

Clay Excavations

**Lots 10, 11 and Pt Lot 36 Great Northern
Highway, Upper Swan**

Lots 23 and 51 Apple Street, Upper Swan

**Lots 40 and 41 (previously Lots 21 and 22) Apple
Street, Upper Swan**

Change to Environmental Conditions

Metro Brick Pty Ltd

Pilsley Investments Pty Ltd

Midland Brick Company Pty Ltd

**Section 46 Report and recommendations
of the Environmental Protection Authority**

**Environmental Protection Authority
Perth, Western Australia
Bulletin 1118
October 2003**

Environmental Impact Assessment Process Timelines

Date	Progress stages	Who	Time (weeks)
27/5/2002	Level of Assessment set (following any appeals upheld)	EPA	41
10/3/2003	Proponent Document Released for Stakeholder Comment	EPA	4
7/4/2003	Stakeholder Comment Period Closed	EPA	3
28/4/2003	Final Proponent response to the issues raised	Proponent	26
27/10/2003	EPA report to the Minister for the Environment	EPA	

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Summary and recommendations

This report relates to the request of three proponents to extend the time limit of their three environmental approvals for their clay excavation operations in Upper Swan for a further ten years. The proponents are Metro Brick Bristile Clay Tiles Pty Ltd (Metro Brick), Pilsley Investments Pty Ltd and Midland Brick Company Pty Ltd, and their operations are located close to each other in Upper Swan, Perth.

The operations are also located close to the Ellen Brook Nature Reserve, an important habitat for the endangered Western Swamp Tortoise. Hydrological studies undertaken have determined that there is no hydrological linkage between the project sites and the Nature Reserve.

Section 46(3) of the *Environmental Protection Act 1986* (hereafter referred to as 'the Act') requires the Environmental Protection Authority (EPA) to report to the Minister for the Environment on whether or not the proposed changes to conditions or procedures should be allowed. In addition, the EPA may make recommendations as it sees fit.

This report provides the EPA's advice and recommendations to the Minister for the Environment on proposed changes to environmental conditions for the three projects.

Relevant Environmental Factors

It is the EPA's opinion that the following are the environmental factors relevant to the projects, which require detailed evaluation in the report:

- (a) extension to the time limit of approval; and
- (b) changes to other environmental conditions.

Conclusion

The EPA has considered the request by Metro Brick, Pilsley Investments and Midland Brick to extend the time limit of environmental approval for the clay excavations in Upper Swan and has concluded that an indefinite extension should be allowed, subject to a 5-yearly environmental review.

The EPA believes that the 10-year period since the original proposals were assessed has not given rise to any changes that would cause the EPA to reconsider its previous assessment of the projects or its previous recommendation as to the environmental acceptability of the projects.

In addition to reporting on the extension of the time limit, the EPA considers that the conditions of environmental approval should be updated, and accordingly has also reported on the additional changes required.

Recommendations

The EPA submits the following recommendations to the Minister for the Environment:

1. That the Minister notes that this report is pursuant to Section 46(3) of *the Environmental Protection Act 1986* and thus is limited to consideration of proposed changes to the three statements of original conditions.
2. The Minister notes that the proposed change is to indefinitely extend the life of the operations in question, subject to a 5-yearly environmental review.
3. The EPA recommends that the Minister considers the report on the relevant environmental factors as set out in Section 3.
4. That the Minister notes that the EPA has concluded that the proposed changes to conditions can be managed to meet the EPA's objectives, and thus not impose an unacceptable impact on the environment provided there is satisfactory implementation by the proponents of the amended conditions, including the proponents' commitments, as set out in Section 4.
5. The Minister imposes the amended conditions, commitments and procedures recommended in Appendix 4 of this report.

Conditions

The EPA recommends that the following conditions, which are set out in detail in Appendix 4, be imposed if the proposed changes to conditions described previously are approved for implementation:

- 1 The existing Environmental Conditions applied to the projects (Ministerial Statement 226 published on 6 March 1992, Ministerial Statement 252 published on 23 April 1992 and Ministerial Statement 265 published on 29 May 1992), be subject to modifications necessary to:
 - indefinitely extend the time limit of environmental approval, subject to a 5-yearly environmental review;
 - update the statement into the current format; and
 - ensure compatibility with current environmental protection regulations.

Contents

	Page
Summary and recommendations	i
1. Introduction and background	1
2. The proposals.....	2
3. Relevant Environmental Factors	3
3.1 Previous Relevant environmental factors.....	3
3.2 Extension to the duration of approval	4
3.3 Changes to other Environmental Conditions	5
4. Conditions	6
6. Conclusions	7
7. Recommendations	7

Tables

1. Projects the subject of this report

Figures

1. Location of the proposals
2. Plate 1. Project 1: Lots 10, 11 and Pt Lot 36 Great Northern Highway, Metro Brick
3. Plate 2. Project 2: Lots 23 & 51 Apple Street, Pilsley Investments
4. Plate 3. Project 3: Lots 40 and 41 Apple Street (formerly Lots 21 and 22), Midland Brick
5. Location of the proposals (including Western Swamp Tortoise EPP Area)

Appendices

1. List of Submitters
2. References
3. Statements of Environmental Conditions of Approval (6 March 1992, 23 April 1992 & 29 May 1992)
4. Recommended Environmental Conditions and Proponent's Consolidated Commitments
5. Summary of Submissions and Proponent's Response

1. Introduction and background

The Minister for the Environment has requested the EPA to consider and provide advice under Section 46(3) of the Act on Metro Brick Bristle Clay Tiles Pty Ltd (Metro Brick), Pilsley Investments Pty Ltd and Midland Brick Company Pty Ltd's proposals to extend the time limit of environmental approvals for three clay excavation projects in Upper Swan, Perth.

This report relates to the projects listed in Table 1, which have been assigned a Project Number of 1, 2 or 3, which are subsequently referred to in this report.

TABLE 1
Projects the Subject of this Report

Assigned Project Number for this report	Projects	Statement Number	Date of Issue	EPA Assessment Number	Bulletin	Proponent
1	Lots 10, 11 and Pt Lot 36 Great Northern Highway	226	6/3/92	322	604	Metro Brick Pty Ltd
2	Lots 23 & 51 Apple Street	252	23/4/92	160	614	Pilsley Investments Ptd Ltd
3	*Lots 40 and 41 Apple Street	265	29/5/92	121	610	Midland Brick Company Pty Ltd

*Previously Lots 21 and 22

The locations of these projects are shown in Figure 1.

In 1990, the Shire of Swan referred an application for renewal of Midland Brick's excavation licence to the EPA. The EPA assessed the environmental impact of the proposal by way of a Consultative Environmental Review (CER) entitled "Proposed Clay Excavations in the Vicinity of Ellen Brook Nature Reserve", in conjunction with four other nearby clay excavation proposals (including those detailed in the table above). These proposals were thought to potentially impact on Ellen Brook Nature Reserve, which contains a specially fenced off area for the protection of the rare and endangered Western Swamp Tortoise, and to have common regional issues of rehabilitation and final end use.

The EPA published its reports and recommendations for the three proposals in December 1991 (Bulletin 604), February 1992 (Bulletin 610) and March 1992 (Bulletin 614) and conditions of approval were published on 6 March 1992 (Statement No. 226), 29 May 1992 (Statement 265) and 23 April 1992 (Statement 252) respectively. The approval provided the proponents the right to continue quarrying clay from the locations detailed above (see Figures 1 to 4) for a ten-year period.

Condition 3 of each of the Minister's statements of approval (see Appendix 3) set a time limit for the projects, after which any extension would have to occur via referral to the EPA and reviewed in light of the proponent's environmental performance at each site.

In accordance with Condition 3, each proponent has requested, via a single consultant, that the duration of each approval be extended for another ten years pursuant to Section 46 of the Act. This amendment to the conditions will allow the removal of the time-limit requirement on each proposal, and require a detailed environmental assessment at the end of each 5-year period.

Further details of each proposal are presented in Section 2 of this report. Section 3 discusses the environmental factors relevant to the proposals. Conditions and procedures to which the proposals should be subject if the Minister determines that they may be implemented are set out in Section 4. Section 5 presents the EPA's conclusion and Section 6 the EPA's recommendations.

A list of organisations that made submissions is included in Appendix 1. References are listed in Appendix 2, and recommended conditions and procedures and proponent's commitments are provided in Appendix 4.

The proponents' summary of submissions and responses to those submissions are provided in Appendix 5. The summary of submissions and the proponent's response is included as a matter of information only and does not form part of the EPA's report and recommendations. The EPA has considered issues arising from this process relating to identifying and assessing relevant environmental factors.

2. The proposals

The proponents propose to extend the time limit of approval for their clay excavation operations in Upper Swan. All clay excavations are operational, and the excavation is undertaken by removing and stockpiling topsoil, removal of overburden which is utilised for bunding purposes and the excavation of clay which is loaded on to trucks for transport to the manufacturing plants.

Excavation is conducted through a cell-by-cell approach, to minimise the open area at each site, and to allow progressive rehabilitation.

Project 1: Lots 10, 11 and Pt Lot 36 Great Northern Highway, Metro Brick (Figure 2)

Project 1 is located outside of Western Swamp Tortoise Environmental Protection Policy area (see Figure 5).

Clay excavation has proceeded in a westerly direction from the previously mined central area of Lot 10. Future excavations will continue to the west within Lot 10 towards Great Northern Highway.

There is generally only one mining campaign per year for four to six weeks in which clay is excavated and stockpiled onsite. Clay is transported to the Malaga Works in roughly monthly intervals on an as-required basis.

Project 2: Lots 23 & 51 Apple Street, Pilsley Investments (Figure 3)

Excavation has proceeded in a southerly direction from the trial mining stage on the western boundary of Lots 51 and 23. Overburden from operational stages has been used to backfill previously mined areas to ground-level, and following natural settling these areas will be

covered with topsoil and planted with pasture species. The first excavation stage is now a dam, which constitutes rehabilitation for this stage, and will form part of the dam system proposed as the final end use.

During the earthworks (topsoil and overburden removal), enough clay resource for three years excavation is exposed at one time to reduce the potential for disturbance to local residents. Only relatively small quantities of clay are excavated during the single campaign each year. Trucks are loaded directly from the pit from a four metre face, with no clay stockpiling on-site. The clay excavation and cartage program generally runs for only two weeks between January and March each year. A limestone access road has also been constructed across the site, with a bitumen crossover to Apple Street.

Project 3: Lots 40 and 41 Apple Street (formerly Lots 21 and 22), Midland Brick (Figure 4)

Clay excavation recently commenced at this site (early March, 2002), and previous to this topsoil from part of the first excavation cell was windrowed into a 1.5 metre tree planted bund in readiness for excavation in the initial summer campaign.

Future excavation programs will continue within the excavation cell, in accordance with the approved staging plan. During the proposed earthworks programs (topsoil and overburden removal), approximately 0.5 hectares of the clay resource will be exposed at one time to reduce the potential for disturbance to local residents. Only relatively small quantities of clay will be excavated during the single campaign each year. Trucks will be loaded directly from the pit with an excavator working on a three metre face, with no clay stockpiling on-site. The clay excavation and cartage program generally runs for two to six weeks between November and May each year, depending on the tonnage removed.

A more detailed description of each project is contained in the EPA's previous assessments of the proposals (Bulletin 604 (EPA 1991), Bulletin 610 (EPA 1992a), Bulletin 614 (EPA Bulletin 1992b)) and the 1990 CER (Bowman Bishaw Gorham 1990).

Proposed change to environmental conditions

All three proponents wish to extend the duration of approval for these proposals for another ten years, and have demonstrated good environmental performance over the preceding ten years. Excavation at all sites has proceeded in accordance with the commitments outlined within the CER and the individual Environmental Management Plans (EMP's) for the sites.

3. Relevant Environmental Factors

3.1 Previous Relevant environmental factors

Section 46(3) of the *Environmental Protection Act 1986* requires the EPA to report to the Minister for the Environment on whether or not the proposed changes to conditions or procedures should be allowed. In addition, the EPA may make recommendations as it sees fit.

The relevant environmental factors identified in the EPA's previous assessments of the proposals were:

- a) surface water protection and management;
- b) groundwater protection and management;

- c) dust, noise, landscape and safety management; and
- d) regional development, drainage and rehabilitation.

The EPA's assessment of these factors has not changed as a result of the proponents' current proposals to extend the duration of approval. The EPA sought comments and advice from the City of Swan, the Department of Conservation and Land Management (DCLM), the Department of Environment, the Department of Main Roads and the Conservation Council of Western Australia regarding whether the time limit should be extended, and any new environmental issues that should be considered if the time extension was granted.

Responses received from these agencies, and the EPA's assessment of the proposal has not given rise to any changes which would cause the EPA to reconsider its previous assessment of the projects, and in particular, its previous recommendation as to the environmental acceptability of the project.

It is the EPA's opinion that its inquiry into the proposed extension to the duration should address the following issues:

- a) whether the requested extension to the duration should be approved; and
- b) what other changes to the existing environmental conditions might be required should an extension be granted.

These issues are discussed in Sections 3.2 to 3.3 of this report.

3.2 Extension to the duration of approval

Description

Approval for these projects were initially limited to ten years recognising that over time the predicted environmental impacts and their considered significance may change. Over this time, knowledge of the surrounding environment may increase as a result of further studies, and the anticipated impacts on this environment may change as a result of increased understanding of interaction between the environment and the proposal. In addition, environmental regulations, standards, guidelines, and accepted practices, may also change.

The extension to the duration of approval applies to the operations at all sites in question.

Agency and Public Comments

Stakeholder submissions on the proposals were either neutral or in support of the time limit extension. One submission raised the issue that whilst it was noted that all surface drainage is diverted around the Ellen Brook Nature Reserve and reduces the potential for sedimentation or pollution, is surface water flow important to the habitat of the Western Swamp Tortoise? The consultant has noted that the hydrology of the nature reserve is entirely dependent on rainfall to the clay pans, which results in seasonally perched water over the reserve. Neither the tortoises nor their habit is dependent on surface water flows or groundwater.

The second submission, from DCLM, advised that while it has no objections to the proponents' renewal of approval, all operations should continue in accordance with the Ministerial Conditions. In particular the requirement should be adhered to that the proponents not quarry within 100 metres of the Ellen Brook Nature Reserve until further investigations demonstrate, to the satisfaction of the EPA on advice from DCLM, that adverse effects will not occur to the tortoise habitat.

Assessment

The consultant acting on behalf of all three proponents has advised that there have been no changes in the understanding of the receiving environment or revisions to the predicted impacts from those originally presented by the proponents and assessed by the EPA in 1991 and 1992.

