NORTHERN AND YORKE REGIONAL NRM PLAN
BUSINESS PLAN 2019-2022
Business Plan • 2019-2022

November 2018

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Acknowledgement of Country

The Narungga, Nukunu, Kaurna, Ngadjuri, Barngala and Adnyamathanha people are the Traditional custodians of the Northern and Yorke region and have been for thousands of years. The Board acknowledges and respects the Traditional Owners of Northern and Yorke. We acknowledge elders past and present, and we respect the relationship Aboriginal people have to Country.

Aboriginal South Australians are the first peoples of our State and have occupied, enjoyed and managed these lands and waters since the creation. For South Australia’s First Peoples, creation ancestors laid down the laws of the Country and bestowed a range of customary rights and obligations to the many Aboriginal Nations across our state.

Aboriginal peoples’ oral histories and creation stories traverse the length and breadth of Australia’s lands and waters. These stories interconnect lands and waters with complex meaning and values and hold great cultural significance. We recognise and respect Aboriginal people’s ownership of their stories and that they hold rights and obligations to care for Country.

The Board is committed to supporting Traditional Owners, Aboriginal people and Aboriginal organisations’ involvement in the management of lands, seas and waters. This includes recognising the relationship between Aboriginal culture and natural resources and incorporating Aboriginal knowledge of natural resources into decision making.
Natural Resources Management Act 2004

Natural Resources Management Plan for the Northern and Yorke Natural Resources Management region

Hon. David Speirs, Minister for Environment and Water, after taking into account and in accordance with the requirements of section 81 of the Natural Resources Management Act 2004, hereby adopt the 2019-2022 Business Plan for the Northern and Yorke Natural Resources Management Plan.

[Signature]

Hon. David Speirs
MINISTER FOR ENVIRONMENT AND WATER

Date: 27/03/2019
The management of the State’s natural resources is about to undergo significant reform. The State Government has announced that it will introduce a new Landscape SA Bill into Parliament in the first quarter of 2019, to replace the Natural Resources Management Act 2004.

The new legislation is intended to strengthen community-led delivery of natural resources management at local and whole of landscape scales. The focus is on empowering communities and land managers to be directly responsible for the sustainable management of their region’s natural resources with an emphasis on soil quality, water management and pest plant and animal control.

The Northern and Yorke Natural Resources Management Board welcomes the government’s reform agenda and aims to capitalise on the opportunities to strengthen the delivery of practical on-ground works that address local priorities.

The Board recently completed its three year Business Plan for 2019-22. The plan has been developed in line with current legislative requirements and the Government’s priorities for natural resources management. Consistent with the government’s policy, the Board’s plan proposes that annual levy increases from 2019-2022 are limited to CPI.

Through the new business plan, the Northern and Yorke NRM Board is investing significant resources in a range of programs that contribute to the government’s priorities of soil quality, water management and pest plant and animal control. A number of examples have been highlighted throughout the business plan.

Once the new legislation has passed through Parliament, regional plans and business plans may need to be further updated. Any change to planning processes will be managed to ensure future planning is simple, accessible and transparent. Future plans will continue to build on the excellent level of community input we have seen already, and we do not intend to unnecessarily duplicate recent engagement.
Foreword

Message from the Presiding Member

On behalf of the Northern and Yorke Natural Resources Management Board (the Board), I present the 2019-2022 Business Plan.

Natural resource management is about how all of us work together to ensure resources are used sustainably and natural systems like creeks and native vegetation are cared for and remain healthy.

The Northern and Yorke NRM region has bountiful natural resources and much of its economy and lifestyle are built on those assets. Our region is renowned for its important coastal and marine resources, high conservation value reserves, remnant native ecosystems and rugged landscapes, and the productive soils and cropping districts.

With approximately 80% of our region used for cropping, grazing, food and wine production, the social and economic stability of our region is closely linked to economically sustainable agricultural industries.

There are many challenges in achieving natural resource management goals for the region. Our ecosystems are in a declining condition, under stress from pest plants and animals, water resources are scarce, and extreme weather events, including fire, flood, drought and storm surges on the coast, are becoming more frequent. With these challenges, the wise and sustainable use of our natural resources is critical to ensure our region remains prosperous into the future.

Our Business Plan outlines our investments, balancing what is desirable with what is actually possible in terms of financial and human resources. Many of the programs described build on existing work to best maximise return on investment.

Our Business Plan covers a three year period but it is a rolling document, updated every year in accordance with the requirements of the Natural Resources Management Act 2004 to ensure relevancy and our responsiveness to change.

The NRM Levy is a vital contributor to a healthy and productive region. It is an investment in the sustainable, environmentally friendly economic growth and prosperity of our region.

This update of the Business Plan is being done as part of a comprehensive review of the NRM Plan which includes a new Regional Strategic Plan detailing the strategies and activities required to meet the regional vision.

The Board proposes increases in both the Land Levy and the Water Levy. Over the past ten years, we have developed a better understanding at a regional level of what needs to be done. This investment will enable the Board to undertake activities identified by the community as priorities, including a greater focus on control of pests and weeds. Controlling existing pest species while minimising the risk of new pest threats is critical for reducing impacts to agricultural productivity, biodiversity and human health.

The Board has resolved to continue to identify cost savings and build on programs and investments already in place to maximise the return on investment.

There is also a focus on collaborative community action, as no individual, business or organisation, including ourselves, is able to achieve the stated goals in isolation.

The provision of a single, regional face for natural resources management, a shift to a landscape-scale approach across public and private land and an increased emphasis on collaboration will improve the effectiveness and efficiency of environment and natural resources management services in South Australia.

I commend this Business Plan to you and I urge you to join us in contributing to its successful implementation.

Eric Sommerville
Presiding Member. Northern and Yorke NRM Board
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Acronyms

AAR  Aboriginal Affairs and Reconciliation
ALT  Aboriginal Lands Trust
AMLR Adelaide and Mount Lofty Ranges
BCM  Bush Condition Monitoring
BMAP Bushfire Management Action Plan
CAP  Community Action Planning
CEM  Coastal, Estuarine and Marine
CWMS Community Wastewater Management System
DEW  Department for Environment and Water
DPTI Department of Planning Transport and Infrastructure
EPA  Environment Protection Authority
EPI  Erosion Protection Index
ESD  Ecologically Sustainable Development
GIS  Geographic Information Systems
GVP  Gross Value Production
IBA  Indigenous Business Australia
ILC  Indigenous Land Corporation
LGA  Local Government Association
MAT  Management Action Target
MNH  Mid North Horizons
MOU Memorandum of Understanding
N/A  Not applicable
NGOs Non-governmental organisations
NRM  Natural Resource Management
NY  Northern and Yorke
PIRSA Department of Primary Industries and Regions, South Australia
PWRA Prescribed Water Resources Area
RCT  Resource Condition Target
RDA  Regional Development Australia
RDAYMN Regional Development Australia Yorke and Mid North
SA  South Australia
SANTS South Australian Native Title Services
SFR  Southern Flinders Ranges
SYP  Southern Yorke Peninsula
TBD  To be determined
WAA Water Affecting Activities

Units

cm  centimetre
km  kilometre
m  metre
ML Mega Litre
mm/year millimetre per year
MW Mega Watt
pH potential of Hydrogen (numerical scale of acidity)
ppm parts per million

LEGEND MEANING

 Pest Plant and Animals
 Other Stewardship Priorities, e.g. revegetation
 Water Management
 Soil Quality
Summary of Strategic Plan

This plan guides the Board, related State Government agencies and other stakeholders in their efforts to maintain and enhance the region’s natural resources. The regional vision highlights the need to progress all three high level goals, *Working Together, Healthy Environments* and *Sustainable Use* collectively, now and for the long-term.

These goals have been developed together with the community based on a thorough understanding of the region’s asset condition and values, pressures, and a broader regional context. They provide the structure for identifying priority areas for management, and scope of projects and partnerships required to achieve the regional vision.

<table>
<thead>
<tr>
<th>GOAL 1A Better Ways</th>
<th>Continual improvement of strategic natural resource management planning and delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOAL 1B Aboriginal NRM</td>
<td>Aboriginal people continue to care for Country and share their natural resource knowledge</td>
</tr>
<tr>
<td>GOAL 1C Collaboration and Partnerships</td>
<td>Communities and organisations collaborating with a common agenda and achieving sustained natural resource outcomes</td>
</tr>
<tr>
<td>GOAL 1D Monitor and Adapt</td>
<td>Manage our natural resources for future viability and optimise outcomes through an adaptive management approach</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GOAL 2A Healthy Ranges</th>
<th>Improve existing levels of ecosystem function in the Southern Flinders Ranges and maintain existing levels of ecosystem function in the Mid North Ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOAL 2B Healthy Plains</td>
<td>Reinstate and maintain ecosystem function and services within the Southern Yorke Peninsula to support ecological and community values</td>
</tr>
<tr>
<td>GOAL 2C Healthy Coasts</td>
<td>Adaptive management of the physical coastal landscape to support ecological and community values</td>
</tr>
<tr>
<td>GOAL 2D Healthy Gulfs</td>
<td>Maintain and improve ecosystem function of Spencer Gulf and Gulf St Vincent</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GOAL 3A Agricultural Systems</th>
<th>Agricultural systems are productive and operate within the needs and constraints of natural ecosystems</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOAL 3B Grazing Systems</td>
<td>Grazing systems are productive and operate within the needs and constraints of natural ecosystems</td>
</tr>
<tr>
<td>GOAL 3C Water</td>
<td>Water resources are managed within the constraints and needs of natural ecosystems and the community</td>
</tr>
<tr>
<td>GOAL 3D Urban and Industry</td>
<td>Urban and industrial development is sustainable and operates within the needs and constraints of natural systems</td>
</tr>
</tbody>
</table>
Purpose of the NRM Plan

Natural resource management is about how all of us – individuals, communities, industry and government – work together to ensure that resources are used sustainably, and natural systems, like creeks, estuaries and native vegetation, are cared for and remain healthy. How we collectively do this in the long term, and in turn support regional prosperity, is guided by the regional NRM Plan.

The Board has responsibility, under the *Natural Resources Management Act 2004*, to facilitate a NRM Plan for the region. The plan guides the Board, related State Government agencies and other stakeholders in their efforts to maintain and enhance the region’s natural resources, and provides the framework to develop synergies and management actions that encompass the broad range of relevant policy and legislation.

The plan consists of the following components.

<table>
<thead>
<tr>
<th>NRM PLAN COMPONENT</th>
<th>PURPOSE</th>
<th>WHERE DO I FIND IT?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Direction</td>
<td>• Sets out the vision and goals for NRM in the Northern and Yorke region</td>
<td>Northern and Yorke NRM Strategic Plan</td>
</tr>
<tr>
<td></td>
<td>• Objectives for the next 10 years with suggested strategies and possible actions to progress</td>
<td></td>
</tr>
<tr>
<td>State of the region</td>
<td>• Assessment of the condition of natural resources in the region and the pressures influencing asset health</td>
<td>Northern and Yorke NRM Strategic Plan – Appendix A</td>
</tr>
<tr>
<td>Board’s Investment</td>
<td>• Board’s programs, expenditure and income over the 3 year period and the basis for the NRM levy</td>
<td>Northern and Yorke NRM Board Business Plan (this document)</td>
</tr>
<tr>
<td>Water Affecting Activities</td>
<td>• Sets out policies for Water Affecting Activities (WAA)</td>
<td>Northern and Yorke NRM Board Business Plan (this document)</td>
</tr>
<tr>
<td>Water Allocation Planning (WAP)</td>
<td>• Sets out arrangements for water sharing between the environment and water licensees</td>
<td>Clare Valley Prescribed Water Resource Area Water Allocation Plan</td>
</tr>
</tbody>
</table>

There is a range of legislation, policy and regional strategies that set out roles and responsibilities, the NRM Plan aligns with these. Refer to Appendix B of the Northern and Yorke NRM Strategic Plan for relevant plans and policies.
The Northern and Yorke NRM region extends for 34,500 square kilometres of land area, or more than three million hectares. It is a varied and productive portion of South Australia and includes 1,350 kilometres of coastline and an additional 15,500 square kilometres of adjacent marine areas.

