

Supervising Scientist Division

Strategic Plan 2001–2002



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Supervising Scientist Division

Strategic Plan 2001–2002

This strategic plan outlines key issues that the Supervising Scientist Division will face over the coming year and identifies our priorities. It outlines the direction we intend to take as an organisation and the activities and programs we will undertake to achieve our priorities.

It should be read in conjunction with the workplans of the Supervising Scientist Division 2001–2002 which provide, in detail, what tasks we will undertake and how we intend to measure our performance.

Mission

To ensure the protection of the Alligator Rivers Region from the effects of uranium mining and to encourage best practice in wetland conservation and management.

Role

The position of Supervising Scientist was established in 1978 under the *Environment Protection (Alligator Rivers Region) Act 1978* to conduct research on the impact of uranium mining on the environment of the Alligator Rivers Region and to supervise the regulation of uranium mining in the region on behalf of the Commonwealth Government.

To assist the Supervising Scientist perform his role, the Environmental Research Institute of the Supervising Scientist (*eriss*) and the Office of the Supervising Scientist (*oss*) were established.

eriss conducts vital research into the impact of uranium mining on the environment and people of the Alligator Rivers Region, and on the protection and management of wetlands. *oss* carries out audit and policy functions.

The Supervising Scientist also provides advice on mining and nuclear issues and contributes to the development of national and international environmental policy on these issues.



Objectives

- Assess the potential and actual effects of uranium mining on the environment and human health, and determine methods to minimise or avoid those effects;
- Ensure management systems are implemented on uranium mine sites in the Alligator Rivers Region that protect the environment and human health from potential effects;
- Provide advice, based on research and monitoring, to key stakeholders on the ecology and conservation of tropical wetlands;
- Foster an understanding of the activities of the Supervising Scientist Division amongst stakeholders, particularly the Aboriginal community in the region, and develop a sound working relationship with those stakeholders;
- Provide the Minister and Environment Australia with advice as needed to assist in decision making;
- Ensure the Supervising Scientist Division operates in accordance with Environment Australia and the Australian Public Service guidelines and requirements on financial, facilities and human resource management; and
- Maximise the accessibility, usefulness and security of information managed by the Supervising Scientist Division.



Approach

- Undertake environmental supervision, assessment and monitoring of uranium mining in the Alligator Rivers Region;
- Develop and implement a scientifically rigorous research program on the potential and actual affects of uranium mining on the environment and human health;
- With our partners in the National Centre for Tropical Wetland Research, conduct research and provide advice and training on wetland ecology and conservation;



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- Communicate effectively with Aboriginal and other stakeholders about all research and supervisory activities;
 - Provide high quality policy and technical advice in a timely manner to the Environment Minister and Environment Australia;
 - Seek out opportunities and partnerships with government, industry and community groups;
 - Promote environmental management best practice in relation to mining around Australia and the world;
 - Provide a high standard of corporate and people management for Supervising Scientist Division staff; and
 - Develop and implement systems to manage Supervising Scientist Division information.



Shared values

The Supervising Scientist Division operates within the strategic framework provided by Environment Australia. The Division shares the values expressed in the Environment Australia Corporate Plan and is committed to these in our interaction with the community, clients, stakeholders and each other.

- Caring for the environment;
- Engaging with and responding to stakeholders;
- Accepting responsibility;
- Being accountable;
- Providing leadership and being active team contributors;
- Being committed to personal and organisational learning and development; and
- Achieving results.

Challenges

Our major challenges for the coming year are to:

- Ensure that the recommendations of the Independent Science Panel and the Ranger Leak Report are implemented effectively;
- Develop and implement new environmental monitoring and auditing programs at Ranger and Jabiluka;
- Develop and implement a landscape-wide monitoring program that focuses on the World Heritage values of Kakadu National Park and is capable of distinguishing possible mining-related impacts at the landscape scale from effects due to other causes;
- Ensure that the revised Alligator Rivers Region Technical Committee achieves its objectives;
- Enhance the effectiveness of the National Centre for Tropical Wetland Research;
- Ensure that the collocation of *oss* and *eriss* in the new Darwin facility is done efficiently, addresses issues affecting staff and is taken into consideration when planning future research work;
- Achieve excellence in people management by meeting the Investors in People standards; and
- Develop appropriate strategies to improve communication with stakeholders, particularly the Aboriginal community.





Office of the Supervising Scientist (OSS)

Over the next year, **OSS** will continue to meet its statutory functions of environmental supervision and assessment of uranium mining activities in the Alligator Rivers Region. As a result of the final report of the Independent Science Panel and the Ranger leak report (SSR153), there will be a strong focus on implementing the recommendations of these reports for which **OSS** has responsibility. **OSS** will also work to improve its communication with stakeholders including finalising the Division's website. Providing strong corporate support will be essential in dealing with the relocation of staff from Jabiru to the new building in Darwin and undergoing the market testing process.