The consultant has noted that data have been collected over the past two years to demonstrate that encroachment into this 100 metre buffer will have no impacts on the tortoise habitat. This data will be analysed in due course, and in the event that the analyses confirm that the Ellen Brook Nature Reserve is not connected to the clay excavation sites, approval will be sought to mine and rehabilitate all or part of the buffer area within their landholdings.

The EPA recognises that environmental standards have changed over the last ten years. These include the modifications to the State's noise regulations, the implementation of the Environmental Protection (Western Swamp Tortoise Habitat) Policy Approval Order 2002, and the adoption by the EPA of a number of standard environmental conditions that are now routinely applied to operations of this type. None of these changes significantly affect the proposals as described in the 1992 Environmental Review document, and can be accommodated through recommended changes to the environmental conditions which are described in Section 3.3.

The EPA notes that there have been no changes in the understanding of the receiving environment or revisions to the predicted impacts from those originally presented by the proponents and assessed by the EPA in 1991 and 1992. The EPA also notes that the consultant has advised, in response to DCLM's comments that data have been collected over the past two years to demonstrate that encroachment into the 100 metre buffer with the Ellen Brook Nature Reserve will have no impacts on the tortoise habitat, and that if the annual data confirm that the Ellen Brook Nature Reserve is not connected to the clay excavation sites, approval will be sought to mine and rehabilitate all or part of the buffer area within proponents' landholdings.

Having particular regard to:

- a) the fact that the predicted environmental impacts of the proposal have not changed; and
- b) that changes in environmental standards that can be addressed through amendments to the conditions and procedures of environmental approval,

it is the EPA's opinion that the requested extension to the duration of approval should be allowed.

3.3 Changes to other Environmental Conditions

Description

Assessment of these proposed changes to conditions under Section 46 of the *Environmental Protection Act 1986* allows the EPA the opportunity to amend other environmental conditions in additions to the time limit condition (Condition 3, Appendix 3). The environmental conditions currently applicable to all three projects are contained in Appendix 3.

Assessment

The EPA has taken the opportunity to review the environmental conditions set for each proposal with a view to:

- (a) updating the statements into the current format;
- (b) ensuring compatibility with current environmental protection regulations; and
- (c) applying conditions which are now routinely applied to proposals of these types.

The EPA's proposed changes to the environmental conditions are set out in Appendix 4. These conditions should be examined in conjunction with the original environmental conditions in Appendix 3.

It should be noted that no changes of substance are proposed to the proponents' environmental management commitments. The commitments included with the recommended draft conditions in Appendix 4 are consistent with those in the existing statements of approval.

4. Conditions

Section 46 of the *Environmental Protection Act 1986* requires the EPA to report to the Minister for the Environment on whether or not the proposed changes to conditions or procedures should be allowed. In addition, the EPA may make recommendations as it sees fit.

In developing recommended conditions for each project, the EPA's preferred course of action is to have the proponents provide an array of commitments to ameliorate the impacts of the proposal on the environment. The commitments are considered by the EPA as part of its assessment of the proposal. This was done as part of the previous assessments undertaken in 1991 and 1992.

The EPA recognises that not all of the commitments are written in a form that makes them readily enforceable, but they do provide a clear statement of the action to be taken as part of the proponents' responsibility for and commitment to continuous improvement in environmental performance. The commitments then form part of the conditions to which the proposal should be subject if it is to be implemented.

The EPA may, of course, also recommend conditions additional to that relating to the proponent's commitments.

The EPA recommends that the following conditions, which are set out in formal detail in Appendix 4, be imposed if the proposed time limit extension for the projects is approved:

1. the existing Ministerial Conditions applied to the project (Ministerial Statement 226 published on 6 March 1992, Statement 252 published on 23 April 1992 and Statement 265 published on 29 May 1992), subject to modifications necessary to:
 - indefinitely extend the time limit of environmental approval, subject to a 5-yearly environmental review;
 - update the statement into the current format; and
 - ensure compatibility with current environmental protection regulations.

6. Conclusions

The EPA has considered the request by Metro Brick, Pilsley Investments and Midland Brick to extend the time limit of environmental approval for the clay excavations in Upper Swan and has concluded that an indefinite extension should be allowed, subject to a 5-yearly environmental review.

The EPA believes that the 10-year period since the original proposals were assessed has not given rise to any changes that would cause the EPA to reconsider its previous assessment of the projects or its previous recommendation as to the environmental acceptability of the projects.

In addition to reporting on the extension of the time limit, the EPA considers that the conditions of environmental approval should be updated, and accordingly has also reported on the additional changes required.

7. Recommendations

The EPA submits the following recommendations to the Minister for the Environment:

1. That the Minister notes that this report is pursuant to Section 46(3) of *the Environmental Protection Act 1986* and thus is limited to consideration of proposed changes to the original conditions.
2. The Minister notes that the proposed change is to indefinitely extend the life of the operations in question, subject to a 5-yearly environmental review.
3. The EPA recommends that the Minister considers the report on the relevant environmental factors as set out in Section 3.
4. That the Minister notes that the EPA has concluded that the modified projects can be managed to meet the EPA's objectives, and thus not impose an unacceptable impact on the environment provided there is satisfactory implementation by the proponent of the amended conditions, including the proponents' commitments, as set out in Section 4.
5. The Minister imposes the amended conditions, commitments and procedures recommended in Appendix 4 of this report.

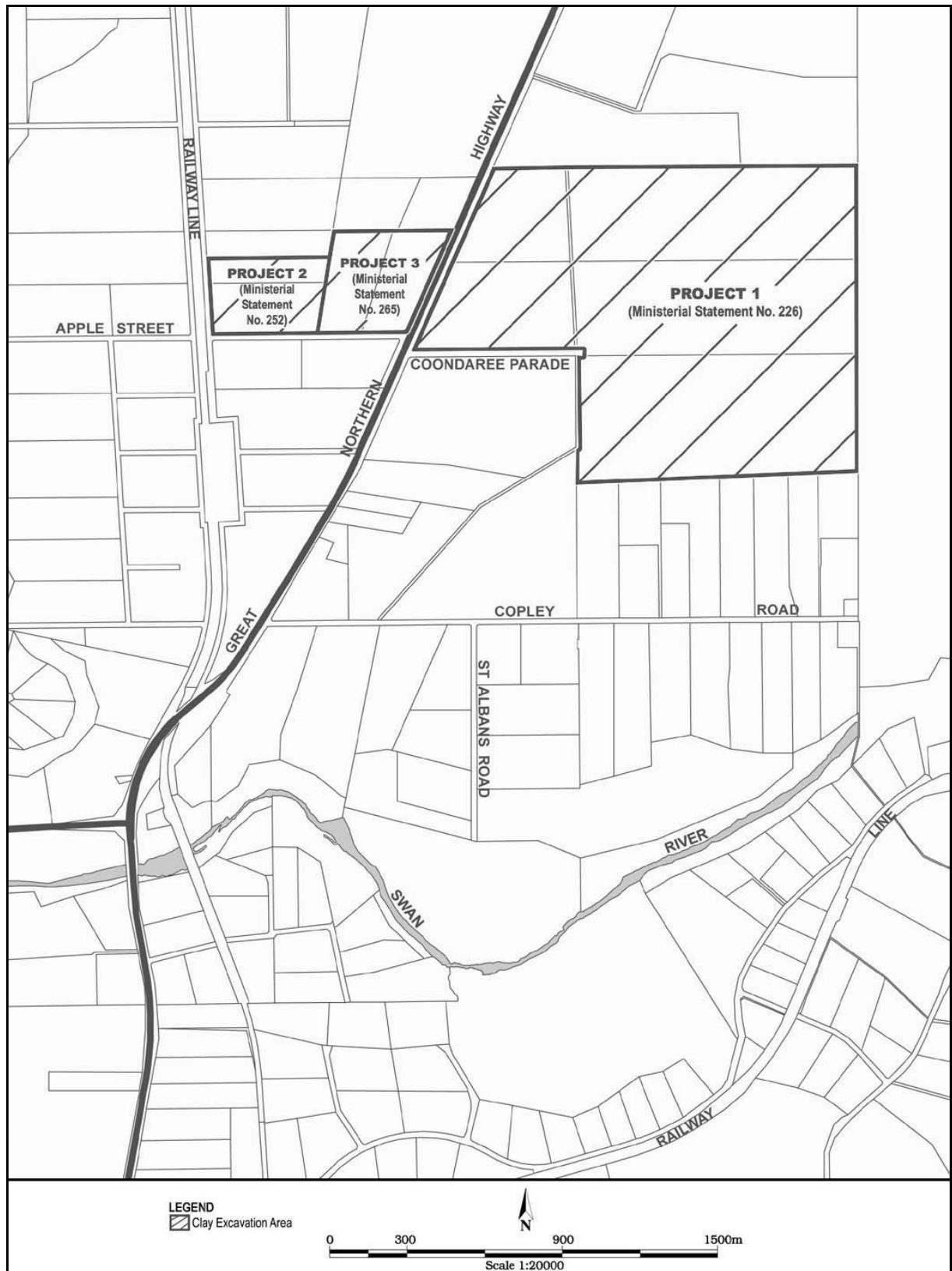


Figure 1: Location of the proposals

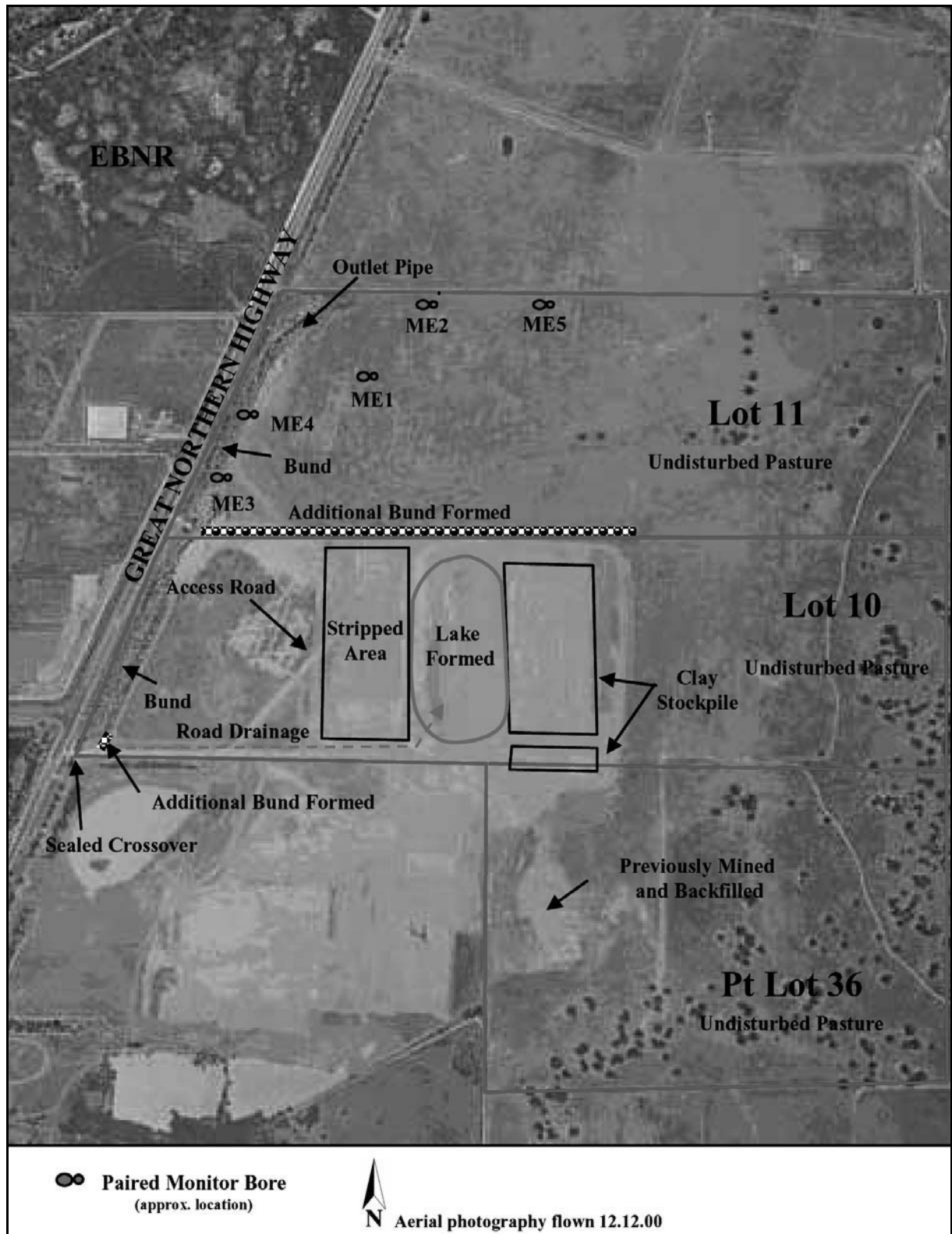


Figure 2: Plate 1. Project 1: Lots 10, 11 and Pt Lot 36 Great Northern Highway, Metro Brick