The region encompasses the Yorke Peninsula, Northern Mount Lofty Ranges, Southern Flinders Ranges and significant areas of Spencer Gulf and Gulf St Vincent. The landscapes of the region include plains, hills and rugged ranges, undisturbed bushland and native grasslands, coastal vistas and cliffs, and mangrove forests, wetlands, seagrass beds and reefs.

The Northern and Yorke region has a climate of mild winters and hot summers. Rain falls predominantly in the winter months, but conditions vary over the region, with differences in latitude and altitude. The Clare Valley, central Yorke Peninsula and the Southern Flinders Ranges receive the most rain within the region (average 500-600mm), while the north of the region has lower rainfall (down to average 250mm).

Over recent years, extreme weather events including heatwaves, coastal storm surges and king tide events, flooding and bushfires, have made a significant mark on the natural resources and communities of the region. Projections of increased extreme weather events in the future, along with an overall shift of drier and hotter climate will be an important factor in natural resource management.

A number of drivers influence the region at a local and broader scale. International markets driving agriculture production, declining ecosystem services, technological advances, changing demographics, decline of some rural towns and services, and trends in community health and wellbeing are all interrelated. The combination of such factors indicates an increasingly uncertain future.

Significant geological assets include evidence of Ediacaran and Cambrian life in the Flinders Ranges, and ancient fossils of soft-bodied biota from Precambrian time. Near Burra, fossil megafauna have been discovered and there are numerous geological assets, such as glacial erratics, at Port Vincent.

The Northern and Yorke region supports a diverse array of species, ecological communities and ecosystems, many of which are threatened. Biodiversity and the associated ecological processes underpin the health of our environment and its ability to support community needs. This includes basic requirements such as the production of oxygen, creation of soil, pollination and pest management, cycling and purification of water, and breakdown of wastes. It regulates our climate, underpins the production of our food and provides the basis for many popular recreational pursuits.

The region includes traditional Aboriginal lands of the Narungga, Nukunu, Kaurna, Ngadjuri, Barngala and Adnyamathanha people. Many landscapes and features are of cultural significance to Aboriginal people.

Water is a critical asset for the people and natural biodiversity of the Northern and Yorke region. Both surface and groundwater resources sustain the region’s economic production and the environment. The quality of water in many areas is saline enough to limit its suitability for many economic uses and therefore limits the degree of extraction. Most watercourses in the region are intermittent in flow, but many have permanent pools and springs (where groundwater resurfaces), which provide critical refuges for biodiversity.

The Northern and Yorke region’s soil is a critical asset to agricultural productivity and natural biodiversity. The characteristics of soil are one of the key factors that determine where different crops may be grown and the natural distribution of native plant species. Additionally, the soil provides habitat for a range of flora and fauna: burrowing mammals, marsupials and reptiles, invertebrates and microbial organisms.
Our Levy at Work

The NRM Levy makes an important contribution towards ensuring the Northern and Yorke region is working together for a healthy and productive environment.

The Board encourages the community to consider the levy not only as a means to preserve the environment, but also as an investment in the sustainable, environmentally friendly, economic growth and prosperity of the region. The NRM Levy contributes significantly towards the sustainable use of our natural resources by improving agricultural productivity, increasing crop yields and stimulating regional economic growth. This is achieved by boosting farm productivity through weed management and control programs, advances in soil conditioning and no tillage farming techniques, and many other initiatives that are supported and sponsored by the Board.

The NRM Levy supports the management and control of pest animals such as foxes, and programs focusing on improving productivity in the sheep industry by substantially reducing losses to predatory animals. Another critical function of the levy is to ensure the provision of human resources and infrastructure that is required to attract Federal Government funding for the National Landcare Program (NLP) and other major NRM programs.

The region's Community Action Planning process provides a systematic, community driven approach to managing natural resources and helps us determine where we should focus our attention, what we need to do, how we should do it and, after we've taken action, how successful our efforts have been.

Some of our region’s NRM achievements

Resulting from its partnership in the Community Action Planning process, the Board was able to implement significant programs in 2016-2017, all of which contributed towards our vision of a prosperous, sustainable and passionate region. These include:

- The provision of $145,500 in community grants across the region to various councils, Landcare and community groups, for activities that align with our NRM Plan, including; District Council of Barunga West, District Council of the Copper Coast, Northern Sustainable Soils, SA No Till Farmers Association, Hart Field-site Group, Yacka Moorundie Landcare Group, Quorn Community Landcare Group, YP Alkaline Soils Group, Wilmington Primary School, Trees for Life, Port Julia Progress Association, Friends of Spring Gully and many others.
- Support for research and extension activities that assist with the development of sustainable agriculture, including:
  - integrated pest and weed management in stubble retention systems;
  - improving summer grazing practices for increased soil cover;
  - improving pasture sustainability and production, through production zoning;
  - the application of Biochar to cropping systems;
  - improving soil cover on erodible soils;
  - managing soil acidity;
  - improving management practices to reduce the effects of snail damage to crops;
  - controlling grassy weeds in no-till production; and
  - enhancing the health of farm ecosystems to improve sustainability and productivity.
- Community driven fox control programs across 207,826 hectares of land on Southern Yorke Peninsula and the Southern Flinders Ranges, to protect the unique biodiversity of the region and deliver production outcomes. Anecdotal evidence suggests lambing percentages have increased on the Southern Yorke Peninsula, since the baiting program began.
- The reduction of total grazing pressure in the Southern Flinders Ranges through feral goat control across 127,642 hectares.
- The targeted control of Weeds of National Significance and environmental weeds across 17,840 hectares including African rue, wheel cactus, boxthorn, bridal creeper and bridal veil to reduce the negative effect they have on agricultural yields, native habitats and our regional prosperity.
- The use of a helicopter for the efficient aerial treatment of African boxthorn across eighty-eight properties on southern Yorke Peninsula.
- Assistance with weed management across Aboriginal Lands on Wardang Island.
- Partnering with PIRSA and Biosecurity SA to trial the release of the RHDV1-K5 virus on Southern Yorke Peninsula.
- Revegetation across 234 hectares of land in the Mid North, Yorke Peninsula and Southern Flinders Ranges, to help preserve the regions woodland birds and biodiversity.
- Active management along 108 kilometres of water course, to improve water quality and deliver water conservation outcomes.
- The management of 52 populations of nationally threatened plant species, to preserve our environment for future generations.
- The engagement of 2,700 children in the region’s NRM education program.
- Using the Community Action Planning (CAP) systems to engage communities for input in the review and development of the 2019-2029 Northern and Yorke NRM Strategic Plan. Through the CAP process, primary producers, business, industry, councils, NGOs and community groups are now actively involved in setting our priorities for sustainable, environmentally responsible, economic growth in the region.

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Strategic investment

This 3-year Business Plan sets out how the Board will work towards the regional vision, goals and objectives and delivery of the NRM Act 2004 through investment over the 2019-2022 period. The plan identifies priorities for investment in the period and the expected sources of income. It is a balance between what is desirable and what is physically possible with the available financial and human resources. The focus for prioritisation of investment is for the best strategic value outcomes, that deliver the goals of Working Together, Healthy Environments and Sustainable Use.

The Board worked with various stakeholders, including government agencies and community, to ensure a participatory approach.

The programs outlined involve resource assessment, planning, on ground works and capacity building. Importantly, the programs will build on existing achievements in NRM and are intended to be undertaken in collaboration or in a manner that adds value to the activities of a range of other NRM stakeholders.

The Board uses the following principles to support their investment decision making:

- Deliver on our region’s long term strategic priorities/goals
- Community at the centre
- Evidence based decision making balanced against need to act
- Realistic and achievable
- Embrace cultural diversity
- Leverage/extend what we do
- Responsible, accountable and effective use of resources
- Comply with legislative requirements
- Make a positive difference to natural resources in our region

Monitoring, evaluation and reporting

Monitoring, evaluation and reporting of the achievement of the goals and outcomes of the plan is essential to guide improvements and changes in the on-going management of natural resources.

A component of each program expenditure budget is allocated to performance monitoring, evaluation and reporting.

The Board is responsible for monitoring and reporting on the implementation of the regional NRM Plan, the achievement of resource targets and the condition of natural resources. This is integral to the review of the Business Plan to inform future decisions about the management of natural resources.

Board Governance

The Board has a role in providing efficient and effective leadership and management of the Board Business. Sound governance and administration is critical to the sustainable operation of the Board and its capacity to deliver effective NRM programs in the region.

The Board has adopted the principles of good governance to ensure it operates with integrity and in an ethical manner.

The guiding principles include leadership, Strategic Planning, community relationships, openness and transparency in decision making, accountability, responsible risk management, development of human resources, efficient allocation of Board resources, financial management and timely performance reporting.

Partnerships

South Australia’s NRM Boards deliver their priorities, policies and programs via a partnership with the Department for Environment and Water (DEW). For the Board, this means DEW, through ‘Natural Resources Northern and Yorke’, with central corporate and policy support, delivers the Board’s annual Business Plan (including the Board’s statutory responsibilities under the NRM Act 2004) as well as high-level program and project management for all regional activities.

The Regional Director for Natural Resources Northern and Yorke is responsible for the development of an Annual Implementation Plan between DEW and the Board. The Regional Director is accountable for delivering the endorsed Annual Implementation Plan, while working with the Board to oversee delivery through the regional workforce that delivers both Board and DEW programs.

DEW staff are funded by the Board for the 2019-20 financial year. These staff provide a facilitation role across the region and partner with Local Government, non-government organisations, volunteer groups, contractors, industry groups, land managers and other government agencies to delivery on ground outcomes.
This Business Plan outlines the expected sources of the funds the Northern and Yorke NRM Board requires to implement the investments in NRM. This is for the financial periods, 2019-20, 2020-21 and 2021-2022.

The regional NRM Plan has been developed with consideration of the future and alignment to National and State funding programs. At the beginning of the 2018/19 financial year, the Board was successful in obtaining funding through the Australian Government’s Regional Land Partnerships Program. A detailed breakdown of this is on page 15.

The Board also aims to secure funding from State and Australian Government contestable grant programs as opportunities arise. Other income sources include fees and charges, contributions, investment interest and re-imbursements.

The Board continues to seek additional funding from industry and community, where the opportunity for complementary activity arises.

