



ENVIRONMENTAL  
PROTECTION  
AUTHORITY



ANNUAL REPORT

2001 • 2002



**Environmental Protection Authority**



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# ENVIRONMENTAL PROTECTION AUTHORITY

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# Transmittal to the Minister

Hon Dr Judy Edwards MLA

MINISTER FOR THE ENVIRONMENT AND HERITAGE

In accordance with s21 of the *Environmental Protection Act 1986*, I submit the EPA's Annual Report for the year ended 30 June 2002.

It is with pleasure that, on behalf of the EPA, I advise that for the reporting period to 30 June 2002, 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, Water and Catchment Protection.



**Bernard Bowen**

CHAIRMAN

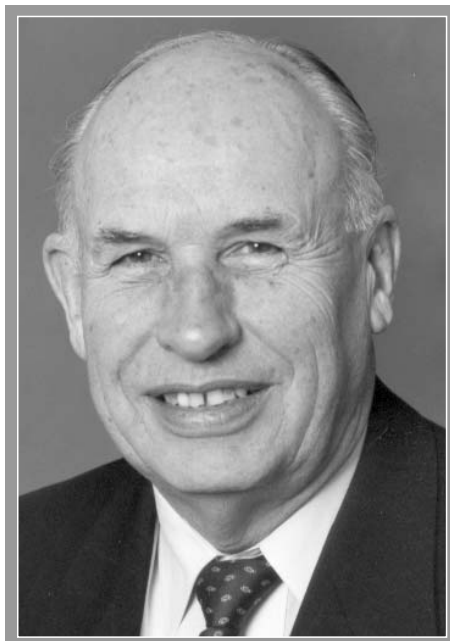
31 October 2002

Environmental Protection Authority

Westralia Square  
Level 8  
141 St Georges Terrace  
Perth WA 6000  
Phone: (08) 9222 7000  
Fax: (08) 9222 7155

# Chairman's Overview

*This report covers my fourth full year and final year as Chairman of the Environmental Protection Authority (EPA). It has been a challenging and rewarding time.*



The EPA was established by Parliament as an independent Authority with the broad objective of protecting the State's environment. This is undertaken through the process of providing overarching environmental advice to the Minister for the Environment and Heritage through the preparation of environmental protection policies and the assessment of development proposals and management plans, as well as providing public statements about matters of environmental importance. One of the avenues for public statements is this Annual Report to the Minister.

The report is structured in a manner which introduces the members of the EPA, and then provides a discussion of the major environmental issues on the EPA agenda, followed by information on the environmental assessment of proposals and planning schemes, strategic assessment and policy development. Towards the end of the report there are details of the EPA's role in the operation of the Waste Management (WA) facilities together with information on legislation issues, consultation, site visits undertaken by the EPA and the work of the Advisory Council to the EPA.

The array of matters coming before the EPA for examination during the year was diverse and challenging and included finalisation of its report on an ammonia plant on the Burrup Peninsula, a proposal to change plant processes and waste acceptance criteria at the Brookdale Liquid Waste Treatment facility, the Tonkin Highway Extension, the transport of solid sodium cyanide, enhancement of the Geraldton Port, as well as a number of proposals to clear native vegetation. Clearing continues to be a particularly sensitive matter for the EPA, but it is important that proper attention is given to the protection of the State's biological diversity. This is one of the

unique aspects of Western Australia and is most widely recognised through the magnificent display of wildflowers that attracts people from around the world.

A major part of the work of the EPA is the provision of advice to the Minister on the assessment of development proposals. These proposals may be from either the private or public sectors, including government departments. The EPA values very highly its discussions with proponents in relation to their proposals, the preparation of the environmental review documents and the establishment of environmental commitments. In addition, the EPA encourages proponents to actively pursue a strategy of effective public consultation.

An important group of proposals to come before the EPA during the year has been about industrial development in the Burrup Peninsula. The sites chosen are within the industrial area identified through the Cabinet process. However, the nature and geography of the Peninsula is such that it is a special place, not only because of the plant communities but also because of the rock art. The EPA has required proponents to demonstrate that they have identified the vegetation complexes in the general area of impact, and taken all reasonable measures to protect the areas of higher importance. However, the impact of emissions on the rock art is still a matter which requires considerable work by the companies operating in the area, in association with relevant government departments and agencies.

I take this opportunity to thank proponents of proposals, members of the community and advisers to the EPA from both the public and private sectors. I thank also the staff of the EPA Service Unit for the part each officer has played in assisting the EPA in doing the work of protecting the environment. It is very important that all those involved have confidence that the process will deliver outcomes that give full attention to environmental protection.

I also want to record my appreciation to the members of the EPA for their assistance so readily given to the work of the EPA. Finally, although it is an independent Authority, the work of the EPA is enhanced by the Chairman having an opportunity to inform the Minister of the day, the Hon Dr Judy Edwards, about matters of importance being considered by the EPA. I thank the Minister for her courtesy and friendly advice in relation to the work of the EPA.



Bernard Bowen  
Chairman

# 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 9.

## Mr Bernard Bowen, Chairman

*Member and Deputy Chairman from 14 January 1994*

*Chairman from 12 August 1997 until 1 January 2003*

Bernard Bowen was Director of the Department of Fisheries and Wildlife between 1968 and 1985, and Director of the Fisheries Department between 1985 and 1991. He was Chairman of the Western Australian Wildlife Authority between 1968 and 1985, member of the Perth Zoological Gardens Board between 1972 and 1987 and member of the National Parks Authority between 1975 and 1985.

Mr Bowen has extensive experience in marine research and management at the national and international levels. Between 1994 and 1996, Mr Bowen participated in the preparation of the national State of the Environment Report as Chairman of the Estuaries and the Sea Reference Group.

Mr Bowen has served on the CSIRO Marine Sector Advisory Committee, and is on the Life Sciences Panel of the Cooperative Research Centres program.

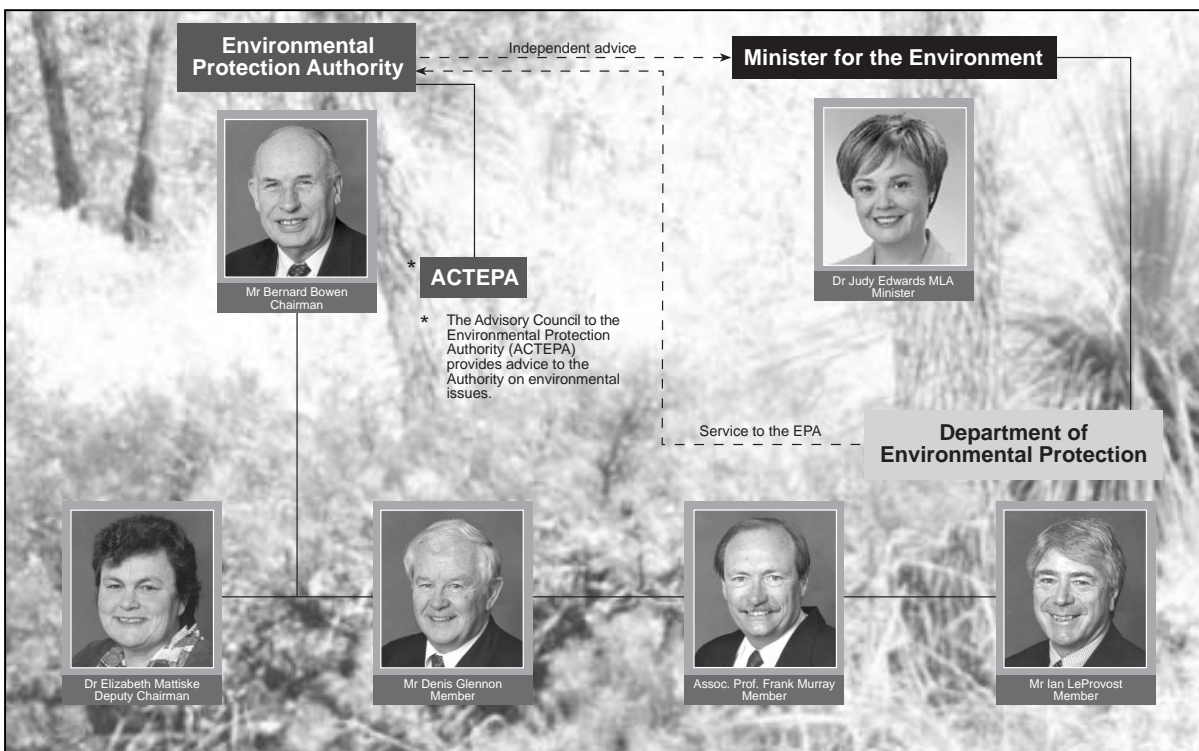
## Dr Elizabeth Mattiske, Deputy Chairman

*Member from 6 May 1998 until 5 May 2000, Deputy Chairman from 6 May 2000 until 6 May 2003*

Libby Mattiske is a plant ecologist with a Bachelor of Science with Honours and a PhD from Adelaide University.

Dr Mattiske has consulted privately in this field for many years, and is currently Managing Director of Mattiske Consulting Pty Ltd. The company conducts botanical and ecological studies and advises government agencies and mining companies on how to minimise the environmental impact of proposed developments.

Dr Mattiske's involvement with many national and state environmental committees, both past and present, includes the System 6 Committee, the CSIRO Regional Research Committee (Wildlife and Ecology), the EPA Advisory Committee on Forest Management Plans, the National Parks and Nature Conservation Authority (WA), CALM Ranking Panel for the Conservation of Western Australia's Threatened Flora and Fauna, Australian Heritage Commission, Forest and Research Committee Working Group of Scientists to Review Forest Monitoring and Research Programmes, Council for Sustainable Vegetation Management, the Australian State of the Environment Committee and the Threatened Species Scientific Committee.



Operational structure of the EPA.





Current members of the Environmental Protection Authority (from front left) Mr Bernard Bowen (Chairman), Dr Elizabeth Mattiske, (from back left) Associate Professor Frank Murray, Mr Ian Le Provost and Mr Denis Glennon.

### Mr Denis Glennon

*Member from 1 January 1998 until 1 January 2003*

Denis Glennon is Managing Director and board member of Environmental Solutions International Ltd, a company specialising in environmental management, contaminated site assessment and remediation, and hazardous waste, sludge and wastewater treatment.

Mr Glennon has a wide knowledge of environmental and pollution management systems and engineering, ecologically sustainable development and environmental management policy formulation, especially in regard to industrial waste disposal.

Mr Glennon is a Director and immediate past chairman of the Environment Management Industry Association of Australia (EMIAA), which comprises more than 200 private sector companies, research centres, tertiary institutions and Federal and State government departments.

### Mr Ian Le Provost

*Member from 1 January 2000 until 1 January 2003*

Ian LeProvost is a principal of LeProvost Dames and Moore, a specialist marine and coastal environmental consultancy within the multinational URS Corporation. He has some 30 years consulting experience in environmental assessment, monitoring and management in WA and more recently in northern Australia and SE Asia. He has been involved with most of the major marina, canal and harbour developments and offshore petroleum developments in WA since the early 1970s.

Mr LeProvost has a graduate degree in environmental science and post graduate qualifications in business management and ecologically sustainable development. He is also an accredited commercial diver.

Mr LeProvost is a board member of the WA Estuarine Research Foundation, Chairman of the Employer's Advisory Council for the School of Environmental Science at Murdoch University, and a past member and chairman of the Advisory Council to the EPA.

### Associate Professor Frank Murray

*Member from 6 May 2000 until 6 May 2003*

Frank Murray is an environmental scientist with a Bachelor of Science with Honours from London University and a PhD from the University of Newcastle (NSW).

Associate Professor Murray has conducted research on pollution and environmental management for over 25 years, and has published widely in these fields. He is an Associate Professor in the School of Environmental Science at Murdoch University, where he teaches and conducts research. He is also the Director of Postgraduate Studies at Murdoch University. He regularly acts as a consultant to the World Health Organisation, United Nations Environment Programme and the Stockholm Environment Institute on issues related to air pollution and environmental management in various parts of the world.

## MAJOR ENVIRONMENTAL ISSUES

The Environmental Protection Authority (EPA) has overarching responsibility for the provision of advice to Government on environmental matters, and the public expectation is that the EPA will assume a 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), as well as Guidance Statements and Position Statements. In addition, the EPA retains a close link with the Government Departments which have a responsibility for the management of natural resources. Further information on the role of the EPA is provided in Appendix 1.

Some elements of the EPA's custodial responsibilities are discussed below.

### Sustainability

One of the challenges facing the entire community is to ensure that the quality of life we currently enjoy will be available to future Western Australians. To achieve this will require that we change some aspects of our lifestyle to ensure that we live sustainably, with a strong vibrant society, a thriving economy and a healthy environment.

The EPA has developed partnerships with government, community and industry organisations



*Staff of the Office of the Chairman and EPA Service Unit.*

to work together towards the goal of achieving a sustainable future, recognising that the main responsibilities of the EPA relate to environmental protection.