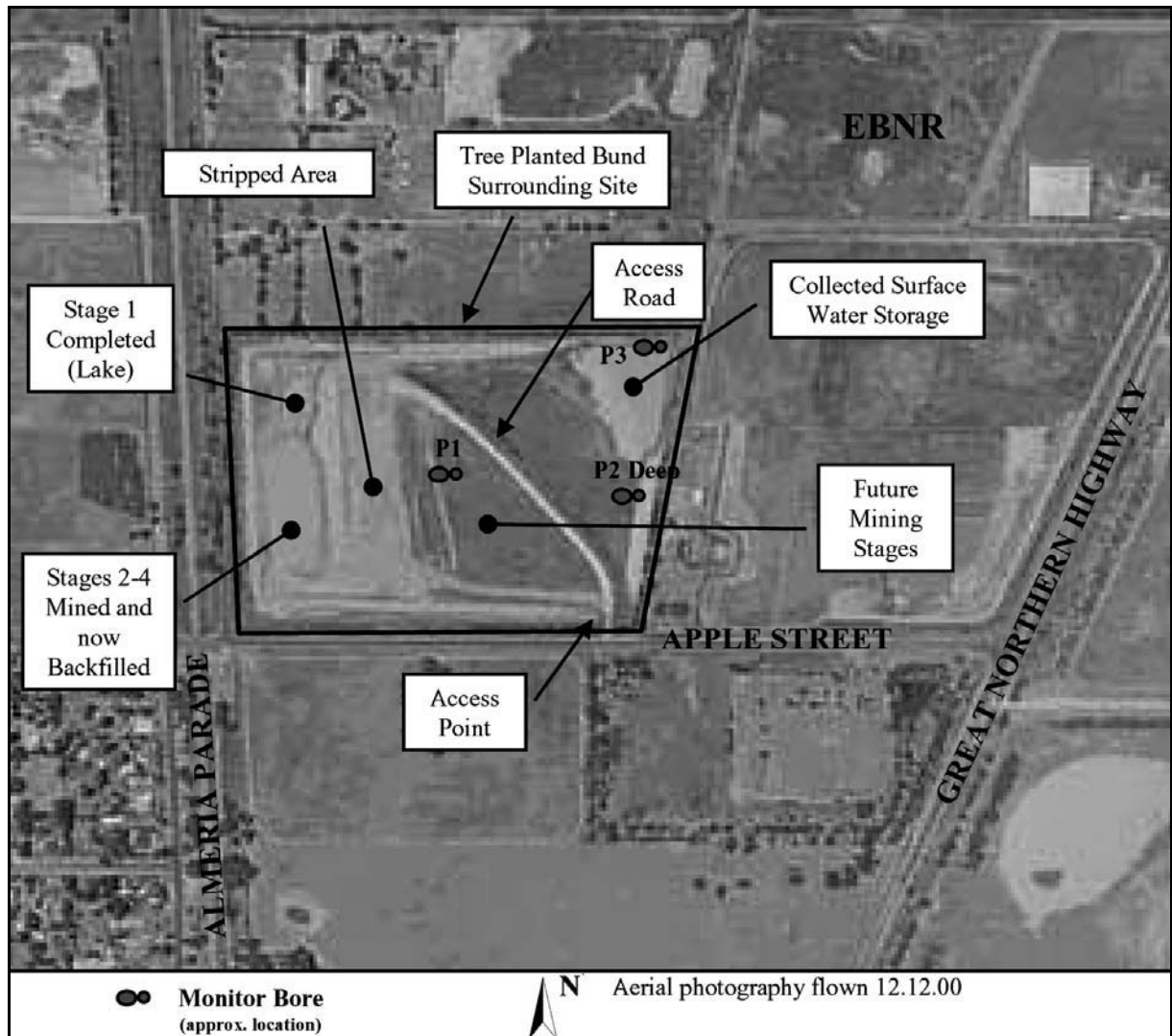


Figure 3: Plate 2. Project 2: Lots 23 & 51 Apple Street, Pilsley Investments

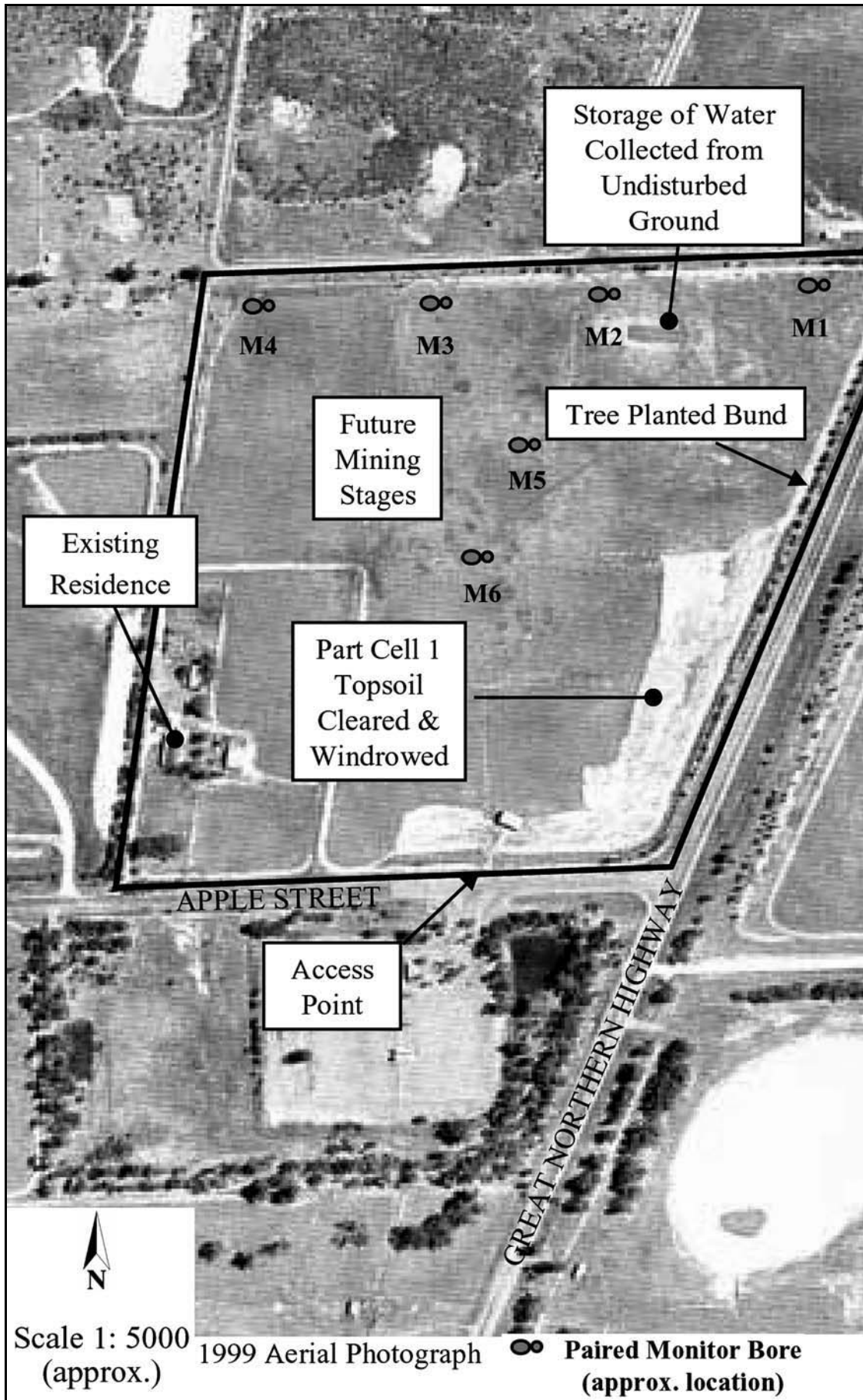


Figure 4: Plate 3. Project 3: Lots 40 and 41 Apple Street (formerly Lots 21 and 22), Midland Brick

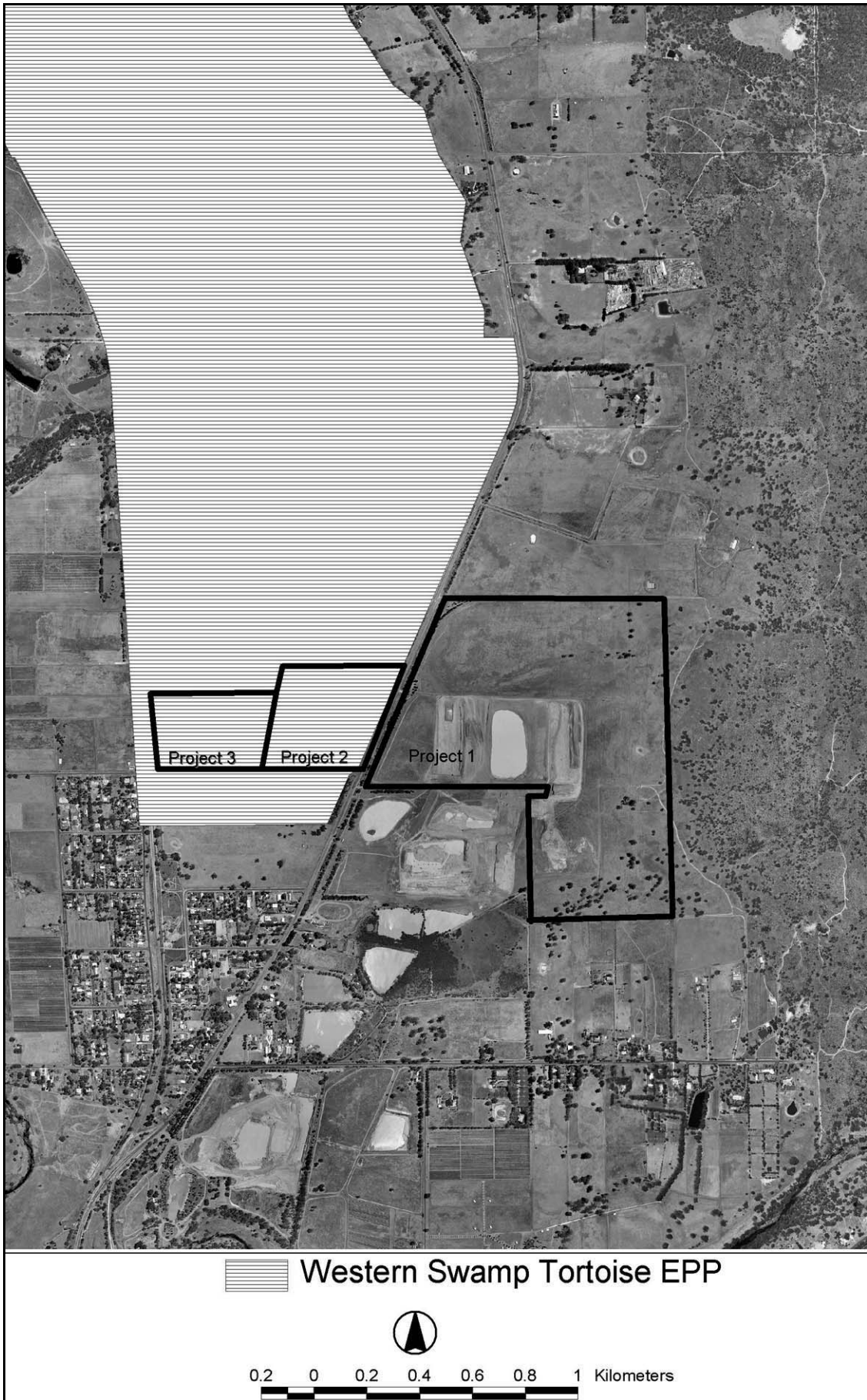


Figure 5: Location of the proposals (including Western Swamp Tortoise EPP Area)

Appendix 1
List of Submitters

State/Local Government

- The Department of Environment
- The Department of Conservation and Land Management

Appendix 2

References

Bowman, Bishaw Gorham (2003), *Section 46 Review Three Clay Excavations Upper Swan* Prepared for Midland Brick Company Pty Ltd, Metro Brick Bristile Clay Tiles Pty Ltd and Pilsley Investments Pty Ltd.

Bowman, Bishaw and Gorham (1990), *Consultative Environmental Review, Proposed Clay Excavations in the vicinity of the Ellen Brook Nature Reserve*. Prepared for Midland Brick Company Pty Ltd, Metro Brick Bristile Clay Tiles Pty Ltd and Pilsley Investments Pty Ltd.

Environmental Protection Authority (1991), *Proposed Clay Excavation Lots 10, 11 and Pt Lot 36 Great Northern Highway, Upper Swan, Metro Brick: Report and recommendations of the Environmental Protection Authority*, Bulletin 604, Environmental Protection Authority, Perth, Western Australia.

Environmental Protection Authority (1992a), *Proposed Clay Excavation Lots 21 and 22 Apple Street, Upper Swan, Metro Brick: Report and recommendations of the Environmental Protection Authority*, Bulletin 610, Environmental Protection Authority, Perth, Western Australia.

Environmental Protection Authority (1992), *Proposed Clay Excavation Lots 23 and 51 Apple Street, Upper Swan, Metro Brick: Report and recommendations of the Environmental Protection Authority*, Bulletin 614, Environmental Protection Authority, Perth, Western Australia.

Appendix 3

Statements of Environmental Conditions of Approval (1992)



WESTERN AUSTRALIA
MINISTER FOR THE ENVIRONMENT

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

**CLAY EXCAVATION, LOTS 10, 11 AND PART LOT 36 GREAT NORTHERN
HIGHWAY, UPPER SWAN (322)**

METRO BRICK (A DIVISION OF BRISTILE LTD)

This proposal may be implemented subject to the following conditions:

1. Commitments

In implementing the proposal, the proponent shall fulfil the commitments (which are not inconsistent with the conditions or procedures contained in this statement) made in the proponent's Consultative Environmental Review and in response to issues raised following public submissions. These commitments have been consolidated and are included in Environmental Protection Authority Bulletin 604 as Appendix I. (A copy of the commitments is attached).

2. Detailed Implementation

Subject to these conditions, the manner of detailed implementation of the proposal shall conform in substance with that set out in any designs, specifications, plans or other technical material submitted by the proponent to the Environmental Protection Authority with the proposal. Where, in the course of that detailed implementation, the proponent seeks to change those designs, specifications, plans or other technical material in any way that the Minister for the Environment determines on the advice of the Environmental Protection Authority, is not substantial, those changes may be effected.

3. Duration of approval

This approval is for a period of ten years from the date of this statement. Subsequent applications for approval shall be referred to the Environmental Protection Authority and will be reviewed in the light of the proponent's environmental performance at the site.

4. Drainage management

A drainage management plan should be prepared to protect the habitat of the Western Swamp Tortoise at Ellen Brook Nature Reserve from external surface water drainage impacts affected by this proposal.

Published on
6 MAR 1992

4-1 Prior to quarrying activities and in consultation with the Department of Conservation and Land Management, the Main Roads Department, the Swan River Trust and the Shire of Swan, the proponent shall prepare a drainage management plan being part of the Environmental Management Programme required by condition 6, to the satisfaction of the Minister for the Environment on advice of the Environmental Protection Authority. This plan shall enable the proponent to:

- (1) monitor drainage to detect, report on, and manage any drainage impacts on the Wildlife Sanctuary for the Western Swamp Tortoise at Ellen Brook Nature Reserve;
- (2) remedy any unacceptable drainage impacts on the Wildlife Sanctuary caused by this proposal;
- (3) detain all drainage waters on-site in the first three years of operation, so that they do not enter the Wildlife Sanctuary at Ellen Brook Nature Reserve nor create an unacceptable impact elsewhere; and
- (4) divert all drainage waters from the eastern side of the Great Northern Highway to prevent their entering the Wildlife Sanctuary area at Ellen Brook Nature Reserve within two years of the date of this statement, and in so doing, ensure that this action does not cause an unacceptable impact elsewhere.

4-2 The timing of the preparation and review of the drainage management plan shall be to the satisfaction of the Environmental Protection Authority.

4-3 The proponent shall subsequently implement the drainage management plan to the satisfaction of the Environmental Protection Authority.

5 Wildlife Sanctuary buffer

The proponent shall ensure that there is no quarrying for this proposal within 100 metres of the boundaries of the Wildlife Sanctuary at Ellen Brook Nature Reserve and any additions thereto, until further investigations demonstrate, to the satisfaction of the Environmental Protection Authority on advice of the Department of Conservation and Land Management, that adverse effects will not occur to the tortoise habitat.