### SOURCES OF FUNDING

<table>
<thead>
<tr>
<th></th>
<th>2018/19 (APPROVED)</th>
<th>2019-20</th>
<th>2020-21</th>
<th>2021-22</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRM Land Levy</td>
<td>4,035,205</td>
<td>4,144,155</td>
<td>4,289,200*</td>
<td>4,460,768*</td>
</tr>
<tr>
<td>NRM Water Levy</td>
<td>185,440</td>
<td>190,447</td>
<td>197,113*</td>
<td>205,000*</td>
</tr>
<tr>
<td><strong>Total Levy income</strong></td>
<td><strong>4,220,645</strong></td>
<td><strong>4,334,602</strong></td>
<td><strong>4,486,313</strong></td>
<td><strong>4,665,768</strong></td>
</tr>
<tr>
<td>Water Licence income</td>
<td>1,100</td>
<td>1,150</td>
<td>1,200</td>
<td>1,250</td>
</tr>
<tr>
<td>Interest</td>
<td>25,000</td>
<td>22,500</td>
<td>22,500</td>
<td>22,500</td>
</tr>
<tr>
<td>Sales of other goods / services</td>
<td>40,520</td>
<td>42,500</td>
<td>44,000</td>
<td>45,000</td>
</tr>
<tr>
<td><strong>Total other income</strong></td>
<td><strong>66,620</strong></td>
<td><strong>66,150</strong></td>
<td><strong>67,700</strong></td>
<td><strong>68,750</strong></td>
</tr>
<tr>
<td><strong>Total income - regionally funded</strong></td>
<td><strong>4,287,265</strong></td>
<td><strong>4,400,752</strong></td>
<td><strong>4,554,013</strong></td>
<td><strong>4,734,518</strong></td>
</tr>
<tr>
<td>External funding</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NRM Core Services</td>
<td>439,123</td>
<td>445,981</td>
<td>414,938</td>
<td>418,574</td>
</tr>
<tr>
<td>Great Southern Ark</td>
<td>709,735</td>
<td>482,070</td>
<td>525,378</td>
<td>407,473</td>
</tr>
<tr>
<td>Living Flinders</td>
<td>430,824</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total income - externally funded</strong></td>
<td><strong>1,579,682</strong></td>
<td><strong>963,282</strong></td>
<td><strong>871,881</strong></td>
<td><strong>857,048</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,866,947</strong></td>
<td><strong>5,364,034</strong></td>
<td><strong>5,425,894</strong></td>
<td><strong>5,591,566</strong></td>
</tr>
</tbody>
</table>

**NOTE:** *NRM Land and Water Levies are subject to indexation. Income values stated above are indicative and may vary according to annual CPI percentage.*

**BUSINESS PLAN 2019-2022**

- **Northern and Yorke NRM Board 2019-2020 Income Budget by Category**
  - NRM Land Levy: $4,144,155
  - NRM Core Services: $445,981
  - Great Southern Ark: $517,301
  - Sales of other goods/services: $42,500
  - Interest: $22,500
  - Water Licence income: $1,150
  - NRM Water Levy: $190,447

**Natural Resources Northern and Yorke Business Plan 2019-22**
Funds which the Board collects through NRM Levies are invested in the strategies and actions of six key programs.

The **priority statements** indicate the focus of activities within the programs. The **key linkages** outline main Strategic Plan goals and elements of the *NRM Act 2004* that the programs will contribute to. Linkages also exist between the programs themselves.

The programs will be delivered with adaptive, landscape and collaborative approaches. In doing so, other strategies and actions across the Strategic Plan will be integrated into delivery of the programs where opportunities present.

### Expenditure 2019-2022 (Regionally Funded)

<table>
<thead>
<tr>
<th>BUSINESS PLAN PROGRAM</th>
<th>PRIORITY STATEMENT</th>
<th>KEY LINKAGES</th>
<th>2019-20 $ AMOUNT</th>
<th>2020-21 $ AMOUNT</th>
<th>2021-22 $ AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy Environments</td>
<td>• Increasing resilience of our priority high biodiversity refuge areas – Mid North and Southern Flinders Ranges and Southern Yorke Peninsula</td>
<td>Goal 2 Healthy Environments</td>
<td>713,717</td>
<td>738,700</td>
<td>768,248</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Goal 2A Healthy Ranges</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Goal 2B Healthy Plains</td>
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<tr>
<td></td>
<td></td>
<td>• Goal 2C Healthy Coasts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sustainable Use</td>
<td>• Working closely with regional partners to support good policy development and decision-making, particularly in relation to our coasts and gulfs</td>
<td>Goal 3 Sustainable Use</td>
<td>716,145</td>
<td>741,210</td>
<td>770,858</td>
</tr>
<tr>
<td></td>
<td>• Statutory requirements under the <em>Natural Resources Management Act 2004</em> in relation to land and water management</td>
<td>• Goal 3A - Agricultural Systems</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Goal 3B - Grazing Systems</td>
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<td>• Goal 3C Water</td>
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<td></td>
<td></td>
<td>• Goal 3D Urban and Industry</td>
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<td></td>
<td></td>
<td><em>NRM Act 2004</em></td>
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<tr>
<td></td>
<td></td>
<td>• Chapter 7 Part 2 (Control of activities affecting water)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Chapter 7 Part 3 (Licensing and associated rights and entitlements)</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>• Chapter 6 Management and protection of land</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pest plant and animal control</td>
<td>• Statutory requirements under the <em>Natural Resources Management Act 2004</em>, with particular focus on an applied risk management, landscape approach and individual accountability for control of declared plants and animals</td>
<td><em>NRM Act 2004</em></td>
<td>1,280,909</td>
<td>1,325,740</td>
<td>1,377,115</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Chapter 8 Control of animals and plants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaboration, partnerships and Aboriginal engagement</td>
<td>• Leverage partnerships and external funds to achieve natural resource outcomes and supporting Traditional Owners and Aboriginal communities to care for Country</td>
<td>Goal 1 Working Together</td>
<td>167,371</td>
<td>173,229</td>
<td>180,158</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Goal 1B Aboriginal NRM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Goal 1C Collaboration and Partnerships</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awareness and capacity building</td>
<td>• Support school-based environmental leadership and facilitate collaborative community action to achieve natural resource outcomes through CAP and support for other community activities</td>
<td>Goal 1 Working Together</td>
<td>739,130</td>
<td>764,234</td>
<td>794,803</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Goal 1B Aboriginal NRM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Goal 1C Collaboration and Partnerships</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership and strategy</td>
<td>• Support a strategic approach to NRM, and effective and accountable governance</td>
<td><em>NRM Act 2004</em></td>
<td>783,480</td>
<td>810,900</td>
<td>843,336</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Chapter 2 Objects of Act and general statutory duties Part 3 (NRM regions and boards)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Chapter 4 NRM Plans Part 2 (Regional plans)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total**                                                                 |                                                                                                                                  |                                                                                                        | 4,400,752        | 4,554,013        | 4,734,518        |
## Expenditure 2019-2022 (Externally Funded)

External funding is provided by the Australian Government under the Regional Land Partnerships Program

<table>
<thead>
<tr>
<th>BUSINESS PLAN PROGRAM</th>
<th>PRIORITY STATEMENT</th>
<th>2019-20 $ AMOUNT</th>
<th>2019-20 $ AMOUNT</th>
<th>2020-21 $ AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy Environments</td>
<td>• Increasing resilience of our priority high biodiversity refuge areas – Mid North and Southern Flinders Ranges and Southern Yorke Peninsula</td>
<td>325,507</td>
<td>284,561</td>
<td>268,459</td>
</tr>
</tbody>
</table>
| Sustainable Use                              | • Working closely with regional partners to support good policy development and decision making particularly in relation to our coasts and gulls  
• Statutory requirements under the *Natural Resources Management Act 2004* in relation to land and water management | 161,643          | 162,419          | 163,214          |
| Pest plant and animal control                | • Statutory requirements under the *Natural Resources Management Act 2004*, with particular focus on an applied risk management, landscape approach and individual accountability for control of declared plants and animals | 159,405          | 152,321          | 150,311          |
| Collaboration, partnerships and Aboriginal engagement | • Leverage partnerships and external funds to achieve natural resource outcomes and supporting Traditional Owners and Aboriginal communities to care for Country | 140,214          | 103,824          | 102,032          |
| Awareness and capacity building              | • Support school-based environmental leadership and facilitate collaborative community action to achieve natural resource outcomes through CAP and support for other community activities | 52,147           | 40,494           | 40,848           |
| Leadership and strategy                      | • Support a strategic approach to NRM, and effective and accountable governance | 124,367          | 128,262          | 132,183          |
| Total                                        |                                                                                     | 963,282          | 871,881          | 857,047          |
Regional NRM Levy

To enable the Northern and Yorke Natural Resources Management Board to undertake its functions, the NRM Act 2004 enables the Board to specify the amount of levy to be collected from the community.

This Business Plan includes a description of the basis for the levy collection and an assessment of its social impact. The amount of the levy is calculated to ensure the Board has sufficient funds to meet the costs of delivering the Business Plan in the region.

Section 92 of the Act relates to the Regional NRM Land Levy (Division 1). The Regional NRM Land Levy is collected by Local Government constituent councils.

Section 101 of the Act enables the Minister to declare a NRM Water Levy (Division 2) payable by water licensees in prescribed water resources areas.

NRM Land Levy

Section 92(2) of the NRM Act 2004 specifies the basis or method of determining the Regional NRM Land Levy. The total Division 1 Regional NRM Land Levy will provide $4,144,155 which is approximately 75% of the total income for 2019-20.

The following options are provided in the Act as a basis for determining the regional NRM Levy:

- **Option 1**
  - The value of rateable land
- **Option 2**
  - A fixed charge of the same amount on all rateable land
- **Option 3**
  - A fixed charge of an amount that depends on the purpose for which the rateable land is used
- **Option 4**
  - The area of rateable land
- **Option 5**
  - The purpose for which the rateable land is used and the area of the land
- **Option 6**
  - The location of the rateable land.

Based on the decision making process followed by the Board and investigations undertaken, the Board will continue to use Option 1, the value of rateable land as the basis for determining the Regional NRM Levy, as the Board believes this is the most equitable option.

While the user (or beneficiary) pays principle is an important guiding principle in choosing a basis for determining the Regional NRM Levy, there is no practical way to accurately assess the benefits that individual landholders across the region would derive from the activities and services of the Board. The Board’s objective is to manage, protect and restore the region’s natural resources, and its activities and services will benefit everyone who lives in the region.

The role of the Board is to assess the balance between essential NRM activities, capacity to undertake the tasks, and ability to raise funds. Everyone who lives in the region has an impact on the region’s natural resources and benefits from their maintenance and restoration. Essential activities include the development of the Regional NRM Plan, pest, land, water resources and catchment management and community education.

Table: Estimated NRM Land Levy contribution and estimated Levy collection cost by each constituent council for 2019-20

<table>
<thead>
<tr>
<th>NAME OF CONSTITUENT COUNCIL</th>
<th>CONTRIBUTIONS ($)</th>
<th>ESTIMATES OF LEVY COLLECTION COSTS ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Council of Barunga West</td>
<td>216,983</td>
<td>3,241</td>
</tr>
<tr>
<td>Clare and Gilbert Valleys Council</td>
<td>516,228</td>
<td>4,324</td>
</tr>
<tr>
<td>Copper Coast Council</td>
<td>642,201</td>
<td>5,537</td>
</tr>
<tr>
<td>The Flinders Ranges Council</td>
<td>45,611</td>
<td>3,037</td>
</tr>
<tr>
<td>Goyder Regional Council</td>
<td>87,691</td>
<td>2,792</td>
</tr>
<tr>
<td>District Council of Mount Remarkable</td>
<td>121,271</td>
<td>3,405</td>
</tr>
<tr>
<td>Northern Areas Council</td>
<td>287,635</td>
<td>3,672</td>
</tr>
<tr>
<td>District Council of Orroroo Carrieton</td>
<td>35,976</td>
<td>2,918</td>
</tr>
<tr>
<td>District Council of Peterborough</td>
<td>34,265</td>
<td>2,979</td>
</tr>
<tr>
<td>Port Augusta City Council</td>
<td>281,328</td>
<td>4,544</td>
</tr>
<tr>
<td>Port Pirie Regional Council</td>
<td>427,821</td>
<td>5,265</td>
</tr>
<tr>
<td>Wakefield Regional Council</td>
<td>378,203</td>
<td>3,974</td>
</tr>
<tr>
<td>Yorke Peninsula Council</td>
<td>1,068,942</td>
<td>6,241</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,144,155</strong></td>
<td><strong>51,929</strong></td>
</tr>
</tbody>
</table>
NRM Water Levy

The Board raises an NRM Water Levy from licensed irrigators in prescribed areas. This applies to water licensees in the Clare Valley Prescribed Water Resources Area as a contribution to the activities to manage the water resources in the area. The NRM Water Levy will raise approximately $190,447 for 2019-20.