The EPA is contributing to the development of a State Sustainability Strategy by the Government, and producing an EPA Position Statement on Sustainability with the help of Professor Ian Lowe, one of Australia's leading experts on sustainability. This Position Statement will be made public as a preliminary Statement so that there is an opportunity for key stakeholders and the community generally to provide comment to the EPA on the Statement issued. The EPA will then finalise its position and issue the Statement in its final form. The concept of sustainability is difficult to define and it is important that the EPA plays its part in the discussion which will develop as both industry and government aim for continuous improvement in sustainable outcomes. It is expected that this preliminary Position Statement will be available to the public in October 2002.



*Staff of the Office of the Chairman and EPA Service Unit.*

The EPA is incorporating the principles of sustainability into its operations and into its work on many of the issues contained in this report, including strengthening management of natural resources, protecting biodiversity and ecological processes, and promoting measures to improve the health of our environment. The translation of the principles of sustainability into operational systems is a challenging task.

## Natural Resource Management Performance Evaluation in Western Australia

There is an increasing expectation by the Western Australian community that sustainable management of natural resources be demonstrated and that governance is accountable for protecting and maintaining the values associated with a healthy environment.

This requires all agencies responsible for managing the natural environment to make evident, in a transparent manner, that sustainable management has been achieved and that progress towards sustainable management of these resources is occurring. It also requires the provision and evaluation of information in a manner that demonstrates that all parties are moving towards continuous improvement in the way natural resources are managed.

The EPA has a major role in facilitating this process, in consultation with natural resource management agencies, by establishing, in an inclusive way, overarching environmental values, objectives and targets, which agencies should take into account when giving attention to their environmental responsibilities. The EPA also has a role at the evaluation level in reviewing environmental performance against objectives and targets so as to evaluate the performance of natural resource management (NRM).

It is important that the EPA and the agencies work closely together to ensure that the process for each review of environmental performance against objectives and targets is well understood by all parties prior to the commencement of a review. This includes the provision of information, the part to be played by expert groups and feedback to the agencies on the findings of the EPA.

It is also important for the EPA to retain an independent position in these undertakings and in providing advice to the Minister for the Environment and Heritage and the public generally. This is to ensure that the Western Australian community has confidence in an impartial system of review and evaluation.

In the wider context of sustainability, this process is consistent with, and will facilitate, the implementation of the State Sustainability Strategy.

Sustainability needs a nested model that recognises economic activity within the broader needs of society and contained within the capacity of the natural ecosystem to accommodate that activity in this generation, without compromising the opportunities and choices of the next generation. Sustainability should also bring together economic, social and environmental values - and it should be considered at the local as well as regional scale. To move towards sustainability there has to be an acceptance of these needs, approached through partnerships between government, industry and the community.

The EPA will endeavor to continue to be a major player and independent adviser to Government on how these concerns can be addressed in the context of natural resource management. The EPA will work closely with the agencies and take into account the arrangements already in place to agree upon the most appropriate method to undertake this task in an independent and transparent manner.

Effective environmental performance requires organisational commitment to a systematic approach and to continual improvement in the way we manage our natural resources. A clear and defined process for protecting natural resource values and achieving objectives provides order and consistency for agencies or organisations to address environmental issues through the allocation of resources, assignment of responsibilities, and ongoing evaluation of practices, procedures and processes.

Transparency of process is fundamental to the effective development of environmental policy and to the implementation of environmental protection. To effectively address environmental issues in the State, within the parameters of the EP Act, the EPA works within an operational framework at the overarching level that uses elements of an environmental management system (Figure 1).

### **Water Resources**

Due to its scarcity, freshwater is one of Western Australia's most important natural and renewable resources. As such, water quantity and quality protection have become major NRM issues. As the Western Australian community expands, pressure on water resources will increase, especially in the South West of Western Australia where climatic conditions are becoming drier, thus compounding the issue.

The most recent Western Australian State of the Environment Report (1998) identified the key pressures on the State's inland and marine water resources. The issues were prioritised as follows: maintaining biodiversity, salinisation of inland waters, erosion, eutrophication, loss of fringing vegetation along water courses, contamination of inland and marine waters, degradation of marine

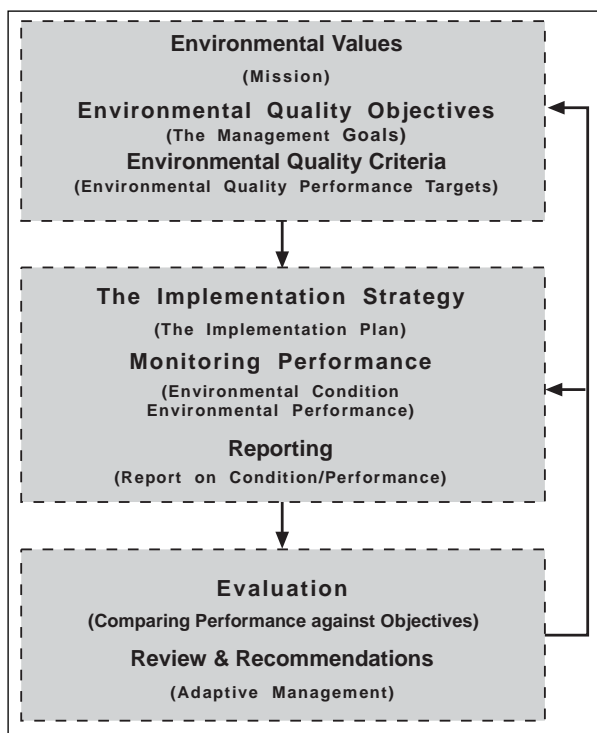


Figure 1: Overarching environmental management system, noting that the wording and framework may be amended for specific circumstances and projects.

habitats, introduction of exotic marine species and sedimentation.

The EPA plays a pivotal role in ensuring appropriate stewardship of all water resources by stakeholders and the community.

The EPA chose to respond to these issues by drafting a framework for the implementation of the ANZECC Water Quality Guidelines which facilitates the management of water resource protection generally in an open, transparent and co-operative manner. The framework is consistent with the policies and principle of the National Water Quality Management Strategy set out in the National Approach (1992 & 1994) and the State Water Quality Management Strategy Framework (1999), both signed-off by the Minister for Environment and Heritage. Accordingly, the framework is consistent with the National Objective which is:

*'to achieve sustainable use of the State's water resources by protecting and enhancing their quality while maintaining economic and social development'.*

In summary, the framework adopts the following principles:

- a holistic approach - an integrated approach to water management;
- a partnership approach - community and stakeholder involvement in selecting suitable Environmental Values (Beneficial uses) (EVs)

and Environmental Quality Objectives (EQOs) to protect water resources;

- a balanced approach - sustainability;
- an independent assessment approach - as appropriate, independent scrutiny of EVs, EQOs and Environmental Quality Criteria (EQC) for significant water resources by EPA before submission to Government;
- Government coordination approach - Government endorsement of EVs and EQOs as appropriate; and
- an Environmental Management Systems approach - a systematic approach including performance monitoring, auditing and reporting.

The process of NRM is ongoing and will take several years to fully implement. The EPA will evaluate and report on the progress of this element of NRM.

The cumulative outcome of systematically setting EVs, EQOs, Environmental Quality Guidelines (EQGs) and Environmental Quality Standards (EQSs) for each of the State's significant water bodies, and having them underpinned with appropriate monitoring, auditing and reporting (with recommendations) procedures (provisions), should be sustainable water resources that meet Western Australia's economic, social and environmental needs.

## Forest Management

The draft Forest Management Plan will be released by the Conservation Commission in August 2002. The Commission and the EPA have developed an integrated process so that the EPA assessment of the final Plan will be undertaken in the most efficient and effective manner. In doing so, the Commission and the EPA have ensured that there is a transparent process and one which provides the public with an effective opportunity to contribute for the benefit of the Commission, the EPA and the Minister for the Environment and Heritage.

The Conservation Commission is planning to submit its finalised Forest Management Plan to the EPA by the end of 2002, and the EPA expects to provide its advice to the Minister during the first quarter of 2003.

## Protection of Native Vegetation

The protection of Western Australia's native vegetation continues to be of great importance, not only because of its biological diversity and uniqueness, but also because of the part it plays in ecosystem processes. The importance of native vegetation has been brought into sharp focus in recent years through the issue of salinity in agricultural areas.

Clearing and consequential salinity are having a devastating effect on biodiversity through the direct loss of plant species and the associated loss of mammals, birds and other animals which depend upon sufficiently large areas of healthy bush for food and shelter. The Department of Conservation and Land Management has recently estimated that about 450 species of vascular plants which grow only in low lying areas of the wheatbelt are under grave threat of extinction from salinity and hydrological change. Hundreds of species of animals (particularly invertebrates) will also be seriously affected. Many of the remaining areas of native vegetation, particularly in the wheatbelt, are small islands surrounded by farmlands and the fauna are unable to move to other areas of native vegetation when they are too far apart and not linked by stepping stones or corridor areas.

During 2001 and 2002 the EPA assessed a number of land clearing proposals under Part IV of the EP Act following their referral by the Commissioner of Soil and Land Conservation. In considering these proposals, the EPA has taken into account both the individual characteristics of each proposal and the EPA position set out in its Position Statement Number 2 entitled *Environmental Protection of Native Vegetation* (EPA, 2000).

The EPA has long been concerned with the environmental consequences of clearing in the agricultural area and, while appreciating that there are matters of equity to be considered by Government, holds strongly to the view that, from an environmental perspective, it is unreasonable to allow further clearing to be undertaken for agricultural purposes.

Proposed amendments to the EP Act are expected to streamline the government processes for consideration of future clearing proposals and reduce the requirement for their referral to the EPA.

It is also expected that the application of the EPA's recently published Position Statement Number 3 entitled *Terrestrial Biological Surveys as an element of Biodiversity Conservation* (EPA, 2002) and the related Guidance Statements, which are currently being prepared, will improve the level and quality of information available for the assessment of developments that impact on native vegetation.

### Subterranean Fauna

Subterranean fauna, mostly invertebrates, has emerged as an important element of the environment requiring special attention in the assessment process. These fauna live in both the terrestrial (troglotic fauna) and the aquatic (stygo fauna) environments.

Subterranean fauna are important because of their species richness, evolutionary history and adaptations,

the evidence they provide about continental drift, and their biodiversity value generally.

The EPA has been assisted in its consideration of subterranean fauna by Dr Philip Playford who prepared a report 'Subterranean biotas in Western Australia' for the EPA and by officers of the Department of Conservation and Land Management and the Museum. The Department of Conservation and Land Management is assisting the EPA in the preparation of a Guidance Statement on the sampling requirements for subterranean fauna. This Statement will be released for public comment before the end of 2002.

### Best Practicable Environmental Management

The EPA encourages all proponents to design and operate their facilities according to the principles of 'best practice'. While all developments must meet mandated standards, proponents of new developments which are before the EPA for assessment are encouraged to take all practicable measures to prevent, control and abate pollution, consistent with the wording in the EP Act.

Given the number and range of developments to which the concept of 'best practice' may apply, the wide range of actions that could be taken consistent with this approach, the new information that has become available on potential impacts of pollutants on human health and the environment, and new technologies that have become available to manage wastes, the EPA has decided to provide guidance to proponents on the concepts it has in mind in regard to the practical application of best practice. The EPA has commenced the process of developing an EPA Guidance Statement on how 'best practice' may be applied by proponents during the formulation of proposals and how the EPA will interpret the concept during its assessment of such proposals.

To this end, the EPA commissioned a scoping report by Welker Environmental Consultancy entitled *Best Practice in the Prevention of Waste Discharges*. This report is the starting point for consideration of the issue and the preparation of a draft Guidance Statement.

The Guidance Statement will address the new policy principles and approaches to environmental management that have been developed and adopted around the world within the last decade. These include the use of the principles of eco-efficiency and the waste hierarchy to encourage the avoidance of waste, the prevention of pollution and discouraging the over-consumption of resources. The EPA believes it should encourage consideration of pollution prevention options in preference to 'end of pipe' solutions. The Guidance Statement also seeks to integrate environmental management

across all media through the consideration of waste, in preference to having separate policies for each medium (air, water, land, etc).

The proposed Guidance Statement is part of the EPA's approach to developing and promoting non-regulatory approaches to support and complement regulation.

Among the issues that will have to be considered in the development of the Guidance Statement is how the EPA applies the concept of 'best practice' across the wide range of projects that come before it, recognising that proposals may come forward at different stages of development and certainty.

The EPA expects there will be considerable interest in a Guidance Statement on 'best practice' and intends to consult widely to obtain a full range of views during the preparation of the final document.

### Burrup Industrial Development

The Burrup Peninsula has been identified as an area of particular importance during 2001/2002 because of the rapid development of proposals for the sites selected for industrial use through the Cabinet process.

While the Woodside LNG facility is still the only major industrial plant on the Burrup, there has been considerable activity in the last two years on the assessment of proposals for the area, as set out in Table 1.

