



Environmental Protection Authority

ENVIRONMENTAL
PROTECTION
AUTHORITY

ANNUAL REPORT

2007 • 2008

TRANSMITTAL TO THE MINISTER

MINISTER FOR THE ENVIRONMENT

In accordance with s21 of the *Environmental Protection Act 1986*, I submit the EPA's Annual Report for the year ended 30 June 2008.

It is with pleasure that, on behalf of the EPA, I advise that for the reporting period to 30 June 2008, the EPA has conducted its functions such that it has met its objectives outlined in s15 of the *Environmental Protection Act 1986*. This has been achieved with the assistance of the services and facilities of the Department of Environment and Conservation.



Dr Paul Vogel
CHAIRMAN

13 October 2008

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CHAIRMAN'S OVERVIEW

Firstly, I would like to thank Barry Carbon and Dr Andrea Hinwood for their leadership of the EPA and their contributions to environmental protection and management prior to my appointment as Chairman in November 2007.

As the primary source of independent environmental advice to government, principally delivered through assessing the environmental acceptability of development proposals and planning schemes, the EPA faces new and complex challenges.

These challenges are largely around firstly, the increasing scrutiny of environmental impact assessment both in terms of the process delivering timely, high quality advice to government and secondly, its capacity to identify, understand, manage and control a rapidly expanding range of environmental issues, risks and impacts (including cumulative impacts and risks) to community health and well-being and important ecosystems and biodiversity values.

The challenges must be met at a time when both environmental systems and decision-making systems are under enormous pressures from the unprecedented step change in the State's economy, including the attendant pressures on infrastructure, housing and services.

The pressure on the environment is matched by the pressure on the people who provide the highly competent and critical technical, scientific, policy and environmental management advice to the EPA to enable it to make judgments about the environmental acceptability of development through the process of environmental impact assessment (EIA).

EIA is a predictive tool that is systematically applied at the early planning and design stages of development proposals and planning schemes so that government and the community can form a view about their environmental acceptability and what conditions, if any, can be applied to control potential risks and impacts.

Because EIA is a predictive tool it deals in uncertainty and risk. The environmental effects of development are often difficult to predict. Predictions must often be made when there is still significant uncertainty about outcomes, be they negative or positive. EIA is therefore information and knowledge dependent. Knowledge about environmental values that may be at risk from proposed development, knowledge about the nature, extent and duration of risks to which those environmental values may be exposed, knowledge about what can be done to prevent, avoid or mitigate those risks and identify opportunities, and knowledge about whether those identified risks were indeed controlled.



*EPA Chairman
Dr Paul Vogel*

It is this tension about how much information and knowledge is necessary to have confidence in predictions about impacts that is at the heart of environmental impact assessment. The EPA needs to have sufficient confidence in the information about these matters to make sensible judgments and provide high quality advice to Government on the environmental acceptability of development.

As a result of the pressures on environmental systems and the EPA's decision-making processes, the EPA commenced a review of the EIA process and its underpinning policy framework in February 2008. The review is focused on streamlining and enhancing EIA through improving EIA practices, processes and policies and adopting a more risk-based and outcome-focused approach that encompasses life cycle thinking about EIA. More will be said about the Review later in this report.

Companies and government instrumentalities continue to demand priority attention from the EPA as they grow their businesses through 'greenfield' developments, expansions of 'brownfield' sites and housing and infrastructure developments. Massive expansions of iron ore and oil and gas exploration, production, transport and export are planned over the next 5 years. Seventy five percent of the nation's capital expenditure on advanced projects is in WA.

At the same time, attention must be paid to the significant environmental issues raised in the EPA's State of Environment report, in particular climate change and greenhouse gas emissions, and the impact on the environment of threatening processes such as feral animals, weeds, dieback and salinisation. Climate change will have potentially serious consequences for the environment and the economy and demands a precautionary approach at the very least. International, national and state policy is still evolving around this critical issue.

Some observations are worthy of noting as the EPA grapples with growing environmental and commercial complexity, ambiguity and anxiety.

Firstly, as companies rapidly expand to meet seemingly insatiable global demand for minerals and oil and gas, there is a growing and disturbing tendency to fragment significant expansions of approved proposals into smaller projects in the belief that this will better meet a company's project and investment schedules. In particular, the interpretation of certain provisions in the *Environmental Protection Act 1986* is being 'tortured' by some proponents to try to achieve outcomes that were clearly never intended. For example, the intention of section 45C of the Act is, in essence, to efficiently deal with environmentally insignificant changes to approved proposals. If this section is used inappropriately, cumulative impacts cannot be adequately considered, risk reduction conditions cannot be set and public scrutiny of changes to proposals is not possible.

Secondly, more strategic approaches to EIA are required. The strategic review of banded iron formations in the mid-west, the Kimberley LNG Hub strategic assessment and EPA's strategic advice on the proposed Keralup development are good examples of trying to 'get ahead of the game' so as to maximise total (environment, social and economic) value of development and avoid irreversible environmental damage.

Thirdly, it is essential that auditing of compliance with Ministerial and other conditions of development approval is undertaken in an efficient, proportional and transparent manner. Without information about compliance with risk reduction measures/conditions, no-one can have confidence that development is truly sustainable.

Fourthly, it is becoming increasingly apparent that we need to find a way to better link and integrate EIA with other government assessment and approval processes. This will improve efficiencies, strategically link development and infrastructure planning, and ensure regional priorities are delivered - environment, social and economic.

And finally, as so much environmental data and information is collected by industry in the course of conducting investigations about the potential impacts of their proposed developments, and by government agencies as part of their legislative and 'public good' mandate, it would make a lot of sense (economically and environmentally) to ensure that all that information is in a common-user database and is easily accessible by companies, government and communities to assist future decision-making.

In closing, on behalf of the EPA, I would like to express my appreciation for the dedication, competence and resilience of the staff that service the EPA, in particular the staff of the EPA Service Unit.

I would also take this opportunity to thank all the members of the EPA Board for their outstanding contribution to environmental protection and management in WA.



Dr Paul Vogel
CHAIRMAN.

EPA Chairman 5 November 2007 to 4 November 2012

Dr Vogel has a PhD in chemistry from the University of Western Australia. Prior to his appointment, he was the Chief Executive and Chairman of the South Australian EPA from November 2002, with responsibilities for environmental regulation, development assessment and radiation protection.

From 2001 – 2002, Paul was Director, Environmental Policy with the WA Department of the Premier and Cabinet and Director, Environmental Systems with the then WA Department of Environmental Protection from 1995-2001.

Paul has worked across the three tiers of government, business and community and has extensive experience and knowledge in organisational and regulatory reform and strategic

and collaborative approaches to sustainability, natural resources management, waste management, air and marine quality, site contamination and radiation protection.

Dr Vogel's experience includes: Chairman, EPA Board; Chairman SA Radiation Protection Committee; SA NRM Council; SA Major Projects Assessment Panel; Standing Committee of the Environment Protection and Heritage (Ministerial) Council (EPHC) and the National Environment Protection Council; Chair, Air Quality Working Group of the EPHC; Co-chair EPHC/Ministerial Council on Energy Working Group on Greenhouse and Energy Reporting; Board Director, Cooperative Research Centre - Contamination Assessment and Remediation of the Environment.

Prior to his environmental management roles in WA and SA, Paul held various senior management roles across the WA public sector and commenced his public sector career as a research scientist with the WA Department of Agriculture.

MEMBERS

The EPA has five members: a full-time Chairman, a part-time Deputy Chairman and three part-time members. However, members work far in excess of their part-time appointments. A record of members' attendance at EPA meetings is provided in Appendix 12.



Dr Andrea Hinwood

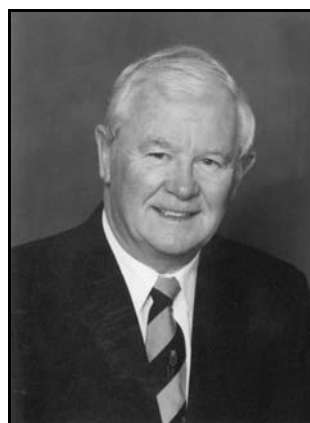
Member from 7 May 2003 to 10 May 2005. Deputy Chairman 11 May 2005 until 6 May 2013.

Dr Hinwood is a senior lecturer in Environmental Management at Edith Cowan University and has a Masters in Applied Science from RMIT, Victoria and a PhD in environmental epidemiology from Monash University, Victoria.

Dr Hinwood has worked in the environmental protection area for over twenty years and has a wide experience in investigation, monitoring and management. She has managed the areas of contaminated sites, chemicals management and emergency response for the Victorian EPA prior to managing air quality with the Department of Environmental Protection in Western Australia. Dr Hinwood's research interests are in the areas of exposure assessment, hazardous air pollutants,

health and environmental impacts of chemicals in the environment.

Dr Hinwood has a breadth of national and international experience, participating in a range of Ministerial and National Environmental Protection Council (NEPC) working groups. She chaired one of the United Nations Environment Program (UNEP) Technical Options Committees on substances that deplete the ozone layer and was a member of the Technology and Economic Assessment Panel under the Montreal Protocol for a period of five years.



Mr Denis Glennon

Member from 1 January 1998 until 30 June 2010

Mr. Glennon retired from the private sector following a lengthy career at senior levels in the environmental management business in Australia. He has specialist knowledge in industrial waste practices, and waste treatment technology development and implementation. He served as Chairman of Environment Business Australia for three years (then called Environment Management Industry Association of Australia).

He has a comprehensive knowledge of environmental management and pollution prevention systems,

environmental engineering, sustainable industry development, and environmental management policy formulation.

He is the recipient of an Order of Australia (AO) for his “service to environmental protection through the management, control and treatment of industrial and hazardous wastes, and to the community”.



Ms Joan Payne

Member from 31 March 2003 until 20 June 2013

Ms Payne, former President of the Waterbird Conservation Group, has developed expertise in a broad range of environmental issues through interaction with conservation and community groups as well as Government Departments (State and Federal) since 1976.

Ms Payne was an Executive Member of the Conservation Council of WA from 1988 to 2001 including holding the position of Vice President for a number of years.

Her membership, both past and present, of Government committees and working parties, includes:

- The Western Australian Water Resources Council;

- Water Planning and Policy Standing Committee;
- Darling Range Regional Park Community Consultative Committee;
- National Wetlands Advisory Committee;
- Department of Environmental Protection's System 6 Implementation Group;
- Water and River Commission Stakeholders Council;
- Water and River Commission State Water Reform Council;
- System 6 Update Technical Advisory Group;
- Department of Conservation and Land Management's Wetlands Coordinating Committee;
- National Consultative Committee on Kangaroos; and
- National Shorebird Conservation Taskforce.

Dr Chris Whitaker

Member 11 May 2007 to 10 May 2010



After his initial degree at Cambridge University, Chris Whitaker obtained his PhD in desert geomorphology at the Australian National University.

Following several years as a lecturer, in 1980 Professor Whitaker joined the South Australian public service, where he managed the Environmental

Assessment Branch of the Department of Environment and Planning and headed the environmental assessment of the Roxby Downs project.

He joined the Environmental Protection Authority in Western Australia in 1983 and was later appointed Director General of Transport for Western Australia in September 1996. Responsibilities included preparing Westrail Freight for privatisation.

From February 2000 until July 2003 he was the Chief Executive and Managing Director of the Melbourne Port Corporation. He then moved to become Pro Vice-Chancellor (Business) of RMIT University in August 2003, and from August 2004 to April 2005 he was Vice-Chancellor and President of the University. He was also a Trustee of the Sustainable Melbourne Fund.

He relocated to Western Australia in July 2007.

Dr Whitaker is a National Fellow of the Institute of Public Administration; and a Fellow of the Chartered Institute of Transport and Logistics and the Australian Institute of Management. Prior to entering the South Australian public service he was also a professional freelance musician.

MAJOR ENVIRONMENTAL ISSUES

The EPA has overarching responsibility for the provision of advice to Government on environmental matters, and the public expectation is that the EPA will assume broad custodial, or guardianship role in relation to the protection of air, water, soil, flora, fauna and the maintenance of biodiversity.