The amount of the levy is calculated to ensure the Board has sufficient funds to meet the costs of delivering Water Planning and Management services in the region.

The NRM Act 2004 provides options as a basis for determining the NRM Water Levy. Only certain options are relevant in the Northern and Yorke Region. Section 101(6) specifies the basis or method for determining the water levy. The levy may be based on one or more of the following:

Option 1
A fixed charge

Option 2
The quantity of water allocated

Option 3
The quantity of water received or taken

Option 4
The quantity of water passing through any works

Option 5
The size, type or capacity of works

Option 6
The quantity of water used

Option 7
The share of the water that makes up the relevant water resource

Option 8
The area of land where the water may be used, or the area of land where the water is used

Option 9
The effect that the taking or using of the water has, or may have, on the environment, or some other effect or impact that, in the opinion of the Minister, is relevant and that is capable of being determined, measured or applied.

Based on research undertaken, the NRM Water Levy charge methodology will not change in 2019-20 from the new model, being a combination of a fixed charge plus a rate per kilolitre of water allocated (Options 1 and 2).

The ‘user (or beneficiary) pays’ is an important principle in determining the basis for the levy. Because water that is taken and used will produce a crop that is sold, a dollar value can be attributed to the water used and there is potential benefit from holding an allocation even if it is not used.

As allocations are tradeable, they also have a capital value that is partly determined by current use, but can also be influenced by other factors (e.g. the relative scarcity of water elsewhere).

Water for stock and domestic use is exempt from the levy under the Act.

Considerable research has been undertaken to ascertain the most equitable method to implement the water levy in the region.

The new levy calculation is shown in the following table (Table 9).

Table 9: NRM Water Levy in a Prescribed Water Resources Area for 2019-20

<table>
<thead>
<tr>
<th>CLARE VALLEY PRESCRIBED WATER RESOURCES AREA</th>
<th>TOTAL ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A fixed amount of $100 per water licence (309 licences)</td>
<td>30,900</td>
</tr>
<tr>
<td>2. Rate per kilolitre allocated – 3.568 cents per kilolitre (4,471 ML)</td>
<td>159,547</td>
</tr>
<tr>
<td>Total Water Levy</td>
<td>190,447</td>
</tr>
</tbody>
</table>
Social Impact Assessment

As part of the development of the Regional NRM Plan, the Board undertook investigations and consultation to determine the basis of the levy and assess its social and economic impact on the region.

The Northern and Yorke region is one of South Australia’s most important agricultural areas as it contributes approximately one quarter of the State’s total value of agricultural production (ABS 2006) from cropping, livestock and livestock products. The social and economic stability of the region is dependent, to a large extent, on its economically sustainable agricultural industries. Most of these industries either have an effect on natural resources or are affected by the way in which those resources are managed.

It is important to recognise that all of the community of the Northern and Yorke region derives benefit from the condition of the natural resources and also have an impact on the state of natural resources. However, it is difficult to practically assess individual benefits derived from the activities of the Board across the region. In assessing the merits or otherwise of the alternative methods on which to base the levies, the Board has attempted to consistently employ the basis of fairness, efficiency and good governance.

The assessment principles are:

**Fairness**
User pays - implies that the people who are the beneficiaries of natural resources management in the region should pay accordingly.
Reasonable basis - costs incurred in managing the natural resources of the region should be contained at an economic level.
Equity - entities should pay in proportion to their ‘use’ or their ‘benefit’, so no single person, organisation or group of organisations is systematically treated more or less favourably than others.
Shared responsibility - the responsibility to achieve ecologically sustainable development is a shared responsibility between the public sector, the private sector and the community.

**Efficiency**
Certainty - the levy arrangement should deliver a certain outcome for both the managers of the natural resources of the region and the ‘users’ of the natural resources, so that they can plan and budget accordingly.
Flexibility - the levy arrangements should accommodate any unusual volatility in the resource manager’s funding requirements in a controlled manner.
Resource use efficiency - the basis for determining the levy should encourage efficient and sustainable use and the protection and enhancement of the region’s natural resources.
Administrative efficiency - the levy collection and management procedures should operate at minimum cost.

**Governance**
Accountability - the natural resource managers financed by the levy (i.e. the Board) should be publicly accountable for their use of funds.
Transparency - the process for calculating the levy and the amount paid by users should be readily observable, subject to individual user confidentiality constraints.

**Regional NRM Levy**
The basis of the Regional NRM Levy in 2019-20 will be the value of rateable land. The residential average NRM Land Levy amount payable for ratepayers will be approximately $45.93 in 2019-20. However the levy will be a greater or lesser amount for rateable properties with higher or lower value, respectively.
The NRM Land Levy equates to 0.08% of average after tax personal income in the region. In the Northern and Yorke region the total capital value of residential properties is $9.6 billion (average $220,100) and the total capital value of primary production properties is $8.781 billion (average $531,600) (SAILIS Data August 2015).
Additionally, primary producers expend an average of $26,817 per property each year (ABS 2006) on natural resources management.

**NRM Water Levy**
The majority of agricultural land in the Northern and Yorke NRM Region is not irrigated. However, within the prescribed areas of the Clare Valley, there are approximately 5,216 hectares of grapevines. The quantity of water currently allocated is 4,471 ML of surface, watercourse and underground water, to approximately 309 licence holders.
In June 2017, the Board conducted an assessment of the likely impact of the NRM water levy using a representative financial model approach. The NRM Water Levy is assessed as comprising a small proportion of variable and total costs of operation. The proposed 2019-20 Division 2 Water Levy in the Northern and Yorke region amounts to an average of 0.3% of the total annual operating costs of these types of businesses.
For moderate profit and/or low water using industries, the levy has minimal impact on farm profitability. For marginal operations the impact of farm profitability could be more significant. Analysis has shown that the lower profit margin and higher water using industries such as pasture and livestock are where the NRM Water Levy could potentially have a more noticeable impact on profitability.
Controlling existing pest species while minimising the risk of new pest threats are critical for reducing impacts to agricultural productivity, biodiversity and human health.

Risk assessments will inform the approach and location of on-ground works.

Any actions to control pest plants and animals will be determined at a regional level and also at locality specific levels, and will be guided by the risk assessment process. This process will be informed by a number of factors, including national and state policy frameworks and the region’s CAP forums.

There is potential that the relative pest risk and/or feasibility of control will change over time and consequently the recommended level of pest control may be escalated or downgraded. The latest information for required level of pest control within the region is available on the Natural Resources Northern and Yorke website.

Pest Plant and Animal Control

The Northern and Yorke Natural Resources Management Board and individuals have responsibilities for declared plant and animal control under the NRM Act 2004. Chapter 8 of the NRM Act 2004 sets out the requirements for the control of declared plants and animals in South Australia, including the declaration of animals and plants that require specific control. It is the individual’s responsibility to comply with the statutory requirements as they apply to declared species. The latest information on declared animals and plants and which statutory requirements apply for the region is available at the Biosecurity SA website.

This plan also addresses the management of non-declared animals and plants where they have been identified as an environmental or production issue. A focus for the region will be on containing the distribution of established declared pests through strategic control and eradication programs. Priority will be given to preventing the incursion and establishment of new pest species through strategic monitoring and rapid response where new pests are identified. This approach is consistent with national weed and vertebrate pest strategies.

Reducing the impact of pest plants and animals in the region requires a strategic approach for the containment, control and/or eradication of existing infestations. Risk assessment of pest plants and animals consider a number of factors, including invasiveness, potential impacts and the feasibility of control.
Under Section 75(3) (k) of the Natural Resources Management Act 2004 (the Act) the Northern and Yorke Natural Resources Management Plan is required to set out the matters that should be taken into account when the relevant authority is exercising its power to grant or refuse water affecting activity permits.

1. ADMINISTRATIVE PRINCIPLES

1. A permit is required to undertake any of the water affecting activities listed in Table 1.
2. The general objectives and principles and the specific principles for each water affecting activity apply to all of the Northern and Yorke NRM region, with the exception of prescribed water resources to the extent that the relevant water allocation plan sets out the matters that the relevant authority will consider when exercising its powers to grant or refuse water affecting activity permits. It is recommended that notification of all water affecting activities be made to the Board and clarification sought on permit requirements and applicable specific principles.
3. Permits are granted by the relevant authority.
4. For the purposes of this plan the relevant authority is:
   a. In the case of an activity referred to in Sections 127(3)(a), (b), or (c), or Sections 127(5)(i) of the Act – the Minister; or
   b. In the case of an activity referred to in Section 127(3)(d) or Sections127(5)(a), (b), (c), (d), (f), (g), and (h) of the Act – the Board.
5. A permit is not required in the following circumstances:
   a. Section 129 of the Act specifies a permit exemption for that activity;
   b. The proponent of the activity is the relevant authority for issuing a permit for that activity, as per section 127(7) of the Act;
   c. A permit exemption has been specified for that activity in Table 1 and in the specific principles for that water affecting activity.
6. For the purpose of Table 1, the general objectives and principles as well as the specific principles for each water affecting activity, priority water resources are defined as follows:
   a. Priority underground water areas – Carribie basin, Willochra basin, Walloway basin, Para-Wurlie basin, Balaklava, Baroota, Bundaleer, Booborowie and Upper Rocky are defined in Map 1;
   b. Priority surface-water catchments – Willochra, Wakefield and Broughton catchments, the eight identified catchments of the Mambray coast, including the Baroota catchment, and the catchment of the Light River, excluding the sub-catchments of the Mid and Lower Light River are defined in Map 2;
   c. Priority Watercourses are defined in Map 3; and
   d. Baroota underground water management area - defined in Map 4.
7. All permit applications for water affecting activities will be assessed against the general objectives and principles that follow and the specific principles defined for each specific water affecting activity.
8. A permit is valid for a period of time as determined by the relevant authority and stated on the permit.
9. The relevant authority may extend the expiry date of a granted permit if the applicant requests in writing for an extension to the expiry date.
10. Public notification is not required for a permit application.
11. A granted permit cannot be transferred to a different allotment to the one specified in the permit.

In addition to the aforementioned principles, the Act has provisions under section 135 that relate to permits. Relevant provisions include:

- A relevant authority may request an applicant to provide additional information to assess the permit application as per section 135(2) of NRM Act 2004.
- A permit and any specified condition, are binding to the applicant, and the owner and occupier of the land to which it relates, and all subsequent owners and occupiers of the land as per section 135(8) of the NRM Act 2004.
- A condition can be specified in a permit by the relevant authority as per section 135(9) of the NRM Act 2004.
- A condition in a permit may remain valid and enforceable after the authorised activity has been completed, as per section 135(10) of the NRM Act 2004.
- A permit may be varied, suspended or revoked by the relevant authority where the holder of a permit or a person acting on behalf of the holder of a permit has failed to comply with a condition specified on the permit as per section 135(12) of the NRM Act 2004.
- A person has the right to appeal at the Environment, Resources and Development Court against a decision to refuse a permit application or a condition imposed within a granted permit as per section 202(1)(b)(ii) of the NRM Act 2004.
2. BEST PRACTICE OPERATING PROCEDURE (BPOP) PERMITS

The Board has determined a process for granting a single water affecting activity permit that allows a person to undertake a range of specified water affecting activities at multiple locations where each water affecting activity is included in a Best Practice Operating Procedure (BPOP). This process streamlines the assessment and administrative processes for a specified range of water affecting activities. Permits granted under this section are referred to as “BPOP permits”. All activities under section 127 may be included in a BPOP permit with the exception of activities where the Minister is the relevant authority and 127(3)(d) Management of dams, walls or other structures.