The strategic issues over the coming year, and the priorities for **OSS** in 2001–2002, are as follows:

Supervision, Audit and Policy

To provide environmental supervision and assessment of uranium mining operations, mineral exploration activities and abandoned uranium mine sites in the Alligator Rivers Region. To provide technical and policy advice to the Minister and Department on nuclear and mining issues.

Priority activities in 2001–2002 include:

- Ensure that the revised Alligator Rivers Region Technical Committee meets its objectives;
- Develop and implement the new auditing and inspection regime at uranium mines in the Alligator Rivers Region;
- Design and implement new environmental monitoring programs for Ranger and Jabiluka in collaboration with *eriss*;
- Review the water management system at Jabiluka;



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- Review the Working Arrangements between the Commonwealth and the Northern Territory Governments to take into account the changes in the activities of the Supervising Scientist;
 - Implement and continually improve the Investors in People action plan to meet the needs of staff;
 - Oversee and expedite the progress of administration and project approvals on the extension of the Riverworks Tasmania program;
 - Ensure that the ACMER project for measuring ecosystem rehabilitation success at Nabarlek meets its objectives; and
 - Continue to develop and oversee the planning process required to provide a comprehensive closure blueprint for the Ranger Mine.



Corporate Services

To provide efficient administrative, executive and corporate support services to the Division.

Priority activities in 2001–2002 include:

- Implement the outcomes of the review on market testing;
- Implement the action plan of the Relocation Steering Committee; and
- Further develop systems and procedures using SAP to enhance the monitoring and control of SSD resources.

Information Management

To provide information management and publication support services that meet the needs and expectations of the Division and other stakeholders.

Priority activities in 2001–2002 include:

- Finalise the Division's website ensuring that it meets the Government on-line and accessibility guidelines;
- Review information management processes in the Supervising Scientist Division and implement new procedures to ensure that scientific data are stored in a secure, accurate and accessible manner; and
- Ensure continuity of quality information management during and following the relocation to the new building in Darwin.





Environmental Research Institute of the Supervising Scientist (*eriss*)

eriss research is organised into two themes:

- Research for the protection of people and the environment, focusing on the effects of mining in the Alligator Rivers region;
- Research on the ecology and conservation of tropical wetlands.

In addition *eriss* carries out general environmental research that meets specific needs identified by the Australian Government.

The strategic issues over the coming year, and the priorities for *eriss* in 2001–2002, are as follows:

Environmental Radioactivity

To provide advice on the protection of people from radiological risk during and after mining activities in the Alligator Rivers Region and to use specialist expertise in remote sensing and isotopes to assist related environmental protection work in the Alligator Rivers Region and elsewhere.

Priority activities in 2001–2002 include:

- Provision of advice to Parks Australia North on radiological issues related to rehabilitation of old uranium mine and mill sites in the upper South Alligator River valley;
- Assessment of the radiological status of the rehabilitated Nabarlek uranium minesite, in particular completion of project work related to radon exhalation fluxes;
- Publication of research related to radionuclide uptake by freshwater mussels, and incorporation of the results into water release standards for uranium mining operations in the Alligator Rivers Region;



- Use of the regional radon station network to investigate transport of radon from the Ranger minesite;
- Development of a remote sensing facility with applications across the Supervising Scientist Division; and
- Achievement of NATA certification for radium analyses by the *eriss* radiochemistry laboratory.



Ecosystem Protection

To provide advice on the protection of aquatic and terrestrial ecosystems during and after mining activities in the Alligator Rivers Region and on the conservation and management of tropical wetlands.



Priority activities in 2001–2002 include:

- Gather chemical, creekside and community structure data during the 2001–2002 wet season for the Ranger mine and compare this with historical data;
- Acquire a third year of baseline data from the Jabiluka region for the purpose of monitoring and assessing the impact of any future mining at Jabiluka on adjacent streams and floodplain;
- Develop and implement a landscape-wide monitoring program to assess the impact of the proposed Jabiluka mine upon the broader Kakadu landscape;
- Develop enhanced methods for monitoring, assessing and protecting aquatic and terrestrial ecosystems; and
- Ensure that broad-scale data collection from the Ranger and Jabiluka areas supports NCTWR activities in tropical wetlands.

Hydrological and Ecological Processes

To provide advice on landscape processes to detect impacts that could arise during and after mining activities in the Alligator Rivers Region and on the conservation and management of tropical wetlands.