In fulfilling this role, the EPA has available an array of mechanisms, including provision of advice of either a general or particular nature under s16 of the Environmental Protection Act 1986 (EP Act), and preparing assessment reports and Environmental Protection Policies (EPPs), State Environmental Protection Policies (SEPs) as well as Guidance Statements and Position Statements. In addition, the EPA retains a close link with Government departments which have the responsibility for the management of natural resources.

Review of WA's Environmental Impact Assessment process

With the resources 'boom' has come calls and attendant pressure for streamlined environmental impact assessment and approval processes. While this is understandable, and indeed regulatory reform is an essential component of good public administration, it is important to ensure that the quality of the environment and ecosystem integrity are not compromised in the long term through hasty or ill-conceived reform measures that do not deliver government, industry or community expectations.

In accordance with these needs, the EPA is undertaking a review of critical aspects of the environmental impact assessment (EIA) process. In doing so, the EPA is keen to ensure that the fundamental principles of the system of EIA in WA are not lost. These fundamental process principles include transparency, accountability, public involvement, evidence-based decision-making, predictability and proportionality.

The objectives of the Review are to:

1. Streamline the EIA of development proposals and planning schemes without compromising environmental quality and ecological integrity.
2. Improve the environmental and operational policy framework for EIA.
3. Remove unnecessary duplication, identify opportunities for parallel assessment and approvals processes and better integrate the EIA process with other approvals processes.
4. Continue to improve EIA through a more risk-based and outcome-focused approach that encompasses a life cycle framework.
5. Identify opportunities for strategic EIA that better manages cumulative impacts, contributes to regional planning for sustainability and allows timely downstream decision-making.

To ensure that the reform process was well-informed and inclusive, a Stakeholder Reference Group has been formed. The group comprises representatives of all peak organisation

bodies and government agencies involved in the EIA process.

The group's views and advice has been continuously sought as the EPA works through the Review's Terms of Reference which are available on the EPA's website - http://www.epa.wa.gov.au/docs/TermsofReference_05-03-08%20_2_.pdf

A fundamental aspect of the Review is to move towards a more risk-based and outcome-focused approach to EIA. While this is a new approach to EIA in Western Australia, the concept of risk assessment and management is not foreign to companies and provides opportunities for enhanced community engagement and transparency and improved corporate accountability for achieving environmental outcomes.

The Review has also highlighted the importance of considering how EIA fits and integrates with all approval processes across government.

Substantial progress has already been made across a number of fronts and a final report and implementation plan are nearing completion and will be presented to the Minister for Environment in the last quarter of 2008.

Application of s.4A principles

Amendments to Section 4A of the Environmental Protection Act 1986 contain five principles which, in summary, cover:

- the precautionary principle;
- the principle of intergenerational equity;
- the principle of the conservation of biological diversity and ecological integrity;

- principles relating to improved valuation, pricing and incentive mechanisms; and
- the principle of waste minimisation

The EPA, in giving effect to its duties and functions under the Act, must have regard to these.

The Authority does this in two main ways. Firstly, through ensuring that its environmental impact assessment process addresses the requirement to have regard to the principles. Secondly, it gives expression to these through its policy statements: in particular Position and Guidance Statements.

Water Quality Improvement Plan for the Peel Inlet-Harvey Estuarine System

The EPA has finalised the Water Quality Improvement Plan for the Rivers and Estuary of the Peel-Harvey System – Phosphorus Management (the Plan) in partnership with the Australian Government’s Department of the Environment, Water, Heritage and the Arts under the Coastal Catchments Initiative to reduce pollution in coastal water quality hotspots.

The draft plan was released for public comment in September 2007. There was general support for the measures identified and for the implementation of the Plan. These comments have now been considered and where appropriate issues and concerns have been taken on board in preparation of the final Plan. The final Plan is expected to be released in the last half of 2008.

Financial implications associated with the implementation of this Plan will need to be addressed through appropriate parts of Government along with the

clarification of the roles and responsibilities for implementation.

Bulletin 1256 Mount Manning Section 16 Advice

In its Annual report for last year (2006/07) the EPA reported on EPA Bulletin 1256 “*Advice on areas of the highest conservation value in the proposed extensions to Mount Manning nature reserve*” (EPA May 2007).

The advice primarily concerned the area of the Mt Manning Nature Reserve and its proposed extensions, also known as the Northern Yilgarn Conservation Reserves. EPA Bulletin 1256 concluded that this region is worthy of recognition as a biodiversity hotspot, due to high flora and fauna diversity and endemism, and the number of Declared Rare and Priority flora, Declared, Threatened and Priority Listed Fauna, undescribed or newly described taxa and unique vegetation communities restricted to Banded Ironstone Formation (BIF) ranges.

The EPA recommended in Bulletin 1256 that key BIF ranges in the Mt Manning region be secured in conservation reserves that are unavailable to mining, to ensure that areas of the highest conservation value are securely conserved. This includes the entire Helena and Aurora Range, the Die Hardy Range and Yorkradine Hills, and parts of the Windarling, Jackson and Koolyanobbing Ranges.

The EPA Bulletin 1256 subsequently became a significant component of the information base used by the Government in preparing a “*Strategic Review of the Conservation and Resource Values of the Banded Iron Formation of the Yilgarn Craton*”, which was released in September 2007.

The Strategic Review was undertaken by the Government to allow a more strategic approach to resource utilisation and biodiversity conservation decision-making, in the face of unprecedented interest in the iron ore resources of the Midwest and Goldfields (Yilgarn) region and an improved understanding of the high biodiversity conservation value of these ranges. The review evaluated the respective conservation and resource values of BIF ranges in the Yilgarn and identified ranges with priority for conservation or resource development. The EPA recommendations for the Mt Manning Range area, in Bulletin 1256 were largely adopted by the Government in the Strategic Review.

These conservation recommendations are now being implemented through a process coordinated by the Department of Environment and Conservation.

Environmental Protection Authority's role in the Kimberley Hub Strategic Assessment

Due to the potential for significant adverse impacts on the north west Kimberley islands and mainland from multiple proposals for development of Liquefied Natural Gas (LNG) plants spread throughout the Kimberley region the State Government has taken a strategic approach to the development of gas resources of the Browse Basin which lies off the coast of the North-West Kimberley.

The Terms of Reference of the Northern Development Taskforce (NDT), have been extended to coordinate planning for a common-user gas processing hub precinct (or Hub), to meet the gas processing requirements of the Browse Basin gas resources and reduce

environmental impacts in the Kimberley region.

An Agreement signed in February this year between the State and Commonwealth Governments under the *Environmental Protection and Biodiversity Conservation Act (1999)* (EPBC Act) provides an agreed framework for a coordinated Strategic Assessment of the plans for an LNG Hub under the EPBC Act and WA Environmental Protection Act (1999) (EP Act). Strategic Assessment is a relatively new mechanism in both the EP Act and the EPBC Act. This is the first time the EPA and Commonwealth Environmental Assessment processes have been coordinated so closely on a major Strategic Assessment. The process offers significant potential for improved environmental and (socio-economic) planning of regional development. A two stage Strategic Assessment process is proposed. The principal advantage of the two stage process is that it provides for public input to the site selection stage of the strategic assessment.

The EPA's role in the Kimberley Hub Strategic Assessment is to provide independent environmental advice to the State and Commonwealth Governments, through the Minister for the Environment, on:

- 1) the NDT's, short-listed sites and the site-selection process for a common-user Hub – (Stage 1 Strategic Assessment); and
- 2) the environmental acceptability of the proposed Hub and its associated activities, for a specific location – (Stage 2 Strategic Assessment).

This process and the timelines for assessment have been outlined in an

interim NDT report released in June this year.

Stage 1 Strategic Assessment

The first stage will involve the EPA providing Section 16(e) advice to the Minister for the Environment on short-listed sites before the State and Commonwealth Governments consider in-principle approval to a preferred Hub location (scheduled for October 2008).

The EPA will receive the final NDT site evaluation report when it is released for four weeks public comment and prepare its advice, focusing on the following areas:

- i. the policy framework for the NDT site-selection process, including the consultation and engagement process;
- ii. the key environmental factors/issues and any potential 'fatal flaws' associated with the short listed Hub sites in the context of the regional environmental, cultural and social values; and
- iii. any other strategic issue that the EPA may choose to identify for the proponent's consideration. This may include setting out the EPA's expectation for the environmental scoping process; preparation of the draft Strategic Assessment Report; identification of potential management arrangements for the Hub site and downstream activities; and strategic planning issues.

The EPA's Stage 1 advice will be based on information from the: NDT's Interim and final Site Evaluation Reports; issues raised during the public comment period, EPA's consultation with key stakeholders in the region during its site visit in July; and advice from the EPA

Service Unit and other State/Commonwealth Government agencies.

Stage 2 Strategic Assessment

The second stage will follow the statutory process for the assessment of a 'Strategic Proposal' under the EP Act, and will run concurrently with the Strategic Assessment under the EPBC Act. It is intended that the one SER document will satisfy the requirements of both the EPBC Act and the EP Act. The process under the EP Act has been triggered by the Minister for State Development (the proponent) who referred the Strategic Proposal to the EPA on 1 April 2008. The EPA set the level of assessment as Strategic Assessment on 9 April 2008.

The EPA's role will broadly consist of:

- i. review, release and approval of the environmental scoping document;
- ii. review and release for public review of the EPBC Act draft Management Plan and complementary Strategic Environmental Report (SER); and
- iii. consideration of the SER, proponent's response to submissions and preparation of an EPA Report and Recommendations on the environmental acceptability of the Strategic Proposal and recommend conditions for future proposals.

The current approach for the assessment of Strategic Proposals is that the EPA will adopt an assessment process consistent with an Environmental Review and Management Programme (ERMP), as outlined in the 2002 Administrative Procedures. The key

difference from an ERMP process is that the environmental conditions recommended by the EPA would be applied by the Minister to a future proposal(s), which the EPA may declare to be a 'derived proposal'. However, if a future proposal is brought forward and raises new issues which were not assessed in the Strategic Assessment, then that proposal may require formal assessment by the EPA.

ENVIRONMENTAL ASSESSMENT OF PROPOSALS

A total of 493 development proposals and planning schemes were referred to the EPA for consideration, slightly less than last year. Of these, the EPA determined that 54 proposals required formal assessment, reporting and providing recommendations to the Minister for the Environment. This was a 42 per cent increase over last year. This primarily reflects the scale of expansion within the resources and related infrastructure sectors. Public Environmental Review was the main level of assessment set by the EPA. A further 165 did not require assessment but specific advice was provided to proponents and approval agencies, especially in relation to planning schemes.

During the year, 33 formal assessments or provision of formal advice were completed. The Level of Assessment for each proposal or planning scheme depends on the significance of the environmental impacts. The number of assessments completed in each Level of Assessment categories in 2007-08 is shown in Table 1. A list of all assessments completed is set out in Appendices 1, 2, 3, 4, 5, 6, 7 and 8. Some of the more significant

assessments are discussed below, preceded by a brief discussion of some overarching issues in relation to the environmental assessment process.