6 Environmental Management Programme

A comprehensive environmental management programme should be prepared to enable the proponent to detect, report on and manage any impacts on the environment, particularly the habitat of the Western Swamp Tortoise at Ellen Brook Nature Reserve.

6-1 Prior to the start of quarrying activities and following consultation with the appropriate government departments, the proponent shall prepare an Environmental Management Programme, to the satisfaction of the Minister for the Environment on advice of the Environmental Protection Authority. Plans to be prepared as part of the Environmental Management Programme shall include, but not necessarily be limited to the following:

- (1) a staged quarrying strategy;
- (2) drainage management (see condition 4);
- (3) groundwater management and protection;
- (4) progressive rehabilitation of the site;
- (5) procedures to minimise noise, dust and visual impacts associated with the quarrying and transport operations;
- (6) public safety and mosquito breeding;
- (7) periodic reporting of monitoring results; and

- (8) consequential changes to project management to remedy unacceptable environmental impacts.

- 6-2 The timing of the preparation and review of these plans shall be to the satisfaction of the Environmental Protection Authority.
- 6-3 The proponent shall subsequently implement the Environmental Management Programme to the satisfaction of the Environmental Protection Authority.

7. Regional development, drainage and rehabilitation

The proponent shall contribute, to the satisfaction of the Environmental Protection Authority, to the preparation of a regional development, drainage and rehabilitation strategy for the Upper Swan Locality in consultation with the Department of Conservation and Land Management, the Department of Planning and Urban Development, the Shire of Swan, and other current and known proposed clay producers in the area, such that the plan can be prepared within two years of the date of this statement.

8. Decommissioning

The proponent shall be responsible for decommissioning and removal of the plant and installations and rehabilitating the site and its environs, to the satisfaction of the Environmental Protection Authority. At least six months prior to decommissioning, the proponent shall prepare and subsequently implement a decommissioning and rehabilitation plan, to the satisfaction of the Environmental Protection Authority.

9. Proponent

No transfer of ownership, control or management of the project which would give rise to a need for the replacement of the proponent shall take place until the Minister for the Environment has advised the proponent that approval has been given for the nomination of a replacement proponent. Any request for the exercise of that power of the Minister shall be accompanied by a copy of this statement endorsed with an undertaking by the proposed replacement proponent to carry out the project in accordance with the conditions and procedures set out in the statement.

10. Time Limit on Approval

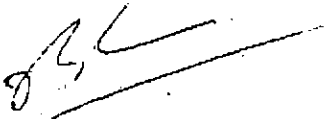
If the proponent has not substantially commenced the project within five years of the date of this statement, then the approval to implement the proposal as granted in this statement shall lapse and be void. The Minister for the Environment shall determine any question as to whether the project has been substantially commenced. Any application to extend the period of five years referred to in this condition shall be made before the expiration of that period, to the Minister for the Environment by way of a request for a change in the condition under Section 46 of the Environmental Protection Act. (On expiration of the five year period, further consideration of the proposal can only occur following a new referral to the Environmental Protection Authority).

11. Compliance Auditing

The proponent is responsible for complying with the environmental conditions and commitments.

11-1 The proponent shall prepare an "Audit Programme" in consultation with and to the satisfaction of the Environmental Protection Authority. The programme shall include, but not be limited to, the preparation of regular "Compliance Reports" to show the progress of the proposal, any changes to the original proposal, and how the proponent has complied with the environmental conditions.

11-2 Subsequent to condition 11-1, the proponent shall implement the approved Audit Programme to the satisfaction of the Environmental Protection Authority.



Bob Pearce, MLA
MINISTER FOR THE ENVIRONMENT

5 MAR 1992

APPENDIX 1

ENVIRONMENTAL MANAGEMENT COMMITMENTS FOR CLAY EXCAVATION, LOTS 10, 11 & PART LOT 36 GREAT NORTHERN HIGHWAY, UPPER SWAN

The proponent hereby commits itself to the overall environmental management and rehabilitation philosophy outlined in the Consultative Environmental Review and subsequent modifications as outlined in Appendices 2 and 4 of EPA Bulletin 604. In specific terms, this means the proponent will;

- (1) Consult with Planning Authorities to facilitate the derivation of a long term strategic plan for the locality which recognises and accepts the interim priority land use of clay extraction.
- (2) Establish an inter-company liaison mechanism to enable a co-ordinated approach between all three proponents with respect to addressing potential cumulative operational effects and overall rehabilitation goals.
- (3) Implement the management techniques described in both Sections 5 and 6 of the CER to ensure that adverse effects are not experienced in relation to:
 1. potential visual intrusion for residents at Upper Swan and through traffic on Great Northern Highway;
 2. potential noise and dust disturbance of the residents at Upper Swan, particularly near the road junction of Apple Street and Almeria Parade;
 3. potential erosion of working areas and stockpiles and consequent silt transport to local drainage;
 4. dewatering of accumulated rainfall and (perhaps) groundwater seepage from the working area of the pit which may be necessary to allow excavation to proceed.
- (4) Implement routine surveillance of the quarries at regular intervals throughout the year to assess the critical parameters identified in the monitoring programme.
- (5) Comply with excavation licence conditions negotiated with the Shire of Swan and in consultation with the Environmental Protection Authority.
- (6) Introduce sequential rehabilitation of previously worked area as soon as practicable in accordance with the rehabilitation objectives developed in consultation with Planning Authorities and the landowner (ie. in respect of leasehold arrangements).

- (7) Contain turbid water within its excavations and immediate surroundings thus ensuring it does not flow onto the tortoise habitat.
- (8) Not quarry within a hundred metres of the nature reserve boundary, until further investigations are able to conclusively demonstrate that no adverse effect could occur.
- (9) Prepare an Environmental Monitoring and Management Programme to the satisfaction of the Environmental Protection Authority prior to commencement of operations at the site.
- (10) Verify that no adverse effects experienced on the Short-Necked Tortoise habitat are experienced, by appropriate staging and monitoring of excavations on lots 10 and 11.



WESTERN AUSTRALIA
MINISTER FOR THE ENVIRONMENT

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

CLAY EXCAVATION, LOTS 23 & 51 APPLE STREET, UPPER SWAN (160)

PILSLEY INVESTMENTS PTY LTD

This proposal may be implemented subject to the following conditions:

1. Commitments

In implementing the proposal, the proponent shall fulfil the commitments (which are not inconsistent with the conditions or procedures contained in this statement) made in the proponent's Consultative Environmental Review and in response to issues raised following public submissions. These commitments have been consolidated and are included in Environmental Protection Authority Bulletin 614 as Appendix 1. (A copy of the commitments is attached).

2. Detailed Implementation

Subject to these conditions, the manner of detailed implementation of the proposal shall conform in substance with that set out in any designs, specifications, plans or other technical material submitted by the proponent to the Environmental Protection Authority with the proposal. Where, in the course of that detailed implementation, the proponent seeks to change those designs, specifications, plans or other technical material in any way that the Minister for the Environment determines on the advice of the Environmental Protection Authority, is not substantial, those changes may be effected.

3. Duration of approval

This approval is for a period of ten years from the date of this statement. Subsequent applications for approval shall be referred to the Environmental Protection Authority and will be reviewed in the light of the proponent's environmental performance at the site.

4. Drainage management

A drainage management plan should be prepared to protect the fenced-off habitat of the Western Swamp Tortoise at Ellen Brook Nature Reserve and those areas identified in figure 1 of Environmental Protection Authority Bulletin 614 as "proposed additions to tortoise habitat" if acquired by the Department of Conservation and Land Management (hereafter referred to as the Wildlife Sanctuary) from external surface water drainage impacts affected by this proposal.

4-1 Prior to the start of quarrying activities and in consultation with the appropriate government departments including the Main Roads Department, the Department of Conservation and Land Management and the Swan River Trust, and the Shire of Swan,

the proponent shall prepare a drainage management plan as part of the Environmental Management Programme required by condition 5, to the satisfaction of the Minister for the Environment on advice of the Environmental Protection Authority. This plan shall enable the proponent to:

- (1) detain all drainage waters on site for the duration of the clay excavation operation, so that they do not enter the Wildlife Sanctuary nor create an unacceptable impact elsewhere;
 - (2) divert all drainage waters from the south-western side of the Great Northern Highway from entering the Wildlife Sanctuary within two years of the date of this statement, and in so doing, ensure that it does not create an unacceptable impact elsewhere;
 - (3) monitor drainage to detect, report on, and manage any drainage impacts on the Wildlife Sanctuary; and
 - (4) remedy any unacceptable drainage impacts on the Wildlife Sanctuary caused by this proposal.
- 4-2 The proponent shall subsequently implement the drainage management plan required by condition 4-1 to the satisfaction of the Environmental Protection Authority.
- 4-3 The proponent shall periodically review the drainage management plan required by condition 4-1 to the satisfaction of the Environmental Protection Authority.

5. Environmental Management Programme

A comprehensive environmental management programme should be prepared to enable the proponent to detect, report on and manage any impacts on the environment, particularly on the Wildlife Sanctuary of the Western Swamp Tortoise at Ellen Brook Nature Reserve (as identified in condition 4).

- 5-1 Prior to the start of quarrying activities, the proponent shall prepare an Environmental Management Programme, following consultation with the appropriate government departments, to the satisfaction of the Minister for the Environment on advice of the Environmental Protection Authority. Plans to be prepared as part of the Environmental Management Programme shall include, but not necessarily be limited to:
- (1) a staged quarrying strategy;
 - (2) drainage management (see condition 4);
 - (3) groundwater management and protection;
 - (4) progressive rehabilitation of the site;
 - (5) procedures to minimise noise, dust and visual impacts associated with the quarrying and transportation operations;
 - (6) public safety and mosquito breeding;
 - (7) periodic reporting of monitoring results; and
 - (8) consequential changes to project management to remedy unacceptable environmental impacts.
- 5-2 The proponent shall subsequently implement the Environmental Management Programme to the satisfaction of the Environmental Protection Authority.
- 5-3 The proponent shall periodically review the Environmental Management Programme to the satisfaction of the Environmental Protection Authority.

6. Regional development, drainage and rehabilitation

The proponent shall contribute, to the satisfaction of the Environmental Protection Authority, to the preparation of a regional development, drainage and rehabilitation strategy for the Upper Swan locality in consultation with the appropriate government departments, including the Main Roads Department, the Department of Conservation and Land Management and the Department of Planning and Urban Development, the Shire of Swan, and other current and known proposed clay producers in the area, such that the plan can be prepared within two years of the date of this statement.

7. Decommissioning

The proponent is responsible for decommissioning and removal of the plant and installations and rehabilitation of the site and its environs.

7-1 At least six months prior to decommissioning, the proponent shall prepare a decommissioning and final rehabilitation plan to the satisfaction of the Environmental Protection Authority.

7-2 The proponent shall implement the plan required by condition 7-1, to the satisfaction of the Environmental Protection Authority.

8. Proponent

No transfer of ownership, control or management of the project which would give rise to a need for the replacement of the proponent shall take place until the Minister for the Environment has advised the proponent that approval has been given for the nomination of a replacement proponent. Any request for the exercise of that power of the Minister shall be accompanied by a copy of this statement endorsed with an undertaking by the proposed replacement proponent to carry out the project in accordance with the conditions and procedures set out in the statement.

9. Time Limit on Approval

If the proponent has not substantially commenced the project within five years of the date of this statement, then the approval to implement the proposal as granted in this statement shall lapse and be void. The Minister for the Environment shall determine any question as to whether the project has been substantially commenced. Any application to extend the period of five years referred to in this condition shall be made before the expiration of that period, to the Minister for the Environment by way of a request for a change in the condition under Section 46 of the Environmental Protection Act. (On expiration of the five year period, further consideration of the proposal can only occur following a new referral to the Environmental Protection Authority).

10. Compliance Auditing

In order to ensure agreed environmental conditions and commitments are met, an audit system is required.

10-1 The proponent shall prepare periodic "Compliance Reports" to help verify the environmental performance or otherwise of this project, in consultation with and to the satisfaction of the Environmental Protection Authority.



Bob Pearce, MLA
MINISTER FOR THE ENVIRONMENT



Bull # *Joe* 610
State # 265

WESTERN AUSTRALIA
MINISTER FOR THE ENVIRONMENT

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

CLAY EXCAVATION, LOTS 21 & 22 APPLE STREET, UPPER SWAN (121)

MIDLAND BRICK COMPANY PTY LTD

This proposal may be implemented subject to the following conditions:

1. Commitments

In implementing the proposal, the proponent shall fulfil the commitments (which are not inconsistent with the conditions or procedures contained in this statement) made in the Consultative Environmental Review and in response to issues raised following public submissions. These commitments have been consolidated and are included in Environmental Protection Authority Bulletin 610 as Appendix 1. (A copy of the commitments is attached).

2. Detailed Implementation

Subject to these conditions, the manner of detailed implementation of the proposal shall conform in substance with that set out in any designs, specifications, plans or other technical material submitted by the proponent to the Environmental Protection Authority with the proposal. Where, in the course of that detailed implementation, the proponent seeks to change those designs, specifications, plans or other technical material in any way that the Minister for the Environment determines on the advice of the Environmental Protection Authority, is not substantial, those changes may be effected.

3. Duration of Approval

This approval is for a period of ten years from the date of this statement. Subsequent applications for approval shall be referred to the Environmental Protection Authority and will be reviewed in the light of the proponent's environmental performance at the site.

4. Drainage Management

A drainage management plan should be prepared to protect the fenced-off habitat of the Western Swamp Tortoise at Ellen Brook Nature Reserve and those areas identified in figure 1 of Environmental Protection Authority Bulletin 610 as "proposed additions to tortoise habitat" if acquired by the Department of Conservation and Land Management (hereafter referred to as the Wildlife Sanctuary) from external surface water drainage impacts affected by this proposal.

Published on

29 MAY 1992

4-1 Prior to the start of quarrying activities and in consultation with the appropriate government departments, including the Department of Conservation and Land Management, the Main Roads Department and the Swan River Trust, and the Shire of Swan, the proponent shall prepare a drainage management plan as part of the Environmental Management Programme required by condition 6, to the satisfaction of the Minister for the Environment on advice of the Environmental Protection Authority. This plan shall enable the proponent to:

- (1) detain all drainage waters on site for the duration of the clay excavation operation, so that they do not enter the Wildlife Sanctuary nor create an unacceptable impact elsewhere;
- (2) divert all drainage waters from the south-western side of the Great Northern Highway from entering the Wildlife Sanctuary within two years of the date of this statement, and in so doing, ensure that this action does not create an unacceptable impact elsewhere;
- (3) monitor drainage to detect, report on, and manage any drainage impacts on the Wildlife Sanctuary; and
- (4) remedy any unacceptable drainage impacts on the Wildlife Sanctuary caused by this proposal.