This group of projects represents a significant planned addition to the level of industrial development on the Burrup. When combined with the existing and planned expansions to Woodside LNG operations and the Syntroleum Gas to Synthetic Hydrocarbons Plant approved in 2000/01 (but not yet built), this group of projects would take up much of the available land zoned for industry on the Burrup Peninsula. A consequence of the planned increase in industrial development on the Burrup is the significant increased level of potential cumulative impacts. A discussion of the range of issues raised follows.

### Air Quality

Air emissions from individual projects, and as a cumulative impact, have been assessed, using available National Environment Protection Measure limits. These limits were largely developed for the protection of human health. Effects on other organisms or natural processes can occur at lower concentrations of pollutants but no data on these effects are known for the range of native plants, animals and heritage items, such as rock art, that exist on the Burrup.

Studies generally concentrate on the 'criteria pollutants' including nitrogen oxides, sulphur oxides and particulates. In some circumstances, other pollutants such as volatile organic compounds, poly aromatic hydrocarbons and heavy metals may require consideration.

Table 1: Existing and Potential Burrup Industrial Developments

<b>Existing projects</b>
Woodside LNG Plant
<b>Industrial assessments in process or reported on in 2001/ 02</b>
Methanol Plant – GTL
Export Ammonia Plant – Burrup Fertilizers
Dimethyl Ether Project – Japan DME
Ammonia Urea Plant - Plenty River/ Dampier Nitrogen
Methanol Complex – Methanex
Pilbara Ammonium Nitrate Project
<b>Support projects in process or reported on in 2001/ 02</b>
Extension to Nickol Bay Quarry
Multi-user Seawater Supply System and Wastewater Outfall
Dampier Public Wharf Expansion
Service corridors
<b>Industrial projects assessed in 2000/01</b>
Gas to Synthetic Hydrocarbons Plant – Syntroleum

Furthermore, ammonia and urea may have deleterious effects on plant growth and composition in a naturally nutrient poor environment. Photochemical smog and ozone may be of concern as the number of industries increases. While acid rain is a more familiar concern in other places, dry deposition is the more likely mechanism of pollutant deposition most of the time on the Burrup.

Other systems that may be affected by air emissions are plants, fresh water rock pools, land snail species known to have very limited distributions and petroglyphs (rock art).

The EPA notes that the Office of Major Projects, on behalf of the WA Government, has recently commenced a four year study to establish a baseline for petroglyphs and investigate potential causes of their deterioration in the Burrup. The EPA considers there is a further need for government/industry to develop and implement a management plan to monitor, evaluate and manage impacts on other conservation values, including vegetation, fauna (land snails) and ephemeral pools. This management plan should:

- determine the deposition rates of acidic gases and nutrients (ammonia and urea) from proposed and existing industry on the Burrup; and
- establish criteria that would be protective of the Burrup vegetation, fauna and ephemeral pools.

The other air quality issue is that proposals are assessed by necessity on a case by case basis. As more developments are placed on the Burrup, cumulative impacts and co-ordinated management will need to be considered. This applies particularly to the issue of ensuring that all the available airshed capacity is not taken up by one or two industries. In this regard, it is understood that Woodside is looking at further emissions reductions for its existing operations.

### ***Noise and other Amenity Issues at Hearson Cove***

Hearson Cove is the only local swimming beach with two wheel drive access. Potential noise, odour, aesthetic and light overspill impacts therefore require careful management.

Industries are required to meet the Noise Regulations which stipulate a 65dBA limit at the plant boundary. They are also required to take 'all reasonable and practicable measures' to further reduce impacts. Cumulative noise modeling of planned Burrup proposals, using current design parameters, indicates that a noise level of about 48dBA will occur at the northern beach shelter on Hearson Cove. While the principle of 'all reasonable and practicable measures' requires

proponents to reduce impacts as far as is practicable within that definition, a level of 45dBA at the beach could be regarded as an aspirational goal to provide some guidance to proponents. While this aspirational goal is not mandatory, it provides some guidance on a target for all proponents to strive to achieve.

With regard to the whole range of amenity issues, industry and government should be encouraged to work with the community to increase mutual understanding and acceptance of what are desirable and tolerable levels of amenity. Such an approach has commenced with work commissioned by the Office of Major Projects to define what some members of the community regard as acceptable noise levels.

Control of potential impacts at source is an important and usual means of managing effects on Hearson Cove. Two other approaches to the resolution of amenity issues are worthy of consideration. Firstly, it would be possible to reduce significantly the level of noise and the affects of visual and light overspill by providing screening at the beach. Some years ago a dune existed at the back of the beach prior to its removal for construction sand. It would be possible to reconstruct this feature, perhaps by using sand recovered from regular dredging operations off the west side of the Burrup, and then vegetating it with hardy local plants. A properly designed, located and landscaped sand bund would materially improve the control of noise, light and visual impacts on the beach.

An alternative approach would be to provide two wheel drive access to another beach. The site most often mentioned is Conzinc Bay, on the northwestern side of the Burrup. Conzinc Bay is an attractive, sandy beach with much to recommend it as a recreation site, although it is not entirely screened from existing industry. However, careful consideration would need to be given to opening up the northwestern side of the Burrup significantly increasing visitation pressure on an area which is home to petroglyphs and other conservation features. If access to Conzinc Bay were to be improved, it should be done on the basis of careful expert planning and appropriate management of the range of impacts that could be expected on a wider area of the northern Burrup.

### ***Flora***

The EPA recognises that the vegetation complexes of the Burrup are important both in their own right and in a regional context. The Burrup Land Use Plan protects a large northern area of the Burrup as a conservation reserve, and based on the information available in 1994, the EPA set out in Bulletin 801 that "all vegetation communities on

the Burrup Peninsula are all represented in the northern area of the Peninsula". Nevertheless, the vegetation in the industrial site is also important, and the EPA expects proponents to take reasonable measures to minimise the impact on the vegetation communities of highest importance as defined at a local and regional scale.

The EPA has requested proponents to undertake flora surveys in the area of their interest and take account of information provided on a regional basis. The EPA then expects proponents to avoid vegetation communities of highest importance when planning their design layout. Provided proponents give proper attention to this aspect of their proposal, the factor of vegetation is unlikely to be a major constraint in the EPA's assessment.

### ***Co-ordinated Management Plan for Non-Industrial Land***

There have been a number of starts made on a management plan for the land not designated by Government for industry. Much of the remaining area on the Burrup has been flagged for conservation and recreation.

Land tenure on the Burrup comprises a Temporary Ministerial Reserve, and through the Cabinet process part of the reserve has been designated as an area for industrial development and the remainder for conservation and recreation. In order to allow co-ordinated management of the non-industrial land, tenure will have to be adjusted to allow an agency such as CALM to manage that land, and this cannot take place until resolution of Native Title considerations. However, it would be possible to proceed with management planning for conservation in parallel with the Native Title process, in consultation with the Native Title claimants, and to manage the land as if it were zoned for conservation in the interim while future tenure is sorted out.

The EPA encourages Government to move in a timely manner towards the preparation of a management plan for the conservation area of the Burrup. There is increasing public awareness of the environmental values of the area and public interest in the impacts of industry on those values.

### ***Marine***

An area of impact from existing and proposed industry on the Burrup Peninsula for which there is limited background data is on seawater quality around the Burrup. The Water Corporation, as proponent for the multi-user ocean discharge pipeline, is expected to acquire these data in time to assist the EPA in the assessment of future proposals and the setting of appropriate conditions on Works Approvals issued for developments on the Burrup.

### ***Risk Management***

Government is encouraged to perform a cumulative risk analysis when detailed design data are available for the existing and proposed industries for the Burrup.

At present there is no policy position on the acceptable risk levels that apply to a conservation zone of the Burrup. During the environmental impact assessment of projects to date, and interim risk level of  $1 \times 10^{-5}$  has been used as being acceptable for the conservation areas. This figure was derived from the risk criteria for recreational activities within an industrial buffer. Users of Hearson Cove traverse the area zoned for industry as they cross the Burrup. Attention needs to be given to an alternative egress route from Hearson Cove beach in the event of an emergency on the industrial land.

### ***Maitland Estate***

The EPA recognises the attractions of the Burrup Peninsula to industrial development focused around the supply of natural gas. However, the EPA encourages Government to expedite planning for the establishment of infrastructure so as to have available the Maitland Industrial Estate for future development projects.

The Burrup is a special place, and on-going planning is required to ensure the orderly use of the areas available for industry, taking into account the community's increasing understanding of the environmental and social values of the Burrup Peninsula.

### ***Perth's Water***

There has been a significant reduction in average rainfall over the past two decades. This has led to a growing concern about the impact that this decline, coupled with groundwater abstraction, is having on the environmental values of the Gnangara Mound and Jandakot Mound.

In recent years, wetland and groundwater levels have fallen below those considered acceptable in the mid-1990's. Criteria were established on the Gnangara Mound through Ministerial Conditions in 1995 and 1998 to define levels below which the range of significant environmental values would be threatened. Since the late 1990's, some of these criteria have been exceeded over several years. Similarly, some of the criteria set in 1992 on the Jandakot Mound have been exceeded in recent years. The management of the water resources on the Gnangara and Jandakot Mounds is being reviewed under section 46 of the EP Act. The section 46 review will be staged and is expected to progress into 2004.



As part of a strategy to provide additional capacity to Perth, the Water Corporation sought approval from the Water and Rivers Commission and the EPA to develop three bores into the deep and confined Yarragadee aquifer during 2002. These bores are intended to add 15 GL to water supplies. Following a review, the Water and Rivers Commission agreed to approve these bores, subject to a number of conditions. As a result, the EPA decided to not assess the proposed bores, on the basis of the conditions to be applied by the Commission. This decision by the EPA is currently the subject of appeal to the Minister for the Environment and Heritage.

The lower rainfall has also seen even larger reductions in runoff into the hills dams. This became critical in 2001/02, when inflows into the dams supplying Perth were near the lowest ever recorded. This resulted in more severe water restrictions. In anticipation of the unlikely event that very poor runoffs would be experienced in a succession of future years, the Water Corporation prepared a number of options to provide sufficient water to Perth under circumstances of very low dam levels. These options were predicated on having bans on outside watering and being able to abstract a guaranteed amount of groundwater from existing schemes. The options being assessed by the EPA comprise additional groundwater taken from current Water Corporation bores, or three new bores into the deep Yarragadee aquifer, or a new reverse osmosis desalination plant in Kwinana.

The EPA has indicated its intention to assess the new proposals (Yarragadee bores and desalination plant) through an Environmental Protection Statement, and to provide Section 16 advice on the other aspects of the options.

### **Peel-Harvey Progress and Compliance Process – Expert Review Group**

The Expert Review Group, established by the EPA to provide advice on the Peel-Harvey Progress and Compliance Report, is in the concluding stages of completing its report. The report will comprise three specialists reports on aspects of the Peel-Harvey strategy as well as an overarching report.

The EPA will be considering the final report of the Expert Review Group and will be reporting to the Minister for Environment and Heritage.

### **University Linkage Projects**

The EPA is mindful of the assistance provided by University staff within the environmental disciplines when matters of concern to the EPA are being discussed, and a wider area of expertise is needed.

In recognition of the desire to foster excellence in environmental assessment standards, to obtain

additional intellectual input, and to raise University awareness of current environmental issues, the EPA decided to set aside a small amount of money to assist post graduate students in areas of work of particular interest to the EPA. The assistance provides funding for travel and accommodation, field work and other encouragements such as prizes for outstanding performance by students in a relevant environmental area.

The programme commenced in October 2000. The EPA was briefed on the outcomes of two of University projects funded in previous years:

- biodiversity; and
- terrestrial fauna surveys.

The EPA has agreed as an outcome of these University projects to prepare a Position Statement entitled 'Biodiversity' and a Guidance Statement entitled 'Standards, Protocols and Best Practice for Conducting Fauna Surveys'. Scoping papers for the writing of these documents is in preparation.

There have been three grants awarded and funded this financial year totalling \$7,765. One grant was to a PhD project, one to an honours student and one to third year environmental management students as a group. The areas of work sponsored by the EPA include a review of the sustainability of land management practices in the Yornaning catchment, a workshop on fauna biodiversity as part of an overall PhD project and the technical editing of a discussion paper on "Sustainable Urban Development".

The students will be making presentations to the EPA on the results of their research work, with special emphasis on the aspects which they believe are of most importance to the EPA decision-making process.

## **ENVIRONMENTAL ASSESSMENT OF PROPOSALS**

The EPA assessed a diverse range of development proposals covering resource developments, industrial processing, infrastructure and land use developments, as well as planning schemes and amendments.

A total of 515 development proposals and planning schemes were referred to the EPA for consideration in this reporting year. Of these, the EPA determined that 50 proposals required formal assessment, reporting and recommendations to the Minister for the Environment and Heritage. A further 208 required informal review with specific advice to the proponents.