A BPOP permit may not be granted unless:

1. The applicant provides a BPOP in relation to the proposed water affecting activities to the Board that contains the following:
   a. An assessment as to whether the proposed water affecting activity may be authorised by a BPOP permit;
   b. The procedure or procedures that will be followed when undertaking each water affecting activity specified in the BPOP.

2. The applicant provides to the Board sufficient details about:
   a. The nature and type of each proposed water affecting activity;
   b. The specifications of each water affecting activity;
   c. The location of each water affecting activity, including maps.

3. The Board will advise an applicant whether each of the water affecting activities described in the BPOP may be undertaken under a BPOP permit or whether a separate water affecting activity permit will be required for each water affecting activity.

4. Water affecting activities permitted by a BPOP permit must be undertaken in accordance with the BPOP.

3. OBJECTIVES AND PRINCIPLES

Objectives

1. To ensure water resources are developed and utilised in a sustainable and equitable manner to optimise productive use, while providing for the needs of natural ecosystems.

2. Apply a risk based approach to regulate water affecting activities via a permitting system for the purpose of avoiding unacceptable impacts to water resources, water users and water dependent ecosystems.

Principles

1. A permit for a water affecting activity will only be granted if the applicant satisfactorily assesses and provides a plan to control any potential risk, including but not limited to:
   a. Risk of impacting the quantity, quality or condition of water resource;
   b. Risk of impacting a person’s lawful take of water;
   c. Risk of impacting a water dependent ecosystem or the environmental water requirements of a water dependent ecosystem;
   d. Risk of disturbing a site of Aboriginal cultural significance or impacting cultural activities of traditional owners;
   e. Risk of damaging property or infrastructure;
   f. Risk of causing scouring and/or erosion of soils and watercourses;
   g. Risk of impacting native vegetation;
   h. Risk of causing flooding;
   i. Risk of compromising the productive capacity of the land including causing waterlogging, dryland salinity or rising water tables;
   j. Risk of exposing or mobilising acid sulphate soils;
   k. Risk of impacting the migration of native fish or aquatic biota;
   l. Risk of interfering with surface water and underground water interactions;
   m. Compromise the integrity of authorised scientific monitoring or research.

2. Activities shall be designed and located to account for the geomorphic (landscape) characteristics of a watercourse or lake.

3. Activities shall not:
   a. Be located in ecologically sensitive areas;
   b. Detrimentally affect ecological diversity and habitats;
   c. Excessively alter the frequency, duration or magnitude of important flow bands; or
   d. Alter the direction, magnitude or seasonality of surface and underground water interactions.
Water Affecting Activities continued

Figure 1: Water Affecting Activity permit assessment process

Is the activity within the realm of Section 127 of the NRM Act?
- Yes
  - Is there a permit exemption under Section 129 of the NRM Act?
    - Yes → A permit is not required
    - No → A permit is not required

Is there a permit exemption under Section 129 of the NRM Act?
- Yes → A permit is not required
- No → Is the activity identified in a NRM Plan as requiring a permit?
  - Yes → Does an exemption exist for the activity identified in a plan?
    - Yes → A permit may be not required, provided the activity is in accordance with the exemption principles. Otherwise, a permit is required.
    - No → Does permit application address and satisfy the relevant principles of the WAA policy?
      - Yes, grant permit (with or without conditions)
      - No, refuse application and provide reasons for refusal

Applicant can appeal at the ERD Court against a refusal of a permit or a permit condition as per Section 202 of NRM Act.
### Water Affecting Activities Table 1: Water Affecting Activities permit requirements

<table>
<thead>
<tr>
<th>NRM ACT REFERENCE</th>
<th>WAA REFERENCE</th>
<th>WATER AFFECTING ACTIVITIES</th>
<th>EXAMPLES</th>
<th>ACTIVITIES NOT REQUIRING A PERMIT</th>
<th>RELEVANT AUTHORITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>127(3)(a)</td>
<td>4</td>
<td>Drilling plugging backfilling or sealing a well.</td>
<td>• Well drilling or closure</td>
<td>• None</td>
<td>Minister</td>
</tr>
<tr>
<td>127(3)(b)</td>
<td>4</td>
<td>Repairing replacing or altering the casing, lining screening of a well.</td>
<td>• Well maintenance</td>
<td>• None</td>
<td>Minister</td>
</tr>
<tr>
<td>127(3)(c)</td>
<td>5</td>
<td>Draining or discharging water directly or indirectly into a well.</td>
<td>• Aquifer storage</td>
<td>• None</td>
<td>Minister</td>
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<tr>
<td>127(5)(i)</td>
<td>12</td>
<td>Using water in the course of carrying on a business in an NRM region at a volume that exceeds 1 megalitre of water that has been brought into the region by means of a pipe or other channel.</td>
<td></td>
<td>• All activities that use water brought into the region by means of a pipe or other channel, except where the water is used on land for irrigation purposes (principle 1).</td>
<td>Minister</td>
</tr>
<tr>
<td>127(3)(d)</td>
<td>6</td>
<td>The erection, construction, modification, enlargement or removal of a dam, wall or other structure that will collect or divert, or collects or diverts: • Water flowing in a prescribed watercourse; • Water flowing in a watercourse in the Mount Lofty Ranges Watershed that is not prescribed; or • Surface water flowing over land in a surface water prescribed area or in the Mount Lofty Ranges Watershed.</td>
<td>• Dam, wall or other structure • Piping a watercourse • Sheeted catchment • Channelling a watercourse</td>
<td>• Desilting of dams in accordance with principle 14 • Activity to be undertaken in areas that are not priority surface water areas as shown on Map 2 • Turkey nest dams</td>
<td>Board</td>
</tr>
<tr>
<td>127(5)(a)</td>
<td>6</td>
<td>The erection, construction, modification, enlargement or removal of a dam, wall or other structure that will collect or divert, or collects or diverts, water flowing in a watercourse that is not in the Mount Lofty Ranges Watershed and that is not prescribed or flowing over any other land that is not in a surface water prescribed area or in the Mount Lofty Ranges Watershed.</td>
<td>• Dam, wall or other structure • Sheeted catchment • Piping a watercourse • Channelling a watercourse</td>
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<td>Board</td>
</tr>
<tr>
<td>127(5)(b)</td>
<td>7</td>
<td>The erection, construction or placement of any building or structure in a watercourse or lake or on the floodplain of a watercourse.</td>
<td>• Buildings or structures • Pump house • Culvert • Crossing point • Fencing</td>
<td>• Activity that is proposed to be undertaken at a distance of 40 metres or more from the banks of the nearest watercourse and that does not involve any structure associated with the extraction of water (principle 9). • Activity that is proposed to be undertaken on any watercourse or drainage line not delineated on Map 3 (principle 8). • Emergency repairs to a culvert, causeway, floodways or crossings (principle 10).</td>
<td>Board</td>
</tr>
<tr>
<td>127(5)(c)</td>
<td>8</td>
<td>Draining or discharging water directly or indirectly into a watercourse or lake.</td>
<td>• Stormwater from buildings • Pipes • Culverts • Side entry pits</td>
<td>• Activity that is proposed to be undertaken on any watercourse or drainage line not delineated on Map 3 (principle 9). • Draining or discharging rainwater collected from a structure or building provided: • rainwater was transported via closed pipe system, and is equipped with a mechanism to divert the first flush of rainwater away from the watercourse or lake; and • point of drainage into a watercourse or lake has measures to prevent erosion (principle 10).</td>
<td>Board</td>
</tr>
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<td>NRM ACT REFERENCE</td>
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</table>
| 127(5)(d)         | 9            | Depositing or placing an object or solid material in a watercourse or lake or obstructing a watercourse or lake in any other manner. | - Island in on-stream dam  
- Rip raps  
- Rocks  
- Snags | - Activity that involves a non-polluting object or solid material that occupies less than 5% of the cross section of a watercourse (principle 7).  
- Activity that is proposed to be undertaken on any watercourse or drainage line not delineated on Map 3 (principle 7). | Board |
| 127(5)(f)         | 9            | Depositing or placing an object or solid material on the floodplain of a watercourse or near the bank or shore of a lake to control flooding from the watercourse or lake. | - Levee Banks  
- Depositing fill | - An activity that is proposed to be undertaken on the floodplain of a watercourse to control flooding from the watercourse or lake is on a watercourse not delineated as a priority watercourse on Map 3 (principle 7).  
- Emergency repairs to a levee bank (principle 7). | Board |
| 127(5)(g)         | 10           | Destroying vegetation growing in a watercourse or lake or growing on the floodplain of a watercourse. | - Removal or destruction of trees, shrubs, grasses | - Activity that is proposed to be undertaken a distance of 40 metres or more from the banks of the nearest watercourse (principle 2).  
- Activity that is proposed to be undertaken on any watercourse or drainage line not delineated on Map 3 (principle 2).  
- Destroying vegetation growing in a watercourse, lake or floodplain of a watercourse, if the activity is for the purpose of controlling a declared pest plant, or in accordance with a consent granted under the Native Vegetation Act 1991 (principle 2). | Board |
| 127(5)(h)         | 12           | Excavating or removing rock, sand or soil from:  
- A watercourse or lake or the floodplain of a watercourse; or  
- An area near to the banks of a lake so as to damage, or create the likelihood of damage to, the banks of the lake. | - Desilting on-stream dam  
- Desilting wetlands, swamps and springs  
- Realignment or alteration of a watercourse | - Activity that is proposed to be undertaken a distance of 40 metres or more from the banks of the nearest watercourse (principle 5).  
- Desilting of dams in a watercourse or in the floodplain of a watercourse providing it involves the removal of unconsolidated material deposited since the dam was previously desilted (principle 3).  
- Desilting of turkey nest dams (principle 4).  
- Activity that is proposed to be undertaken on any watercourse or drainage line not delineated on Map 3 (principle 5).  
- Activity that involves the removal of less than 2 cubic metres of material in any 5 year period (principle 5). | Board |
Map 1: Priority Underground water Areas
Water Affecting Activities continued
4. MANAGEMENT OF WELLS

A permit is required for the drilling, plugging, backfilling or sealing of a well and the repairing, replacing or altering the casing, lining or screen of a well, pursuant to Section 127(3)(a) and (b) of the Act.

The following principles shall be considered by the Minister when determining whether to grant or refuse a permit for an activity under sections 127(3)(a) and 127(3)(b) of the NRM Act 2004.

PRINCIPLES

Well location

1. Permits for new wells other than replacement wells will not be granted in the priority underground water basins and priority underground water areas shown on Map 1 unless it can be shown that the purpose of the well is for stock (other than stock subject to intensive farming) or domestic extraction.

2. Where an existing operational well needs to be replaced the applicant needs to:
   a. obtain a permit under the NRM Act 2004 to backfill the existing well and demonstrate that an appropriately licensed well driller has or is to decommission the existing well; and
   b. apply for a permit under the NRM Act 2004 to drill a new well, and the applicant is required to agree to construct the replacement well within 50 meters of the original well and within the same aquifer.

3. A permit application to convert an existing well that previously did not take underground water to a well that takes underground water, will be assessed as a new well and is subject to the principles contained in this section, and the applicant is required to:
   a. demonstrate that they are the asset owner of the existing well, or have permission in writing from the asset owner to use the well; and
   b. write to the Minister or his delegate about changing the purpose of the well, and obtain permission to change the purpose of the well.