Table 1: Environmental Protection Authority's Completed Assessments in 2007-08

Level of Assessment	Assessments
Environmental Review and Management Program (ERMP)	0
Public Environmental Review (PER)	6
Planning Scheme Environmental Review (ER)	1
Scheme Incapable of Being Made Environmentally Acceptable	0
Environmental Protection Statement (EPS)	10
Assessment on Referral Information (ARI)	3
Formal under Part IV	3
Proposal Unlikely to be Environmentally Acceptable (PUEA)	2
Section 46 Change to Conditions	4
Section 16 Strategic Advice	4
Total	33

Table 2: Timelines for major projects (in weeks)

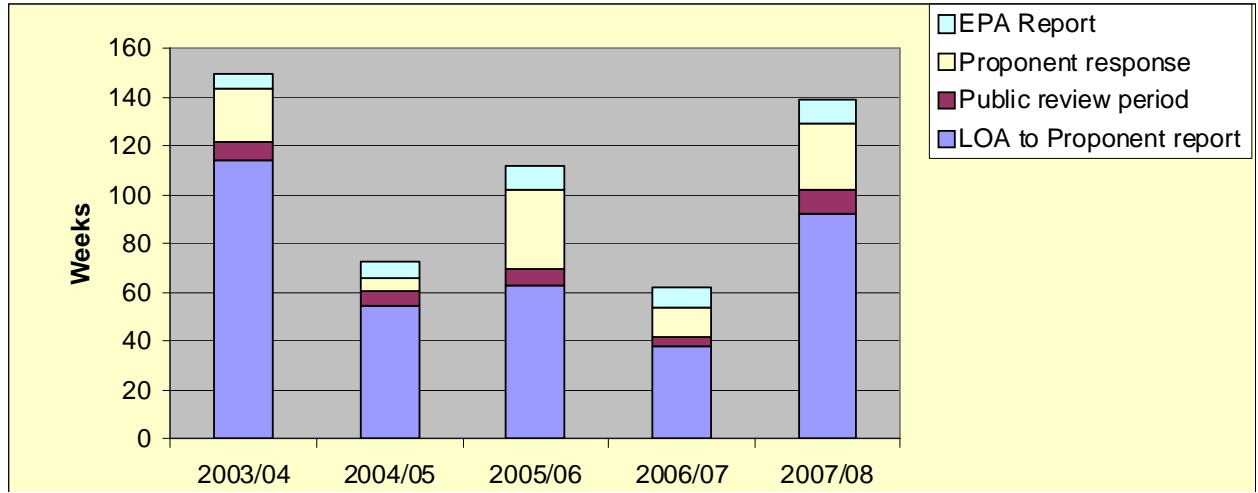
Assessment Phase		2003/04	2004/05	2005/06	2006/07	2007/08
From Level of Assessment set to proponent report release+	Mean	114	55	63	38	92
	Low*	29	9	12	11	32
	High*	240	223	209	80	209
Public Review Period	Mean	8	6	7	4	10
	Low*	4	4	4	4	6
	High*	10	8	16	10	17
End of Public Review period to proponent response to EPA+	Mean	22	35	32	12	27
	Low*	6	5	2	4	17
	High*	45	149	266	37	58
Proponent response to EPA report release	Mean	6	7	10	8	10
	Low*	2	3	4	2	3
	High*	11	23	27	16	27
Total, from level of assessment set to EPA Report	Mean	149	103	114	62	140
	Low*	54	25	22	24	64
	High*	295	273	335	129	302

* Represent extremes across separate projects. Total is not cumulative.

+ This part of the process is largely under proponent control.

This is represented graphically in the following figure, which shows the average periods taken for each stage of the assessment process over the period 2003/04 to 2007/08.

Figure 1: Average time taken for the assessment of proposals over the past five years.



DEMONSTRATING ENVIRONMENTAL ACCEPTABILITY

The environmental impact assessment (EIA) process is predicated upon a proponent being responsible for demonstrating that a proposal is environmentally acceptable. During the process the EPA works with the proponent to assist in identifying the environmental issues that need to be addressed and indicating what is considered acceptable for the project.

An important part of the process is the proponent undertaking the necessary environmental studies and surveys and preparing the environmental review document.

Surveys should be well scoped, timely, competent and comprehensive. They provide key data that informs siting, design and approval considerations. The EPA has prepared a number of guidance statements (Appendix 10) that outline survey requirements to assist proponents and consultants in meeting the requirements for information included in or supporting their environmental documents. While it is not mandatory to follow these Guidances, the EPA points to the advantages of following procedures and approaches that have been developed with expert advice to ensure that adequate information is available to inform the assessment process.

Environmental review documents prepared by the proponent need to:

- describe the potential impacts on the environment of the proposal;
- show that 'best practicable' steps will be taken to avoid and minimise impacts;

- commit to appropriate actions and measures to manage impacts and to mitigate for unavoidable environmental losses resulting from the proposal; and
- justify the proposition that the impacts of the proposal, both individually and collectively, should be judged by the EPA to be environmentally acceptable.

The EPA recognises that, in some circumstances, proponents will not have advanced sufficiently with the design of the project and selection of technology to demonstrate best practicable measures during the EIA process. In these circumstances, the EPA expects that proponents will commit to demonstrating 'best practicable' measures, both during the design phase of the project and before an application for Works Approval is submitted. This commitment would then become part of the Ministerial Conditions of approval for the project.

The EPA accepts that it is not always possible for proposals to avoid all impacts on biological and physical systems. However, where impacts are unavoidable, the EPA does expect proponents to develop appropriate mitigation measures as part of their proposal.

Mitigation measures are usually outlined in the environmental review document and described in more detail in environmental management plans (EMPs). An important issue is when is the most appropriate time for EMPs to be prepared. The EPA believes that proponents should only be deferring details of matters that are relatively routine and certainly not significant in relation to whether a proposal should be approved. As a consequence, the EPA will ensure that the assessment scoping

identifies those issues that should be addressed in some detail, including management measures, in the environmental review document. Some proponents prepare draft EMPs and include them in their environmental review document, with the intention of informing all stakeholders and the EPA of their management objectives, approach and options. The draft EMP is then finalised after project approval has been given. This approach is encouraged by the EPA as it allows for the critical outcomes from assessments to be clearly articulated in the conditions issued by the Minister for the Environment.

The EPA is continuing to encourage proponents to establish peer review panels of specialists to provide guidance in the environmental studies and review environmental documents before submission to the EPA and release for public comment.

The EPA strongly encourages meaningful consultation by proponents with relevant public and government agency stakeholders during the preparation of their environmental review documents, as part of best practice EIA. This consultation should continue through project implementation and operation, and decommissioning where this is relevant. Establishing an on-going relationship with stakeholders, including aboriginal people, is important. It is the EPA's experience that when proponents clearly embrace the EIA process and their responsibility to define and manage the impacts of a proposal (considering the proposal in a broader bioregional, ecosystem, and social surroundings context) the EIA process is more timely and less burdensome with a higher quality project in terms of environmental outcomes achieved.

TIMELINES FOR ENVIRONMENTAL IMPACT ASSESSMENT OF PROPOSALS

The EPA recognises that proponents are usually keen to obtain environmental approval for the projects as early as possible to assist with establishing 'bankability' for the projects. However, proponents need to appreciate that the Environmental Impact Assessment (EIA) process is an important one in demonstrating the environmental acceptability of projects, and that adequate time must be allowed for the necessary surveys and studies to be undertaken, for public input and government agency review, and for the EPA to evaluate the impacts and to provide its report and recommendations to the Minister for the Environment.

Time must also be allowed for the Minister for the Environment to consider any appeals against the EPA's report, and to consult with other Ministers and decision-making authorities regarding Ministerial Conditions of approval.

While the EPA is continually seeking to improve timelines for assessments, adequate time must be allowed to undertake responsible EIA. The EPA's experience is that, generally, where proponents allow adequate time in the project feasibility and planning stage to undertake thorough EIA studies, consult with the community and evaluate ways to minimise and mitigate the environmental impacts of the project, progress through the EIA process is expedited and the overall development schedule is met.

Where a proponent seeks to compress the period for undertaking environmental

assessment and consultation, difficulties often arise during the review by government agencies and the EPA's evaluation, such that the EPA's reporting to the Minister for the Environment is delayed.

Table 2 indicates the mean time and range of times taken to complete assessments for major projects in 2007-08 compared with previous years. The data shows that timelines for the assessment of projects completed in 2007-08 increased significantly, primarily as a result of proponent's taking much longer to submit their environmental review documents following the setting of Level of Assessment. Proponents for two projects each took more than four years to prepare their environmental review documents.

The timeframe for the EPA's reporting from the end of the public review process was consistent with previous years but was longer on average than last year. The data continues to highlight that for major project assessments, proponents need to allow 1 to 1½ years to undertake the necessary studies and prepare the environmental review documents, for the public review period and response to issues arising from the public review and the EPA's assessment with the publication of its report and recommendations to the Minister for the Environment. It also highlights that the assessment of some projects can be significantly delayed due to issues that are more related to project economics than environmental issues, but which have a major effect on timeframes.

Since 1999, the EPA has provided two streamlined assessment processes for proposals where the impacts were expected to be reasonable and manageable. These are now referred to

as 'Assessment on Referral Information' (ARI) and 'Environmental Protection Statement' (EPS). During the year, thirteen projects were assessed under these streamlined processes. This continues the trend over recent years of more proposals being assessed as ARI or EPS.

Where a project is subject to one of these levels of assessment, the EPA expects the proponent to have consulted with the community and government agencies while undertaking environmental studies and preparing the environmental document, and to have addressed issues raised, so that once the EPA has received the environmental document there is no need for a formal public review period. Under these circumstances the EPA aims to provide its report and recommendations to the Minister for the Environment within 10 weeks of receiving the proponent's final environmental document. Table 2 indicates that the EPA generally completed its report within that time.

For projects that are suitable for assessment through these streamlined processes, the EPA's experience has been that this has significantly reduced project timelines over what would be required for the full EIA process. To assist in better communication and reporting of timelines for EIA, the EPA has been placing project-specific timelines on its website, so that proponents and the community can identify the current stage of a project in the assessment process. This also provides advanced notice of timing for the next step in the assessment. In addition, the EPA includes in its assessment reports the timeline taken for each phase of an assessment and the total time taken.

The EPA continues to implement relevant recommendations from the 2002 Independent Review Committee's Review of the Project Development Approvals System (the Keating Review). This review made a number of recommendations which directly or indirectly affect the EPA's assessment process for State Development portfolio projects. Two major thrusts have been the desire to improve timeliness of approvals and also to reduce duplication of requirements. The EPA has strongly supported initiatives to address both of these issues through the development of administrative time limits on the key steps in the formal assessment process.

The effective implementation of the Keating Recommendations has implications on resources. This was highlighted in the Keating Review and has been acknowledged by the State Government, with additional funding being made available to assist the EPA in meeting the assessment timelines for State Development portfolio projects.

Strategic Environmental Assessment

The *Environmental Protection Amendment Act 2003* introduced the concept of a strategic proposal. This is defined in the following terms:

A proposal is a "strategic proposal" if and to the extent to which it identifies –

- (a) a future proposal that will be a significant proposal; or*
- (b) future proposals likely, if implemented in combination with each other, to have a significant effect on the environment.*

It should be noted that a strategic proposal cannot be referred by a decision-making authority or a third party nor can it be called in by the EPA.

It is a voluntary referral by the proponent, which is appropriate given that they will need to undertake investigations and consultation to address environmental issues that may be substantial and complex. This assessment is a Strategic Environmental Assessment.

Assessment of a strategic proposal by the EPA is a 'formal' assessment. This means that most of the provisions set out under Part IV (Divisions 1 and 2) of the EP Act must be met, including an EPA report on environmental factors relevant to the proposal as well as conditions and procedures that should apply to any environmental approval, Ministerial decision and appeals.

The EPA has been trialling Strategic Environmental Assessment over some time under a philosophy of continuous improvement before the finalised process is articulated through administrative procedures. Strategic Environmental Assessment provides substantial advantages to proponents with proposals that fit this model. However, there appears to be some reluctance to use this approach with only five proposals referred for Strategic Environmental Assessment. Of these five, none have been concluded. This is largely due to proponents not submitting public review documents. One of the five projects was however superseded by the assessment of the Planning Scheme. The EPA is currently exploring the reluctance of proponents to use Strategic Environmental Assessment.

Consistent with the evolutionary development of environmental impact assessment in Western Australia the EPA is currently undertaking a review of EIA (see page 7).

MAJOR PROJECTS

The EPA acknowledges proponents that deliver quality documents supported by sound science, thorough analysis and comprehensive management responses to environmental issues.

Additional resources have been supplied to the EPA by Government in the face of the boom in development that continues in Western Australia. The EPA has relied on this extra support to enable it to cope with the boom conditions of the last few years and looks forward to a similar level of additional support from Government in the coming year.

The environmental impact assessment (EIA) process adds value to a project by ensuring it properly protects the environment in a way that is transparent, robust and defensible. This 'social licence to operate' allows proposals to proceed with confidence once the EIA process is complete.

The EPA has continued to deal with a large number of projects this year. The sustained tempo of new land use planning and infrastructure projects has continued on the back of the resources boom. Sustained demand for land, housing, basic raw materials and other services has kept the EPA's workload at a high level.