4-2 The proponent shall subsequently implement the drainage management plan required by condition 4-1.

4-3 The proponent shall periodically review the drainage management plan required by condition 4-1.

5. Wildlife Sanctuary Buffer

The proponent shall not quarry within 100 metres of the boundaries of the Wildlife Sanctuary at Ellen Brook Nature Reserve and any additions thereto (as identified in condition 4) until further investigations demonstrate, to the satisfaction of the Environmental Protection Authority on advice of the Department of Conservation and Land Management, that adverse effects will not occur to the tortoise habitat.

6. Environmental Management Programme

A comprehensive environmental management programme should be prepared to enable the proponent to detect, report on and manage any impacts on the environment, particularly on the Wildlife Sanctuary of the Western Swamp Tortoise at Ellen Brook Nature Reserve (as identified in condition 4).

6-1 Prior to the start of quarrying activities and following consultation with the appropriate government departments, the proponent shall prepare an Environmental Management Programme to the satisfaction of the Minister for the Environment on advice of the Environmental Protection Authority. Plans to be prepared as part of the Environmental Management Programme shall include, but not necessarily be limited to:

- (1) a staged quarrying strategy;
- (2) drainage management (see condition 4);
- (3) groundwater management and protection;
- (4) progressive rehabilitation of the site;
- (5) procedures to minimise noise, dust and visual impacts associated with the quarrying and transportation operations;

- (6) public safety and mosquito breeding;
- (7) periodic reporting of monitoring results; and
- (8) consequential changes to project management to remedy unacceptable environmental impacts.

6-2 The proponent shall subsequently implement the Environmental Management Programme.

6-3 The proponent shall periodically review the Environmental Management Programme.

7. Regional Development, Drainage and Rehabilitation

The proponent shall contribute to the preparation of a regional development, drainage and rehabilitation strategy for the Upper Swan locality in consultation with the appropriate government departments, including the Main Roads Department, the Department of Conservation and Land Management and the Department of Planning and Urban Development, the Shire of Swan, and other current and known proposed clay producers in the area, such that the plan can be prepared within two years of the date of this statement.

8. Decommissioning

The proponent is responsible for decommissioning and removal of the plant and installations and rehabilitation of the site and its environs.

8-1 At least six months prior to decommissioning, the proponent shall prepare a decommissioning and final rehabilitation plan.

8-2 The proponent shall implement the plan required by condition 8-1.

9. Proponent

No transfer of ownership, control or management of the project which would give rise to a need for the replacement of the proponent shall take place until the Minister for the Environment has advised the proponent that approval has been given for the nomination of a replacement proponent. Any request for the exercise of that power of the Minister shall be accompanied by a copy of this statement endorsed with an undertaking by the proposed replacement proponent to carry out the project in accordance with the conditions and procedures set out in the statement.

10. Time Limit on Approval

If the proponent has not substantially commenced the project within five years of the date of this statement, then the approval to implement the proposal as granted in this statement shall lapse and be void. The Minister for the Environment shall determine any question as to whether the project has been substantially commenced. Any application to extend the period of five years referred to in this condition shall be made before the expiration of that period, to the Minister for the Environment by way of a request for a change in the condition under Section 46 of the Environmental Protection Act. (On expiration of the five year period, further consideration of the proposal can only occur following a new referral to the Environmental Protection Authority).

11. Compliance Auditing

In order to ensure that agreed environmental conditions and commitments are met, an audit system is required.

11-1 The proponent shall prepare periodic "Compliance Reports" to help verify the environmental performance or otherwise of this project, in consultation with the Environmental Protection Authority.

Procedure

The conditions contained in this statement are to be complied with to the satisfaction of the Environmental Protection Authority except where they are required to be carried out to the satisfaction of either the Minister for the Environment or any other government agency.

Should the Environmental Protection Authority, other government agency and/or proponent be unable to resolve any dispute that occurs concerning these conditions and commitments, that dispute will be determined by the Minister for the Environment.



Bob Pearce, MLA
MINISTER FOR THE ENVIRONMENT

27 MAY 1992

Appendix 4
Recommended Environmental Conditions
and Proponents' Consolidated Commitments

RECOMMENDED CONDITIONS AND PROCEDURES

**STATEMENT TO AMEND CONDITIONS APPLYING TO A PROPOSAL
(PURSUANT TO THE PROVISIONS OF SECTION 46 OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

**CLAY EXCAVATION
LOTS 10, 11 AND PART LOT 36 GREAT NORTHERN HIGHWAY
UPPER SWAN**

Proposal: The operation of a clay excavation facility in Upper Swan, as documented in Schedule 1 of this Statement.

Proponent: Metro Brick Bristile Clay Tiles Pty Ltd

Proponent Address: Harper Street, Caversham, Western Australia 6055

Assessment Number: 1431

Previous Assessment Number: 0322

Previous Statement Number: 226

Report of the Environmental Protection Authority: Bulletin 1118

Previous Report of the Environmental Protection Authority: Bulletin 604

The implementation of the proposal to which the above reports of the Environmental Protection Authority relate is subject to the following conditions and procedures, which replace all previous conditions and procedures:

1 Implementation and Changes

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

1-2 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment determines, on advice of the Environmental Protection Authority, is substantial, the proponent shall refer the matter to the Environmental Protection Authority.

- 1-3 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment determines on advice of the Environmental Protection Authority, is not substantial, the proponent may implement those changes upon receipt of written advice.

2 Proponent Commitments

- 2-1 The proponent shall implement the environmental management commitments documented in schedule 2 of this statement.
- 2-2 The proponent shall implement subsequent environmental management commitments which the proponent makes as part of the fulfilment of the conditions in this statement.

3 Proponent Nomination and Contact Details

- 3-1 The proponent for the time being nominated by the Minister for the Environment under Section 38(6) or (7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal until such time as the Minister for the Environment has exercised the Minister's power under Section 38(7) of the Act to revoke the nomination of that proponent and nominate another person as the proponent for the proposal.
- 3-2 If the proponent wishes to relinquish the nomination, the proponent shall apply for the transfer of proponent and provide a letter with a copy of this statement endorsed by the proposed replacement proponent that the proposal will be carried out in accordance with this statement. Contact details and appropriate documentation on the capability of the proposed replacement proponent to carry out the proposal shall also be provided.
- 3-3 The nominated proponent shall notify the Department of Environmental Protection of any change of contact name and address within 60 days of such change.

4 Commencement and Time Limit of Approval

- 4-1 The proponent shall substantially commence the proposal within five years of the date of the statement published on 6 March 1992 or the approval granted in that statement shall lapse and be void.

Note: The Minister for the Environment will determine any dispute as to whether the proposal has been substantially commenced.

- 4-2 The proponent shall make application for any extension of approval for the substantial commencement of the proposal beyond five years from the date of the statement published on 6 March 1992 to the Minister for the Environment, prior to the expiration of the five-year period referred to in condition 4-1.

The application shall demonstrate that:

1. the environmental factors of the proposal have not changed significantly;
2. new, significant, environmental issues have not arisen; and
3. all relevant government authorities have been consulted.

Note: The Minister for the Environment may consider the grant of an extension of the time limit of approval not exceeding five years for the substantial commencement of the proposal.

5 Compliance Audit and Performance Review

- 5-1 The proponent shall prepare an audit program and submit compliance reports to the Department of Environmental Protection which address:
- (1) the status of implementation of the proposal as defined in schedule 1 of this statement;
 - (2) evidence of compliance with the conditions and commitments; and
 - (3) the performance of the environmental management plans and programs.

Note: Under sections 48(1) and 47(2) of the *Environmental Protection Act 1986*, the Chief Executive Officer of the Department of Environmental Protection is empowered to audit the compliance of the proponent with the statement and should directly receive the compliance documentation, including environmental management plans, related to the conditions, procedures and commitments contained in this statement.

- 5-2 The proponent shall submit a performance review report every five years after the start of the operations phase, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority, which addresses:
- (1) the major environmental issues associated with the project; the targets for those issues; the methodologies used to achieve these; and the key indicators of environmental performance measured against those targets;
 - (2) the level of progress in the achievement of sound environmental performance, including industry benchmarking, and the use of best available technology where practicable;
 - (3) significant improvements gained in environmental management, including the use of external peer reviews;
 - (4) stakeholder and community consultation about environmental performance and the outcomes of that consultation, including a report of any on-going concerns being expressed; and
 - (5) the proposed environmental targets over the next five years, including improvements in technology and management processes.

6. Drainage Management

- 6-1 Prior to quarrying activities and in consultation with the Department of Conservation and Land Management, Main Roads WA, the Swan River Trust

and the City of Swan, the proponent shall prepare a Drainage Management Plan to protect the fenced-off habitat of the Western Swamp Tortoise at Ellen Brook Nature Reserve from external surface water drainage impacts of the proposal, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

This plan shall address the following:

- (1) monitoring of drainage to detect, report on, and manage any drainage impacts on the Wildlife Sanctuary for the Western Swamp Tortoise at Ellen Brook Nature Reserve;
- (2) remediation of any unacceptable drainage impacts on the Wildlife Sanctuary caused by this proposal;
- (3) detention of all drainage waters on-site in the first three years of operation, so that they do not enter the Wildlife Sanctuary at the Ellen Brook Nature Reserve nor create an unacceptable impact elsewhere; and
- (4) diversion of all drainage waters from eastern side of the Great Northern Highway to prevent their entering the Wildlife Sanctuary area at Ellen Brook Nature Reserve within two years of the date of this statement, and in doing so, ensuring that this action does not cause an unacceptable impact elsewhere.

- 6-2 The proponent shall make publicly available and subsequently implement the Drainage Management Plan being part of the Environmental Management Programme required by condition 8, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

7. Wildlife Sanctuary Buffer

- 7-1 The proponent shall not quarry within 100 metres of the boundaries of the Wildlife Sanctuary at Ellen Brook Nature Reserve, until further investigations demonstrate, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority and the Department of Conservation and Land Management, that adverse effects upon the tortoise habitat will not occur.

8. Environmental Management Programme

- 8-1 The proponent shall prepare, make publicly available and subsequently implement an Environmental Management Programme, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The Environmental Management Plans, strategies or reports to be prepared as part of the Environmental Management Programme shall include the following:

- (1) a staged quarrying strategy;
- (2) drainage management (see Condition 6);
- (3) groundwater management and protection;
- (4) progressive rehabilitation of the site;
- (5) procedures to minimise noise, dust and visual impacts associated with the quarrying and transport operations;

- (6) public safety and mosquito breeding;
- (7) periodic reporting of monitoring results; and
- (8) consequential changes to project management to remedy unacceptable impacts.

9 Regional Development, Drainage and Rehabilitation

- 9-1 The proponent shall contribute to the preparation of a regional development, drainage and rehabilitation strategy for the Upper Swan Locality in consultation with the Department of Conservation and Land Management, the Department for Planning and Infrastructure, the City of Swan, and other current and known proposed clay producers in the area, such that the strategy can be prepared within two years following the date of this statement, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

10 Decommissioning/Closure Plans

- 10-1 Within two years following the date of this statement, the proponent shall prepare a Preliminary Decommissioning/Closure Plan, which provides the framework to ensure that the site is left in an environmentally acceptable condition to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The Preliminary Decommissioning/Closure Plan shall address:

1. rationale for the siting and design of plant and infrastructure as relevant to environmental protection, and conceptual plans for the removal or, if appropriate, retention of plant and infrastructure;
2. long-term management of ground and surface water systems;
3. a conceptual rehabilitation plan for all disturbed areas and a description of a process to agree on the end land use(s) with all stakeholders;
4. a conceptual plan for a care and maintenance phase; and
5. management of noxious materials to avoid the creation of contaminated areas.

- 10-2 At least 12 months prior to the anticipated date of closure, or at a time agreed with the Environmental Protection Authority, the proponent shall prepare a Final Decommissioning/Closure Plan designed to ensure that the site is left in an environmentally acceptable condition to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The Final Decommissioning/Closure Plan shall address:

1. removal or, if appropriate, retention of plant and infrastructure in consultation with relevant stakeholders;
2. long-term management of ground and surface water systems;
3. rehabilitation of all disturbed areas to a standard suitable for the agreed new land use(s); and
4. identification of contaminated areas, including provision of evidence of notification and proposed management measures to relevant statutory authorities.

- 10-3 The proponent shall implement the Final Decommissioning/Closure Plan required by condition 10-2 until such time as the Minister for the Environment determines, on the advice of the Environmental Protection Authority, that the proponent's decommissioning/closure responsibilities have been fulfilled.
- 10-4 The proponent shall make publicly available the Final Decommissioning/Closure Plan required by condition 10-2 to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

Procedures

- 1 Where a condition states "to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority", the Environmental Protection Authority will provide that advice to the Department of Environmental Protection for the preparation of written advice to the proponent
- 2 The Environmental Protection Authority may seek advice from other agencies or organisations, as required, in order to provide its advice to the Department of Environmental Protection.

Notes

- 1 The Minister for the Environment will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environmental Protection over the fulfilment of the requirements of the conditions.

Schedule 1

The Proposal (Assessment Number:1431)

This proposal is located outside the Western Swamp Tortoise Environmental Protection Policy area.

Clay excavation has proceeded in a westerly direction from the previously excavated central area of Lot 10. Future excavations will continue to the west within Lot 10 towards Great Northern Highway.

There is generally only one mining campaign per year for four to six weeks in which clay is excavated and stockpiled onsite. Clay is transported to the Malaga Works in roughly monthly intervals on an as-required basis.

Table 1 – Key Proposal Characteristics

Element	
Life of Project (years)	30
Size of Clay Body (million tonnes)	1.6
#Total Area of Disturbance (ha)	50.0
*Rate of Extraction (tonnes per year)	100,000
Major Infrastructure	nil
Overburden (million tonnes)	1.6 (1:1 ratio to clay)
Water Usage	nil

#will also be rehabilitated. *estimated at present usage.