Priority activities in 2001–2002 include:

- Develop a technological framework to assess the impact of mine site erosion products on stream systems;
- Maintain and expand a stream flow database for the Ngarradj catchment to assess mine site erosion impacts;
- Characterise and map landscapes in the ARR for the purpose of environmental impact and risk assessment;
- Develop techniques for inventory, survey and monitoring of tropical wetlands; and
- Develop a GIS framework to support program priorities across SSD.

Ecological Risk Assessment

To provide advice on the significance of threats to the biological diversity and functioning of tropical wetlands in the Alligator Rivers Region and elsewhere.

Priority activities in 2001–2002 include:

- Assessment of the aquatic toxicity of regionally relevant toxicants, and the associated derivation of site-specific water quality guidelines;
- Assessment of the ecological risks of threats (eg herbicides, invasive species) to wetlands;
- Refine and develop ecotoxicological procedures using local aquatic species;





- Advise the Ramsar Convention on the impacts of climate change to wetlands and methods of assessing their vulnerability; and
- Maintain the quality control and quality assurance system of the *eriss* ecotoxicology laboratory.

Research Support and Communications

To develop and implement communication programs to inform local Aboriginal communities and associations and other stakeholders about eriss and OSS activities.



Priority activities in 2001–2002 include:

- Identify and coordinate involvement and employment of local and other Aboriginal people in research programs;
- Disseminate information on research work and results to stakeholders in an appropriate medium;
- Build and strengthen communication networks within the community;
- Identify opportunities for using local Aboriginal names and language in reports and other information materials;
- Ensure all staff have a high level of cultural awareness;

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- Develop internal communications strategies and policies that improve flow and dissemination of information within the organisation; and
 - Help local community groups develop wetland monitoring and research programs.

Monitoring and evaluating our performance

The Supervising Scientist Division is committed to a high standard of performance reporting, for both our environmental and staff performance.

Priority activities for 2001–2002 include:

- Evaluate performance of all staff and identify opportunities for development through mechanisms such as the Performance Development Scheme, 360 Degree Feedback and the Investors in People programs;
- Produce an internal report reviewing performance against workplans and outputs;
- Prepare a comprehensive research summary and report on progress to the Alligator Rivers Region Technical Committee;
- Compile quarterly reports on the performance of the Division against performance indicators contained within the Portfolio Budget Statement for the Environment Australia Executive; and
- Produce a comprehensive and accurate Annual Report outlining our performance for the year against performance indicators contained within the Portfolio Budget Statement.

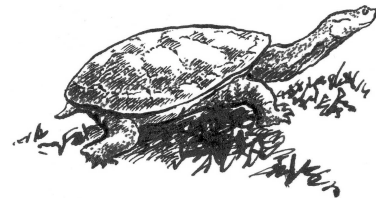


Photo and illustration credits

p2: Lillies on Yellow Water, 1995 (M Saynor)

p3: Tree-frog *Litoria dahlia* (CM Finlayson)

p4: Waterfall on Dinner Creek, 1996 (M Saynor)

p5: Aerial oblique of the Ranger mine looking south west — mill shown bottom left with tailings dam top right, c. 1992 (T Fox)

p6: Sampling airborne dust at the side of the road to check for possible radioactive contamination, 2000 (C Lloyd); EPR team examines process water return pipeline at Ranger, 2000 (P Waggitt); Assessment of rehabilitation at Nabarlek, 1999 (P Waggitt); EPR team examines the Jabiluka decline, 2000 (P Waggitt)

p7: *eriss* library, 2000 (M Noske); scan of cover of SSR138

p8: Involving Traditional Owners in research activities, 2001 (J Rovis-Hermann)

p9: Radon and automated weather stations, 1997 (B Ryan); Purple spotted gudgeon (*Mogurnda mogurnda*) adult male, 1998 (C Camilleri); Green alga (*Chlorella* sp), 1998 (C Camilleri); Billabong mussel (*Vesunio angasi*) from Magela Creek, 2000 (C McCullough); Green hydra (*Hydra viridissima*), 1998 (C Camilleri); Tasmanocoenis mayfly nymph from the Magela Creek near Ranger mine, 2000 (C McCullough); Freshwater cladoceran (*Moinodaphnia macleayi*), 1998 (C Camilleri)

p10: Sediment sampling in Swift Creek (Ngarradj), 1998 (B Smith)

p11: Salvinia-infested billabong in Nourlangie Creek system, 1997 (R van Dam); Aboriginal people sharing Bindjarrang (eeltail catfish), 1997 (B Ryan); Keeping the community informed about *eriss* research (*eriss*)

p13: Northern snake-necked turtle (*Chelodina rugosa*) (sketch by Megan Spiers)