Each year a number of assessments demonstrate innovative approaches to solving environmental problems or provide significant insight into issues of environmental policy. The EPA continues to capture these lessons through its Position Statement and Guidance Statement series of publications.

A number of assessments, both completed and in progress that illustrate these points are outlined below.

Pluto Liquefied Natural Gas (LNG) Development

This EPA reported on the proposal by Woodside Energy Ltd (WEL) to undertake the Pluto Liquefied Natural Gas (LNG) Development in the north-west of Western Australia in July 2007. The project would require extensive dredging both in Mermaid Sound and along the pipeline route as well as the construction of a Liquefied Natural Gas (LNG) plant and export facilities proposed to be located on designated industrial land to the south of the existing North West Shelf Venture (NWSV) plant on the Burrup Peninsula.

Since the Pluto LNG Development involves environmental issues which fall under both State and Commonwealth jurisdictions, the environmental impact assessment was carried out jointly by the EPA and the former Commonwealth's Department of the Environment and Water Resources.

The EPA decided that the following key environmental factors relevant to the proposal required detailed evaluation in the report:

- Marine impacts;
- Vegetation;
- Fauna – terrestrial species;
- Fauna – migratory/marine species;
- Indigenous Heritage;
- Air quality; and
- Greenhouse gas.

For the marine components of the proposal, the EPA noted that the predictions of coral loss adjacent to the export facility greatly exceed the threshold established in EPA Guidance Statement No. 29, related to benthic

primary producers. The existing development around Mermaid Sound already exceeds the threshold of 10% loss for inshore corals. Although Woodside was of the view that its actual impacts would be less than those predicted, the modelled results are those that must be considered as possible. The EPA considered that the losses would only be acceptable if the proponent is able to devise and implement appropriate measures to fully offset the loss of coral.

The proposal is also predicted to cause some loss of coral in the proposed Dampier Archipelago Marine Park. This Marine Park is expected to be gazetted shortly and the draft Management Plan for the park requires that development approvals be consistent with the management targets for the park. The proposal is currently predicted to exceed the management target of 'no change due to human activities' for the recreation zone around Conzinc Island. The EPA considered that significant impacts within the Marine Park are unacceptable.

Wastewater discharges to Mermaid Sound should also be avoided and the EPA expects all options for reuse to be exhausted before a discharge is contemplated. The EPA considers that discharge to deepwater could be acceptable if managed to best practice standards.

As such, it was the EPA's opinion that the proposal, as presented, did not fully meet the EPA's objectives for the marine environment. However, provided stringent conditions that require, amongst other things, the:

- preparation and implementation of a Dredge Impact Management Plan to minimise impacts in Mermaid Sound and specifically prevent impacts to the proposed Marine Park, through

- best practice dredge methods and the timing of works with respect to sea and meteorological conditions; and
- conservative 'stop work' trigger levels; and comprehensive monitoring, are fully implemented and a substantive offset package is agreed,

the Pluto LNG Development could be allowed to proceed.

For the terrestrial components of the project the EPA undertook this assessment with regard to the established management framework for the Burrup Peninsula. In practical terms, preservation and promotion of cultural heritage values and the natural environmental values can be readily achieved in the proposed conservation area on the Burrup Peninsula. The EPA's objective is to ensure that conservation objectives are met in the context of the wider Burrup Peninsula and environmental impacts caused by the proposal are minimised and managed as far as practicable. The EPA considered that the disturbance footprint has been selected and optimised to avoid the most environmentally sensitive sections of the site and that impacts have been minimised to the extent practicable. The EPA noted that the proposal would result in the permanent loss of native vegetation, fauna habitat and some Indigenous Heritage sites. However, having regard for the management framework for the Burrup Peninsula, it was the EPA's opinion that it is unlikely that the EPA's objectives for the terrestrial components would be compromised provided there is satisfactory implementation by the proponent of their commitments and the recommended conditions.

Preston Industrial Park S16 Advice

The EPA released its advice to the Minister for the Environment under section 16(e) of the *Environmental Protection Act 1986* on the areas of conservation significance within the area identified by the Western Australian Planning Commission (WAPC) for the future development of the Preston Industrial Park in March 2008. The Preston Industrial Park is approximately 2950 hectares (ha) in area, and is situated approximately 4 kilometres (km) east of the Bunbury Central Business District, within the municipalities of the City of Bunbury and the Shire of Dardanup.

The Preston Industrial Park has been identified as an industrial area in strategic planning documents, most recently in *Industry 2030-Greater Bunbury Industrial Land and Port Access Planning* (WAPC 2000) which contains an *Interim Strategy Plan* for the area pending the completion of further technical investigations.

The Department for Planning and Infrastructure (DPI), on behalf of the WAPC is undertaking a review of the *Industry 2030 – Preston Industrial Park Interim Strategy Plan* with a view to developing a Structure Plan for the area to guide and facilitate appropriate land use zoning and development.

In considering the areas of native vegetation to be retained within the Preston Industrial Park, the EPA applied the Strategy to Identify Regionally Significant Natural Areas as outlined in Guidance Statement No.10 and Bulletin 1108 Greater Bunbury Region Scheme. The main issues identified in the EPA report were:

- Native Vegetation and Flora;

- Native Fauna;
- Wetlands and Waterways (Preston and Ferguson Rivers); and
- Ecological Linkage.

The EPA concluded that all remnant vegetation within the PIP comprising of approximately 980 hectares (ha), or 33% of the 2950ha area, is regionally significant and should be retained.

The EPA has formulated strategic recommendations which provide for the protection of priority areas of regional conservation significance. Further to this the EPA has made recommendations for a series of natural areas in the Preston Industrial Park for the purpose of enhancing and restoring ecological linkage.

The strategic recommendations are divided into several categories. The categories acknowledge subsequent planning approvals processes that apply to the future development of the Preston Industrial Park which can provide for conservation and management. The EPA has recommended that regionally significant natural areas of highest conservation value are retained as Regional Open Space as a future amendment to the Greater Bunbury Region Scheme and appropriately managed for conservation purposes.

Other Regionally significant areas of small size, or which are isolated are recommended to be retained as part of any future rezoning, subdivision or development, whichever comes first.

Areas recommended for enhancement and restoration in strategic locations between the Conservation and Subdivision/Rezoning Protection Areas will contribute to regionally significant ecological linkages. Opportunities should be explored through future

rezoning, subdivision or development, including the implementation of other developments where offsets may be required, or conservation initiatives targeting the restoration and/or enhancement of these areas.

The EPA has also identified environmental matters which will require further consideration during subsequent statutory planning processes (i.e. structure planning, town planning schemes, subdivision and development proposals) so the environment will be adequately protected. These include Wetland Buffers, Water Quantity and Quality, Air Quality, Noise, Acid Sulphate Soils, Floodway Management and Waste Management.

The EPA will also use the advice provided in its report when assessing subsequent statutory planning instruments such as town planning schemes and development proposals.

With respect to future development for the PIP, the EPA expects that a development footprint that complies with the advice in its report is not likely to require formal assessment of native vegetation and flora, native fauna, wetlands, waterways or ecological linkage in the foreseeable future. However, the EPA retains the ability under the *Environmental Protection Act 1986* to assess any amendments or proposals that may have a significant impact on the environment.

The EPA is supportive of the initiative undertaken by the WAPC and DPI and its strategic and proactive approach to the consideration of environmental matters in its overall planning for the Preston Industrial Park. This has been a beneficial collaborative planning process which will result in the provision of industrial land with good environmental outcomes. It represents an excellent

example of the level in the planning process in which the EPA would like to engage in order to provide strategic outcomes.

Keralup MasterPlan

The Keralup land development project is located on the site of Amarillo farm which covers approximately 4,000 hectares (ha) and is situated in the Peel Region 17 kilometres (km) south east of Rockingham. If developed the area would become a fully integrated urban community housing up to 90 000 people.

A previous proposal to develop Amarillo Farm for residential purposes was formally assessed by the EPA in 1997 however this proposal was never implemented and the environmental approval expired in 2005. The key environmental issues at the time concerned important wetlands, surface and groundwater quality flowing to the Serpentine River, mosquitoes and noise from the Serpentine Airfield.

A Steering Committee was formed by the Department of Housing and Works to progress a contemporary plan for Government to develop this land. A draft Masterplan has been prepared that outlines the form that the proposed development will take.

The EPA was asked by the Minister for Housing and Works to define the key environmental factors affecting the proposed development and any further environmental investigations that may be required.

The significant environmental issues identified for this proposed development include:

- Surface and Groundwater;
- Wetlands;
- Remnant Vegetation;

- Soil and Groundwater Contamination;
- Significant Fauna;
- Noise;
- Odour; and
- Mosquitoes

The EPA concluded that there are significant environmental constraints for development of the Keralup Site.

There are significant issues of managing water quality within the Masterplan area that have not been addressed at this time. To ensure that the water quality targets set out in the draft Water Quality Improvement Plan for the Rivers and Estuary of the Peel-Harvey System (WQIP) are not exceeded it is the EPA's expectation that there would be no net export of nutrients from the Keralup site. This will be difficult to achieve.

Standard development methodologies if applied to this site may not achieve the water quality objectives set out in the WQIP. This is because of the unique site conditions including; historical nutrient loads in the soil; soils that have a low capacity to retain nutrients and a waterlogged soil profile. An innovative approach to solving these critical issues would be essential to reach an acceptable outcome.

In relation to the other environmental issues relevant to the proposed development such as wetlands, remnant vegetation, soil and groundwater contamination, significant fauna, noise and odour, further investigations would be required to determine whether development is appropriate for some areas of the site.

In particular, possible land use incompatibilities with surrounding land uses (such as a piggery and several airfields) could impact on the health and

amenity of future residents and preclude development from portions of the Masterplan area. This would affect the form of development and this in turn may have consequential impacts on broader design objectives for a future Keralup.

For this site to be developed further substantial environmental investigations would need to be carried out as well as extensive liaison with all relevant technical agencies to determine whether development of this site is possible and what form of development would be most appropriate considering the unique constraints of this site.

Iron Ore - Mesa A

The EPA prepared two reports on the Mesa A -Warramboe Iron Ore Project by Robe River Mining Company Pty Ltd 43 kilometres west of Pannawonica in the Shire of Ashburton.

The EPA provided its first report and recommendation in EPA Report 1251 published last year in March 2007. At that time, the EPA decided that the following key environmental factors were relevant to the proposal and required detailed evaluation:

- (a) Subterranean Fauna;
- (b) Landforms, Closure Planning and Rehabilitation;
- (c) Flora and Vegetation; and
- (d) Terrestrial Fauna.

The EPA concluded in Bulletin 1251 that, based on the information then available on Subterranean Fauna and on Landforms, Closure Planning and Rehabilitation, that the proposal as a whole was environmentally unacceptable and should not be implemented. The EPA reached this

conclusion primarily because of the inadequate information provided by the proponent on the risk of extinction of species of subterranean (troglotic) fauna only known to occur at Mesa A. Mesa A and associated mesa formations in the Robe Valley are the first areas on the Pilbara mainland, outside the Cape Range area, from which significant identified troglotic fauna have been collected. Troglotic fauna species recorded at Mesa A were not recorded elsewhere, and survey work indicated that species appeared to be endemic to (i.e. unique to) each isolated mesa.

While the EPA considered subterranean fauna to be the critical issue for this project, the EPA also considered the proposed Mining Exclusion Zone or MEZ (the “rim” of the mesa to be retained after mining) to be inadequate to conserve landscape and Aboriginal heritage values associated with Mesa A. The EPA also expressed concern over the long term structural stability of the landform post-mining.

The EPA considered that the other two key factors associated with the proposal (Flora and Vegetation, and Fauna) could be managed to meet the EPA’s objectives.

The proponent appealed the EPA’s report and recommendations and subsequently provided the Minister for the Environment with additional information including the results of further troglotic fauna surveys and an independent geotechnical assessment. In order to address the EPA’s key concern in relation to troglotic fauna, the proponent also proposed enlarging the MEZ to provide greater surety that all troglotic fauna species will be protected. The Minister for the Environment then resubmitted the project and extra information back to the EPA.