Figure (attached)

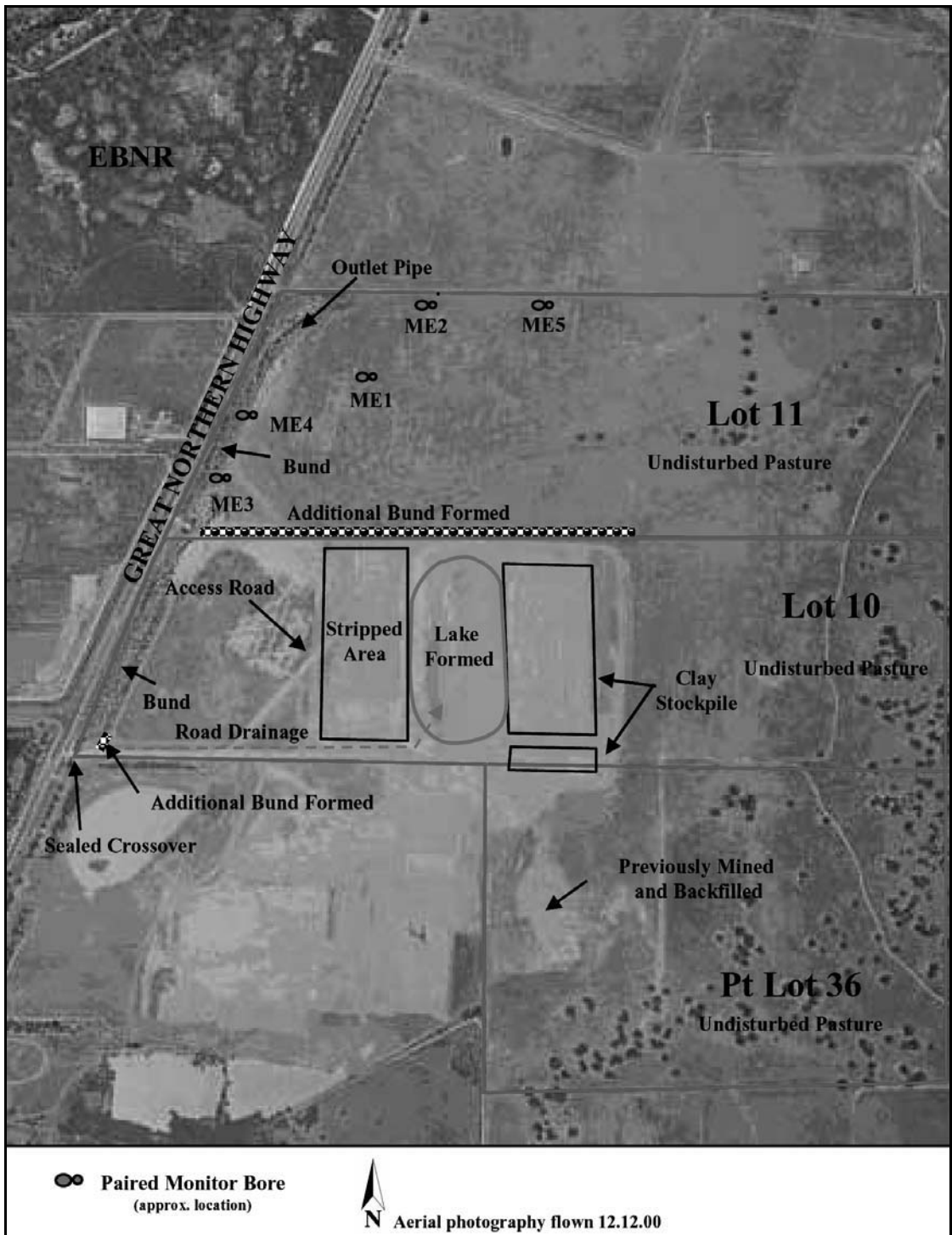


Figure 1: Location.

Proponent's Environmental Management Commitments

1992 as edited

CLAY EXCAVATION
LOTS 10, 11 AND PART LOT 36 GREAT NORTHERN
HIGHWAY
UPPER SWAN

(ASSESSMENT NUMBER 1431)

METRO BRICK BRISTILE CLAY TILES PTY LTD

Proponent's Environmental Management Commitments (consistent with Commitments detailed in 1992)

CLAY EXCAVATION LOTS 10, 11 AND PART LOT 36 GREAT NORTHERN HIGHWAY UPPER SWAN

(Assessment No. 1431)

The proponent is committed to the overall environmental management and rehabilitation philosophy outlined in the Consultative Environmental Review and subsequent modifications as outlined in Appendices 2 and 3 of Environmental Protection Authority Bulletin 604. In specific terms, this means the proponent will:

- (1) Consult with the Planning Authorities to facilitate the derivation of a long-term strategic plan for the locality, which recognises and accepts the interim priority land use of clay extraction.
- (2) Establish an inter-company liaison mechanism to enable a coordinated approach between all three proponents of the nearby clay excavation projects with respect to addressing potential cumulative operational effects and overall rehabilitation goals.
- (3) Implement the management techniques described in both Sections 5 and 6 of the Consultative Environmental Review to ensure that adverse effects are not experienced in relation to:
 1. potential visual intrusion for residents at Upper Swan and through-traffic on Great Northern Highway;
 2. potential noise and dust disturbance of the residents at Upper Swan, particularly near the road junction of Apple Street and Almeria Parade;
 3. potential erosion of working areas and stockpiles and consequent silt transport to local drainage; and
 4. dewatering of accumulated rainfall and (perhaps) groundwater seepage from the working area of the pit which may be necessary to allow excavation to proceed.
- (4) Implement routine surveillance of the quarries at regular intervals throughout the year to assess critical parameters identified in the monitoring programme.
- (5) Rehabilitate previously worked areas sequentially as soon as practicable in accordance with the rehabilitation objectives developed in consultation with the Department of Conservation and Land Management, the Department for Planning and Infrastructure, the City of Swan and the landowner (ie. in respect of leasehold arrangements).
- (6) Contain any turbid water within its excavations and immediate surroundings to ensure it does not flow onto the tortoise habitat.

- (7) Not quarry within a hundred metres of the nature reserve boundary, until further investigations are able to conclusively demonstrate that no adverse effect could occur.

- (8)
 - 8.1 Prepare an Environmental Monitoring and Management Programme to the requirements of the Environmental Protection Authority prior to commencement of operations at the site.
 - 8.2 Implement the Environmental Monitoring and Management Programme outlined in 8.1 to the requirements of the Environmental Protection Authority.

- (9) Verify that no adverse effects on the Short-Necked Tortoise habitat are experienced, by appropriate staging and monitoring of excavations.

- (10) Not excavate below the permanent water table and, if the excavation did reach the water table, the area would be backfilled to maintain at least one metre of cover.

RECOMMENDED CONDITIONS AND PROCEDURES

**STATEMENT TO AMEND CONDITIONS APPLYING TO A PROPOSAL
(PURSUANT TO THE PROVISIONS OF SECTION 46 OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

CLAY EXCAVATION
LOTS 23 & 51 APPLE STREET
UPPER SWAN

Proposal: The operation of a clay excavation facility in Upper Swan, as documented in Schedule 1 of this Statement.

Proponent: Pilsley Investments Pty Ltd

Proponent Address: Military Road, Midland, Western Australia 6056

Assessment Number: 1433

Previous Assessment Number: 0160

Previous Statement Number: 252

Report of the Environmental Protection Authority: Bulletin 1118

Previous Report of the Environmental Protection Authority: Bulletin 614

The implementation of the proposal to which the above reports of the Environmental Protection Authority relate is subject to the following conditions and procedures, which replace all previous conditions and procedures:

1 Implementation and Changes

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

1-2 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment determines, on advice of the Environmental Protection Authority, is substantial, the proponent shall refer the matter to the Environmental Protection Authority.

- 1-3 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment determines on advice of the Environmental Protection Authority, is not substantial, the proponent may implement those changes upon receipt of written advice.

2 Proponent Commitments

- 2-1 The proponent shall implement the environmental management commitments documented in schedule 2 of this statement.
- 2-2 The proponent shall implement subsequent environmental management commitments which the proponent makes as part of the fulfilment of the conditions in this statement.

3 Proponent Nomination and Contact Details

- 3-1 The proponent for the time being nominated by the Minister for the Environment under Section 38(6) or (7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal until such time as the Minister for the Environment has exercised the Minister's power under Section 38(7) of the Act to revoke the nomination of that proponent and nominate another person as the proponent for the proposal.
- 3-2 If the proponent wishes to relinquish the nomination, the proponent shall apply for the transfer of proponent and provide a letter with a copy of this statement endorsed by the proposed replacement proponent that the proposal will be carried out in accordance with this statement. Contact details and appropriate documentation on the capability of the proposed replacement proponent to carry out the proposal shall also be provided.
- 3-3 The nominated proponent shall notify the Department of Environmental Protection of any change of contact name and address within 60 days of such change.

4 Commencement and Time Limit of Approval

- 4-1 The proponent shall substantially commence the proposal within five years of the date of the statement published on 23 April 1992 or the approval granted in that statement shall lapse and be void.

Note: The Minister for the Environment will determine any dispute as to whether the proposal has been substantially commenced.

- 4-2 The proponent shall make application for any extension of approval for the substantial commencement of the proposal beyond five years from the date of the statement published on 23 April 1992 to the Minister for the Environment, prior to the expiration of the five-year period referred to in condition 4-1.

The application shall demonstrate that:

1. the environmental factors of the proposal have not changed significantly;
2. new, significant, environmental issues have not arisen; and
3. all relevant government authorities have been consulted.

Note: The Minister for the Environment may consider the grant of an extension of the time limit of approval not exceeding five years for the substantial commencement of the proposal.

5 Compliance Audit and Performance Review

- 5-1 The proponent shall prepare an audit program and submit compliance reports to the Department of Environmental Protection which address:
- (1) the status of implementation of the proposal as defined in schedule 1 of this statement;
 - (2) evidence of compliance with the conditions and commitments; and
 - (3) the performance of the environmental management plans and programs.

Note: Under sections 48(1) and 47(2) of the *Environmental Protection Act 1986*, the Chief Executive Officer of the Department of Environmental Protection is empowered to audit the compliance of the proponent with the statement and should directly receive the compliance documentation, including environmental management plans, related to the conditions, procedures and commitments contained in this statement.

- 5-2 The proponent shall submit a performance review report every five years after the start of the operations phase, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority, which addresses:
- (1) the major environmental issues associated with the project; the targets for those issues; the methodologies used to achieve these; and the key indicators of environmental performance measured against those targets;
 - (2) the level of progress in the achievement of sound environmental performance, including industry benchmarking, and the use of best available technology where practicable;
 - (3) significant improvements gained in environmental management, including the use of external peer reviews;
 - (4) stakeholder and community consultation about environmental performance and the outcomes of that consultation, including a report of any on-going concerns being expressed; and
 - (5) the proposed environmental targets over the next five years, including improvements in technology and management processes.

6. Drainage Management

- 6-1 Prior to quarrying activities and in consultation with the Department of Conservation and Land Management, Main Roads WA, the Swan River Trust

and the City of Swan, the proponent shall prepare a Drainage Management Plan to protect the fenced-off habitat of the Western Swamp Tortoise at Ellen Brook Nature Reserve from external surface water drainage impacts of the proposal, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

This plan shall address the following:

- (1) monitoring of drainage to detect, report on, and manage any drainage impacts on the Wildlife Sanctuary for the Western Swamp Tortoise at Ellen Brook Nature Reserve;
- (2) remediation of any unacceptable drainage impacts on the Wildlife Sanctuary caused by this proposal;
- (3) detention of all drainage waters on-site in the first three years of operation, so that they do not enter the Wildlife Sanctuary at the Ellen Brook Nature Reserve nor create an unacceptable impact elsewhere; and
- (4) diversion of all drainage waters from eastern side of the Great Northern Highway to prevent their entering the Wildlife Sanctuary area at Ellen Brook Nature Reserve within two years of the date of this statement, and in doing so, ensuring that this action does not cause an unacceptable impact elsewhere.

- 6-2 The proponent shall make publicly available and subsequently implement the Drainage Management Plan being part of the Environmental Management Programme required by condition 8, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

7. Wildlife Sanctuary Buffer

- 7-1 The proponent shall not quarry within 100 metres of the boundaries of the Wildlife Sanctuary at Ellen Brook Nature Reserve, until further investigations demonstrate, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority and the Department of Conservation and Land Management, that adverse effects upon the tortoise habitat will not occur.

8. Environmental Management Programme

- 8-1 The proponent shall prepare, make publicly available and subsequently implement an Environmental Management Programme, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The Environmental Management Plans, strategies or reports to be prepared as part of the Environmental Management Programme shall include the following:

- (1) a staged quarrying strategy;
- (2) drainage management (see Condition 6);
- (3) groundwater management and protection;
- (4) progressive rehabilitation of the site;
- (5) procedures to minimise noise, dust and visual impacts associated with the quarrying and transport operations;

- (6) public safety and mosquito breeding;
- (7) periodic reporting of monitoring results; and
- (8) consequential changes to project management to remedy unacceptable impacts.

9 Regional Development, Drainage and Rehabilitation

- 9-1 The proponent shall contribute to the preparation of a regional development, drainage and rehabilitation strategy for the Upper Swan Locality in consultation with the Department of Conservation and Land Management, the Department for Planning and Infrastructure, the City of Swan, and other current and known proposed clay producers in the area, such that the strategy can be prepared within two years following the date of this statement, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

10 Decommissioning/Closure Plans

- 10-1 Within two years following the date of this statement, the proponent shall prepare a Preliminary Decommissioning/Closure Plan, which provides the framework to ensure that the site is left in an environmentally acceptable condition to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The Preliminary Decommissioning/Closure Plan shall address:

1. rationale for the siting and design of plant and infrastructure as relevant to environmental protection, and conceptual plans for the removal or, if appropriate, retention of plant and infrastructure;
2. long-term management of ground and surface water systems;
3. a conceptual rehabilitation plan for all disturbed areas and a description of a process to agree on the end land use(s) with all stakeholders;
4. a conceptual plan for a care and maintenance phase; and
5. management of noxious materials to avoid the creation of contaminated areas.

- 10-2 At least 12 months prior to the anticipated date of closure, or at a time agreed with the Environmental Protection Authority, the proponent shall prepare a Final Decommissioning/Closure Plan designed to ensure that the site is left in an environmentally acceptable condition to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The Final Decommissioning/Closure Plan shall address:

1. removal or, if appropriate, retention of plant and infrastructure in consultation with relevant stakeholders;
2. long-term management of ground and surface water systems;
3. rehabilitation of all disturbed areas to a standard suitable for the agreed new land use(s); and
4. identification of contaminated areas, including provision of evidence of notification and proposed management measures to relevant statutory authorities.

- 10-3 The proponent shall implement the Final Decommissioning/Closure Plan required by condition 10-2 until such time as the Minister for the Environment determines, on the advice of the Environmental Protection Authority, that the proponent's decommissioning/closure responsibilities have been fulfilled.
- 10-4 The proponent shall make publicly available the Final Decommissioning/Closure Plan required by condition 10-2 to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

Procedures

- 1 Where a condition states "to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority", the Environmental Protection Authority will provide that advice to the Department of Environmental Protection for the preparation of written advice to the proponent
- 2 The Environmental Protection Authority may seek advice from other agencies or organisations, as required, in order to provide its advice to the Department of Environmental Protection.