During the year, 37 formal assessments were completed, including 4 which provided strategic advice under s16(e) of the EP Act. A list of these is set out in Appendices 2 through 5. Some of the

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

## Demonstrating Environmental Acceptability

The environmental impact assessment process (EIA) is predicated on the proponent being responsible for demonstrating its proposal is environmentally acceptable. During the process the EPA works with the proponent to assist in defining what is considered acceptable for its project. An important part of the process is the proponent undertaking the necessary environmental studies and surveys and preparing its environmental review document.

In their environmental review documents, proponents need to:

- describe the impacts on the environment of their proposal;
- show that 'best practicable' steps have been taken to 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 their proposal, both individually and in total, should be judged by the EPA to be environmentally acceptable.

Contemporary environmental protection principles require that, as a society, we no longer simply meet minimum environmental standards, but that we adopt best practicable steps to avoid and minimise impacts. This applies particularly to the emission of pollutants. Consistent with this, through the EIA process, proponents need to demonstrate that they will be adopting best practicable environmental measures as part of their proposal. The EPA appreciates that there are no formal specifications of what constitutes best practicable measures for all situations where emissions or other environmental impacts will occur (refer section on Best Practicable Environmental Management).

However, as part of the EIA process, the EPA expects proponents to investigate this, to the extent possible, in justifying that what they are proposing represents best practicable measures. The EPA recognises that in some circumstances proponents will not have advanced sufficiently with the design of their project and selection of technology to demonstrate best practicable measures during the EIA process.

In these circumstances, the EPA expects that proponents would commit to demonstrating 'best

practicable' measures during the design phase of their project, and before they submit an application for Works Approval. This would then become part of the conditions of approval for the project.

For many environmental factors, particularly those related to impacts on the biological and physical environment, defining environmental acceptability is not straightforward. There are no simple answers to 'how much biodiversity can we lose?' or 'what is the sustainable capacity of this system?'. The difficulty is compounded by limitations in our ability to define with confidence ecological responses or consequences associated with particular impacts, or combination of impacts, in both a local and regional context.

The EPA recognises that it is often not possible for proposals to avoid all impacts on biological and physical systems. However, where impacts are unavoidable, the EPA does expect that proponents should develop appropriate mitigation measures as part of their proposal. This applies particularly to the loss of vegetation and wetlands. Proponents should develop mitigation strategies which seek to increase protection of, or restore, environmental values elsewhere for those lost as part of the project. The EPA believes that as part of good corporate environmental responsibility, proponents should seek to ensure that their proposal results in a 'net environmental benefit', as far as is reasonable.

To assist proponents in the EIA process, the EPA has been preparing Position Statements and Guidance Statements to provide information about the EPA's thinking in relation to aspects of the assessment process, including environmental acceptability, to guide proponents on the standards and information requirements for assessment.

In parallel with this, where proposals involve major environmental issues and acceptability criteria are uncertain, and where there is a need to have the highest degree of confidence in the prediction of impacts and their consequences, the EPA is increasingly encouraging proponents to establish peer review panels of specialists to guide them in their environmental studies and review their environmental documents before being submitted to the EPA and released for public comment. Often, in addition to being experts in a particular environmental field, peer review panel members have specific knowledge related to the geographic region where the proposal is to be located, such that the regional cumulative impacts can be considered more thoroughly.

The EPA also encourages meaningful consultation by proponents with relevant public and government agency stakeholders during preparation of their environmental review reports, as part of best practice environmental impact assessment.

It is the EPA's experience that where proponents clearly embrace the environmental impact assessment process and accept that it is not only their responsibility to define the impacts of their proposal and how they intend to manage these, but also to consider their proposal in a broader bioregional, ecosystem, and social surroundings context, and to justify the acceptability of the proposal, they have less difficulty with the environmental impact assessment process and produce a higher quality project in terms of environmental outcomes.

## The Importance of Context

An important starting point for the EPA in carrying out environmental impact assessment is the consideration of the type of proposal and the environmental context of the proposed location.

Context may include aspects such as:

- current land uses on the site and in the general region;
- land tenure;
- the environmental values of the site and nearby areas;
- community expectations about the appropriate use of special areas, including national parks and nature reserves, and how these expectations may impact upon other proposed activities;
- biodiversity on-site and in a regional context;
- the environmental 'balance sheet' in regard to potential environmental gains and environmental losses from the proposal, on both local and State scales; and
- the balance between an individual's perception of their right to develop and the collective interests of the community in relation to wise use of environmental resources and intergenerational equity.

There are many aspects taken into account by the EPA in forming its overall judgement of environmental acceptability, including consideration of the overall environmental costs and benefits, and who bears those costs (community, proponent or a reasonable balance).

An ideal development could be regarded as one which demonstrates good environmental outcomes and can be regarded by the community as a socially justifiable development, in terms of overall environmental costs and benefits. Such a project would achieve a sensible balance between environmental costs and benefits and would not put an unreasonable burden on the community to bear the environmental costs, either in this generation or in subsequent ones.

## Revised Environmental Impact Assessment Administrative Procedures

As part of its approach to continuous improvement, and following consultation with key stakeholders during 2000/01, the EPA gazetted revised Administrative Procedures in February 2002 to improve the timeliness and effectiveness of the EIA process.

The key features of the revised procedures include:

- introduction of a 'referral form' setting out the information required to be included with referrals from proponents and decision-making authorities;
- where a proposal is subject to formal assessment, the proponent will be required to prepare an Environmental Scoping document setting out, amongst other things, the key environmental issues arising from the proposal and the surveys and investigations the proponent intends to undertake as part of the EIA;
- a requirement for proponent environmental review documents to describe key ecosystem processes and provide a regional setting, and to consider existing cumulative impacts, particularly with regard to impacts on biodiversity;
- a requirement for proponent environmental review documents to identify environmental benefits which would be included in, or provided by, the proposal, and concluding justification as to why the proposal should be found to be environmentally acceptable;
- increased requirement for peer review of proponent environmental review documentation and its contents;
- early involvement of the EPA in reviewing and agreeing to the Environmental Scoping document, and regular involvement of the EPA during the assessment, to address critical matters at the earliest stage possible; and
- improved documentation setting out the EPA's requirements for EIA, and providing clearer advice on EPA environmental objectives.

## Timelines for Environmental Impact Assessment of Proposals

The EPA recognises that proponents are usually keen to obtain environmental approval for their projects as early as possible to assist with establishing 'bankability' for the project. However, proponents need to appreciate that the 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. Time must also be allowed for the Minister for the Environment and Heritage 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 continuously seeking to improve timelines for assessments, adequate time must be allowed to undertake responsible EIA.

The recently released Review of the Project Development Approvals System by the Independent Review Committee (April 2002) noted that the EPA was one of the few government organisations which kept comprehensive data on timelines for its processes. Data provided to the Review Committee analysing the time taken for the assessment of major projects over the last 4 or so years is summarised in Table 2.

The data shows that, on average, 63 weeks is required for the assessment of a project (note that this does not include the time for public review which varies from 4-10 weeks, and the 2 week statutory appeal period on the EPA's report).

Approximately 40% (26 weeks) of this time is with the proponent preparing its environmental review document and 40% with the proponent responding to submissions and the EPA's assessment and reporting. The remainder is for appeal determinations and Ministerial consultation on Conditions.

The EPA's experience is that, generally, where proponents allow adequate time in their project feasibility and planning stage to undertake thorough environmental impact assessment studies, consult with the community and evaluate ways to minimise and mitigate environmental impacts of their project, they are able to progress through the EIA process in reasonable time to meet their overall development schedule.

Where proponents seek to compress the period for undertaking their environmental assessments 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 and Heritage is delayed.

To assist in improving timelines, in September 1999 the EPA introduced a number of new levels of assessment to streamline the assessment process for certain proposals, where their impacts were expected to be reasonable and manageable. These are now referred to as 'Assessment of Referral Information' (ARI) and 'Environmental Protection Statement' (EPS) in the revised Administrative Procedures for EIA referred to above.

Since the introduction of these new levels of assessment, 18 projects have been assessed through these processes. Of these, only 2 had appeals against the level of assessment, and only one of these required to be resubmitted to the EPA for a higher level of assessment.

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 their environmental studies and preparing their environmental document, and addressing issues raised, so that once the EPA has received their report there is no need for a formal public review period. As such, the EPA aims to provide its report and recommendations to the Minister for the Environment and Heritage within 4 weeks of receiving the proponent's final environmental document, thereby significantly streamlining the process.

## MAJOR PROJECTS

Of the proposals assessed during 2001/2002, the EPA was particularly pleased with the quality of environmental assessment, the consideration of ways to mitigate for environmental impacts, and the proponents' willingness to consider alternative approaches to achieving a positive environmental outcome with the following proposals:

- Simcoa Operations Pty Ltd's Extension of Quartz Mining and Strategy for Resources

Table 2: EPA timelines for major projects (39 projects, 1996/97-Oct 2000)

	No. weeks LOA set to proponent report release	No. weeks end of public review to EPA report release	No. weeks end appeal period to public statement	Total no. weeks
Mean	26.07	26.91	10.06	63.04
High*	130	97	86	161
Low*	6	7	1	24

\*represents extremes across separate projects. Total is not cumulative



*EPA site visit to Burrup Peninsula, Karratha, 9-10 July 2001. From left to right: Peter Randolph, Aboriginal Affairs Department, Ian Le Provost EPA member, Ben Hollyock, DEWCP regional officer, Bernard Bowen, Chairman, (EPA), Associate Professor Frank Murray (EPA) and Cam Kneen, Department of Minerals and Petroleum.*

Access and Biodiversity Conservation at Moora; and

- Western Power Corporation's Transmission Line from Pinjar Gas Turbine to Cataby Substation.

A number of the more significant assessments completed during the year are discussed below.

### **Turquoise Coast Development, Jurien Bay**

In October 2001, the EPA completed a Strategic Assessment of a proposal for urban, recreation and tourism development of 2006 hectares of land immediately to the south of the existing Jurien bay townsite. The site is located adjacent to the coast and Hill River and contains approximately 1500 hectares of bushland.

The site is zoned for 'Special Development' purposes and is proposed to be developed as a long term project by the owner, Ardross Estates. The EPA was approached by Ardross Estates to provide strategic advice on key environmental issues associated with the development as a key input for structure planning for the site. In order to assist in this process, Ardross Estates produced an Environmental Report which was released for public comment in August 2000. Feedback from the community on this document, along with detailed interaction with the proponent on key environmental issues was used by the EPA in providing its advice on the project.

Key issues considered by the EPA in the assessment included vegetation clearing, nature conservation and biodiversity, protection of the Hill River, wetland and coastal protection, conservation of key landform units and landscape features, marine environment and environmental sustainability.

As an outcome of the strategic assessment process, Ardross Estates agreed to set aside considerable portions of the site for conservation purposes. The EPA considered that, subject to the satisfactory protection of these areas, and the incorporation of its advice on the key environmental factors for the site into structure planning, urban development of portions of the site could be environmentally acceptable. The EPA strongly recommended, however, that the development of the site be undertaken in a manner which integrates development with the natural character and landscape of the region and embraces a vision of environmentally sustainable development.

### **Ammonia Plant, Burrup Peninsula**

Burrup Fertilisers proposed to construct and operate a 2,200 tonne per day ammonia plant at the King Bay – Hearson Cove Industrial Area on the Burrup Peninsula. Most of the ammonia is to be exported to India as a feedstock for a large fertilizer complex.

The environmental review document for the proposal was available for public review in August 2001 and the EPA released its report and recommendations in December 2001.

The relevant environmental factors identified through the proposal and submissions on the proposal were:

- terrestrial flora;
- terrestrial fauna;
- gaseous emissions;
- greenhouse gas emissions;
- noise;
- off-site individual risk; and
- liquid effluent management.

The King Bay – Hearson Cove valley has been identified for industrial purposes. However, the EPA was concerned that the project may impact on vegetation considered to be of high conservation value. Although impacts on vegetation could not be avoided altogether, the EPA was satisfied that the proponent had optimised the layout of facilities within its project lease to minimise the impacts on significant vegetation.

The EPA was satisfied that there would not be off-site odour impacts since ammonia will not be emitted from the stack under normal operation and would be flared during upset conditions. The main gaseous emissions from the plant would be oxides of nitrogen, but the EPA considered the emissions to be relatively small.

The greenhouse gas emissions from the ammonia plant would be significant (1.4 mtpa) representing almost 0.4% of Australia's 1990 baseline for greenhouse gases (386 Mtpa).

The EPA was satisfied that the proposed plant would be thermally efficient and that all reasonable and practicable measures had been taken by the proponent to minimise greenhouse gas emissions. The proponent is required to submit a Greenhouse Gas Emissions Management Plan with the aim of further reducing greenhouse gas emissions over the life of the project. Although the EPA did not set specific offset measures for greenhouse gas emissions, the proponent has committed to investigate offsets and adopt practicable and feasible offset measures.