Having considered the additional information provided by the proponent,

the EPA prepared its second report (Report 1264) in September 2007 and concluded that the proposal could be managed to meet its environmental objectives provided that conditions are imposed requiring:

- (a) A Troglotic Fauna Monitoring Program;
- (b) Protection of the Sand Sheet Vegetation Community; and
- (c) A Mine Closure and Rehabilitation Plan.

Mesa K

Robe River Mining Pty Ltd also proposed remnant mining at the previously mined Mesa K deposit, 11 km south-west of the town of Pannawonica.

The troglotic fauna recorded from Mesa K are of high conservation significance and represent a newly-recorded component of the subterranean fauna of Western Australia. The proponent has undertaken extensive troglotic fauna studies in the Robe Valley region and has found that due to the isolated nature of individual mesa formations in the Robe Valley, troglotic fauna recorded at each mesa appear to be endemic to that particular mesa. Ten individual taxa were recorded at Mesa K and five of the collected taxa were singletons or were collected within only the preliminary nominal pit boundaries at the completion of four phases of sampling.

The EPA notes that the proponent has revised the preliminary nominal pit boundaries to ensure that the locations of each of the singleton species are now outside the actual proposed pit boundaries and includes a 50 m radius buffer around each drill hole.

The EPA notes the retention of the majority of the pisolite resource as a contiguous system and efficient use of existing infrastructure and location of new infrastructure in disturbed areas. The EPA acknowledges that the extensive research and sampling conducted by the proponent has significantly contributed to the knowledge of troglobitic fauna, both at Mesa K and in the wider Robe Valley region. The EPA supports the inclusion of Mesa K as a study site in the Robe Valley regional troglofauna research program.

The EPA notes that the proponent has prepared a Draft Mesa K Remnant Mining Project Environmental Management Plan which includes specific management actions to protect subterranean fauna at Mesa K. The EPA notes that the proponent maintains that it will progressively rehabilitate disturbed areas to protect habitat and contribute to biophysical processes, including carbon and nutrient cycling.

The EPA acknowledges that the proponent has prepared a Draft Mesa K Remnant Mining Project Preliminary Rehabilitation Plan which will be finalised and implemented prior to the commencement of productive mining. Mesa K and the Mesa K Preliminary Rehabilitation Plan will be incorporated into the Pilbara Iron Greater Pannawonica Operations Closure Study which is currently undergoing internal review and being developed in accordance with relevant legislation and best practice guidelines.

The EPA has therefore concluded that the proposal can be managed to meet the EPA's environmental objectives, provided there is satisfactory implementation by the proponent of their

commitments and the recommended conditions.

Fremantle Ports Outer Harbour Project (Kwinana Quays)

Fremantle Ports and the Department for Planning and Infrastructure (DPI) are co-proponents for a port facility in Cockburn Sound to accommodate shipping trade beyond 2017, when the existing Inner Harbour facilities are predicted to reach capacity.

Following extensive consultation within government and also with the community, Fremantle Ports and DPI are proceeding through a two stage strategic assessment and statutory approval process, involving both the EPA and the Western Australian Planning Commission (WAPC).

The first stage strategic assessment involved the EPA providing section 16e advice under the *Environmental Protection Act 1986* to the Minister for the Environment and the proponents, and the WAPC providing integrated strategic advice to the Minister for Planning and Infrastructure, following consideration of significant environmental, social and economic issues related to the four concepts and a preferred development proposal. The EPA provided its strategic advice to the Minister for the Environment on the proposed options on 25 September 2006 (Report 1230).

In its Report, the EPA identified key issues which will need to be addressed as part of the next stage, including:

- cumulative impact assessment;
- the *State Environment (Cockburn Sound) Policy* (the Cockburn Sound SEP);
- impacts of dredging and reclamation;

- impacts on benthic primary producer habitats;
- marine fauna;
- environmental offsets; and
- impacts on the ecological values of Bush Forever sites.

The EPA did not express a preference for any particular port option in its advice and noted that “it appears all options would have significant adverse impacts”.

The EPA has stated its concern that cumulative pressures along the eastern margin of Cockburn Sound could increase the threat to the improvements in the condition of Cockburn Sound which have been achieved through strong action by Government, industry and the community in recent decades. The increasing pressures from this and other proposals in Cockburn Sound have, in combination, the potential to either delay or even reverse further improvement in the environmental quality of the Sound.

The EPA’s report, as well as a report from the WAPC, was also submitted to the Minister for Planning and Infrastructure.

In July 2007, Government selected two port options to proceed into the statutory assessment process. These were:

- an island design about one kilometre offshore and linked by an open spanned bridge to an extension of Rowley Road, north of the Alcoa refinery; and
- a partially land backed facility located just south of Alcoa that would include reclamation of the foreshore and an island component with a freight link via Anketell Road.

Both options were smaller than those previously proposed and considered by the EPA.

The two options were referred to the EPA as separate proposals, and the EPA is assessing each proposal as an Environmental Review and Management Programme (ERMP). Both options are currently being assessed by the EPA in parallel and if the proponent’s can meet the timelines for preparing its ERMP documentation, it is expected that the EPA will report on its assessment of the proposals in the last quarter of 2009.

ENVIRONMENTAL ASSESSMENT OF PLANNING SCHEMES

All planning schemes are referred to the EPA. Subdivision and development may be referred where significant environmental issues have not been resolved through earlier stages of the planning approvals. The intent of introducing amendments to the *Environmental Protection Act (1986)* in 1996 requiring all planning schemes to be referred to the EPA was to ensure that planning and environmental matters were addressed at an early stage of the zoning process. A key issue for the EPA in assessing planning schemes under s48A of the *Environmental Protection Act (1986)* is to ensure a rational linkage between the level and detail of environmental assessment and the relevant ‘stage’ of planning approval being considered. The planning approval process is a hierarchical one, normally involving a series of stages through regional scheme, town planning scheme, structure plan, subdivision and to development approval.

When assessing a scheme or amendment at the region scheme stage, the EPA

would normally focus on 'higher level' environmental issues such as protection of regionally significant environmental features. The level of detail required for environmental assessment normally increases for local planning schemes, structure planning and subdivision. For each of these stages, more detailed environmental information is required, for example, in terms of ensuring that boundaries of significant environmental features are secured and confidence being provided that issues such as drainage and acid sulphate soils can be managed. The EPA supports the provision of environmental information appropriate to the stage of planning. Close collaboration with planning agencies is an essential element in ensuring that this occurs and the process for considering development remains effective, efficient and timely.

In the past year there has been a continuing focus on securing land available for development. The EPA saw a significant increase in the number of schemes referred to it in 2006-07, particularly local planning schemes, and this trend has been sustained in 2007-08. The EPA considered 344 schemes across the State. Of these, the EPA decided that 6 warranted assessment requiring an Environmental Review. The EPA decided not to assess the remaining 338 schemes. However, it did provide advice on 224 of these. Environmental advice is particularly effective where it results in scheme provisions that are given effect under the *Planning and Development Act 2005* and in many cases environmental advice recognises modifications to the development made during the referral to the EPA and binding requirements applied to development by Local Government to achieve better environmental outcomes. For the balance the EPA provided no advice as the environmental issues had

been satisfactorily addressed or the schemes represented amendments of minor environmental consequence.

Land development continues to focus on the Perth and Peel Region with much of the unconstrained areas already developed. There are areas within the Perth and Peel that are environmentally constrained and may be found to be environmentally unacceptable for development including land which should be set aside for its conservation and recreation values. A mechanism to consider land zoned before amendments to the *Environmental Protection Act (1986)* in 1996 is a priority. This is required to meet the intent of the amendments and allow for decisions about development to jointly have regard for environmental and planning matters.

Urban and industrial land pressures are now being experienced in major regional centres across the State particularly where urban and industrial land expansion is required to support significant growth in the mining industry.

The absence of important baseline environmental information to inform planning and development decision making is increasingly a problem across the State. The challenge for the development industry is to ensure that the EPA receives sufficient information at the appropriate level of planning to demonstrate that the significant environmental values are known and the proposed development protects these values and is therefore environmentally acceptable. This includes ensuring that areas with significant environmental values, which are not suitable for development, are set aside to meet conservation objectives.

The consequence of an absence of informed strategic decision making through planning schemes is an increase in the subdivision and development application referrals. During this final stage of the process for considering development there is limited opportunity for timely resolution of issues.

SECTION 45C APPROVALS

The section 45C amendment to the *Environmental Protection Act, 1986* was enacted in 2003. The amendment enables the Minister for the Environment, or his delegate, the Chairman/Deputy Chairman of the EPA, to approve a change to a proposal after assessment.

The EPA has published Draft Guidelines, to clarify the approvals process, for a proponent considering making a submission for a change to a proposal. These are on the EPA website (*Policies/Other Documents*).

For the 2007-2008 period, the EPA Chairman/Deputy Chairman has approved 39 changes (Appendix 13). The changes are recorded in an attachment to the amended Statements, which are publicly available either from the Office of the Appeals Convenor or the DEC library in the Atrium building L4, The Atrium, 168 St Georges Terrace, Perth; phone 6467 5226.

Concerns regarding the use of this section are outlined in the Chairman's overview.

POLICY DEVELOPMENT

The EIA Review initiated in February 2008 included a review of appropriate environmental policy settings to inform

the setting of environmental objectives and outcome-based conditions. As part of the review a new hierarchy for EPA policies was proposed including a State Environmental Strategy, statutory Environmental Protection Policies (EPPs), and environmental assessment policies and guidelines. A revised policy framework review paper detailing this proposed hierarchy was submitted to the EPA Stakeholder Reference Group in May 2008 for comment before being finalised. When implemented the policy framework will guide policy development for the EPA in the future. Existing Position and Guidance Statements that are not subject to the current EIA review will be migrated directly (without restructuring or amendment) across to the new framework as appropriate.

The EPA has made significant progress in four main policy areas:

- Draft State Environmental (Ambient Air NEPM) Policy. During 2008, the EPA has undertaken targeted consultation on the Draft Ambient Air SEP and Explanatory Document. The Draft Ambient Air SEP has been forwarded to the Minister for the Environment for consideration and public consultation;
- Water Quality Improvement Plan for the Rivers and Estuary of the Peel-Harvey System – Phosphorus Management. After public consultation and community feedback the EPA has developed a final Plan. The final Plan is likely to be released in the last half of 2008;
- Environmental Offsets - Biodiversity. The EPA released for public comment a Draft

Guidance Statement for guiding those involved in the environmental impact assessment process on offsets and biodiversity. The EPA is expected to release a final Guidance in 2008; and

- Environmental Guidance for Planning and Development. The EPA has recently released Guidance Statement No.33 and it is intended as a resource document for local government, state government agencies, consultants, proponents and the public.

Environmental Protection Policies

An Environmental Protection Policy (EPP) is prepared under Part III of the *Environmental Protection Act 1986* and has “the force of law as though it had been enacted as part of this Act”, on and from the day on which the policy is published in the *Western Australian Government Gazette*. The Act is binding on the Crown. Accordingly, the wider community as well as all government departments and agencies are required under law to comply with both the Act and EPPs prepared under the Act.

Current Environmental Protection Policies in force and in development are shown in tables xx and xx.

Policies Being Implemented

All Environmental Protection Policies and associated maps may be viewed on the EPA website at <http://www.epa.wa.gov.au/template.asp?ID=20&area=Policies&Cat=Environmental+Protection+Policies+%28EPP%29> or at the DEC’s Library Resource Centre,

Atrium Level 4, 168 St Georges Terrace, Perth.

Environmental Protection (Kwinana) (Atmospheric Wastes) Policy 1999

In accordance with s36(1)(b) of the *Environmental Protection Act 1986*, the EPA has deferred the commencement of the review of the *Environmental Protection (Kwinana) (Atmospheric Wastes) Policy 1999* as directed by the Minister for the Environment as a result of the need to resolve buffer issues in the Kwinana area, await the finalisation of the State Environmental (Ambient Air NEPM) Policy and the need to undertake a consultation process regarding the inclusion or exclusion of particulates. This direction is in effect until 31 December 2009.

Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998

In May 2005 the EPA deferred the commencement of the review of the *Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998* (South West Wetlands EPP) until finalisation of the revised draft Swan Coastal Plain Wetlands Environmental Protection Policy 2004. In August 2006 the former Minister for the Environment, Hon Mark McGowan MLA decided not to implement the Swan Coastal Plain Wetlands Environmental Protection Policy 2004. As a consequence the EPA initiated the review of the South West Wetlands EPP in May 2007.

