

Integrating Natural Resource Management into Local Government Operations

Volume 2: Land Use Planning

Local Government Association of NSW



Shires Association of NSW

Local Government and Shires Associations of NSW

Integration of Natural Resource Management into Local Government Operations Volume 2: Land Use Planning

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These guidelines are concerned with spreading the word about good practice examples already in place, or under development, in many councils and government agencies across the State and wider afield. Within the guideline many reference projects are cited and we would like to re-enforce our acknowledgement of the numerous exceptional projects which contribute to the guideline.

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List of Abbreviations

ALGA	Australian Local Government Association
APZ	Asset Protection Zone (bushfire)
BMCC	Blue Mountains City Council
CFOC	Caring for our Country Program
САР	Catchment Action Plan
СМА	Catchment Management Authority
COAG	Council of Australian Governments
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DA	Development Application
DCP	Development Control Plan
DECC	Department of Environment and Climate Change
DEWHA	Department of Environment, Water, Heritage and the Arts (Commonwealth)
dLEP	draft Local Environmental Plan
DoL	Department of Lands
DoP	Department of Planning
DPI	Department of Primary Industries
DSE	Department of Sustainability and Environment (Victoria)
DWE	Department of Water and Energy
EDO	Environment Defenders Office
EEC	Endangered Ecological Community
EPA	Environment Protection Authority
EPA Act	Environment Planning and Assessment Act 1979
EPBC Act	Environment Protection and Biodiversity Conservation Act (Commonwealth)
EPI	Environmental Planning Instrument
ESA	Environmentally Sensitive Areas
ESD	Ecologically Sustainable Development
GIS	Geographic Information System
IGAE	Intergovernmental Agreement on the Environment
ІТ	Information Technology
LCMA	Lachlan Catchment Management Authority
LEP	Local Environmental Plan

LEP Template	LEP under Standard Instrument Order 2006
LG Act	Local Government Act 1993
LGA	Local Government Authority
LGAQ	Local Government Association of Queensland
LGSA	Local Government and Shires Associations of NSW
MDBC	Murray Darling Basin Commission
NAPSWQ	National Action Plan for Salinity and Water Quality
NCA	National Capital Authority
NES	National Environmental Significance
NGO	Non Government Organization
NHT	Natural Heritage Trust
NorBE	Neutral or Beneficial Effect
NPWS	National Parks and Wildlife Service
NRC	Natural Resources Commission
NRCMA	Northern Rivers Catchment Management Authority
NRM	Natural Resource Management
NV Act	Native Vegetation Act 2003
PAS	Priority Action Statement
PVP	Property Vegetation Plan
RFS	Rural Fire Service
RTA	Road and Traffic Authority
SIX	Spatial Information EXchange
SCA	Sydney Catchment Authority
SMCMA	Sydney Metropolitan Catchment Management Authority
SEPP	State Environmental Planning Policy
SRCMA	Southern Rivers Catchment Management Authority
TBL	Triple Bottom Line
TSC Act	Threatened Species Conservation Act 1995
VPA	Voluntary Planning Agreement
WSUD	Water Sensitive Urban Design

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Guide Outline

Finding your way through the guide

Theme: Identifying Challenges and Solutions

NRM is a complex area but many councils and Agencies have already developed practical ideas for improvements. The guideline takes up on that context with each section focused on pointing to good practice examples in response to the known planning challenges. The graphic below provides a picture of the content coverage for each section.

1. Introduction

- Shifting community attitudes and why NRM planning is especially critical right now, with differing NRM issues emerging in different council settings
- Planning and people systems (within council and in relation to NRM agenices) – how to make the most of opportunity.

2. Legislative & Administrative Frameworks

- Commonwealth legislative and funding programs
- NSW statutory context key legislation is nominated and agencies are cited with a summary of responsible activities
- Coordination efforts The State Plan, CMAs and Regional Strategies

3. NRM and Strategic Land Use Planning

- Strategic land use plans need to link closely to other elements of council operations. Pitfalls and keys to successful plans are suggested
- Well thought out processes underpin good strategic plans. Tips are provided for key stages in plan preparation for NRM effectiveness
- A strategic plan needs to be coherent if it is to have influence within council and externally. Guidelines are provided on plan format.

4. Local Environmental Plans

- The new State LEP template brings both opportunities and challenges this context is examined
- Ideas and good practice examples are provided on: LEP aims and objectives, zones and land use tables for "E" zones etc, NRM maps and special local NRM provisions.

5. Development Control Plans

- · DCPs bring particular scope for flexibility and thus initative
- Responses to the challenge of "technically excellent policy" which is directed particularly at assessment decisions eg: WSUD, locality statements, integration of overlapping issues, user focus.

6. Assessment & Followup – DAs and Pt 5

- Success factors for DA and Part 5 assessment systems
- Effective NRM initiatives through each stage of the DA process: Pre-lodgement, Lodgement, Consultation, Assessment, Follow-up.