The ammonia plant would discharge wastewater and brine into the marine environment via the Water Corporation's proposed Brine Discharge System. The EPA was concerned about the potential cumulative impacts on King Bay and Mermaid Sound from contaminants and nutrients discharged from this project and future developments. However, the proponent proposed to utilise a range of treatment processes on its liquid waste streams such that the combined brine and wastewater stream is expected to meet the ANZECC/ARMCANZ (2000) 99% species protection trigger levels on entry to the Water Corporation's Brine Discharge System. The EPA considers the project sets a good standard with respect to wastewater discharge for successive proposals on the Burrup Peninsula.

In its assessment of this project the EPA recommended;

- the formation of a King Bay – Hearson Cove Industry Group to jointly manage cumulative environmental impacts, particularly with respect to researching and monitoring impacts of gaseous emissions on the bio-physical attributes of the area; and
- a study of cumulative impacts of industrial development on the amenity of Hearson Cove, particularly with respect to impacts from noise emissions.

## Long Term Shell Sand Mining, Cockburn Sound

In November 2001, the EPA reported on a proposal by Cockburn Cement Limited (CCL) to continue dredging shellsand in the Owen Anchorage area in the long-term. The proposal was assessed as an Environmental Review and Management Programme (ERMP), which was released for a 12 week public review period.

CCL's long-term proposal comprised two stages. Stage 1 (mid 2002 – 2014) involved dredging a 1.5km wide by 15m deep seaway through Success and Parmelia Banks and the removal of 168.5ha of seagrass and 264.5ha of shallow bare sand to recover 30 million tonnes of shellsand. Stage 2 (2014-2034) involved removing approximately 350 ha of bare



*EPA site visit to Learmonth Limestone Quarry proposal 31 August - 1 September 2001.*

*From left to right: Bernard Bowen, Chairman, EPA, Kim Taylor, Director Environmental Impact Assessment, Scott Bird, proponents consultant and Juliet Cole, EPA Service Unit project officer.*

sand, from West Success Bank to recover 60 million tonnes of shellsand.

The EPA found that this proposal could be made environmentally acceptable subject to nine recommendations. The key conclusions and recommendations arising from the EPA's report included:

- the recognition of the important role that seagrass plays as a primary producer and a habitat;
- the removal of some seagrass from Success and Parmelia Banks, during a reduced Stage 1 operation would be unlikely to have a significant environmental impact in Owen Anchorage;
- CCL should relocate its dredging operations to areas of West Success Bank, where there is no seagrass, as soon as practicable, and that this should be achieved in considerably less time than the 12 years as originally proposed for Stage 1 of the proposal;
- the Minister for the Environment and Heritage should liaise with the Minister for State Development to agree upon a programme for timely relocation; and
- there was an opportunity to address the issue of wider seagrass protection through changes to CCL's Agreement Act, extension of the Shoalwater Islands Marine Park, and protection of seagrass on the balance of East Success Bank and Parmelia Banks.

In addition to the above, the EPA recommended that the proponent prepare and implement a Dredging and Environmental Management Plan for

Success and Parmelia Banks, and a Seagrass Research and Rehabilitation Plan.

Nineteen appeals were received against the EPA's report and recommendations. As a result of the EPA's recommendations and the appeals investigation a revised dredging plan was developed for Stage 1 of the proposal. This modified dredging plan reduced the impact on seagrass areas from 168.5 ha to 53 ha of seagrass and reduced the extent of dredging to:

- widening of the existing shipping channel to 350 metres;
- completion of the second shipping channel to a width of 350 metres;
- 19 hectares in Success Bank; and
- 52 hectares in Parmelia Bank.

In addition, access to the modified Stage 1 area within Owen Anchorage was limited to an absolute maximum of 8 years. This included a change in tenure such that CCL would give up rights to dredge areas inshore from the shipping sea-lanes and would fund a series of programmes related to the management of Owen Anchorage by the Cockburn Sound Management Council.

In determining the appeals, the Minister for the Environment and Heritage supported the EPA's recommendation to place some important seagrass areas in marine reserves to provide more secure conservation of remnants in the Cockburn Sound and Owen Anchorage areas through the northward extension of Shoalwater Islands Marine Park.

### **Coral Coast Marina Development, Maud's Landing**

In 1995, the EPA assessed a proposal by Coral Coast Marina Development Pty Ltd (CCMD) to develop a marina-style tourism resort and residential subdivision at Maud's Landing, 3km north of Coral Bay. The EPA found that this proposal was environmentally acceptable, subject to 9 recommendations. In determining appeals received on the EPA's report, the then Minister for the Environment determined that the proposal should not proceed.

In 1999, State Cabinet invited CCMD to submit a revised and scaled-down proposal for a tourism development at Maud's Landing and endorsed a set of planning and environmental guidelines for the proposal. In May 2000, CCMD referred its proposal to the EPA. The level of assessment was set at PER with a public comment period of eight weeks.

During the public comment period, the PER drew wide public interest and scrutiny resulting in a large number of submissions to the EPA.

The EPA is considering the proponent's response to public submissions and anticipates that an EPA report will be released in 2002. Key issues of interest to the EPA are impacts of the proposal's 'foot print', as well as the implications of the proposal for management of visitors in the southern section of the Ningaloo Marine Park.

The Commonwealth environment protection agency, Environment Australia, is also undertaking a formal assessment of the proposal under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

### **Geraldton Port Authority Port Enhancement**

In June 2002, the EPA reported on the Geraldton Port Authority's proposal to upgrade the Port of Geraldton (Port Enhancement Project (PEP)) and undertake preparatory works for the City of Geraldton's Town Beach Foreshore Redevelopment project.

The objective of the PEP was to enable Handimax vessels to sail from the port fully laden. Due to depth restrictions in the harbour basin and shipping channel, this is currently not possible.

The PEP is a large-scale dredging and construction project with environmental impacts in a number of areas. The proposed dredging programme, construction of the 'eastern breakwater' and the port's impacts on coastal stability were issues that required detailed evaluation in the EPA's report.

One of the impacts of the proposal is the loss of seagrass habitat in Champion Bay as a result of dredging and reclamation. The EPA assessment found that the PEP would result in the irreversible loss of approximately 30 hectares of seagrass habitat. Whilst the EPA concluded that the loss of seagrass due to the PEP was acceptable, the EPA noted that the cumulative loss of seagrass habitat from historical port activities and structures in Champion Bay amounted to 145 hectares. In view of the cumulative seagrass loss, the EPA advised that if there were other proposals in Champion Bay, any further loss of seagrass would be an issue requiring detailed consideration.

The EPA also considered the risk of the 10-month dredging campaign impacting on further areas of seagrass due to excessive turbidity generation. As part of its consideration, the EPA looked at the proponent's strategy of defining 'trigger' levels based on the light requirements of seagrass and adjusting the dredging operations based on monitoring against agreed 'trigger' levels. Taking into account the proponent's strategy for managing excessive turbidity, the EPA was satisfied that the large scale dredging campaign could be managed to ensure

seagrass in Champion Bay receives sufficient light for survival.

The construction of the 'eastern breakwater' had the potential to impact on the local sea lion colony, the visual amenity from Town Beach and restrict water circulation in the harbour and Town Beach. The EPA concluded that the 'eastern breakwater' could be constructed to meet the EPA's objectives provided the proponent satisfactorily implemented its commitments and the recommended environmental conditions.

The EPA also examined the impact on coastal processes of the proposed structures and the widening and deepening of the shipping channel. During the assessment, the EPA was mindful of the long-term risks of the PEP impacting on the coastal stability of the northern beaches and that it would require regular management action. To address the issue of coastal stability, the Geraldton Port Authority committed to monitoring shoreline movement of beaches between the Batavia Coast Marina and the Chapman River and providing sand nourishment on a regular basis as part the City of Geraldton's 'Northern Foreshore Stabilisation and Enhancement Strategy'.

### **Remediation of Midland Railway Workshop Site Clayton Precinct Area E, Midland**

The Midland Redevelopment Authority (MRA) proposed to remediate 22ha of land which included a portion of the former Midland Railway Workshop Site (Area E) within the Clayton Precinct, Clayton Street road extension and the Helena Street and Viveash road rail crossings outside of the Clayton Precinct in Midland.

The proposed remediation included:

- removal of approximately 2000m<sup>3</sup> of material which exceeded the health investigation levels (HILF) recommended for industrial land use and relocate to Area C;
- retain soil with concentration levels below HILF criteria;
- prepare and implement a Remedial Action and Validation Plan;
- prepare an Asbestos Management Plan;
- placement of memorials on titles to ban the use of contaminated groundwater;
- develop a database detailing the location of all contaminated material to be retained on site;
- prepare long-term Groundwater Quality Monitoring and Management Plan; and
- prepare and implement a Groundwater Contingency Plan.

Based on the information provided, the EPA considered that while the proposal had the potential to have a significant effect on the environment, it could be readily managed to meet the EPA's environmental objectives and would be assessed at a level of Environmental Protection Statement.

The EPA concluded that the proponent had demonstrated in its EPS document that the remediation proposal was capable of being managed in an environmentally acceptable manner and that the net result of the program would be an improved environment, provided there was satisfactory implementation of the recommended Ministerial Conditions and proponent commitments.

### **Residential Subdivision, Underwood Avenue, Shenton Park**

A proposal by the University of Western Australia, for the subdivision of 32 hectares of land in Underwood Avenue, Shenton Park was formally assessed by the EPA. The site contains regionally significant vegetation, having been recognized in the draft *Perth's Bushplan* and partly identified for protection through a Negotiated Planning Solution in *Bush Forever*.

In addition, the site is in close proximity to the Subiaco Wastewater Treatment Plant (WWTP) operated by the Water Corporation, and is currently affected by odour generated by this facility.

Following detailed consideration of these key environmental issues, the EPA recommended that the proposal not proceed as it could not be demonstrated with reasonable certainty that acceptable levels of odour for residential development would be achievable at the site in the medium to long term. The EPA noted in its assessment that the Water Corporation planned to undertake works at the WWTP to reduce odour impacts. However, it considered that the proposed improvements to the plant should be completed and evaluated to ensure suitable air quality could be achieved before residential or other odour sensitive landuse is considered for the site.

With respect to the protection of bushland, the EPA found that UWA's proposal for the protection of 8.5 hectares of the site for bushland conservation did not adequately protect the highest conservation value areas of the site.

### **Southern River/Forrestdale/Brookdale/Wungong Urban Water Management Strategy**

In August 2000, the EPA published its strategic advice on the Draft Structure Plan for the Southern River/Forrestdale/Brookdale/Wungong area. This structure plan provides guidance for the



development of the area for urban, commercial and industrial purposes over the next 20 years.

The area is characterised by numerous environmental constraints, most notably a high water table and shallow sandy soils. A critical issue identified by the EPA was the need for the development of the area to be undertaken in a manner which ensures that nutrient export to the Swan River system is minimised and that changes to hydrology following development does not lead to adverse impacts on the numerous wetlands in the area. The EPA considered that innovative approaches to urban development and drainage would be required in order to ensure acceptable environmental outcomes for the development of the area.

A key recommendation by the EPA was that a detailed Urban Water Management Strategy (UWMS) be undertaken to address these issues before more detailed planning for the area occurs. This was considered essential in order to ensure that water management issues are addressed at a strategic level ahead of individual developments.

In response, the Western Australian Planning Commission and Water and Rivers Commission have prepared a draft UWMS in consultation with key stakeholders. The EPA Service Unit have been closely involved in this process on behalf of the EPA, with the EPA providing input to the process at key stages. It is anticipated that the UWMS will be finalised in late 2002, with the EPA continuing to play an important role in the finalisation of the Strategy.

### **Turf Farm, Bullsbrook**

Bullsbrook Turf proposed to expand its existing turf farm at Lot 8 Raphael Road, Bullsbrook from 12 to 26 hectares. The project site is within the Ellen Brook catchment where a key environmental concern is the export of nutrients to the Ellen Brook and ultimately, the Swan River.

The environmental review document for the proposal was available for a four-week public submission period in April 2002 and the EPA released its report and recommendations in June 2002.

The EPA's report examined the effects of expanding the turf farm on water quality and the export of nutrients to the Ellen Brook catchment'. The EPA's *Environmental Protection (Swan and Canning Rivers) Policy 1997* recognizes that substantial reduction across the catchment of current phosphorus loads is required, and the EPA therefore expects land managers and developers to demonstrate that they have minimized their individual contribution to nutrient export from the catchment.

In developing its proposal, the proponent prepared a Nutrient Irrigation Management Plan (NIMP), which prescribes the management and monitoring of fertiliser and irrigation applications. The proponent has predicted that, by using the groundwater as a source of phosphorus, and by managing the phosphorus fertilizer program, there would be a net removal of phosphorus from groundwater of 5 kg/ha/yr.

After considering the progressive approach to nutrient and irrigation management proposed by the proponent and the net removal of phosphorus from the groundwater, the EPA concluded that the proposal could be managed in an environmentally acceptable manner. The NIMP prepared by the proponent has been given effect as a condition of the groundwater licence issued by the Water and Rivers Commission. The Commission will be responsible for the ongoing management and monitoring of this proposal.