Preliminary advice on the review has been sought from the Department of Environment and Conservation over the past 12 months. The EPA is likely to be releasing a review document in July 2008 inviting public comment on the

effectiveness of the South West Wetlands EPP.

Environmental Protection (Ozone Protection) Policy 2000

On 7 September 2007 the EPA deferred the seven-yearly review of the *Environmental Protection (Ozone Protection) Policy 2000* (Ozone EPP) for 18 months as directed by the Minister for the Environment, to allow for the Australian Government to finish their amendments to the *Ozone Protection and Synthetic Greenhouse Gas Management Regulations 1995*. It is anticipated the amendments to these Australian regulations will incorporate the provisions of the Ozone EPP. This deferral is currently in place until 6 March 2009.

Environmental Protection (Swan and Canning Rivers) Policy 1998

On 25 September 2007 the *Swan and Canning Rivers Management Act 2006* came into effect providing a new direction for the future protection and management of the rivers. This legislation replaces and revokes the *Environmental Protection (Swan and Canning Rivers) Policy 1998* (Swan and Canning EPP). Many of the provisions of the Swan and Canning EPP will continue to have the same effect as they have been incorporated into the new legislation managed by the Swan River Trust.

The new legislation recognises the importance of the rivers by establishing a Swan Canning Riverpark. The Swan River Trust will develop a River Protection Strategy that will replace *Riverplan* in the Swan Avon Catchment to set out what needs to be done to meet the Riverpark targets. Work already undertaken to implement the Swan and

Canning EPP and its associated *Riverplan* will contribute to developing the Strategy.

State Environmental Policies

A State Environmental Policy is a non-statutory Government policy position on a particular aspect of the environment. It is enabled under Part II section 17(3) of the EP Act whereby the EPA can “consider and make proposals as to the policy to be followed in the State with regard to environmental matters”.

The process for developing a State Environmental Policy is largely based on the statutory requirements for developing an EPP under Part III of the Act. A State Environmental Policy is developed in its first stages by the EPA. Following a public consultation process, a State Environmental Policy can be approved by the Minister for the Environment and adopted by Cabinet on a whole-of Government basis.

Current State Environmental Policies in force and in development are shown in tables 3 and 4.

State Environmental (Ambient Air NEPM) Policy

The State Environmental (Ambient Air) Policy (Ambient Air SEP) will encompass the intent of current ambient air related National Environment Protection Measures (NEPMs), to achieve air quality that is protective of human health and well-being. To achieve this end, the Draft Ambient Air SEP outlines policy direction and specifies processes for monitoring, managing and reducing emissions of pollutants to ensure that the quality of ambient air meets the standards and guidelines set via NEPMs and relevant State Government policies and criteria.

During 2008, the EPA has undertaken targeted consultation on the Draft Ambient Air SEP and Explanatory Document. Submissions were received from the EPA's Industry Reference Panel and where appropriate incorporated into the draft SEP. The Draft Ambient Air SEP has been forwarded to the Minister for the Environment for consideration and public consultation.

Position Statements

Position Statements (Available at <http://www.epa.wa.gov.au/template.asp?ID=8&area=Policies&Cat=Position+Statements>) remain an important, high level policy expression by the EPA on environmental issues.

Position Statements are an important, high-level policy expression by the EPA on environmental issues and inform the public about the EPA's views of matters of environmental importance. They also provide a basis for the development of the associated series of Guidance Statements described below.

In 2006-2007 the EPA and the Minister for the Environment agreed to develop a Position Statement on the coastal zone, indicating the environmental objectives and processes that could be incorporated into all levels of the planning process. This is currently in the scoping stage.

Appendix 9 provides a list of current Position Statements.

Table 3: Environmental Protection Policies in force and their status as at June 2008.

Name	Approval date	Review Date	Comment
Environmental Protection (Peel Inlet- Harvey Estuary) Policy 1992	11.12.92	11.12.99	The review will recommence upon finalisation of the Water Quality Improvement Plan for the Rivers and Estuary of the Peel-Harvey System – Phosphorus Management (the Plan). The draft Plan was released in September 2007. The final Plan is likely to be released in the last half of 2008.
Environmental Protection (Swan Coastal Plain Lakes) Policy 1992	18.12.92	Under direction of the Minister, Section 36 (1) (a) and (aa) of the EP Act determines future reviews for this policy.	The <i>Environmental Protection (Swan Coastal Plain Lakes) Policy 1992</i> remains in force and continues to be implemented.
Environmental Protection (Gnangara Mound Crown Land) Policy 1992	24.12.92	24.12.99	Review on hold awaiting section 46 assessment to review Ministerial conditions.
Environmental Protection (Swan and Canning Rivers) Policy 1998	10.07.98 EPP revoked on 25.09.07		The <i>Swan and Canning Rivers Management Act 2006</i> came into effect and the EPP was revoked on 25 September 2007. Provisions of the EPP have been incorporated into the new act.
Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998	28.10.98	28.10.05	In May 2007 the EPA initiated the review of the <i>Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998</i> .
Environmental Protection (Kwinana) (Atmospheric Wastes) Policy 1999	21.12.99	21.12.06	In accordance with s36(1)(b) of the <i>Environmental Protection Act 1986</i> , the EPA has deferred the commencement of the review of the <i>Environmental Protection (Kwinana) (Atmospheric Wastes) Policy 1999</i> as directed by the Minister for the Environment. This direction is in effect until 31 December 2009.
Environmental Protection (Ozone Protection) Policy 2000	17.10.00	17.10.07	The EPA has deferred the review for 18 months pending the Australian Government adopting and implementing regulations to cover all aspects dealt with under the WA EPP. This direction is in effect until 6 March 2009.
Environmental Protection (Western Swamp Tortoise)	18.02.03	18.02.10	Policy being implemented.

Name	Approval date	Review Date	Comment
Habitat) Policy 2002			
Environmental Protection (Goldfields Residential Areas) (Sulfur Dioxide) Policy 2003	18.03.03	18.03.10	Policy being implemented.

Table 4: Environmental Protection Policies in development

Name	Status
Draft Environmental Protection (State Groundwater) Policy	On hold.
Draft Environmental Protection (State Marine Waters) Policy	On hold.

Table 5: State Environmental Policies in force and their status as at June 2008

Name	Date	Status
State Environmental (Cockburn Sound) Policy 2005	20.01.05	Policy being implemented.

Table 6: State Environmental Policies in development

Name	Status
Draft State Environmental (Ambient Air Quality NEPM) Policy	The EPA has forwarded the Draft Ambient Air SEP to the Minister for the Environment for consideration and public consultation.

Position Statement No. 9 on Environmental Offsets was also finalised after two rounds of formal consultation and following feedback from some public forums convened by the Environmental Consultations Association (WA) and the National Environmental Law Association (WA Division).

This Position Statement has aroused the most interest of any: primarily because it breaks new ground in articulating a policy position on the difficult questions regarding the application of offsets in environmental decision making.

Appendix 9 provides a list of Position Statements.

Guidance Statements

Guidance Statements are designed to increase certainty for proponents and provide transparency for the wider community, based on experience with similar proposals in the past. They provide the EPA's view on how common issues should be dealt with during environmental impact assessment.

Guidance Statements are the best available guide for proponents and the community to the EPA's current thinking on a particular issue. If proponents demonstrate that a proposal will meet or better the requirements in the relevant Guidance Statement, then they are likely to find that the assessment of their proposal will be simpler and faster. The advice is not, however, mandatory. If they wish, proponents may take an alternative approach to dealing with an issue. The proponent should provide a well-reasoned argument,

supported by appropriate technical data, if the EPA is to find that alternative acceptable. The EPA will then consider the issue on its merits on a case by case basis.

Guidance Statements are developed via a two stage process. A workshop or similar process with key stakeholders is generally conducted when a new Statement is being developed. A Draft Guidance Statement is then agreed by the EPA and released for public comment, usually for 12 weeks, but sometimes for longer when a period of practical application is desirable. The EPA takes all comments into account during the preparation of the Final Guidance Statement. Final Guidance Statements are subject to review when significant new information becomes available. The need for a review is generally considered every five years.

The EPA has flagged that it plans to review its policy position on a number of matters. As a result, several Guidance Statements are likely to require updating in future. These include Guidance Statement No. 12 on Minimising Greenhouse Gases, No. 19 on Environmental Offsets and No. 29 on Benthic Primary Producer Habitat Protection.

Twenty-eight Guidance Statements are now available in either draft or final form. Guidance Statement No. 54a on Sampling Methods and Survey Considerations for Subterranean Fauna in Western Australia was issued as a draft addendum to Guidance Statement 54 for a 12 month trial and comment period in August 2007.

Guidance Statement 33 on Planning and Development has been substantially

revised and was released during the year in final form.

Guidance Statement No. 47 on Odour remains withdrawn while it undergoes revision. Interim odour guidance is still available on the EPA website. Buffer distances for odour are specified in EPA Guidance Statement No. 3 on Separation Distances Between Industrial and Sensitive Land Uses, which is still current.

An EPA briefing was held in March 2007 to decide on the future of several Guidance Statements on noise-related issues, and the outcomes were as follows:

Guidance 8 – Environmental Noise (Draft)

This Guidance deals with the requirements for assessment of proposals involving non-transport noise. First released in 1998 as a draft, it has been well-accepted. Significant review studies completed in 2002 and early in 2007 effectively confirmed and broadened the technical basis of the Guidance in relation to noise modelling parameters. The draft Guidance was revised to incorporate the findings of these two studies and to include a number of EPA policy positions stemming from experience with noise assessments in recent years. The new Guidance was released as a Draft for Public and Stakeholder Comment in May 2007. A “practitioner’s workshop” and a general Seminar on the Guidance were held in June 2007, and comments are being collated with a view to finalisation of the Guidance.

Guidance 14 – Road and Rail Transportation Noise (preliminary draft)

This document, first prepared as a draft Guidance in 1998, was never released as an EPA Guidance, due to the formation of a whole-of-Government working group under the WA Planning Commission to address road and rail transport noise policy. The WAPC released a draft Statement of Planning Policy in 2005 for public comment, and the SPP is being finalised. The EPA supports the development of the SPP and has referred to the noise criteria in the draft when assessing proposals involving new or upgraded road or rail infrastructure, or new noise-sensitive developments adjacent to major roads or railways. The EPA intends to prepare a revised Guidance 14 for use when assessing noise impacts from proposals that will cause an increase in traffic on an existing road or railway (and would not therefore be within the scope of the draft SPP).

Guidance 16 – Aircraft Noise

The need for EPA Guidance for the assessment of proposals involving aircraft noise was first identified in the late 1990s in relation to land use planning issues around Perth and Jandakot Airports; however drafting of the Guidance was deferred pending the development of WAPC Statements of Planning Policy in respect of both these airports. Following release of these SPPs, the EPA has identified that Guidance is needed in relation to noise from Regional Airports and has indicated that it intends to develop Guidance 16 for this purpose.

A full list of Guidance Statements and their stage of development is included in Appendix 7 (Also available at <http://www.epa.wa.gov.au/template.asp?ID=14&area=EIA&Cat=Guidance+Statements>).

MONITORING OF LIQUID WASTE TREATMENT FACILITY, BROOKDALE

Waste Management (WA), a corporate entity within the Department of Environment and Conservation is responsible for the Liquid Waste Treatment Facility site at Brookdale.

The EPA has responsibility for monitoring compliance with the Ministerial Conditions contained in Ministerial Statement 588 issued as a Ministerial Direction under s110 of the EP Act.

The EPA contracts an independent accredited auditor to assist the EPA monitor compliance with the Ministerial Conditions.

At the direction of the Minister for the Environment the facility ceased operations on 31 December 2003.

The EPA reviewed the Detailed Site Investigation Plan as Phase 1 of the decommissioning and rehabilitation of the Brookdale Liquid Waste Treatment Facility.