Notes

- 1 The Minister for the Environment will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environmental Protection over the fulfilment of the requirements of the conditions.

Schedule 1

The Proposal (Assessment Number:1433)

Excavation has proceeded in a southerly direction from the trial mining stage on the western boundary of Lots 51 and 23. Overburden from operational stages has been used to backfill previously mined areas to ground-level, and following natural settling, these areas will be covered with topsoil and planted with pasture species. The first excavation stage is now a dam, which constitutes rehabilitation for this stage, and will form part of the dam system proposed as the final end use.

During the earthworks (topsoil and overburden removal), enough clay resource for 3 years' excavation is exposed at one time to reduce the potential for disturbance to local residents. Only relatively small quantities of clay are excavated during the single campaign each year. Trucks are loaded directly from the pit from a 4m face, with no clay stockpiling on-site. The clay excavation and cartage program generally runs for only two weeks between January and March each year. A limestone access road has also been constructed across the site, with a bitumen crossover to Apple Street.

Table 1 – Key Proposal Characteristics

Element	
Life of Project (years)	15
Size of Clay Body (million tonnes)	0.45
#Total Area of Disturbance (ha)	14.4
*Rate of Excavation (tonnes per year)	14,000
Major Infrastructure	nil
Overburden (million tonnes)	0.45 (1:1 ratio to clay)
Water Usage	nil

#will also be rehabilitated. *estimated at present usage.

Figure (attached)

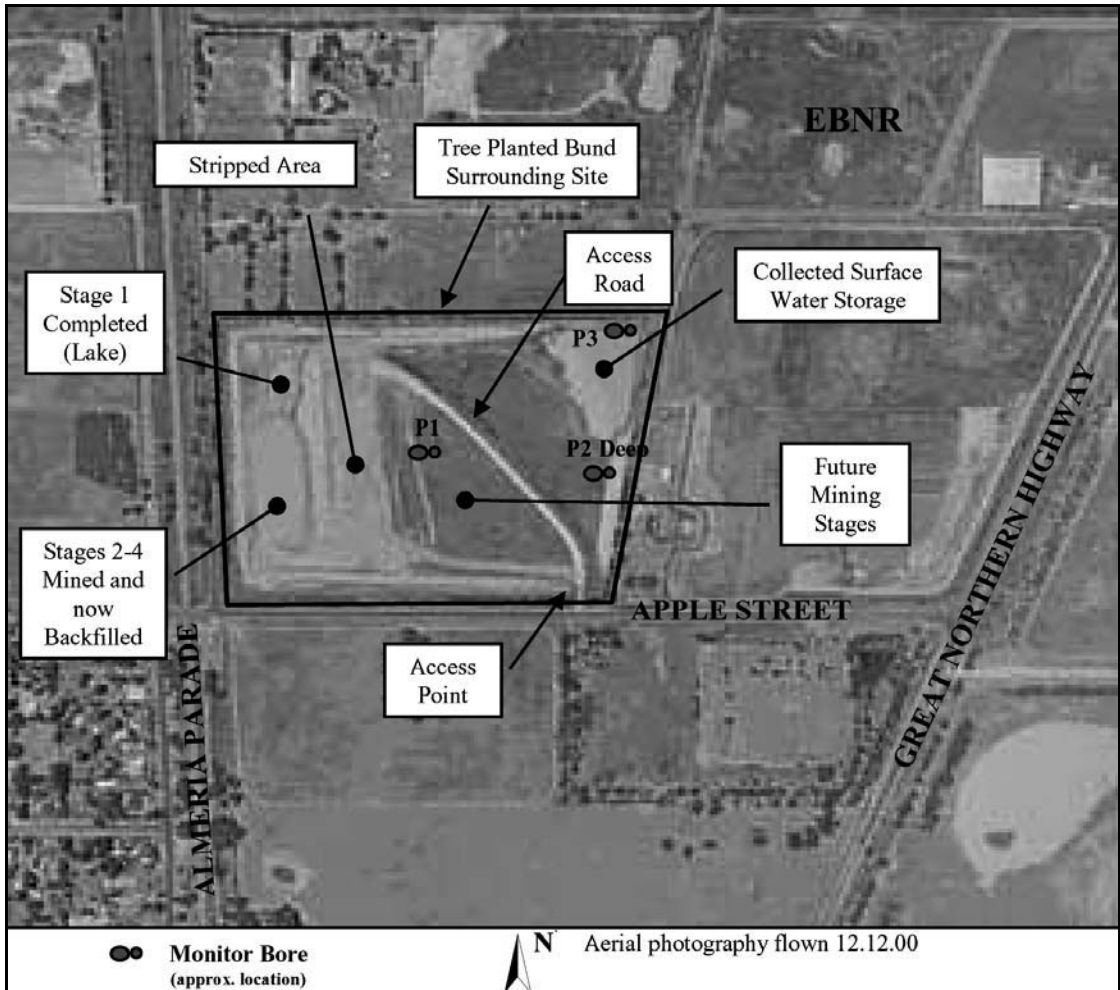


Figure 1: Project location.

Proponent's Environmental Management Commitments

1992 as edited

CLAY EXCAVATION
LOTS 23 & 51 APPLE STREET
UPPER SWAN

PILSLEY INVESTMENTS PTY LTD

Proponent's Environmental Management Commitments (consistent with Commitments detailed in 1992)

CLAY EXCAVATION LOTS 23 & 51 APPLE STREET UPPER SWAN

(Assessment No. 1433)

The proponent is committed to the overall environmental management and rehabilitation philosophy outlined in the Consultative Environmental Review and subsequent modifications as outlined in Appendices 2 and 3 of Environmental Protection Authority Bulletin 614. In specific terms, this means the proponent will:

- (1) Consult with the Planning Authorities to facilitate the derivation of a long-term strategic plan for the locality, which recognises and accepts the interim priority land use of clay extraction.
- (2) Establish an inter-company liaison mechanism to enable a coordinated approach between all three proponents of the nearby clay excavation projects with respect to addressing potential cumulative operational effects and overall rehabilitation goals.
- (3) Implement the management techniques described in both Sections 5 and 6 of the Consultative Environmental Review to ensure that adverse effects are not experienced in relation to:
 1. potential visual intrusion for residents at Upper Swan and through-traffic on Great Northern Highway;
 2. potential noise and dust disturbance of the residents at Upper Swan, particularly near the road junction of Apple Street and Almeria Parade;
 3. potential erosion of working areas and stockpiles and consequent silt transport to local drainage; and
 4. dewatering of accumulated rainfall and (perhaps) groundwater seepage from the working area of the pit which may be necessary to allow excavation to proceed.
- (4) Implement routine surveillance of the quarries at regular intervals throughout the year to assess critical parameters identified in the monitoring programme.
- (5) Rehabilitate previously worked areas sequentially as soon as practicable in accordance with the rehabilitation objectives developed in consultation with the Department of Conservation and Land Management, the Department for Planning and Infrastructure, the City of Swan and the landowner (ie. in respect of leasehold arrangements).
- (6) Share, on an equitable basis with the other clay excavation proponents, the costs of diverting or modifying the existing drainage system outside Lots 23 and 51 leading to the Ellen Brook Nature Reserve from the excavation areas, provided that it is to an agreed and pre-arranged specification and is solely for the purposes of protecting the reserve.

- (7) Conduct the excavation programmes at the site, to the greatest extent possible, during the months of November, December and April, and restrict operating hours within 7.00am and 5.30pm, Monday to Friday.
- (8) Liase with Midland Brick to ensure that the excavation programmes at the two Apple Street sites occur concurrently for as short a period as possible, to minimise potential cumulative dust emissions.
- (9) Verify that no adverse effects on the Short-Necked Tortoise habitat are experienced, by appropriate staging and monitoring of excavations.
- (10)
 - 10.1 Prepare an Environmental Monitoring and Management Programme to the requirements of the Environmental Protection Authority prior to commencement of operations at the site.
 - 10.2 Implement the Environmental Monitoring and Management Programme outlined in 10.1 to the requirements of the Environmental Protection Authority.
- (11) Not excavate below the permanent water table and, if the excavation did reach the water table, the area would be backfilled to maintain at least one metre of cover.

RECOMMENDED CONDITIONS AND PROCEDURES

**STATEMENT TO AMEND CONDITIONS APPLYING TO A PROPOSAL
(PURSUANT TO THE PROVISIONS OF SECTION 46 OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

CLAY EXCAVATION
LOTS 40 & 41 APPLE STREET
(formerly Lots 21 and 22 Apple Street)
UPPER SWAN

Proposal: The operation of a clay excavation facility in Upper Swan, as documented in Schedule 1 of this Statement.

Proponent: Midland Brick Company Pty Ltd

Proponent Address: 102 Great Northern Highway, Middle Swan
Western Australia 6056

Assessment Number: 1434

Previous Assessment Number: 0121

Previous Statement Number: 265

Report of the Environmental Protection Authority: Bulletin 1118

Previous Report of the Environmental Protection Authority: Bulletin 610

The implementation of the proposal to which the above reports of the Environmental Protection Authority relate is subject to the following conditions and procedures, which replace all previous conditions and procedures:

1 Implementation and Changes

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

1-2 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment determines, on advice of the Environmental Protection Authority, is substantial, the proponent shall refer the matter to the Environmental Protection Authority.

- 1-3 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment determines, on advice of the Environmental Protection Authority, is not substantial, the proponent may implement those changes upon receipt of written advice.

2 Proponent Commitments

- 2-1 The proponent shall implement the environmental management commitments documented in schedule 2 of this statement.
- 2-2 The proponent shall implement subsequent environmental management commitments which the proponent makes as part of the fulfilment of the conditions in this statement.

3 Proponent Nomination and Contact Details

- 3-1 The proponent for the time being nominated by the Minister for the Environment under Section 38(6) or (7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal until such time as the Minister for the Environment has exercised the Minister's power under Section 38(7) of the Act to revoke the nomination of that proponent and nominate another person as the proponent for the proposal.
- 3-2 If the proponent wishes to relinquish the nomination, the proponent shall apply for the transfer of proponent and provide a letter with a copy of this statement endorsed by the proposed replacement proponent that the proposal will be carried out in accordance with this statement. Contact details and appropriate documentation on the capability of the proposed replacement proponent to carry out the proposal shall also be provided.
- 3-3 The nominated proponent shall notify the Department of Environmental Protection of any change of contact name and address within 60 days of such change.

4 Commencement and Time Limit of Approval

- 4-1 The proponent shall substantially commence the proposal within five years of the date of the statement published on 29 May 1992 or the approval granted in this statement shall lapse and be void.

Note: The Minister for the Environment will determine any dispute as to whether the proposal has been substantially commenced.

- 4-2 The proponent shall make application for any extension of approval for the substantial commencement of the proposal beyond five years from the date of the statement published on 29 May 1992 to the Minister for the Environment, prior to the expiration of the five-year period referred to in condition 4-1.

The application shall demonstrate that:

1. the environmental factors of the proposal have not changed significantly;
2. new, significant, environmental issues have not arisen; and
3. all relevant government authorities have been consulted.

Note: The Minister for the Environment may consider the grant of an extension of the time limit of approval not exceeding five years for the substantial commencement of the proposal.

5 Compliance Audit and Performance Review

5-1 The proponent shall prepare an audit program and submit compliance reports to the Department of Environmental Protection which address:

- (1) the status of implementation of the proposal as defined in schedule 1 of this statement;
- (2) evidence of compliance with the conditions and commitments; and
- (3) the performance of the environmental management plans and programs.

Note: Under sections 48(1) and 47(2) of the *Environmental Protection Act 1986*, the Chief Executive Officer of the Department of Environmental Protection is empowered to audit the compliance of the proponent with the statement and should directly receive the compliance documentation, including environmental management plans, related to the conditions, procedures and commitments contained in this statement.

5-2 The proponent shall submit a performance review report every five years after the start of the operations phase, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority, which addresses:

- (1) the major environmental issues associated with the project; the targets for those issues; the methodologies used to achieve these; and the key indicators of environmental performance measured against those targets;
- (2) the level of progress in the achievement of sound environmental performance, including industry benchmarking, and the use of best available technology where practicable;
- (3) significant improvements gained in environmental management, including the use of external peer reviews;
- (4) stakeholder and community consultation about environmental performance and the outcomes of that consultation, including a report of any on-going concerns being expressed; and
- (5) the proposed environmental targets over the next five years, including improvements in technology and management processes.

6. Drainage Management

- 6-1 Prior to quarrying activities and in consultation with the Department of Conservation and Land Management, Main Roads WA, the Swan River Trust and the City of Swan, the proponent shall prepare a Drainage Management Plan to protect the fenced-off habitat of the Western Swamp Tortoise at Ellen Brook Nature Reserve from external surface water drainage impacts of the proposal, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

This plan shall address the following:

- (1) monitoring of drainage to detect, report on, and manage any drainage impacts on the Wildlife Sanctuary for the Western Swamp Tortoise at Ellen Brook Nature Reserve;
 - (2) remediation of any unacceptable drainage impacts on the Wildlife Sanctuary caused by this proposal;
 - (3) detention of all drainage waters on-site in the first three years of operation, so that they do not enter the Wildlife Sanctuary at the Ellen Brook Nature Reserve nor create an unacceptable impact elsewhere; and
 - (4) diversion of all drainage waters from eastern side of the Great Northern Highway to prevent their entering the Wildlife Sanctuary area at Ellen Brook Nature Reserve within two years of the date of this statement, and in doing so, ensuring that this action does not cause an unacceptable impact elsewhere.
- 6-2 The proponent shall make publicly available and subsequently implement the Drainage Management Plan being part of the Environmental Management Programme required by condition 8, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

7. Wildlife Sanctuary Buffer

- 7-1 The proponent shall not quarry within 100 metres of the boundaries of the Wildlife Sanctuary at Ellen Brook Nature Reserve, until further investigations demonstrate, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority and the Department of Conservation and Land Management, that adverse effects upon the tortoise habitat will not occur.

8. Environmental Management Programme

- 8-1 The proponent shall prepare, make publicly available and subsequently implement an Environmental Management Programme, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The Environmental Management Plans, strategies or reports to be prepared as part of the Environmental Management Programme shall include the following:

- (1) a staged quarrying strategy;
- (2) drainage management (see Condition 6);
- (3) groundwater management and protection;
- (4) progressive rehabilitation of the site;

- (5) procedures to minimise noise, dust and visual impacts associated with the quarrying and transport operations;
- (6) public safety and mosquito breeding;
- (7) periodic reporting of monitoring results; and
- (8) consequential changes to project management to remedy unacceptable impacts.

