area within sub lease 3H/034

Figure 3. Proximity of proposal area to water bores



Figure 1: Regional location of mining lease 08/06 and Exmouth Water Reserve

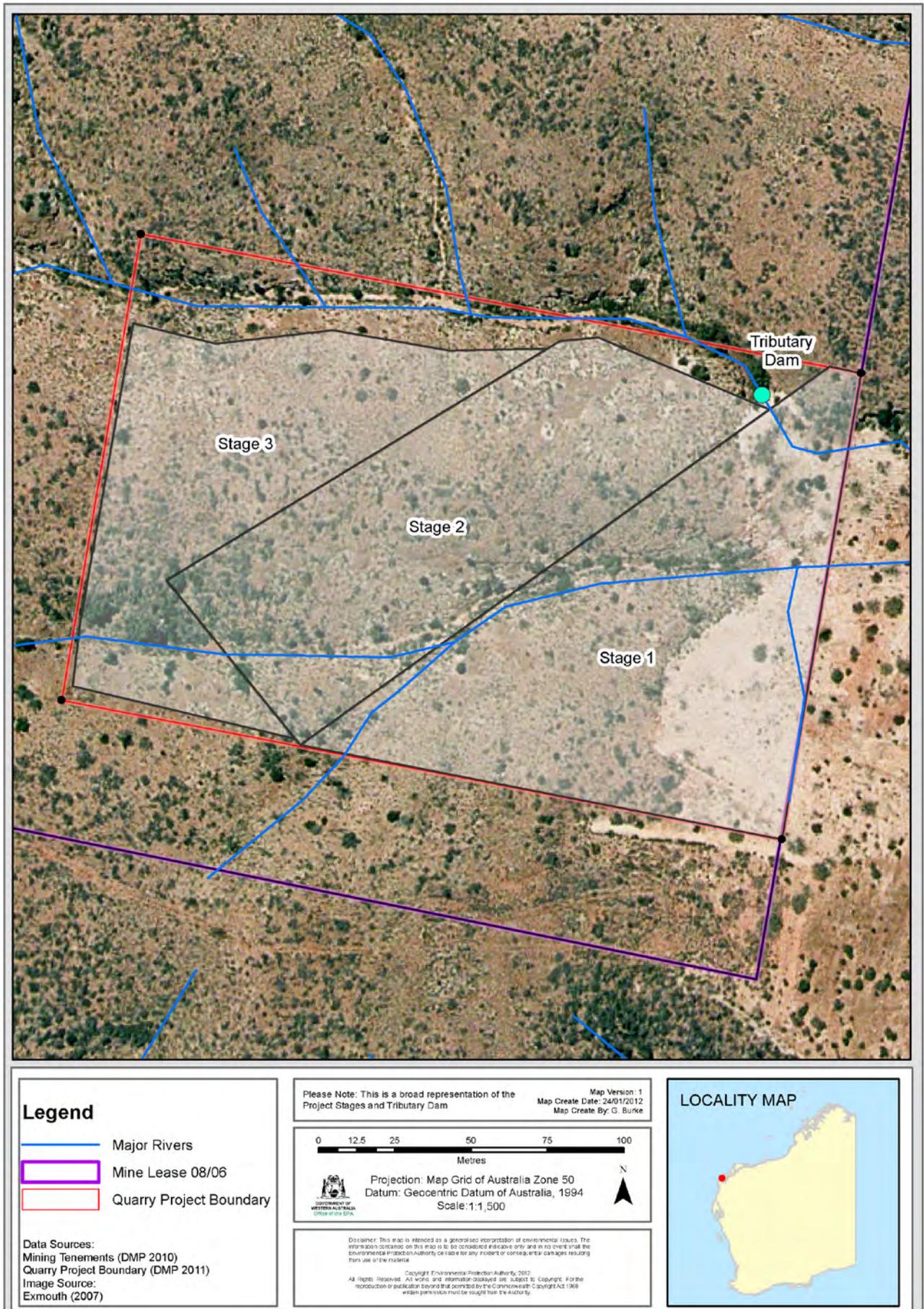