The EPA considers that this proposal represents a benchmark for best practice operating procedures and the use of appropriate equipment to reduce nutrient export by managing fertilizer and irrigation applications. The resultant net reduction of phosphorus and nitrogen applications by the proponent is a positive initiative which contributes to a reduction of nutrients across the catchment, consistent with the objectives of the EPA's *Environmental Protection (Swan and Canning Rivers) Policy 1997*.

This progressive approach to nutrient management and use of equipment has merit in all catchments where major irrigated horticulture developments occur as it is one effective way of ensuring that this type of development does not contribute to the degradation of wetlands and waterways.

## **ENVIRONMENTAL ASSESSMENT OF PLANNING SCHEMES**

A key issue for the EPA in assessing planning schemes under s48A of the EP Act is to ensure a rational linkage of the level and detail of environmental assessment to the relevant 'stage' of planning approval being considered. The planning approval process is a hierarchical one, normally involving a series of stages from regional scheme to town planning scheme to structure plan, to subdivision and to development approval. When assessing a scheme or amendment at the regional scheme stage, the EPA would normally focus on 'higher level' environmental issues such as protection of regionally significant environmental features.

The level of detail of environmental assessment normally increases as the planning detail increases

in town planning scheme and structure planning. At this stage, more detailed environmental information is required, for example, in terms of boundaries for protection of wetlands and other significant environmental features, cumulative impacts and drainage management.

The EPA is keen to ensure that this hierarchy of planning and environmental assessment is rational and that a consistent approach is adopted. Close collaboration with planning agencies is an essential element so as to ensure an efficient and effective process.

## Greater Bunbury Region Scheme

The Western Australian Planning Commission (WAPC) initiated the preparation of the Greater Bunbury Region Scheme (GBRS) in 1997 to provide a regional framework for planning and development within the Bunbury region. Because of the potential environmental impacts associated with many of the new zoning proposals included within the GBRS, a formal environmental assessment of the Scheme is being undertaken by the EPA under s48A of the EP Act.

Following a period of public review, the public submission period for the GBRS and its associated Environmental Review closed early in 2002. A substantial number of submissions were received, and the WAPC is currently in the process of responding to the issues raised in the environmental submissions, prior to the EPA formally undertaking its assessment of the Scheme.

A key issue which has been raised in the assessment to date relates to the protection of regionally significant bushland and other natural areas within the Bunbury region. This is an important issue for the EPA, particularly given the emerging focus on the values of remaining bushland on the Swan Coastal Plain and the need for its protection. In response to this issue, the EPA is developing a strategy and criteria for the assessment and protection of regionally significant vegetation within the Bunbury region to assist in its assessment of the Region Scheme. It is anticipated at this stage that the EPA's assessment of the Region Scheme will be finalised towards the end of 2002.

## STRATEGIC ASSESSMENTS

Strategic environmental assessment is an expanding area of the EPA's work. These assessments provide for key environmental issues to be considered at a strategic level and at an early stage in planning for development so that necessary environmental protection and management requirements can be built into detailed planning and design for subsequent developments. Importantly, strategic assessment allows cumulative impacts of planned

development to be considered, rather than impacts from individual development being considered in isolation, which is often the case with project by project assessment. Strategic assessment also facilitates better consideration of alternative locations for developments to avoid particularly sensitive environmental areas.

In 2001-2002 the EPA completed a range of strategic assessments including:

- assessment of a major regional land development, the Turquoise Coast Development at Jurien, which was discussed earlier in this report;
- a study on environmental values, cultural uses and potential petroleum industry impacts in the Shark Bay World Heritage Property. The study identifies the available information and knowledge on the risks of various environmental impacts on the Shark Bay World Heritage area and indicates whether they could be managed to protect World Heritage values and other environmental factors; and
- an assessment of the most environmentally appropriate way to provide for expansion of the Dampier to Bunbury natural gas pipeline. Key considerations included minimising impacts on National Parks and Nature Reserves, on wetlands and river crossings.

## POLICY DEVELOPMENT

The EPA has progressed its strategy of giving greater emphasis to policy development, as set out in last year's Annual Report.

### Environmental Protection Policies

Environmental Protection Policies (EPP) remain the highest order of policy instruments under the EP Act, having the force of law following Parliamentary disallowance procedures. Progress on the EPPs are described below and summarised in Tables 3 and 4.

#### Environmental Protection (Swan Coastal Plain Lakes) Policy 1992

This Draft Environmental Protection (Swan Coastal Plain Lakes) Policy is in the Ministerial Consultation phase and the Minister for the Environment and Heritage has decided to issue a Green Paper for public comment which will propose some important changes to the Draft EPP. Following the Minister's consideration of the Draft EPP, the EPA will revise the companion Administrative Procedures to the Draft EPP which describes in some more detail how the EPP would be implemented.

Table 3: Gazetted Environmental Protection Policies and their status as at 30 June 2002.

Name	Approval date	Review date	Comment
Environmental Protection (Gnangara Mound Crown Land) Policy 1992	24.12.92	21.12.99	Review may need to be re-visited in the light of new planning instruments under development by the Western Australian Planning Commission.
Environmental Protection (Goldfields Residential Areas) (Sulphur Dioxide) Policy 1992	29.01.93	29.01.00	Revised Legal drafting prior to Gazettal.
Environmental Protection (Swan Coastal Plain Lakes) Policy 1992	18.12.92	18.12.99	Revised 'Green Paper' to be released.
Environmental Protection (Peel Inlet – Harvey Estuary) Policy 1992	11.12.92	11.12.99	Review awaiting EPA review of Peel – Harvey Ministerial Conditions.
Environmental Protection (South West Agricultural Zone Wetlands) Policy 1997	28.10.98	28.10.05	Gazetted
Environmental Protection (Swan Canning Rivers) Policy 1998	10.07.98	10.07.05	Gazetted
Environmental Protection (Kwinana) (Atmosphere) Policy 1999	21.12.99	21.12.06	Gazetted
Environmental Protection (Ozone Protection) Policy 2000	17.10.00	17.10.07	Gazetted

Table 4: Environmental Protection Policies in progress

Name	Status
Draft Environmental Protection (Western Swamp Tortoise) Policy	Legal drafting prior to Gazettal.
Draft Environmental Protection (State Groundwater) Policy	Suspended pending legislative amendments.
Draft Environmental Protection (State Air Quality) Policy	Drafting Commenced.
Draft Environmental Protection (State Marine Waters) Policy	Suspended pending legislative amendments.
Draft Environmental Protection (Cockburn Sound) Policy	Draft EPP released for public comment. Under revision.
Draft Environmental Protection (State Coastal Zone) Policy	Not yet formally initiated. Discussion Paper in preparation.

### Draft Environmental Protection (Western Swamp Tortoise) Policy

The Draft Environmental Protection (Western Swamp Tortoise) Policy is being finalised by Parliamentary Counsel prior to formal consideration

by the Government and gazettal. Once it is gazetted, the EPA will consider the need for a Guidance Statement to provide further operational guidance.

## Environmental Protection (Goldfields Residential Areas) (Sulphur Dioxide) Policy 1992

This Draft Environmental Protection (Goldfields Residential Areas) (Sulphur Dioxide) Policy is also being finalised by Parliamentary Counsel prior to a Government decision and gazettal.

## Draft Environmental Protection (Cockburn Sound) Policy

The Draft Environmental Protection (Cockburn Sound) Policy was formally initiated on 17 August 2000 and represented a major item in the EPA's work program for 2001 – 2002.

The Cockburn Sound EPP broadly aims to:

- establish environmental values (EV), environmental quality objectives (EQO) and environmental quality criteria (EQC) for waters in Cockburn Sound;
- identify a program to protect the environmental values of Cockburn Sound;
- require a response to any exceedence of the EQCs;
- integrate environmental planning and

management for the land and marine environment of the Sound and its catchment;

- provide for the establishment of an Environmental Management Plan to coordinate appropriate actions and their management against agreed objectives;
- provide a mechanism for the Cockburn Sound Management Council to coordinate environmental management efforts; and
- provide for a monitoring framework and regular reporting on progress against objectives.

The draft EVs and EQOs are set out in Table 5.

The Draft Cockburn Sound EPP was developed in close association with the Cockburn Sound Management Council. The Council prepared a Draft Environmental Management Plan (EMP) for Cockburn Sound and its Catchment, concurrently with the Draft EPP.

All documentation relating to the Draft EPP and the Draft EMP was released concurrently for public review which concluded in March 2002. Since then the EPA has been considering the many, and in some cases very detailed, submissions made with the objective of reporting to the Minister for the Environment and Heritage with a revised Draft EPP by the end of 2002.

Table 5: Draft Environmental Protection (Cockburn Sound) Policy – Environmental Values and Environmental Quality Objectives

ENVIRONMENTAL VALUES	ENVIRONMENTAL QUALITY OBJECTIVES AND THEIR DESCRIPTIONS
Ecosystem Health	<b><i>Maintenance of ecosystem integrity</i></b>
	Ecosystem integrity is considered in terms of structure (e.g. the biodiversity, biomass and abundance of biota) and function (e.g. food chains and nutrient cycles).
Aquaculture	<b><i>Maintenance of aquaculture</i></b> Water will be of suitable quality for aquaculture purposes.
Seafood Scope for Eating	<b><i>Maintenance of aquatic life for human consumption</i></b> Seafood will be safe for human consumption when collected or grown in Cockburn Sound.
Recreation and Aesthetics	<b><i>Maintenance of primary contact recreation values</i></b> Primary contact recreations (e.g. swimming) will be safe to undertake in Cockburn Sound.
	<b><i>Maintenance of secondary contact recreation values</i></b> Secondary contact recreation (e.g. boating) will be safe to undertake in Cockburn Sound.
	<b><i>Maintenance of aesthetic values</i></b> The aesthetic values of Cockburn Sound will be protected.
Industrial water supply	<b><i>Maintenance of industrial water supply values</i></b> Water in Cockburn Sound will be of a suitable quality for industrial water supply purposes.

## **Environmental Protection (Peel Inlet – Harvey Estuary) Policy 1992**

Further revision of the Environmental Protection (Peel Inlet-Harvey Estuary) Policy, following its statutory seven year review, has been deferred until the EPA completes its report on the review of the Progress and Compliance Report required by Ministerial Conditions set for the Peel-Harvey Stage II. These Ministerial Conditions aimed at securing the environmental benefits for the Dawnsville Channel and Catchment Management Plan. The EPA's report to the Minister for the Environment and Heritage on compliance with the Conditions is expected to be transmitted before the end of 2002. Once the Minister has considered EPA's recommendations, the Peel-Harvey EPP will be reviewed for any appropriate amendments.

## **Draft Environmental Protection (State Coastal Zone) Policy**

The EPA is in the process of preparing a Discussion Paper for public comment on the proposed draft Environmental Protection (State Coastal Zone) Policy. It is anticipated that the Discussion Paper will be released by the end of 2002.

## **Draft Environmental Protection (State Air Quality) Policy**

The drafting of the Environmental Protection (State Air Quality) Policy, which will seek to implement the National Environment Protection Measure on air quality, has commenced. The Draft EPP should be released for public comment by June 2003.

## **Draft Environmental Protection (State Groundwater) Policy and Draft Environmental Protection (State Marine Waters) Policy**

The progress on the draft Environmental Protection (State Groundwater) Policy and draft Environmental Protection (State Marine Waters) Policy has been suspended pending amendments to the EP Act. Amendments have been introduced into the Parliament as part of the Environmental Protection Amendment Bill 2002, but have yet to be debated.

## **Position Statements**

Position Statements continue to be an important policy instrument for the EPA. Broad in scope, non-statutory in status and not linked specifically to environmental impact assessment (as are Guidance Statements), they provide context and policy direction for matters under consideration by the EPA. They are subject to a two stage process once drafted. The first stage is public release as a

Preliminary Position Statement, with feedback sought on errors and omissions. The second stage is publication in final form.

A summary of the current status of Position Statements is provided in Appendix 6.

## **Guidance Statements**

EPA Guidance Statements are designed to assist proponents and the public to understand how the EPA expects issues to be dealt with during the assessment process. Guidance Statements usually set out an approach to dealing with an issue which can be regarded as the minimum requirements. Proponents are of course encouraged to do better than the minimum and are free to argue their case for a different but acceptable approach.

Proponents are likely to find that their assessment of proposals will be more straight-forward and take less time if they are able to demonstrate that they will either meet or be better than the minimum requirements. A proponent would be expected to put a well-researched and clear justification to the EPA when arguing the need for deviation from the usual minimum level of performance.

The two-step approach to the development of Guidance Statements (Draft and Final) has continued to be successful at facilitating lively and helpful input from stakeholders and the public on the content of the Guidance Statements.

Twenty-one Guidance Statements are now available as either 'draft' or 'final'. Another six were actively under development during the year.

The following Guidance Statements were released in 2001-2002:

- Assessment of Aboriginal Heritage – draft; and
- Assessment of Odour Impacts from New Proposals – final.

A list of Guidance Statements and their level of development can be found at Appendix 7.