9 Regional Development, Drainage and Rehabilitation

- 9-1 The proponent shall contribute to the preparation of a regional development, drainage and rehabilitation strategy for the Upper Swan Locality in consultation with the Department of Conservation and Land Management, the Department for Planning and Infrastructure, the City of Swan, and other current and known proposed clay producers in the area, such that the strategy can be prepared within two years following the date of this statement, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

10 Decommissioning/Closure Plans

- 10-1 Within two years following the date of this statement, the proponent shall prepare a Preliminary Decommissioning/Closure Plan, which provides the framework to ensure that the site is left in an environmentally acceptable condition to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The Preliminary Decommissioning/Closure Plan shall address:

1. rationale for the siting and design of plant and infrastructure as relevant to environmental protection, and conceptual plans for the removal or, if appropriate, retention of plant and infrastructure;
2. long-term management of ground and surface water systems;
3. a conceptual rehabilitation plan for all disturbed areas and a description of a process to agree on the end land use(s) with all stakeholders;
4. a conceptual plan for a care and maintenance phase; and
5. management of noxious materials to avoid the creation of contaminated areas.

- 10-2 At least 12 months prior to the anticipated date of closure, or at a time agreed with the Environmental Protection Authority, the proponent shall prepare a Final Decommissioning/Closure Plan designed to ensure that the site is left in an environmentally acceptable condition to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The Final Decommissioning/Closure Plan shall address:

1. removal or, if appropriate, retention of plant and infrastructure in consultation with relevant stakeholders;
2. long-term management of ground and surface water systems;
3. rehabilitation of all disturbed areas to a standard suitable for the agreed new land use(s); and

4. identification of contaminated areas, including provision of evidence of notification and proposed management measures to relevant statutory authorities.
- 10-3 The proponent shall implement the Final Decommissioning/Closure Plan required by condition 10-2 until such time as the Minister for the Environment determines, on the advice of the Environmental Protection Authority, that the proponent's decommissioning/closure responsibilities have been fulfilled.
- 10-4 The proponent shall make publicly available the Final Decommissioning/Closure Plan required by condition 10-2 to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

Procedures

- 1 Where a condition states "to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority", the Environmental Protection Authority will provide that advice to the Department of Environmental Protection for the preparation of written advice to the proponent
- 2 The Environmental Protection Authority may seek advice from other agencies or organisations, as required, in order to provide its advice to the Department of Environmental Protection.

Notes

- 1 The Minister for the Environment will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environmental Protection over the fulfilment of the requirements of the conditions.

Schedule 1

The Proposal (Assessment Number:1434)

Clay excavation recently commenced at this site (early March, 2002), and previous to this topsoil from part of the first excavation cell was windrowed into a 1.5m tree planted bund in readiness for excavation in the initial summer campaign.

Future excavation programs will continue within the excavation cell, in accordance with the approved staging plan. During the proposed earthworks programs (topsoil and overburden removal), approximately 0.5ha of the clay resource will be exposed at one time to reduce the potential for disturbance to local residents. Only relatively small quantities of clay will be excavated during the single campaign each year. Trucks will be loaded directly from the pit with an excavator working on a 3m face, with no clay stockpiling on-site. The clay excavation and cartage program generally runs for 2 to 6 weeks between November and May each year, depending on the tonnage removed.

Table 1 – Key Proposal Characteristics

Element	
Life of Project (years)	9
Size of Clay Body (million tonnes)	0.55
[#] Total Area of Disturbance (ha)	10.1
*Rate of Excavation (tonnes per year)	50,000
Major Infrastructure	nil
Overburden (million tonnes)	0.32 (1:0.6 ratio to clay)
Water Usage	nil

[#]will also be rehabilitated. *estimated at present usage.

Figure (attached)

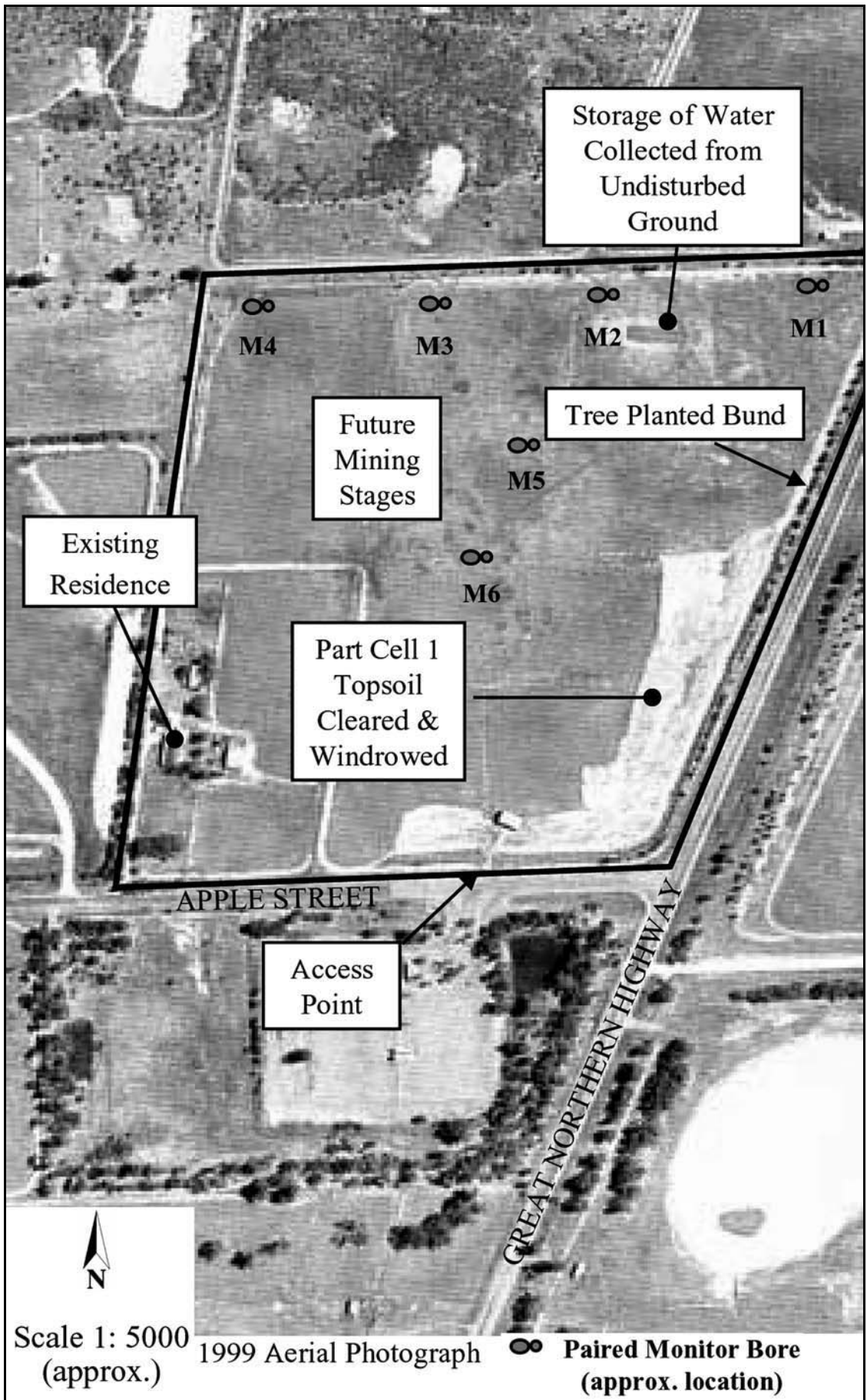


Figure 1: Project location.

Proponent's Environmental Management Commitments

1992 as edited

CLAY EXCAVATION
LOTS 40 & 41 APPLE STREET
(formerly Lots 21 and 22 Apple Street)
UPPER SWAN

MIDLAND BRICK COMPANY PTY LTD

Proponent's Environmental Management Commitments (consistent with Commitments detailed in 1992)

CLAY EXCAVATION
LOTS 40 & 41 APPLE STREET
(formerly Lots 21 and 22 Apple Street)
UPPER SWAN

(Assessment No. 1434)

The proponent is committed to the overall environmental management and rehabilitation philosophy outlined in the Consultative Environmental Review and subsequent modifications as outlined in Appendices 2 and 3 of Environmental Protection Authority Bulletin 610. In specific terms, this means the proponent will:

- (1) Consult with the Planning Authorities to facilitate the derivation of a long-term strategic plan for the locality, which recognises and accepts the interim priority land use of clay extraction.
- (2) Establish an inter-company liaison mechanism to enable a coordinated approach between all three proponents of the nearby clay excavation projects with respect to addressing potential cumulative operational effects and overall rehabilitation goals.
- (3) Implement the management techniques described in both Sections 5 and 6 of the Consultative Environmental Review to ensure that adverse effects are not experienced in relation to:
 1. potential visual intrusion for residents at Upper Swan and through-traffic on Great Northern Highway;
 2. potential noise and dust disturbance of the residents at Upper Swan, particularly near the road junction of Apple Street and Almeria Parade;
 3. potential erosion of working areas and stockpiles and consequent silt transport to local drainage; and
 4. dewatering of accumulated rainfall and (perhaps) groundwater seepage from the working area of the pit which may be necessary to allow excavation to proceed.
- (4) Implement routine surveillance of the quarries at regular intervals throughout the year to assess critical parameters identified in the monitoring programme.
- (5) Rehabilitate previously worked areas sequentially as soon as practicable in accordance with the rehabilitation objectives developed in consultation with the Department of Conservation and Land Management, the Department for Planning and Infrastructure, the City of Swan and the landowner (ie. in respect of leasehold arrangements).
- (6) Contain any turbid water within its excavations and immediate surroundings to ensure it does not flow onto the tortoise habitat.
- (7)

7.1 Prepare an Environmental Monitoring and Management Programme to the requirements of the Environmental Protection Authority prior to commencement of operations at the site.

7.2 Implement the Environmental Monitoring and Management Programme outlined in 7.1 to the requirements of the Environmental Protection Authority.

- (8) Verify that no adverse effects on the Short-Necked Tortoise habitat are experienced, by appropriate staging and monitoring of excavations.
- (9) Not excavate below the permanent water table and, if the excavation did reach the water table, the area would be backfilled to maintain at least one metre of cover.

Appendix 5

Summary of Public Submissions and Proponents' Response

Your Ref: 245/02

Our Ref: M02042

28 April 2003

Mr Wally Cox
Chairman
Environmental Protection Authority
PO Box K822
PERTH WA 6842

Attention: Mr Andrew Mack

Dear Mr Mack

188645

DEPARTMENT OF ENVIRONMENTAL PROTECTION RECORDS SECTION	
30 APR 2003	
FILE NO	245/02 VOL 2
NAME	A / MACK
FILE NO	
DATE	

290 Churchill Avenue
Subiaco
Western Australia 6008
PO Box 465 Subiaco
6
Western Australia 6904
Tel: (618) 9382 4744
Fax: (618) 9382 1177
Email: info@bbg.net.au

Section 46 Assessment

Summary of Submissions & Proponents Response

Clay Excavations at Upper Swan (Statement No.'s 226, 252, and 265)

Thank you for your correspondence dated 10 April, 2003 regarding the two submissions received for the above projects.

In view of the small number of submissions received there appears to be no requirement for a separate summary, and consequently on behalf of the proponents we respond to each issue below. For ease of reference the submission is presented in italics, followed by the proponent's response.

1. *There are no issues of native vegetation loss associated with the proposal. The only potential biodiversity-related issue is the potential for surface or groundwater changes that could impact on the Ellen Brook Nature Reserve (EBNR) and Western Swamp Tortoise population/habitat. With respect to surface drainage, it is noted that it is all diverted around EBNR. Whilst it is understood that this will lessen the potential for sedimentation/pollution, is surface water flow important to the Western Swamp tortoise habitat?"*

It is our understanding that the hydrology of the EBNR is dependent entirely upon rainfall to the unique clay "pans", which results in a seasonally perched water over the reserve. Neither the tortoises nor their habitat is dependent upon surface water inflows, or groundwater.

DIRECTORS

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Richard A. Gorham
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MAMSA, MECA.

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Michael Bishaw
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MAIBiol.

Phillip Bayley
B.Sc., MECA.

ASSOCIATES

Michael Forde
B.Sc., M.Sc., MAMSA.

Sean Finn
B.Sc.

Dr. Philip Bourgault
B.Sc.(Hons), Ph.D.,
MASSI, MIAH, MECA

The drainage diversion system was intended to reinstate the “pre-development” hydrology of the EBNR, when no surface water drains would have existed in the locality. The design and implementation of the diversion was a Ministerial Condition for all three projects.

The EBNR is managed by the Department of Conservation and Land Management (DCLM), which was a key stakeholder in the formulation and implementation of the diversion drainage system. Consequently it is reasonable to conclude that the diversion drainage system would not have been agreed and approved by DCLM if any potential impacts were likely.

Further, the second submission regarding this project was from the DCLM, which has no objection to the time extension as long as the project is implemented in accordance with the existing Ministerial Conditions (see below).

2. *The Department of Conservation and Land Management (DCLM) advises that it has no objection to the proponent's request for the renewal of approvals for a further ten year period to 29 May 2012. This advice is given on the understanding that all projects will proceed in accordance with the existing environmental conditions. In particular, DCLM understands that Condition 5 of the Minister for the Environment and Heritages Statement (Ministerial Statement 265 and 226) will continue to apply. This condition states:*

“The proponent shall not quarry within 100 metres of the boundaries of the Wildlife Sanctuary at Ellen Brook Nature Reserve and any additions thereto (as identified in Condition 4) until further investigations demonstrate, to the satisfaction of the Environmental Protection Authority on advice from the Department of Conservation and Land Management, that adverse effects will not occur to the tortoise habitat”.

The proponents have complied with all conditions for the projects, including the maintenance of the 100m buffer to the EBNR. The requirement to maintain a 100m buffer has always been on the basis that in the event that trial mining cells and on-going groundwater monitoring confirm that no impacts would occur within the reserve, then the buffer may be temporarily mined.

In this respect, a series of 22 paired (deep and shallow) bores have been installed to Water and Rivers Commission specifications and are being monitored on a monthly basis, as

described in the Section 46 document. Data have been collected over the previous 2 years and will soon be analysed.

In the event that the data and analyses confirm that the EBNR is not hydrologically connected to the clay excavation sites, then the proponents will seek approval from the relevant authorities to mine and rehabilitate all or part of the buffer area within their landholdings.

We trust the Proponent's Response is satisfactory, and look forward to receiving approvals to continue the projects following due process. However in the meantime should you have any queries or require further information please contact the undersigned.

Yours sincerely

BOWMAN BISHAW GORHAM



STEVE ROLLS