4. Drilling of a well for domestic use and/or for watering stock other than intensively farmed stock shall only occur if the location of that well is:
   a. At least 200 metres from the nearest existing well that has supplied water for irrigation, stock, domestic or commercial use in the last 10 years; or 100 metres from the nearest existing well that has supplied water for irrigation, stock, domestic or in the last 10 years if the proponent’s property is too small to enable a minimum distance of 200 metres between wells and the well is purely for domestic use; and
   b. At least 500 metres from a pipeline supplying reticulated water under the Water Industry Act 2012 if the land between the proposed well and the pipeline is owned by the proponent or the proponent has legal access to this land.

5. Despite principle 1, drilling of a well for the purpose of supplying water other than for domestic purposes or watering stock (other than stock subject to intensive farming) can occur in the Baroota Underground water Management Area, delineated on Map 4, if the location of that well lies outside an area of 500 metres radius around each neighbouring existing well, and lies outside the area bounded by the blue line on Map 4 for the buffer zone.

6. For the purposes of principles 5, a neighbouring existing well is defined as a well that has supplied water for irrigation, stock, domestic or commercial use in the last 10 years and is owned by another party.

7. The siting of stock (non-intensive) or domestic wells must have no detrimental effect on any other operational well, permanent or semipermanent pool, lake, wetland, spring, or permanent or semipermanent flowing stream.

8. The Minister may impose conditions in relation to the construction or operation of a well for the purpose of supplying water other than for domestic purposes or watering stock (other than stock subject to intensive farming) to avoid an unacceptable risk to any other operational well, permanent or semipermanent pool, lake, wetland, spring, or permanent or semipermanent flowing stream, including the following conditions:
   a. The extraction must be controlled so that it only takes place in accordance with the specified parameter(s) relating to:
      (i) Minimum water levels in the well; and/or
      (ii) Water salinity
   b. The applicant to install and maintain a meter in accordance with the South Australian Water Use Meter Specifications and provide regular meter readings
   c. Any other matter deemed relevant by the Minister.
Well construction

9. The equipment, materials and methods used in drilling, plugging, backfilling or sealing of a well, or the replacement or alteration of the casing, lining or screen of a well, shall not adversely affect the quality of a underground water resource.

10. Aquifers shall be protected during drilling, plugging, backfilling or sealing of a well, or the replacement or alteration of the casing, lining or screen of a well, to prevent adverse impacts upon the integrity of the aquifer.

11. A well must not be drilled within 300 metres of a well (‘the existing well’) into which water is drained or discharged pursuant to a permit granted under Section 127(c) of the Act for the purpose of aquifer storage and recharge, unless:
   a. The aquifer into which the proposed well will be drilled is not directly hydraulically connected with the existing well; or
   b. The proposed well is part of an ASR scheme that includes the existing well.

12. Wells for the purpose of aquifer recharge operations must be constructed so that the headworks allow both recharge and discharge operations to be metered without interference.

13. For the purposes of principle 12, “ASR scheme” means a scheme for the drainage or discharge of water (‘recharged water’) to an aquifer by one or more persons using one or more wells and the recovery of the recharged water (or other water in lieu of the recharged water) from the aquifer by the same or other persons using the same or other wells.

Well maintenance

14. Where a well passes or will pass through two or more aquifers, an impervious seal shall be made and maintained between the aquifers to prevent leakage between the aquifers.

15. The headworks of a well from which water is to be taken, other than for domestic purposes or watering stock (other than stock subject to intensive farming), must be constructed so that the extraction of water from the well can be metered without interference.

16. The headworks for the drainage or discharge of water shall be constructed so that the water cannot leak if the well becomes clogged.

17. For the purposes of this plan, the term ‘headworks’ means any assembly on top of a well and located between the well casing and the water delivery system.

18. Wells constructed for the drainage or discharge of water at pressures greater than gravity shall be pressure cemented along the full length of the casing.

19. Deepening of a well or repairing, replacing or altering the casing, lining or screen of a well must only occur where:
   a. The equipment, materials and method used in the drilling, plugging, backfilling or sealing of a well do not adversely affect the quality of the underground water resource; and
   b. The aquifers are protected during the repair, replacement or alteration of the casing, lining or screen of a well to avoid contamination of the underground water resource and prevent adverse impacts upon the integrity of the aquifer.

Plugging, backfilling or sealing of a well

20. Wells that are no longer operational or new wells that are not proposed to be operational shall be back filled in an appropriate manner.

21. The plugging, backfilling or sealing of a well must only occur where the equipment, materials and method used in the plugging, backfilling or sealing do not adversely affect the quality of the underground water resource.
5. DRAINING OR DISCHARGING INTO WELLS

A permit is required for the draining or discharging of water directly or indirectly into a well pursuant to Section 127(3)(c) of the Act. Additional authorisations may be required under the Environmental Protection Act 1993.

The following principles shall be considered by the Minister when determining whether to grant or refuse a permit for an activity under sections 127(3)(c) of the Act.

PRINCIPLES

1. A permit is required for the draining or discharging of water directly or indirectly into a well, pursuant to Section 127(3)(c) of the Act. Additional authorisations may be required under the Environmental Protection Act 1993.

2. A permit to drain or discharge water into a well will not be issued unless a risk assessment is undertaken to the satisfaction of the Minister. This risk assessment must be consistent with the National Water Quality Management Strategy – Australian Guidelines for Water Recycling: Managing Health and Environmental Risks, Phase 1 2006 and other related documents current at the time, and include:
   a. An investigation into the suitability of the draining or discharging site, including but not limited to tests for transmissivity, maximum injection pressures and calculated likely impacts on the integrity of the well and confining layers, and impacts of potentiometric head changes to other underground water users.
   b. An appropriate operation or management plan demonstrating that operational procedures and monitoring regime are in place to protect the integrity of the aquifer, minimise the wastage of water and protect the discharge site on an ongoing basis.
   c. A water quality assessment which identifies hazards in the source water.
   d. A report on the consequences and impacts to the native underground water resource where the water quality characteristics (salinity and chemistry composition) of the water to be discharge differs to that of the native underground water

3. The water quality assessment required in 2(c) above will include assessments of (but not limited to):
   a. pH, total dissolved solvents, turbidity, ammonia, nitrate, nitrite, total phosphorus, sodium, chloride, sulphate, calcium, magnesium, bicarbonate, iron, total arsenic, total boron, total cadmium, total chromium, total lead, total manganese, total zinc; and
   b. Pesticides, volatile organic compounds and petroleum hydrocarbons; and
   c. Trihalomethanes where the water to be drained or discharged has been treated by chlorination.

4. Water that is drained or discharged into a well only by means of gravity is exempt from meeting the requirements of principle 2(a).

5. Roof runoff (surface water) that is drained or discharged into a well via a closed system of capture and transport is exempt from meeting the requirements of principles 2(a), (c) and (d), provided that the system is equipped with a mechanism to divert first flush water.

6. Further to principle 2(b), continuation of draining and discharge is dependent on an annual report that addresses the impacts to the native underground water at the draining or discharge site. Roof run-off (surface water) captured in a closed system and then drained or discharged into a well is exempt from this principle.

7. For the purposes of principles 1 and 2, the relevant concentrations, levels or amounts shall be measured in sufficient representative samples of:
   a. the water to be drained or discharged; and
   b. native underground water collected from the proposed point of injection, or as near as possible to the proposed point of injection; where “sufficient representative samples” means suitable samples, collected with equipment appropriate for the substance, material or characteristic to be measured and taken at suitable locations and times to accurately represent the quality of the relevant water.

8. For the purposes of this plan, the term “native underground water” means water occurring naturally below ground level that exists in the relevant aquifer absent of any such water drained or discharged to that aquifer by artificial means.

9. The draining or discharging of water directly or indirectly into a well must not detrimentally affect the ability of other persons to lawfully take from that underground water, or degrade ecosystems dependent on the underground water.
6. MANAGEMENT OF DAMS, WALLS OR OTHER STRUCTURES

A permit is required, pursuant to Section 127(3)(d) of the Act, for the erection, construction, modification, enlargement or removal of a dam, wall or other structure that will collect or divert for any purpose:

(i) Water flowing in a prescribed watercourse; or
(ii) Surface water flowing over land in a surface water prescribed area, (except for roof runoff exempted by the Notice of Authorisation to Take Water dated 9 March 2006), or in the Mount Lofty Ranges Watershed.

A permit is required, pursuant to Section 127(5)(a) for the erection, construction, modification, enlargement or removal of a dam, wall or other structure that will collect or divert, or collects or diverts, water flowing in a watercourse that is not in the Mount Lofty Ranges Watershed and that is not prescribed or flowing over any other land that is not in a surface water prescribed area or in the Mount Lofty Ranges Watershed.

The following principles shall be considered by the Board when determining whether to grant or refuse a permit for an activity under section 127(3)(d) and section 127(5)(a) of the Act.

DESIRED OUTCOME

Dams have traditionally been constructed across watercourses and drainage paths to capture water for a variety of purposes, including the provision of stock and domestic water supply, and water for irrigation.

There is a need to protect flow patterns and the associated water-dependent ecosystems from the impacts of over extraction.

An on-stream dam typically inhibits all flow until the dam is filled, and once filled water spills over and flows further downstream. On-stream dams exist throughout the region and have been shown to reduce the rate, volume, flow duration and total yield of stream flow. They can also lengthen the period of non-flow within the watercourse.

Although on-stream dams may provide a more reliable water supply for the user, the structure inhibits water flows that are required to sustain water-dependent ecosystems and reduces the opportunity for downstream landholders to access water.

There is little flexibility in the management of ‘on-stream’ dams as they capture all flow until full, and subject this water to immediate evaporation. ‘Off-stream’ dams provide greater flexibility, as the mechanism used to extract water from a watercourse can be varied to allow capture of water at different times or flow rates.

PRINCIPLES

1. Principles 2 – 8 in this sub-section apply only to the management of dams in the priority surface water areas shown on Map 2.

2. Subject to principle 4 a permit shall not be granted to erect, construct, modify or enlarge a dam, wall or other structure that will collect or divert water where the total volume captured by the existing dams, walls and other structures and the proposed dam, wall or other structure combined will exceed 25% of the median adjusted annual flow in the relevant catchment as determined by:
   a. Gauging stations; or
   b. An assessment using a model approved by the Board.

3. Subject to principle 4, a permit to erect, construct, modify or enlarge a dam shall not be granted where the total volume of water captured on the allotment on which the dam is proposed to be erected, constructed, modified or enlarged would exceed a figure calculated by 25% of the median adjusted annual flow calculated for the total catchment divided by the total catchment area (ML/ha), multiplied by the allotment area (ha).

4. A permit for the construction of a new dam or enlargement of an existing dam may be granted where there has been an equivalent prior reduction in dam capacity and a significant environmental benefit can be demonstrated, e.g. rationalisation of existing dams or significant evaporation reduction.

5. Watercourse water may only be diverted to or collected in a dam where the area of the catchment that contributes runoff to the watercourse is less than 300 hectares.

6. Dams for stock or domestic purposes may only be constructed if there is insufficient or inadequate water available on the property, such that:
   a. There is no capacity to connect to SA Water supply; and
   b. The flow rate of water from wells is less than 0.1 litre/sec; or
   c. The salinity of the water from the wells is greater than: 1,500 mg/L for general domestic purposes; 1,000 mg/L if the water is used for drinking purposes; or 3,000 mg/L for stock purposes.

7. Despite principles 2-3, a permit may be granted to erect or construct a dam, wall or other structure for the purpose of erosion control or flood mitigation, provided that the dam is fitted with a controlled flow release device.
8. For the purposes of principle 7, a controlled flow release device shall consist of a pipe with a minimum diameter of 50 millimetres and of sufficient size and sited to drain the dam to practical limits/to a level equivalent to that of the land immediately downstream in no more than 48 hours after filling.