The Decommissioning and Rehabilitation Plan is being prepared by Waste Management (WA) in three phases:

- a Detailed Site Investigation Plan which provides for sampling of soil and groundwater to determine the extent, if any, of contamination of the site;
- a Site Management Plan is then required to undertake any rehabilitation of contaminated areas that may be identified from the outcomes of sampling undertaken in accordance with the approved Detailed Site Investigation Plan; and
- if required, an ongoing Water Monitoring Plan may be required depending on the outcomes of the first two plans.

The Minister for the Environment approved the Detailed Site Investigation Plan as the first phase towards decommissioning and rehabilitation of the Brookdale Liquid Waste Treatment Facility site.

Waste Management (WA) completed and referred the results of the sampling of soil and groundwater to determine the extent, if any, of contamination of the site required by the Plan.

The EPA on the advice of its independent accredited auditor who undertook a peer review of the results of the sampling of soil and groundwater advised Waste Management (WA) that some additional work was required to fulfil the requirements of the Detailed Site investigation Plan. The EPA is awaiting Waste Management (WA) to complete the additional work.

REGULATION 17 APPLICATIONS

Applications for approval to vary from the assigned noise levels under regulation 17 of the *Environmental Protection (Noise) Regulations 1997* are determined by the Minister on the EPA's advice. Progress milestones were achieved in the following applications:

Alcoa Wagerup refinery

Following the EPA's report recommending that a noise regulation 17 approval be granted (Bulletin 1215), Alcoa provided a final assessment report on the likely costs of additional noise reduction works on the existing plant in April 2008. That report is under review.

Kalgoorlie Consolidated Gold Mines

The noise regulation 17 application, in relation to noise emissions from the Kalgoorlie Super Pit, was substantially progressed in conjunction with Part IV assessments of the related proposals for the Golden Pike Cutback and Northern Waste Dumps. The EPA's noise regulation 17 report was released for comment; and drafting of an approval has commenced.

Millennium Inorganic Chemicals, Australind –

Following receipt of a technical report from the applicant, a site visit conducted by DEC identified that there was room for improvement in noise emissions. The applicant agreed to implement some practicable noise controls, and DEC is currently waiting for the outcome of

these improvements prior to an EPA strategy briefing.

Progressing to EPA briefing:

Esperance Port Authority – extension of 2001 approval.

Progressing to approval: Talison Pty Ltd (formerly Sons of Gwalia Ltd) – Greenbushes mine.

The EPA wrote to a number of applicants whose applications had been inactive for some time, proposing termination of the assessment if outstanding technical information is not received. The EPA expects several applications to be withdrawn as a result.

CONSULTATION

The EPA undertakes an array of consultative processes relating to proposals being assessed. These include:

- public review of proponent documentation for proposals either being formally assessed or for which a Strategic Environmental Review is being undertaken;
- participation at public meetings held by proponents to give advice on the EIA process and to respond to questions;
- conducting EPA-initiated public meetings where there is a degree of public sensitivity, usually after the close of the formal public review period, to provide feedback on the key environmental issues raised and to receive any other environmental issues the community requests the EPA to consider in its assessment of the proposal. These meetings also

-
- provide an opportunity for the EPA to inform the community of the likely timing of the EPA's advice to the Minister for the Environment on a proposal and appeal rights available;
- participation at stakeholder meetings; and
 - receiving briefings from stakeholder groups at meetings of the EPA Board on issues of importance.

SITE VISITS CARRIED OUT BY THE EPA

During the year, various EPA members travelled within the State to examine proposals in the field and to meet with proponents on-site.

Proponents have welcomed the opportunity to meet with the EPA to discuss issues in the less formal setting of the project. Relevant staff from the EPA Service Unit accompanied the EPA. Whenever possible, EPA members took the opportunity to meet with key local stakeholders, including local government, interest and conservation groups.

Site visits have proved very valuable in a number of ways, including:

- giving EPA members a clearer understanding of the environmental setting of a proposal;
- providing an opportunity to meet proponents and key stakeholders, exchange views, address environmental issues associated with their proposal, and network in an informal atmosphere;
- providing an opportunity for the mutual exchange of views and making it easier to communicate

- with proponents and others through subsequent telephone interaction and formal EPA board meetings;
- leading to better environmental advice being provided to the Minister for the Environment;
 - enhancing the identity of the EPA as an Authority that provides independent advice; and
 - providing an identity to an otherwise 'invisible' Board.

A list of the EPA and other site visits is provided in Appendix 11.

ENVIRONMENTAL PROTECTION AUTHORITY REFERENCE PANELS

The Environmental Protection Authority (EPA) has established a number of expert reference panels which meet on an 'as need' basis and provide advice to the EPA on matters of policy referred to them by the authority. The four expert Reference Panels established are

- Industry;
- Mining;
- Natural Resource Management; and
- Land Use Planning.

The Panels include expert and community representation.

During 2007/08 the Panels considered and provided advice to the EPA on: Environmental Offsets Guidance Statement; and Ambient Air Policy.

APPENDICES

APPENDIX 1: Public Environmental Review (PER) Reports

Bulletin No.	Title	Release date
1259	Pluto LNG Development, Burrup Peninsula: Woodside Energy Ltd	9 July 2007
1269	Keysbrook Mineral Sands Mine: Olympia Resources Limited	29 Oct 2007
1270	Fimiston Gold Mine Operations Extension (Stage 3) and Mine Closure Planning: Kalgoorlie Consolidated Gold Mines Pty Ltd	29 Oct 2007
1285	Spinifex Ridge Molybdenum Project: Moly Metals Australia Pty Ltd	14 April 2008
1289	Pardoo Direct Shipping Ore Project, Port Hedland: Atlas Iron Limited	16 June 2008
1291	Albany Iron Ore Project – Southdown Magnetite Proposal: Grange Resources Limited	30 June 2008

APPENDIX 2: Environmental Protection Statement and Assessment on Referral Information (EPS and ARI) Reports

Bulletin No.	Title	Release date
1267	Tilley Siding Ore Transport Facility: Midwest Corp Ltd	22/10/07
1278	Jansz Feed Gas Pipeline Barrow Island Nature Reserve: Mobil Australia Resources Company Pty Ltd	10/12/07
1286	Port Facility Upgrade- Anderson Point, Port Hedland, Dredging and Wharf Construction- Third Berth: Fortescue Metals Group Ltd	14/4/07
1261	Coyote Gold Mine - Stage 2 (Sandpiper and Kookaburra Open Pits and Haul Road) 280km South-East of Halls Creek: Tanami Gold NL	30/7/07
1265	Dampier Port Increase in Throughput to 145 Mtpa: Hamersley Iron Pty Limited	1/10/07
1266	Mullering 3D Onshore Seismic Survey: Empire Oil Company (WA) Limited	1/10/07
1268	330MW Gas-Fired Power Station, Neerabup: NewGen Neerabup Pty Ltd	29/10/07
1277	Freshwater Point 1 Drilling Proposal within Beekeepers Nature Reserve: Origin Energy Resources Limited	10/12/07
1280	Construction of Warehouse and Transport Depot on Lot 46 Tomah Road, Welshpool: Merilla Pty Ltd	14/1/08
1283	Mesa K Remnant Mining Project: Robe River Mining Company Pty Ltd	25/3/08

Bulletin No.	Title	Release date
1287	Class II Landfill, Fernview Farm, Gingin: Veolia Environmental Services (Australia) Pty Ltd	12/5/08
1288	Windimurra Vanadium Project: Land clearing and mining below the base of weathering: Windimurra Vanadium Limited	16/6/08
1292	Subdivision, Lot 48 Furnissdale Road, Furnissdale: SAS Global Furnissdale Pty Ltd	30/6/08

APPENDIX 3: Proposal Unlikely to be Environmentally Acceptable (PUEA) Reports

Bulletin No	Title	Release Date
1262	Clearing of approximately 1000 hectares of native vegetation Kent Location 1664, corner Lake Magenta and Reserve Roads, Shire of Jerramungup: Mr Brian Burns	10/9/07
1263	Clearing of approximately 779 hectares of native vegetation Roe Location 2598 & 2599, Shire of Lake Grace: Mr Brian Burns	10/9/07

APPENDIX 4: Section 16 Strategic Advice Reports

Bulletin No	Project Title	Release date
1281	Keralup (formerly Amarillo) Masterplan, Karnup: Department of Housing and Works	4/3/08
1282	Advice on areas of conservation significance in the Preston Industrial Park	25/3/08
1290	Conservation of Roadside Vegetation	23/6/08
1293	Advice on Clearing for Mining in the Lane-Poole Reserve Recreation Area, North Willowdale: Alcoa World Alumina Australia	30/6/08

APPENDIX 5: Section 43 Reports

Bulletin No.	Subject	Release date
1264	Mesa A / Warramboe Iron Ore Project: Robe River Mining Company Pty Ltd	17/9/07
1272	Lot 4 Underwood Avenue, Shenton Park 2007 Development and Conservation Proposal: University of Western Australia	29/10/07
1273	Fimiston Gold Mine Operations Extension (Stage 3) and Mine Closure Planning: Kalgoorlie Consolidated Gold Mines Pty Ltd	3/12/07

APPENDIX 6: Section 46 Reports

Bulletin No.	Title	Release date
1260	Worsley Alumina - Production to Maximum Capacity of 4.4 MTPA Alumina and Associated Mining, Change to Environmental Conditions: Worsley Alumina Pty Ltd	23/7/07
1276	Magellan Lead Carbonate Project, Wiluna - To Facilitate the Export of Containerised Lead from the Port of Fremantle, Change to Environmental Conditions: Magellan Metals Pty Ltd	10/12/07
1279	Wastewater treatment and disposal, Albany (ministerial statement 675): Water Corporation	7/1/08
1284	Oakajee Deepwater Port, Oakajee, Shire of Chapman Valley, Change to Conditions: Minister for Resources Development	25/3/08

APPENDIX 7: Section 48A Report

Bulletin No.	Subject	Release date
1275	Harvey District Planning Scheme No. 1 Amendment No 13: Shire of Harvey	10/12/07

APPENDIX 8: Regulation 17 Variation Reports

Bulletin No	Project Title	Release Date
1271	Kalgoorlie Consolidated Gold Mines Noise Regulation 17 Variation: Kalgoorlie Consolidated Gold Mines Pty Ltd	29/10/07
1274	Kalgoorlie Consolidated Gold Mines Noise Regulation 17 Variation: Kalgoorlie Consolidated Gold Mines Pty Ltd	3/12/07

APPENDIX 9: Position Statements

No.	Position Statement
1.	Environmental Protection of Cape Range Province
2.	Environmental Protection of Native Vegetation in Western Australia
3.	Terrestrial Biological Surveys as an element of Biodiversity Protections
4.	Environmental Protection of Wetlands
5.	Environmental Protection and Sustainability of the Rangelands in Western Australia
6.	Towards Sustainability
7.	Principles of Environmental Protection
8.	Environmental Protection in Natural Resource Management
9.	Environmental Offsets

APPENDIX 10: Guidance Statements for the Assessment of Environmental Factors

Final Guidance

No	Title
1	Protection of Tropical Arid Zone Mangroves along the Pilbara Coastline
2	Risk Assessment and Management: Offsite Individual Risk from Hazardous Industrial Plant
3	Separation Distances between Industrial and Sensitive Land Uses
4	Deep and Shallow Well Injection for Disposal of Industrial Waste
6	Rehabilitation of Terrestrial Ecosystems
7	Protection of Western Swamp Tortoise Habitat, Uppers Swan/Bullsbrook
10	Level of Assessment for proposals affecting natural areas within the System 6 Region and Swan Coastal Plain portion of the System 1 Region
12	Minimising Greenhouse Gases
13	Management of Air Emissions from Biomedical Waste Incinerators
15	Emissions of Oxides of Nitrogen from Gas Turbines
17	A Site Remediation Hierarchy for Contaminated Soil
18	Prevention of Air Quality Impacts from Land Development Sites
28	Protection of the Lake Clifton Catchment
29	Benthic Primary Producer Habitat Protection for Western Australia's Marine Environment
33	Environmental Guidance for Planning and Development
34	Linkage between EPA Assessment and Management Strategies, Policies, Scientific Criteria, Guidelines, Standards and Measures Adopted by National Councils
40	Management of Mosquitoes by Land Developers
41	Assessment of Aboriginal Heritage
49	Assessment of Development Proposals in Shark Bay World Heritage Property
51	Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia
54	Consideration of Subterranean Fauna in Groundwater and Caves during Environmental Impact Assessment in Western Australia
55	Implementing Best Practice in Proposals Submitted to the Environmental Impact Assessment Process
56	Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia

Draft Guidance

No	Title
8	Environmental Noise
19	Environmental Offsets
47	Interim Guidance on Odour as a Relevant Environmental Factor
48	Groundwater Environmental Management Areas
54a	Sampling Methods for Subterranean Fauna – Addendum to Guidance 54

APPENDIX 11: EPA site visits

Date	Site (Proposed Developments)
28 September, 2007	Keysbrook Mineral Sands Mine
5 September, 2007	Underwood Avenue Development
3 – 4 December, 2007	Smith's Beach Development, Yallingup
21 – 22 January, 2008	Iron Ore Developments in the Mid West
14 February, 2008	Preston Industrial Park, Bunbury
13 – 14 March, 2008	Harbour Infrastructure Developments, local Planning Issues and Pardoo Iron Ore Mine, Port Hedland
23 – 24 April, 2008	Harbour Expansion and local Planning Issues, Albany
5 – 6 June, 2008	Barrow Island

APPENDIX 12: Attendance at EPA Meetings

Attendance EPA Meetings – 1 July 2007 to 30 June 2008		
Name	No of Meetings Held	No of Meetings Attended
Dr P Vogel ¹	24	15
Mr B Carbon ²	24	7
Ms A Hinwood	24	22
Mr D Glennon	24	21
Ms J Payne	24	23
Dr C Whitaker	24	20

Foot Notes:

1. Dr P Vogel was appointed as Chairman from 5 November 2007.
2. Mr B Carbon was appointed as Chairman from 1 August 2007 to 4 November 2007.