## **MONITORING OF WASTE MANAGEMENT (WA) FACILITIES**

Waste Management (WA) (WMWA) currently operates the Intractable Waste Disposal Facility (IWDF) at Mt Walton East and the Liquid Waste Treatment Facility (LWTF) at Brookdale.

The EPA has responsibility for monitoring these facilities, with each facility operated under a Ministerial Direction issued under s110 of the EP Act.

The EPA contracts an independent auditor to assist the EPA monitor the operations of WMWA.

## Intractable Waste Disposal Facility, Mt Walton East

WMWA carried out a disposal operation of chemical and low level radioactive waste at the IWDF in 2002.

The EPA assessed and approved each proposed consignment against the approved operational guidelines (environmental, transport, waste acceptance and safety and emergency response). This also included the EPA being satisfied that, for each consignment, there was no other currently available practicable alternative within Australia to disposal at the IWDF.

The EPA also assessed the operational procedures (construction specifications, transport, environmental, radiation, health and safety) for the disposal operation being carried out by WMWA at the IWDF.

The EPA will review the Close-Out Report for this disposal operation in the second half of 2002.

## Liquid Waste Treatment Facility, Brookdale

The EPA assessed a proposal by WMWA to change plant processes, and to allow the acceptance of a wider range of 'liquid wastes' and 'hazardous liquid wastes' at the LWTF, Brookdale. The EPA's report and recommendations are contained in Bulletin No 1039 released in January 2002.

The Minister for the Environment and Heritage issued Ministerial Statement 588 on 18 March 2002, which set out the Ministerial Conditions applying to this proposal. The key Ministerial Condition required that the facility cease to accept hazardous waste by 30 June 2002. The facility is able to continue to accept liquid waste for which it has existing environmental approvals.

The EPA is currently assessing the Decommissioning Plan relating to hazardous liquid wastes as required by Ministerial Statement 588 and will review the subsequent implementation of this Plan.

The EPA will continue to monitor the facility and review Progress and Compliance Reports required by Ministerial Conditions.

## LEGISLATION ISSUES

The EPA has a significant role to play in environmental regulation. The EP Act sets out that the Governor may, on the recommendation of the EPA, make regulations required or permitted by the Act to be prescribed or in relation to implementing a National Environmental Protection Measure.



Year 2002 disposal operation at Mt Walton Intractable Waste Disposal Facility.

## Noise Regulations

The Minister for the Environment and Heritage gave approval for drafting to commence on a series of amendments to the *Environmental Protection (Noise) Regulations 1997* as identified in the 'Noise Regulations Review – Outcomes of the Working Group Programme' document.

Preliminary drafting instructions are in preparation, and stakeholder consultation will be undertaken in 2002-03.

## Regulation 17 Applications

Noise Regulation 17 applications for approval to vary from the assigned noise levels were processed for the following applicants:

- Joondalup Police Academy, leading to a Ministerial exemption; and
- Port of Esperance, leading to a noise regulation 17 approval.

Several noise regulation 17 applications were withdrawn during the year, leaving ten applications under assessment as at 30 June 2002 (apart from applications by Western Power Corporation in relation to a number of their sites), with a further three applications where withdrawal is being negotiated.

## Police Academy, Joondalup

The WA Police Service applied to the Minister for the Environment and Heritage for approval under Regulation 17 of the *Environmental Protection (Noise) Regulations 1997* in relation to noise emissions likely to emanate from the new WA Police Academy, to be opened in February 2002 at Edith Cowan University, Joondalup. The application was referred to the EPA for assessment under Noise Regulation 17(2) on 11 April 2000.

The EPA's strategy involved recommending the granting of a Ministerial exemption under section 6 of the EP Act in preference to a Noise Regulation 17 approval. The main reasons for this recommendation were related to the low numbers of current nearby residents and the difficulty of specifying the activities likely to take place at the facility at this early stage. *The Environmental Protection (Joondalup Police Academy Noise Emissions) Exemption Order 2002* was approved by the Minister and Gazetted in April 2002.

### **Port of Esperance**

The EPA, at its meeting on 21 June 2001, gave its endorsement to a Noise Regulation 17 approval package for the Port of Esperance. This package consisted of the final draft of the *Environmental Protection (Port of Esperance Noise Emissions) Approval 2001*, and Explanatory Notes to accompany the Approval Notice. The EPA had previously provided its report and recommendations on the Esperance Port Upgrade proposal in August 2000, part of which involved the assessment of an application under Regulation 17 to vary from assigned noise levels set under the *Environmental Protection (Noise) Regulations 1997*.

The Minister signed the Approval and it was Gazetted in July 2001. Under s46 of the EP Act, a 'Change to Ministerial Conditions' was also approved for the purpose of creating consistency between the Noise Regulation 17 Approval and the Ministerial Conditions set in Statement 325 in 1993.

## **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 the proponent's to give advice on the environmental impact assessment process and to respond to questions;
- conduct 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 and Heritage 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 (subject to availability) travelled within the State to examine proposals in the field and to meet with proponents on-site.

Although time consuming, these EPA site visits have been valuable and 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 use the opportunity of being in the field to meet with key local stakeholders, including local government CEOs and Shire Presidents, interest and conservation groups, and Indigenous communities.

Other site visits were also carried out by individual EPA members, mostly the Chairman and Deputy Chairman.

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, exchange views, address environmental issues associated with their proposal, and network in an informal atmosphere whilst on-site;
- 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;
- enhancing the identity of the EPA as an independent authority; and
- providing an identity to an otherwise 'invisible' Board.

A list of the EPA and other site visits is given in Appendix 8.

## ADVISORY COUNCIL TO THE EPA

The Advisory Council to the Environmental Protection Authority (ACTEPA) was established to provide advice to the EPA on a range of environmental issues.

ACTEPA meets bi-monthly and consists of a cross-section of members of the community. Appointees are individuals who can bring to the table a range of perspectives and expertise from industry, conservation and technical fields, rather than representing particular groups.

### Current members:

Mr Andrew Baker (Chairman)

*(the above appointment expires 30 June 2004)*

Mr Norm Halse (Deputy Chairman)

Dr Sue Graham-Taylor

*(the above appointments expire 1 September 2004)*

Mrs Dot Hesse

Dr Rod Lukatelich

Mr Tony van Merwyk

Ms Verity Allan

Mr Graham Slessar

Mrs Marion Blackwell

Mr Frank Batini

*(the above appointments expire 30 September 2003)*

The Council's role is to provide comment and advice to the EPA on any matters referred to it by the EPA. Council may also initiate discussion on environmental matters and provide advice to the EPA.

During the year ACTEPA was kept advised of a range of issues before the EPA, and members' input was sought. Issues covered include:

- Cockburn Sound Environmental Protection Policy and Environmental Management Plan;
- James Point harbour proposal;
- Western Australian Planning Commission Buffer Policy review;
- Position Statements and Guidance Statements;
- Gngangara and Jandakot Groundwater Mounds;
- Greenhouse gas;
- Port Catherine Development;
- National Pollutant Inventory;
- Report on the Review of Project Development Approvals System;
- Air Quality in the Kwinana Region;
- Sustainability; and
- Ecological Footprint Model for Western Australia.

The EPA records its appreciation for the time and effort taken by Advisory Council members during the year. The advice of all members of ACTEPA is greatly appreciated by the EPA.



# Appendices

## APPENDIX 1

# THE ROLE OF THE ENVIRONMENTAL PROTECTION AUTHORITY

The EPA is an independent advisory body and provides overarching policy advice to the Minister for the Environment and Heritage. Its objectives, as stated in the EP Act, are to protect the environment and to prevent, control and abate pollution.

The EPA carries out a number of functions in pursuing its objectives including:

- environmental impact assessment;
- formulating environmental policies;
- co-ordinating activities necessary to protect, restore and improve the environment of the State;
- seeking information and providing advice; and
- carrying out studies, investigations and research into problems of environmental protection.

A major role of the EPA is to ensure that the environment is protected when development decisions are made. It does this by providing high level independent environmental advice to the Minister for the Environment and Heritage and others so that environmental considerations are taken into account in the decision-making process.

Approval of proposals and the Ministerial Conditions to be imposed on developments are made by the Minister, who may take into account broader issues than those considered by the EPA.

Under the EP Act, environment is defined as "living things, their physical, biological and social surroundings and the interactions between all of these". The Act further explains that "the social surroundings of man are his aesthetic, cultural, economic and social surroundings to the extent that these surroundings directly affect or are affected by his physical or biological surroundings." The EPA interprets environment to include beneficial use and risk associated with the environment.

### **General approach taken by the EPA**

The EPA is regarded by the community as an advocate for the environment and believes that transparency of process is fundamental to the effective development of environmental policy and to the implementation of environmental protection.

In evaluating issues, the EPA seeks input from stakeholders and the public through liaison, public meetings, submissions, as well as through site visits with proponents and members of the community.

The broad principles of ecologically sustainable development and biodiversity provide a valuable starting point for the EPA. However, recommendations are also made on the basis of protecting:

- ecological processes;
- biodiversity;
- declared rare flora and fauna;
- vegetation associations and habitat;
- water quality and quantity (marine, estuarine, fresh and brackish waters);
- air quality;
- soils and land;
- individuals and society from unacceptable risk; and
- beneficial uses of the environment.

These elements are considered by the EPA during the assessment of each development proposal. The EPA also considers the environmental management framework for each proposal to ensure that the whole proposal and all of its environmental impacts are managed. This includes environmental management plans, objectives and performance indicators. Proponents are encouraged to conduct an annual audit and a periodic review of their operations in keeping with the broad philosophy of ensuring continuous improvement in environmental management.

A series of non-statutory statements (Position and Guidance Statements) has been developed to set out the EPA's view on specific environmental matters, giving proponents and the community an understanding of the EPA's views. They are designed to increase certainty for proponents and the public. If the EPA's views are incorporated early in project development by proponents, assessments can be carried out more rapidly.

### **Role of the proponent**

A common concern raised with the EPA each year is that the Environmental Impact Assessment (EIA) process is biased because the proponent has the responsibility to prepare, or have prepared, the environmental review document. The basis of this concern is that the proponent, who has the greatest stake in having the project proceed, should not be given the opportunity to control the development of the major document on which the environmental impacts of the project are likely to be judged.

However, there are good reasons why the proponent should play a pivotal role in the preparation of the environmental review document, provided the appropriate checks and balances are in place. The preparation of this document is the prime way for proponents to ensure that environmental factors are given consideration in project decision-making. It is only through this mechanism that the proponent will appreciate the environmental impacts of the proposed project, and thus the need for good project design and a management program to ameliorate those impacts. The EPA encourages and expects the proponent to give a high priority to environmental responsibility, including the preparation of the list of environmental commitments as part of its management program. This can be achieved only if the proponent is fully involved in the consideration of the environmental impacts of the project through the preparation of the environmental review document which forces the proponent to consider environmental issues and factors in project formulation. It is also important for the proponent and their consultant to prepare the document as though looking at the project through the eyes of the EPA. It needs to be as accurate and as full as possible.

It should be remembered that the preparation of the environmental review document is only one element of the process of EIA. There are a number of steps in EIA in WA which are designed to ensure the objectivity and adequacy of the information which is available to the decision-making authority. These steps can be summarised as:

- the guidelines for the preparation of the environmental review document are set by the Environmental Impact Assessment Division within the EPA Service Unit (EPA SU);
- the guidelines are public and, at one level of assessment, the guidelines are available for public comment;
- the environmental review document can be released only after the Environmental Impact Assessment Division within the EPA SU is satisfied that the document is appropriate for release;
- the public has the opportunity to comment on the environmental review document after it has been approved for release;
- the proponent is required to respond to public comments on the environmental review document, and the response is also available to the public;
- the EPA provides the Minister for the Environment and Heritage, who is the decision-making authority, with an assessment report on the project after receiving advice from the Environmental Impact Assessment Division within the EPA SU and many others; and
- the public (and the proponent) have a further opportunity to provide advice or information to the Minister, in the form of an appeal, following the public release of the EPA report and recommendations.

### **EPA linkages with government agencies**

The EPA seeks advice from agencies, including the Department of Environment, Water and Catchment Protection (DEWCP), Department of Planning and Infrastructure (DPI) and WA Planning Commission (WAPC), the Department of Conservation and Land Management (CALM), the Conservation Commission of Western Australia (CCWA) and the Marine Parks and Reserves Authority (MPRA).

#### ***Department of Environment, Water and Catchment Protection***

As a result of the Machinery of Government Report review, the Department of Environmental Protection and the Water and Rivers Commission are being amalgamated to form the Department of Environment Water and Catchment Protection (DEWCP).

Administratively situated within the new Department is the EPA Service Unit, consisting of the Environmental Impact Assessment Division and the Policy and Coordination Division, under the direction of the EPA. A Service Agreement between the Authority, Department and the Minister has been established for the provision of departmental services to the EPA.

The Service Unit carries out a variety of functions for the EPA, primarily environmental impact assessment and preparation of draft EPA reports, research and co-ordination functions in relation to the environment, and the preparation of draft Environmental Protection Policies (EPPs).