9. A dam, wall or other structure must not:
   a. Cause increased salinity due to leakage;
   b. Contribute to dryland salinity or intrusions of saline underground water into watercourses;
   c. Be located in ecologically sensitive areas;
   d. Adversely affect the migration of aquatic biota;
   e. Be constructed of material that cannot maintain the structural integrity of the bank; and
   f. Be located in an area where the material on the floor of the dam is permeable, unless the dam is lined with a suitable material or is for the purpose of erosion control or flood mitigation.

10. A dam, wall or other structure must not adversely affect downstream users, including water-dependent ecosystems, by causing reduced stream flow duration, lengthened periods of no or low flow, or other such impacts.

11. A dam, wall or other structure (including spillways) shall be sited and constructed to:
   a. Minimise the loss of soil from the site and watercourse through soil erosion; and
   b. Minimise the removal or destruction of in-stream or riparian vegetation caused by but not limited to erosion and siltation.

12. The design, construction and maintenance of a dam should not result in watercourse erosion.

13. Constructing or enlarging a contour bank does not require a permit provided the activity is in accordance with section 129(1)(b) of the Act. Guidelines for constructing or enlarging a contour bank can be obtained from the Board.

14. A permit is not required to desilt a dam provided:
   a. the activity only removes material deposited post dam construction or material deposited since the dam was previously desilted;
   b. the material removed shall not be deposited within a watercourse, lake or floodplain of a watercourse; and
   c. the volume of the dam is not increased beyond its original size.
7. MANAGEMENT OF BUILDINGS OR STRUCTURES

A permit is required for the erection, construction or placement of any building or structure in a watercourse or lake or on the floodplain of a watercourse pursuant to Section 127 (5)(b) of the Act.

The following principles shall be considered by the Board when determining whether to grant or refuse a permit for an activity under section 127(5)(b) of the Act.

PRINCIPLES

1. The erection, construction or placement of any building or structure in a watercourse or lake or on the floodplain of a watercourse shall be designed to minimise the risk of erosion resulting from the construction and location of the structure, and shall maintain natural drainage lines.

2. The erection, construction or placement of any building or structure in a watercourse or lake or on the floodplain of a watercourse must not adversely affect the provision of environmental water requirements of those areas, including exacerbation of salinity.

3. Buildings or structures that impede the flow of water, including but not limited to weirs, must be designed to provide a low flow bypass mechanism, excluding those structures for the specific purpose of measuring stream flow.

4. Buildings and structures shall be maintained in an appropriate condition to perform their intended function.

5. Provision should be made to retain open spaces along watercourses. Therefore, a one-in-100-year flood level shall be taken into account when assessing for permits under this Section of the plan.

6. The design, construction and location of a building or structure must not:
   a. Result in watercourse, lake or floodplain erosion;
   b. Adversely affect the migration of aquatic biota; or
   c. Alter the hydrology of a stream in such a way as to adversely impact on the ecology of the watercourse.

7. Constructing or enlarging a contour bank does not require a permit provided the activity is in accordance with section 129(1)(b) of the Act. Guidelines for constructing or enlarging a contour bank can be obtained from the Board.

8. Construction of any building or structure in a watercourse, lake or on the floodplain of a watercourse or drainage line not delineated on Map 3 does not require a permit.

9. Construction of any building or structure at a distance of 40 metres or more from the banks of the nearest watercourse and that does not involve any structure associated with the extraction of water does not require a permit.

10. Emergency repairs to a culvert, floodways or crossings shall be notified to the Board but do not require a permit.
8. MANAGEMENT OF DISCHARGE

A permit is required for the draining or discharging of water directly or indirectly into a watercourse or lake, pursuant to Section 127(5)(c) of the Act.

The following principles shall be considered by the Board when determining whether to grant or refuse a permit for an activity under section 127(5)(c) of the Act.

**PRINCIPLES**

1. The draining and discharge of water into a watercourse must not:
   a. Adversely affect the natural character of the watercourse; or
   b. Increase the risk of flooding downstream of the point where water is drained or discharged.

2. Water may only be drained or discharged into a watercourse or lake where protective measures have been provided to minimise erosion or degradation in the quality of the receiving water.

3. For the purpose of principle 2, protective measures include, but are not limited to the following:
   a. Detention basins to regulate the rate, volume and quality of water discharged;
   b. Reuse of drainage or discharge water under conditions that would not present a risk to public or environmental health;
   c. Litter traps;
   d. Treating the water to be drained or discharged into the watercourse or lake;
   e. Draining or discharging water into a watercourse at times of naturally high flow.

4. Any structures or measures to minimise erosion or degradation in the quality of the receiving water for the purposes of principle 3 must be managed to ensure they continue to function according to their design.

5. Detention basins shall be designed and constructed to allow sediments to settle before water in the basin is drained or discharged into a watercourse of lake.

6. Draining or discharge of water into a watercourse or lake shall not adversely affect the migration of aquatic biota.

7. Watercourses shall be retained in their natural state to promote natural filtering and pollutant-removal processes.

8. Impacts of stormwater pollutants shall be minimised by planting indigenous plant species along watercourses and replacing exotic plants that contribute to stormwater pollution with indigenous species.

9. Draining or discharging water directly or indirectly into a watercourse or drainage line not delineated on Map 3 does not require a permit.

10. Draining or discharging rainwater collected from a structure or building does not require a provided:
   a. rainwater was transported via closed pipe system, and is equipped with a mechanism to divert the first flush of rainwater away from the watercourse or lake; and
   b. point of drainage into a watercourse or lake has measures to prevent erosion.
9. MANAGEMENT OF OBSTRUCTIONS

A permit is required for depositing or placing an object or solid material in a watercourse or lake, pursuant to Section 127(5)(d) of the Act.

A permit is required for depositing or placing an object or solid material on the floodplain of a watercourse or near the bank or shore of a lake to control flooding from the watercourse or lake, pursuant to Section 127(5)(f) of the Act. A permit is required for obstructing a watercourse or lake in any other manner pursuant to Section 127(5)(e) of the Act.

The following principles shall be considered by the Board when determining whether to grant or refuse a permit for an activity under section 127(5)(d), (e) and (f) of the Act.

PRINCIPLES

1. A permit may only be granted to deposit or place an object or solid material in a watercourse or lake where the activity involves:
   a. The construction of an erosion control structure, for example, but not limited to a rock chute or rip rap;
   b. An authorised device or structure used to extract or regulate water flowing in a watercourse, for example, but not limited to diversion weirs; or
   c. An authorised activity for scientific purposes, for example, but not limited to flow-measuring devices.
   2. Any object or solid material used in the control or prevention of watercourse erosion shall be designed on a reach basis and shall not cause increased erosion up or down stream of the point where the object or solid material is deposited or placed.
   3. Depositing or placing an object or solid material in a watercourse or lake shall not adversely affect:
      a. Water-dependent ecosystems;
      b. The migration of aquatic biota; or
      c. The natural flow regime.
   4. Depositing or placing an object or solid material in a watercourse or lake shall not cause erosion.
   5. Depositing or placing an object or solid material on the floodplain of a watercourse or near the bank or shore of a lake to control flooding from the watercourse or lake shall:
      a. Provide for the needs of ecosystem processes (including the migration of aquatic biota), and
      b. Minimise the impact or risk of flooding on human communities.
   6. Depositing or placing an object or solid material on the floodplain of a watercourse or near the bank or shore of a lake to control flooding from the watercourse or lake is on a watercourse not delineated as a priority watercourse on Map 3.
   7. A permit is not required under this subsection where:
      a. The proposed activity involves a non-polluting object or solid material that occupies less than 5 percent of the cross section of a watercourse; or
      b. Depositing or placing an object or solid material in a watercourse or lake is to be undertaken on a watercourse or drainage line not delineated as a priority watercourse on Map 3.
10. MANAGEMENT OF VEGETATION

A permit is required for destroying vegetation growing in a watercourse or lake or growing on the floodplain of a watercourse pursuant to Section 127(5)(g) of the Act.

The following principles shall be considered by the Board when determining whether to grant or refuse a permit for an activity under section 127(5)(g) of the Act.

**PRINCIPLES**

1. **Destruction of vegetation shall only occur where it is for the protection of existing development and infrastructure or rehabilitation of a watercourse and does not result in any of the following:**
   a. Increased erosion;
   b. Increased flooding;
   c. Bed and bank instability;
   d. Downstream sedimentation;
   e. Decline in water quality;
   f. Alteration to the natural flow regime of a watercourse; or
   g. Destruction of valuable habitat for native fauna.

   Note: Destruction, damage to and removal of native vegetation requires approval under the South Australian Native Vegetation Act 1991.

2. A permit is not required under this subsection where:
   a. The destruction of vegetation growing in a watercourse or lake or growing on the floodplain of a watercourse is undertaken a distance of 40 metres or more from the banks of the nearest watercourse;
   b. Activity that is proposed to be undertaken on any watercourse or drainage line not delineated on Map 3. Vegetation growing in a watercourse, lake or floodplain of a watercourse, is destroyed where the activity is for the purpose of controlling a declared pest plant, or in accordance with a consent granted under the Native Vegetation Act 1991.

11. REMOVAL OF ROCK, SAND OR SOIL

A permit is required for excavating or removing rock, sand or soil from:

(i) A watercourse or lake or the floodplain of a watercourse; or

(ii) An area near to the banks of a lake so as to damage, or create the likelihood of damage to, the banks of the lake, pursuant to Section 127(5)(h) of the Act.

The following principles shall be considered by the Board when determining whether to grant or refuse a permit for an activity under section 127(5)(h) of the Act.

**PRINCIPLES**

1. Alteration to the alignment of a watercourse shall only occur where it is for the protection of existing development and infrastructure or rehabilitation of a watercourse, and the realignment does not result in any of the following:
   a. Increased erosion;
   b. Increased flooding;
   c. Bed and bank instability;
   d. Decline in water quality;
   e. Loss of riparian vegetation;
   f. Decline in water quality; or
   g. Alteration to the natural flow regime of a watercourse.

2. The excavation and removal of rock, sand or soil must not result in erosion of the bed or banks of a watercourse or adversely impact on either:
   a. The ecology of a watercourse, lake or floodplain;
   b. Migration of aquatic biota; and
   c. Increase or decrease the capacity to capture water.

3. Excavation of material ("de-silting") from a dam to maintain the capacity of the dam shall require a permit, except where that excavation is only of unconsolidated material deposited since the construction of the dam or material deposited since the dam was previously desilted.

4. Excavation of material ("de-silting") from a "turkey nest" dam is exempted from principle 3.

5. A permit is not required under this subsection where:
   a. The excavation or removal of rock, sand or soil from a watercourse or the floodplain of a watercourse is undertaken no less than 40 metres from the banks of a watercourse;
   b. The excavation or removal of rock, sand or soil from a watercourse or the floodplain of a watercourse relates to a watercourse not delineated as a priority watercourse on Map 3; or
   c. Involves the removal of less than 2 cubic metres of material in any 5 year period.
12. USE OF IMPORTED WATER

A permit is required to use imported water in the course of carrying on a business pursuant to Section 127(5)(i) of the Act.

The following principles shall be considered by the Minister when determining whether to grant or refuse a permit for an activity under section 127(5)(i) of the Act.

**PRINCIPLES**

1. A permit for the use of imported water is required where:
   a. The water is used at a rate that exceeds 1 ML/water use year, where the rate is based on the total volume of imported water used on contiguous land parcels owned or leased by the applicant; and
   b. The imported water is applied to land for irrigation purposes, either directly or following use in another process (e.g. in a winery process or intensive animal production).

2. A permit should not be granted unless the relevant authority is satisfied that the use of the imported water will not:
   a. Cause, or be likely to cause, a rise in the underground water level resulting in detrimental effects to structures or ecosystems; or
   b. Result, or be likely to result, in adverse effects on the natural flow or quality of another water resource; or
   c. Result, or be likely to result, in adverse effects to the productive capacity of the land including but not limited to, increases in land salinisation, waterlogging, or perched water tables; or
   d. Adversely affect water dependant ecosystems.