Figure 2: Quarry area within sub lease 3H/034

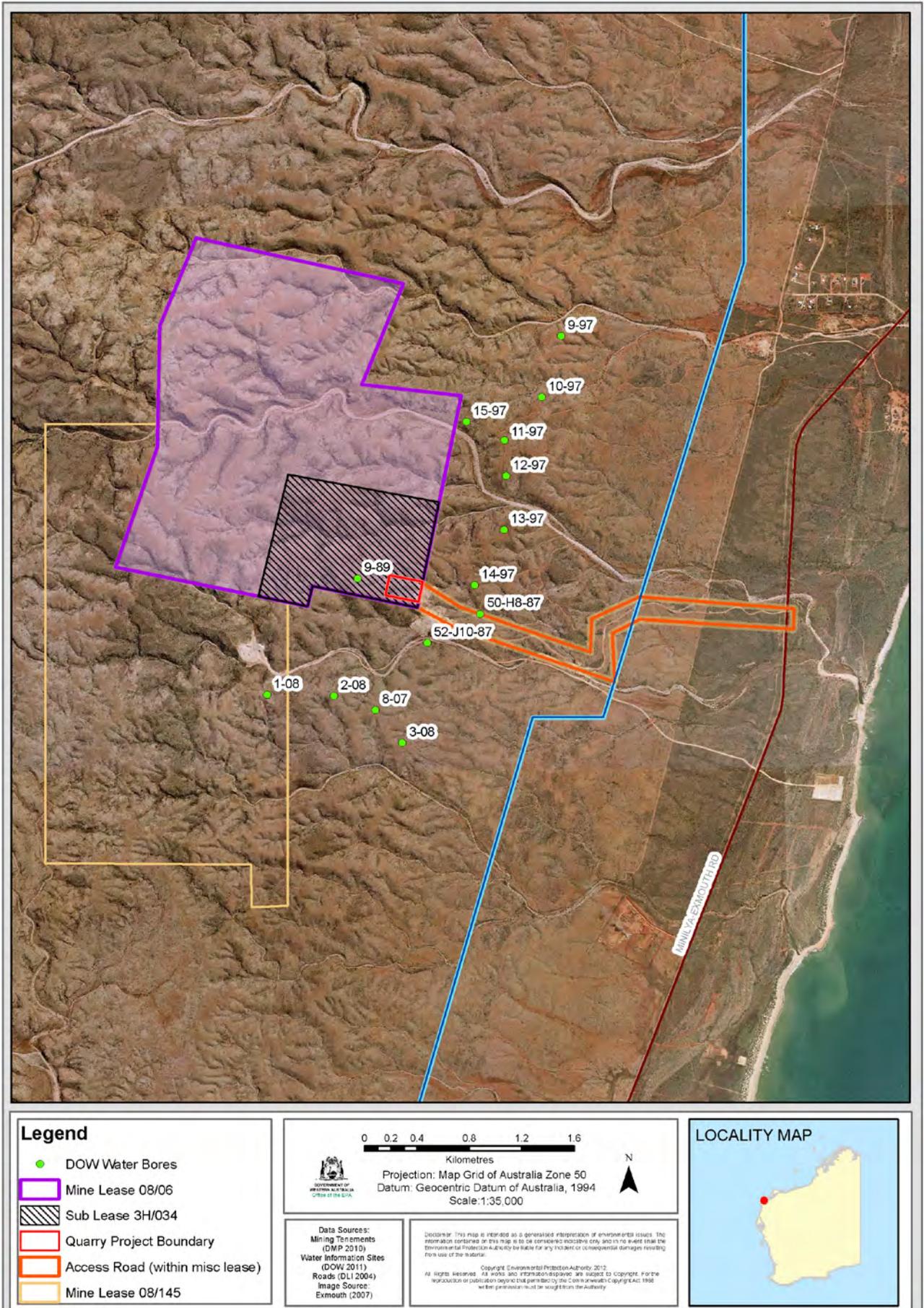


Figure 3: Proximity of proposal area to water bores

Appendix 3

API documentation

and

Proponent's Response to Submissions