The new Department will continue to administer the regulation requirements of the EP Act (for example Licensing of Industry and undertaking pollution investigations) and act as a proponent (for example for water allocation plans) and as a provider of expert advice on matters pertaining to water resource protection and management as inputs to the environmental assessment process.

In relation to the control of pollution, the EPA will continue to have a key role where it subjects proposals to environmental impact assessment and through relevant EPPs.

Where DEWCP is the proponent of proposals that are subject to Environmental Conditions set by the Minister for the Environment and Heritage, the EPA undertakes the statutory compliance audit role.

#### ***Department for Planning and Infrastructure and WA Planning Commission***

All town planning schemes and amendments (both Local Authority and Region Schemes) are required to be referred to the EPA under Section 48A of EP Act. If the EPA formally assesses a scheme or amendment to a scheme, both the Planning and Infrastructure, and Environment and Heritage Ministers have to agree on conditions before approval can be given.

DPI and WAPC also prepare strategic plans that the EPA can report on under Section 16(j) of the EP Act.

#### ***Department of Conservation and Land Management***

In the case of the Department of Conservation and Land Management (CALM), the EPA has two different working relationships. CALM, as manager of forests and the conservation estate on behalf of the Conservation Commission, is required to implement Forest Management Plans which are assessed by the EPA. CALM is also a key provider of expert advice on conservation and biodiversity issues generally, and particularly during the environmental assessment process.

#### ***Conservation Commission of Western Australia***

The Commission has responsibility for control and management planning of State Forest and the conservation estate. This includes adopting management plans for the estate and then auditing CALM's implementation of the plans. Where the EPA assesses plans, such as the Forest Management Plans, the EPA may then audit the Commission's compliance with Environmental Conditions set by the Minister for the Environment and Heritage.

#### ***Marine Parks and Reserves Authority***

The MPRA has responsibility for control and management planning of marine parks and reserves. The MPRA provides advice on marine issues for development proposals under consideration by the EPA.

The MPRA is supported by a Scientific Advisory Committee which the EPA also calls upon from time to time for professional and technical input.

## APPENDIX 2

### Formal Assessments (other than Environmental Protection Statements)

Bulletin No.	Title	Release date
1021	Waste Water Treatment Plant, Ocean Outlet, Bunbury	July 2001
1022	Change to Environmental Conditions – Yakabindie Nickel Project, 100km north of Leonora	July 2001
1023	Simpson Oil Field Development, Abutilon Island and Lowendal Islands, Shire of Ashburton	July 2001
1024	Hope Downs Iron Ore Mine, 75km North West of Newman	August 2001
1025	Mt Margaret Nickel-Cobalt Project, near Leinster	August 2001
1027	Change to Environmental Conditions – Extension of Mining Areas, Mineral Lease 70/191, Moora	September 2001
1028	Change to Environmental Conditions- Sodium Cyanide Solids Plant, Kwinana	September 2001
1029	Clearing of 470ha of Land, Victoria Loc 10355, 30km North of Badgingarra	September 2001
1033	Long-term Access to Shellsand Resources, Owen Anchorage	November 2001
1034	Residential Subdivision, Lot 4 Underwood Avenue/Selby Street, Shenton Park	November 2001
1035	Change to Environmental Conditions - Boddington and Hedges Gold Mines, Boddington Expansion, Shire of Boddington (This Bulletin reported on two formal assessments to change Ministerial Conditions)	December 2001
1036	Export Ammonia Plant, between King Bay and Hearson Cove, Burrup Peninsula	December 2001
1038	Change to Environmental Conditions - Silicon Project, Kemerton	January 2002
1039	Non-Hazardous Status of Industrial Liquid Waste Treatment Plant, Forrestdale	January 2002
1039	Change to Environmental Conditions – Change of Status of the Industrial Liquid Waste Treatment Plant to Treat Hazardous Waste, Brookdale, Forrestdale	January 2002
1041	Clearing of 100ha of Land for Farming, Kent Loc 1910, Jerramungup	January 2002
1043	Extension of Tonkin Highway from Mills Road Gosnells to Mundijong Road	February 2002
1044	Change to Environmental Conditions – Upgrade of Multi-user Seawater Supply System & Introduction of Wastewater to Ocean Outfall, Burrup Peninsula	March 2002
1045	City of Armadale TPS 2, Amd 143, rezone from General Rural to Special Use – Rural Residential Lots 6, 7 & 8 Wolfe Road, Lots 421 & 429 Taylor Road & Lots 27 & 501 Oxley Road Forrestdale	April 2002
1046	Transmission Line from Pinjar Gas Turbine Station to the Cataby Sub-station	April 2002
1047	Change to Environmental Conditions – Transport of Solid Sodium Cyanide	April 2002
1050	Geraldton Port Enhancement, Geraldton	June 2002
1052	Turf Farm, Lot 8 Raphael Road, Bullsbrook	June 2002

## APPENDIX 3

### Environmental Protection Statements (EPS) and Assessment on Referral Information (ARI)

Bulletin No.	Title	Release date
1026	Remediation of Contaminated Sites Morangup Road Toodyay	August 2001
1030	Remediation of Midland Railway Workshop Site, Clayton Precinct Area E, Midland	October 2001
1035	Gas Fired Power Station and Natural Gas Pipeline, 12km North West of Boddington	December 2001
1042	Dampier Public Wharf Expansion – Load-Out Facility and Lay-Down Area, Port of Dampier	February 2002
1048	Hydrogeological Research Programme at Marandoo – Trial Dewatering and ReInjection Test, Karijini National Park	May 2002
1049	Dredging of Denham Channel Bar Flats and the Slope Island Fishing Berth, Freycinet Estuary, Shark Bay	May 2002
1051	Transmission Line from the Cataby Substation to the Eneabba Substation	June 2002

## APPENDIX 4

### Proposal Unlikely to be Environmentally Acceptable

Bulletin No.	Title	Release date
1032	Rural/Residential Subdivision, Lot 5 Swan Loc 1, Lexia Avenue, Upper Swan	November 2001
1037	Clearing of Approximately 580ha of Native Vegetation for Pine Establishment, Melbourne Loc 3544, Kayanaba Road, 12.5km West South West of Moora Townsite	January 2002

## APPENDIX 5

### s16 Strategic Advice

Bulletin No	Project Title	Release date
1019	Dampier to Bunbury Natural Gas Pipeline Corridor Expansion	July 2001
1020	Allocation of Oakajee Gas Pipeline Corridor, East of Oakajee Industrial Estate	July 2001
No Bulletin Number	Policy on Petroleum Exploration and Development within the Shark Bay World Heritage Property, Shark Bay	August 2001
1031	Turquoise Coast Development Concept, Strategic Assessment Under s16, Vic Locs 1556 & 7377 & Portions of 7950, 8837 & 9302, Jurien	November 2001

## APPENDIX 6

### Position Statements

Position Statement	Current Status
Environmental Protection of Cape Range Province	Final published December 1999
Environmental Protection of Native Vegetation in Western Australia	Final published December 2000
Wetlands	Preliminary published June 2001
Terrestrial Biological Surveys as an element of Biodiversity Protection	Final published March 2002
Rangelands	Preliminary due by end 2002
Principles of Environmental Protection for Western Australia	Preliminary due by end 2002
Biodiversity	Scoping commenced
Benthic Primary Producers Habitat Protection	Preliminary in preparation
Sustainability	Preliminary due by end 2002
Special Areas	Preliminary in preparation

## APPENDIX 7

### Guidance Statements

#### ***Draft Guidance Statements in preparation***

Gypsum Mining

Protocols for Stygofauna Surveys

Standard Protocols for Terrestrial Biological Survey (Vegetation)

Standards, Protocols and Best Practice for Conducting Fauna Surveys

Ballast Water Management from Shipping

Best Practice in the Prevention of Waste Discharges

#### ***Draft Guidance Statements released***

System 6/ Perth's Bushplan: Assessment of Proposals

Gas Pipelines (High Pressure): Residential Development in Proximity

Aboriginal Culture and Heritage

Groundwater Environmental Management Areas

Noise: Environmental

Seagrass Habitat Protection

Surface Runoff: Management of from Industrial and Commercial Sites

Planning Schemes: Guidance for Assessment

Minimising Greenhouse Gas Emissions

Waste – Liquid Hazardous Waste, Deep and Shallow Well Injection

#### ***Final Guidance Statements Released***

Shark Bay World Heritage Property: Assessment of Development Proposals

Arid Mangroves, Pilbara

Contaminated Sites Management: A Remediation Hierarchy

Risk Assessment and Management: Offsite Individual Public Risk

Lake Clifton Catchment Protection

Linkages between EPA Assessment and Guidelines, Standards and Measures Adopted by National Councils

Mosquitoes: Guidance for Developers

Biomedical Waste Incinerators: Management of Air Emissions

Gas Turbines: Emissions of Oxides of Nitrogen

Development Sites: Air Quality Impacts

Odour Impacts: Assessment

## APPENDIX 8

### EPA site visits

Date	Site
9 July – 10 July 2001	Proposed Seel Plant, near Cape Preston, west of Karratha.
22 August 2001	Redevelopment of Midland Railway land by the Midland Redevelopment Authority.
31 August – 1 September 2001	Learmonth Limestone Quarry; Department of Transport Limestone Quarry; Fine Sky Limestone Quarry; and Exmouth Limestone Quarry.
10 December – 11 December 2001	Geraldton Port Expansion.
23 May – 24 May 2002	Woodchip Mill proposal, Donnybrook.

### Other site visits by EPA members

Date	Site
30 July – 1 August 2001	Simcoa Quarry, Moora and attendance at the Salinity in Wheatbelt Valleys Conference.
5 September – 7 September 2001	Ministerial visit, Kununurra.
14 November – 16 November 2002	Geraldton Port Expansion.
28 November 2001	Granny Smith Mine Site, Leonora.
30 November 2001	Proposed Mineral Sands Mine, Ludlow.
4 – 6 May 2002	Pastoral Industry Forum, Carnarvon
13 May – 16 May 2002	Acquaculture Project, Albrohos Islands.



## APPENDIX 9

### Attendance at EPA Meetings

Attendance EPA Meetings – 5 July 2001 to 20 June 2002					
EPA Meeting Date	EPA Member				
	Bernard Bowen	Libby Mattiske	Ian Le Provost	Denis Glennon	Frank Murray
No. 766 – 5 July 2001	✓	✓	✓	✓	✓
No. 767 – 19 July 2001	✓	✓	✓	✓	–
No. 768 – 26 July 2001*	✓	✓	✓	✓	✓
No. 769 – 2 August 2001	✓	✓	✓	✓	✓
No. 770 – 16 August 2001	✓	✓	✓	–	✓
No. 771 – 30 August 2001	✓	✓	✓	–	✓
No. 772 – 13 September 2001	✓	✓	✓	✓	–
No. 773 – 27 September 2001	✓	–	✓	✓	✓
No. 774 – 11 October 2001	✓	✓	✓	–	✓
No. 775 – 25 October 2001	✓	✓	✓	–	✓
No. 776 – 8 November 2001	✓	✓	✓	✓	✓
No. 777 – 22 November 2001	✓	✓	✓	✓	✓
No. 778 – 6 December 2001	✓	✓	✓	–	✓
No. 779 – 17 January 2002	✓	✓	✓	✓	✓
No. 780 – 31 January 2002	✓	✓	✓	✓	✓
No. 781 – 14 February 2002	✓	✓	✓	✓	✓
No. 782 – 28 February 2002	✓	✓	–	✓	✓
No. 783 - 14 March 2002	✓	–	✓	✓	✓
No. 784 – 28 March 2002	✓	–	✓	–	✓
No. 785 - 11 April 2002	✓	✓	–	–	✓
No. 785a – 15 April 2002 **	✓	✓	✓	–	–
No. 786 – 24 April 2002	✓	✓	✓	–	✓
No. 787 - 9 May 2002	✓	✓	✓	✓	✓
No. 788 – 23 May 2002	✓	✓	✓	✓	✓
No. 789 - 6 June 2002	✓	✓	✓	✓	–
No. 790 - 20 June 2002	✓	✓	✓	✓	–

\* Out-of-session item on licence fee Regulation Amendment.

\*\* Out-of-session item on the transport of sodium cyanide.

# APPENDIX 10

## Financial Report

The administration costs of the EPA are as follows:			
	2001-02 (\$'000)	2000-01 (\$'000)	1999-00 (\$'000)
<b>Recurrent</b>			
Salaries and allowances	390	384	369
<b>Other Expenses</b>			
Staff related expenses	41	31	57
Communications	4	4	5
Services and contracts	179	154	196
Consumable supplies	9	3	8
Repairs, Maintenance and Depreciation	7	8	14
<b>Total</b>	<b>630</b>	<b>584</b>	<b>649</b>

### **Electoral Act 1907 (s175ZE 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 2001/2002 was \$2 820.80 .
2. Expenditure of specified amounts of \$1 500 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 \$1 500 or greater expended on advertising in the above categories to be notified in the annual report.