APPENDIX 13: Section 45C List of approved changes to proposals

Statement No	Proposal Title	Variation	Approval date
731	Dampier port upgrade dredging	Underwater drill and blast programme	2/7/07
491	Multiple Iron Ore Mine Development, Mining Area C- Northern Flank, 100km North-West of Newman	Numerous	17/8/07

Statement No	Proposal Title	Variation	Approval date
698	Kwinana gas-fired power station (water-cooled condenser) Leath & Barter Roads, Kwinana	Disposal of wastewater to Cockburn Sound instead of to SDOOL	15/8/07
286	Marandoo Iron Ore Mine & Central Pilbara Railway	Extension to the existing waste dumps	29/8/07
685	Bluewaters Power Station, Shire of Collie	Stack and other emissions matters	18/9/07
724	Bluewaters power station – phase II, Shire of Collie	Stack and other emissions matters	18/9/07
717	Brockman Syncline 4 iron ore project 60 Km west-north-west of Tom Price, Shire of Asburton	Redesign of mine layout, increase in water usage	19/9/07
597	Perth-Bunbury Highway, Peel Deviation	Alignment change	24/9/07
491	Mining Area C-'E' Deposit	Increase Area C production from 23 Mtpa to 42 Mtpa	13/10/07
283, 472, 481, 565	Wagoo Hills Vanadium project and Mingenew coal project	Recommencement and extension	22/10/07
481	Wagoo Hills Vanadium Project and Mingenew Coal Project	Increase in extraction from 2.28 Mt/a to 3.9 Mt/a	22/10/07
719	Worsley Alumina – production to maximum capacity of 4.4 mtpa, alumina and associated mining	Increase in throughput and output from 4.4 Mtpa to 4.7 Mtpa	26/10/07
208	Mesa J Iron Ore Development, Pannawonica	Deepdale fibre optic cable adjacent to existing rail line	29/10/07
208	Mesa J Iron Ore Development, Pannawonica	Installation of approx 130 km of fibre optic cable for Cape Lambert to Mesa J mine railway.	30/10/07
131	Brockman No 2 Detrital Iron-Ore Mine	Rail siding fibre optic	27/11/07
131	Brockman No 2 Detrital Iron-Ore Mine	Construction of rail siding, installation of approx 40km of fibre optic cable, and Brockman to Nammuldi haul road.	27/11/07
645	Kemerton Power Station Kemerton	600 hours liquid fuel use	06/12/07
606	Telfer Project, Expansion of Telfer Gold Mine, Great Sandy Desert	Extend southern waste dump	7/1/08
758	Tilley Siding Ore Transport Facility G70/221 & G70/213	Change to proposal description	13/2/08

Statement No	Proposal Title	Variation	Approval date
	Mining Operations at Koolanooka to Geraldton Port via Munckton & Morawa - Yalgoo Roads Shire of Morawa		
69	Metro Region Scheme Amendment - Extension of Kwinana Freeway from Thomas Road, Kwinana to MRS Boundary	Paganoni Section alignment. Doc36340	13/2/08
535	Upgrade of Marine Services Facility, King Bay, Dampier	Increase in size of marine facilities, involves some turbidity generation	13/2/08
753	Mt Gibson Iron Ore Mine and Infrastructure Project	Increase in mining rate of hematite; relocation of hematite stockpile; relocation of area for ROM and processing for hematite operations separated from magnetite operations; relocation of access road from Gt Northern Highway to accommodation camp; further modifications to the proposed realignment of Gt Northern Highway	20/2/08
649	Yellowfin Tuna Aquaculture Trial Zeewijk Channel Abrolhos Island	Numerous changes - different fish, 3 year trial, etc. 25/10/07 Revision received	22/2/08
719	Production to maximum capacity of 4.4 Mtpa Alumina and Associated Mining.	Change maximum capacity from 4.4 Mtpa alumina to 4.7 Mtpa.	26/02/08
760	Mullering 3D Onshore Seismic survey	Change to the width of the receiver lines.	12/03/08
755	Alkimos Wastewater Treatment Plant Site B	Change of permanent clearing areas	12/03/08
690	Pilbara Iron Ore & Infrastructure Project: port and north-south railway (Stage A)	Removal of covers from conveyor	04/04/08
627	Koolyanobbing Iron Ore Expansion Windarling Range and Mt Jackson, Shire of Yilgarn	Change area of waste dump	02/04/08
715	Koolan Island Iron Ore Mine and Port Facility, Shire of Derby-West Kimberley	To expand no. of units from 200 to approx. 320 – phased approach with first 80 rooms to be established in Mar 08	02/04/08

Statement No	Proposal Title	Variation	Approval date
729	Wagerup Cogeneration Project	Increase operating hours – distillate use to up to 200 hours a year (currently up to 100 hours a year)	10/04/08
286	Marandoo Iron Ore Mine & Central Pilbara Railway	Tail pit extension	18/04/08
719	Worsley Alumina – Production to Maximum Capacity of 4.4tpa, Alumina and Associated Mining	Clear 29ha for laydown activities and general use	18/04/08
757	Pluto Liquefied Natural Gas Development (Site B Option) Burrup Peninsula, Shire of Roebourne	Modifications to disturbance footprint & installation of additional temporary groyne to facilitate jetty construction	07/05/08
24	Silica Sand Project, Gngangara	To remove Swan Location 5892 Maralla Road from the project area of the proposal	08/05/08
491	Multiple Iron Ore Mine Development, Mining Area C – Northern Flank, 100km North-west of Newman	Increase production from 42Mt/a to 55Mt/a	08/05/08
712	Orebody 25 (OB25) Extension, located 8km north-east of Newman WA	Mining below the watertable within Orebody Pit 1 to a depth below the watertable of approx. 30m. Pit will be backfilled above the watertable with waste material at the cessation of mining activities	11/06/08
684	Ellendale 4 Diamond Project, West Kimberley, Shire of Derby – West Kimberley	Increase of throughput of ore to 6Mtpa, increase height of coarse tailings stockpile & batter wall angles, modification of South Plant and South waste dump, increased dewatering, addition of new northern waste dump	11/06/08
729	Wagerup cogeneration project	Increase in allowable 'operating hours - distillate use' for the 2008 year	18/06/08
661	Subdivision of Lot 502 North Lake, Sudlow and Phoenix Roads Bibra Lake, City of Cockburn	Changes in lot sizes, number & location. Changes to location of roads (removal of Aspiration Circuit in NE of site, redesign of Sustainable Ave & Bushland Ridge, addition of Efficiency Way in SE of site)	24/06/08

APPENDIX 14: Financial Report

The administration costs of the EPA are as follows:

	2007-08 (\$'000)	2006-07 (\$'000)	2005-06 (\$'000)	2004-05 (\$'000)	2003-04 (\$'000)
Recurrent					
Salaries and allowances	778	659	591	577	579
Other Expenses					
Advertising expenses	23	25	41	66	0
Staff related expenses	140*	38	13	19	16
Communications	10	8	6	9	10
Services and contracts	106**	17	27	17	24
Consumable supplies	27	26	3	6	14
Repairs, Maintenance and Depreciation	0	0	0	1	2
Total	1,084	773	681	695	645

Foot Notes:

* Cost increase due to EPA Board appointments and site visits to remote developments within Western Australia.

** Increase in costs resulting from initiation of review of the environmental impact assessment process.

Electoral Act 1907 (s175 ZE Disclosure)

In accordance with Section 175 ZE of the *Electoral Act 1907*, the Environmental Protection Authority incurred the following expenditure in advertising, market research, polling, direct mail and media advertising:

1. Total expenditure for 2006/2007 was \$25 212 (2005/06 – \$41 154).
2. Expenditure of specified amounts of \$1 600 or greater in the following areas:

Advertising Agencies	Nil
Market research organisations	Nil
Polling organisations	Nil
Direct mail organisations	Nil
Media advertising organisations	Nil

Note:

Section 175 ZE of the *Electoral Act 1907* requires “specified amounts” of \$1 600 or greater expended on advertising in the above categories to be notified in the annual report.

APPENDIX 15: Abbreviations

ACMER	Australian Centre for Minerals Extension and Research
AHC	Australian Heritage Council
ARI	Assessment on Referral Information
BIF	Banded Ironstone Formation
CALM	Department of Conservation and Land Management
CAMBA	China Australia Migratory Bird Agreement
CCWA	Conservation Commission of Western Australia
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DEC	Department of Environment and Conservation
DoA	Department of Agriculture
DoF	Department of Fisheries
DoH	Department of Health
DoW	Department of Water
DIA	Department of Indigenous Affairs
DoIR	Department of Industry and Resources
DPI	Department for Planning and Infrastructure
CITES	Convention on International Trade of Endangered Species
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EMIAA	Environmental Management Industry Association of Australia
EMP	Environmental Management Plan
EPA	Environmental Protection Authority
EP Act	<i>Environmental Protection Act (1986)</i>
EPBC Act	<i>Commonwealth Environmental Protection and Biodiversity Conservation Act (1999)</i>
EPASU	EPA Service Unit
EPP	Environmental Protection Policy
EPS	Environmental Protection Statement
EQC	Environmental Quality Criteria
EQO	Environmental Quality Objectives
ERMP	Environmental Review and Management Programme
EV	Environmental Values
FMP	Forest Management Plan
GBRS	Greater Bunbury Region Scheme
HRA	Health Risk Assessment
JAMBA	Japan Australia Migratory Bird Agreement
LoA	Level of Assessment
MoU	Memorandum of Understanding
MPRA	Marine Parks and Reserves Authority
MRWA	Main Roads Western Australia
NAP	National Action Plan
NDT	Northern Development Taskforce
NEPC	National Environmental Protection Council
NHT	Natural Heritage Trust
NWQMS	National Water Quality Management Strategy
NRM	Natural Resource Management

PER	Public Environmental Review
PUEA	Proposal Unlikely to be Environmentally Acceptable
RO	Reverse Osmosis
SCP	Swan Coastal Plain
SEP	State Environmental Policy
SoE	State of the Environment
SOER	State of Environment Reporting
SRG	Stakeholder Reference Group
SRT	Swan River Trust
UNEP	United Nations Environment Program
UNESCO	United Nations Education Scientific and Cultural Organisation
VOC	Volatile Organic Compound
WA	Western Australia
WALA	Western Australian Land Authority
WALGA	Western Australian Local Government Association
WAPC	Western Australian Planning Commission
WMWA	Waste Management WA
WRC	Water and Rivers Commission