3. The total volume of water that the permit applicant will be authorised under the Act to apply to the relevant land should not exceed 1 megalitre per hectare of the relevant land per annum (where the relevant land is the aggregate of all contiguous land parcels owned or leased by the applicant), unless the relevant authority is satisfied that the application of more than 1 megalitre of water per hectare in any specified area of the land will not result in any of the adverse effects referred to in principle 2.

4. Imported water containing residual chlorine or other treatment chemicals must not be discharged into surface water or watercourses or on land adjacent to surface water or watercourses.

5. Imported water must not be transported in a watercourse or along a drainage path.

6. If imported water is to be stored, the storage facilities must be constructed and operated in a manner that prevents any detrimental impact on the quality of underground water or the health of water dependent ecosystems.

7. If imported water is to be stored in a dam, the dam must have no natural catchment (in order to prevent imported water entering the environment) unless either the proponent can demonstrate to the satisfaction of the relevant authority that the dam is constructed in such a way as to prevent any unauthorised discharge of imported water to the environment.

8. A permit for use of imported water must specify a maximum volume for use per water use year irrespective of the method of use, the type of crops irrigated, frequency of irrigation or any other factor.

9. A permit for the use of imported water should be granted for a fixed period and will expire on the date specified on the permit.
Allotment: the section, lots, or allotment identified on a certificate of title under the Real Property Act 1886; and includes two or more contiguous allotments owned or occupied by the same person and operated as a single unit for the purpose of primary production.

Applicant: a person or incorporated body who puts forward an application for water affecting activity permit or water management authorization.

Aquifer: a permeable volume of rock or sediment in which underground water is stored.

Aquatic biota: all organisms that live in water at a particular locality.

Board: means a board established under Chapter 3 part 3 of the NRM Act 2004.

Catchment: is an area of land where water drains to a downstream point.

Catchment area: is the measured area of the upstream catchment.

Channel: as defined in the NRM Act 2004 and includes a drain, gutter or pipe; or part of a channel.

Construct: as defined in the NRM Act 2004 and includes erect, alter, reduce, enlarge, repair or excavate.

Contaminants: include, but are not limited to, nutrients, sediments and chemicals.

Cultural significance: for the purposes of the water affecting activity policy, may include a site or physical item that has cultural significance to the tradition or existence of an Aboriginal person or group.

Dam: an excavation, barrier or other structure that collects and stores water; and the dam includes directly connected components and infrastructure such as but not limited to: the embankment, spillway, outlet, valves, inlet pipe and pump, or inlet channel.

Desilting: is the removal of material that has deposited post construction of a dam, channel or drain.

Diversion: see ‘take’ definition

Domestic extraction/use: as defined in the NRM Act 2004 and means in relation to the taking of water does not include:
   a. taking water for the purpose of watering or irrigating land, other than land used solely in connection with a dwelling; or
   b. without limiting paragraph (a)—taking water for the purpose of watering or irrigating more than 0.4 of a hectare of land; or
   c. taking water to be used in carrying on a business (except for the personal use of persons employed in the business).

Drain: see channel definition

Drainage path: the path that surface water naturally flows along over land.

Drill: as defined in the NRM Act 2004 and in relation to a well means to drill the well or to excavate the well in any other manner and includes to deepen or widen an existing well

Dryland salinity: the process whereby salts stored below the surface of the ground are brought close to the surface by a rising water table, and the accumulation of salt in the upper soil profile impacts agricultural land, infrastructure and the environment.

Ecosystem: as defined in the NRM Act 2004 and means a dynamic complex of plant, animal, fungal and microorganism communities and the associated non-living environment interacting as a functional unit.

Environmental Water Requirements: as defined in the NRM Act 2004 and means those water requirements that shall be met in order to sustain the environmental values of ecosystems that depend on the water resource, including their processes and biodiversity, at a low level of risk.

Floodplain: as defined in the NRM Act 2004 and means any area of land adjacent to a watercourse, lake or estuary that is periodically inundated with water and includes any other area designated as a floodplain by
   a. a regional NRM Plan; or

The regional NRM Plan has spatially designated floodplains by the spatial features of ‘land subject to inundation’ and ‘land subject to flooding’ from DEWNR’s spatial data of ‘water bodies’.

Habitat: the natural place or type of site in which an animal or plant, or communities of animals and plants, live.

Headworks: an assembly on top of a well that is located between the well casing and the water delivery system.

Infrastructure: as defined in the NRM Act 2004 and includes
   a. artificial lakes;
   b. dams or reservoirs;
   c. embankments, walls, channels or other works or earthworks;
   d. bridges and culverts;
   e. buildings or structures;
   f. roads;
   g. pipes, machinery or other plant or equipment;
   h. any device;
   i. any item or thing used in connection with:
      (i) testing, monitoring, protecting, enhancing or re-establishing any natural resource, or any aspect of a natural resource; or
      (ii) any other program or initiative associated with the management of a natural resource.

Land: as defined in the NRM Act 2004 and means according to the context, (a) land as a physical entity, including land under water; or (b) any legal estate or interest in, or right in respect of, land; and includes any building or structure fixed to the land.

Lake: as defined in the NRM Act 2004 and means a natural lake, pond, lagoon, wetland or spring (whether modified or not) and includes:
   a. part of a lake; or
   b. a body of water designated as a lake by an NRM Plan or by a Development Plan under the Development Act 1993.

In addition, Section 3(3)(b) of the NRM Act 2004, makes a reference to a lake as a reference to either
   (i) the bed, banks and shores of the lake (as they may exist from time to time); or
   (ii) the water for the time being held by the bed, banks and shores of the lake (as they may exist from time to time), or both, depending on the context.

Licensed well driller: as defined in the NRM Act 2004 and means a person who holds a licence under Chapter 7 to drill wells.

Megalitre (ML): one million litres

Metered water use: Water volume measured through a water flow meter.
Water Affecting Activities continued

Minister: the Minister responsible for the administration of the Natural Resources Management Act 2004.

Native underground water: means water occurring naturally below ground level that exists in the relevant aquifer absent of any such water drained or discharged to that aquifer by artificial means.

Natural resources: as defined in the NRM Act 2004 and includes:
- soil;
- water resources;
- geological features and landscapes;
- native vegetation, native animals and other native organisms;
- ecosystems.

Net planted area: as applied to commercial forests, means the area of the commercial forest measured from stump to stump, less any unplanted areas, areas under clear fell slash or forest measured from stump to stump, less any

Net planted area:

Natural resources:

means.

drained or discharged to that aquifer by artificial

Native underground water:

means water


administration of the Natural Resources

Minister:

the Minister responsible for the

NRM Act:

as defined in the

NRM Act 2004

Chapter 4 of the

Regional NRM Plan:

means a plan under

NRM

ambit of this definition (under the

NRM

Act 2004) by the regulations.

Recharge: recharge is the process whereby underground water is replenished by water draining into the aquifer from rainfall, irrigation infiltration or leakage from a surface water body.

Regional NRM Plan: means a plan under Chapter 4 of the NRM Act 2004.

Riparian: the area adjacent to a watercourse or lake that influences and is influenced by hydrological processes, and includes bed, bank and floodplain of watercourse and lake.

Runoff: water flowing over land or in a natural or man-made drain, after having fallen as precipitation.


Spring: see definition for lake

Stormwater: surface water generated from rainfall falling on a built area

Surface water: as defined in the NRM Act 2004 and means
- water flowing over land (except in a watercourse) – (i) after having fallen as rain or hail or having precipitated in any other manner or, (ii) after rising to the surface naturally from underground;
- a person who has the right to purchase;
- a person who holds native title in the land; or
- a person who has arrogated to himself or herself (lawfully or unlawfully) the rights of an owner of the land, and includes an occupier of the land and any other person of a prescribed class included within the ambit of this definition (under the NRM Act 2004) by the regulations.

To take: as defined in the NRM Act 2004, and means to take water from a water resource includes:
- to take water by pumping or syphoning the water;
- to stop, impede or divert the flow of water over land (whether in a watercourse or not) for the purpose of collecting the water;
- to stop, impede or direct the flow of water in any stormwater infrastructure for the purpose of collecting the water, or to extract any water from stormwater infrastructure;
- to divert the flow of water in a watercourse from the watercourse;
- to release water from a lake;
- to permit water to flow under natural pressure from a well;
- to permit stock to drink from a watercourse, a natural or artificial lake, a dam or reservoir;
- to cause, permit or suffer any activity referred to in a preceding paragraph;
- a dam or reservoir that collects water flowing in a watercourse;
- a lake through which water flows;
- a channel (but not a channel declared by regulation to be excluded from the ambit of this definition) into which the water of a watercourse has been diverted;
- part of a watercourse;
- an estuary through which water flows;
- any other natural resource, or class

Unacceptable impact: means an impact as a result of a water affecting activity that causes:
- a permanent degradation in the condition or function of a natural resource or water dependent ecosystem;
- a reduction in the economic value of land or personal property;
- damage to infrastructure that requires repair to continue its function or requires removal to the reduce risk to public safety; or
- harms life or jeopardizes the quality of life.

Underground water: as defined in the NRM Act 2004 and includes
- water occurring naturally below ground level; or
- water pumped, diverted or released into a well for storage underground.

Water allocation plan: as defined in the NRM Act 2004 and includes a water allocation plan prepared by a regional NRM board under Chapter 4 Part 2 of the NRM Act 2004.

Watercourse: as defined in the NRM Act 2004 and means a river, creek or other natural watercourse (whether modified or not) in which water is contained or flows whether permanently or from time to time and includes:
- a dam or reservoir that collects water flowing in a watercourse;
- a lake through which water flows;
- a channel (but not a channel declared by regulation to be excluded from the ambit of this definition) into which the water of a watercourse has been diverted;
- part of a watercourse;
- an estuary through which water flows;
- any other natural resource, or class

run-off but is only used to hold water
of natural resource, designated as a watercourse for the purposes of this Act by an NRM Plan.

In addition, Section 3(3)(a) of the NRM Act 2004 includes a reference to a watercourse is a reference to either

(i) the bed and banks of the watercourse (as they may exist from time to time); or

(ii) the water for the time being within the bed and banks of the watercourse (as they may exist from time to time), or both, depending on the context.

Water dependent ecosystems: those parts of the environment, the species composition and natural ecological processes that are determined by the permanent or temporary presence of flowing or standing water, above or below ground.

Water quality: the physical, chemical and biological characteristics of water.

Water resource: as defined in the NRM Act 2004 and means a watercourse or lake, surface water, underground water, stormwater (to the extent that it is not within a preceding item) and effluent.

Water table: the elevation of the surface of underground water surface.

Weir: see definition for ‘diversion structure’

Well: as defined in the NRM Act 2004 and means

a. an opening in the ground excavated for the purpose of obtaining access to underground water;

b. an opening in the ground excavated for some other purpose but that gives access to underground water;

c. a natural opening in the ground that gives access to underground water.

Wetland: as defined in the NRM Act 2004, and means an area that comprises land that is permanently or periodically inundated with water (whether through a natural or artificial process) where the water may be static or flowing and may range from fresh water to saline water and where the inundation with water influences the biota or ecological processes (whether permanently or from time to time) and includes any other area designated as a wetland by

a. an NRM Plan; or

b. by a Development Plan under the Development Act 1993;

but does not include –

c. a dam or reservoir that has been constructed by a person wholly or predominantly for the provision of water for primary production or human consumption; or

d. an area within an estuary or within any part of the sea; or

e. an area excluded from the ambit of this definition by the regulations.