7. Towards A Holistic Approach

 The guideline concludes with thoughts on the importance of a whole of system approach to NRM and some case examples of this is in practice. Practice Examples Underpin this Guide

- Practice examples (case studies) addressing nominated challenges are included throughout the guideline. A complete list can be found on Page v.
- Easy access to more detailed information through page-by-page hyperlinks.
- For hard copy users, a selection of URLs are cited in Attachment A for manual web search.
- Bibliographical sources provided in an extended Endnote.

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1. Introduction

What's in this section ...

- 1. Why worry about NRM now?
- 2. How is this guideline trying to help?
- 3. What types of NRM issues might I have at my LGA?
- 4. How does the planning system best respond?

1.1 Why NRM?

Strategic planning and development control units within local councils already attend to a full portfolio of local challenges. There are often limited resources available to tackle existing priorities. Why should we focus on natural resource management now?

- Maintenance of natural resources and processes is now clearly evidenced as providing **direct social, economic and environmental benefits** (e.g. clean water, clean air, pest control all bring direct landscape, tourism, recreational benefits)¹.
- NRM is much more part of the community consciousness, with terms like "climate change", "global tipping points" and "earth system breakdowns" in use in mainstream media. Land use planning priorities are shifting in response to community expectations in NRM and sustainability generally².
- Many parts of council and most State authorities are already working on NRM programs – good "connected-up" work now (both within the organisation and with regional partners) should prevent unproductive ad-hoc projects and reactive policy,
- There is clear evidence of the capacity for local level action to make a difference in important outcomes on the ground both negative and positive. Council planning needs to be working at its best to help frame the complex debates around NRM.
- Tools to help are really improving recent initiatives ranging from technological to legislative to on-the-ground practice has meant that there are some opportunities to be more effective in planning, DA and other assessment work which did not previously exist. Such tools are needed more than ever because of the complexities involved.
- A council's planning responsibilities in particular, and legislative accountabilities in general, place it **right in the centre of both opportunity and responsibility**.

Chance to learn fast from practice examples – see what's working elsewhere

1.2 How is this guideline trying to help?

Life can be complex in planning at the local government level. There is an almost ever-present call for information and good working examples to address problem situations. The objectives of this guideline are directly aligned to that expressed demand, with planning for NRM the area of focus.

The guideline aims to help with planning for NRM at local councils in three ways:

- 1. Outlining guiding principles for each stage of the planning system
- 2. Suggesting 'ground-rules' which have proven successful
- 3. Itemising NRM planning examples and references, for potential local review and possible adaptation.

Overall, the guidelines are intended to give support to existing policy settings and generally build on and complement existing NRM guidance material.

Target audience?

The guideline is particularly focused on planners and their associates working in councils. The audience would include:

- · People undertaking strategic analysis and preparing strategic land use plans
- · People preparing statutory LEPs and DCPs
- People guiding and assessing detailed development projects including DAs and "Part 5 activities" under the EPA Act
- People working in environmental management, or council asset management, who need to know more about the planning system
- Others interested in learning about the planning and natural resource management systems.

Part of a Guideline Package

It is emphasised that this work is part of a guideline package focused on building awareness and capacity on NRM issues within NSW councils. The figure below summarises the distinctive coverage of Volumes 1 and 2.



Figure 1: Council planning and NRM – how this guideline package fits in

1.3 NRM issues in my LGA

In 2008³, the LGSA conducted a survey of NSW councils on the capacities of local authorities to engage and participate in NRM. The survey sought feedback on "the top NRM issues facing your council". There was considerable commonality of view among inland, coastal and metropolitan councils, with the top three issues identified as: biodiversity – native vegetation, water (quality and quantity) and dealing with development pressures. More broadly this and other surveys have identified the following as challenge areas:

•	Water quality	•	Salinity
•	Native vegetation management/loss	•	Acid sulfate soils
•	Threatened species	•	Soil erosion
•	Loss of biodiversity	•	Coastal management
•	Weed management	•	Stormwater management

The particular NRM issues confronting individual councils can vary. The issues we face depend on the environmental characteristics of the area, and the types of development pressures being exerted.

1.4 Framing NRM – Land, Water, Biodiversity

Getting a grasp of the wide range of issues involved in NRM brings its own complexities. Like a number of other current references, in this guideline we will commonly reference NRM issues as falling within or across the three interrelated headline issues of "land", "water" and "biodiversity". While clearly key considerations for local councils as well, issues such as waste, energy, air and climate are not directly covered in this guideline. Both LGSA and DECC websites provide extensive reference material on these topics.

NRM is acknowledged as a cornerstone of the broader challenge of sustainability. Under the Local Government Act's "council charter", all local councils have a statutory responsibility to account for the defined principles of ecologically sustainable development (ESD) in all their undertakings. The sound management of natural resources is directly aligned with the nominated principles of ESD.

1.	Precautionary principle	Careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment
2.	Intergenerational equity	Ensure health of the environment is maintained or enhanced for future generations
3.	Conservation of biological diversity and ecological integrity	Conservation as a "fundamental" consideration
4.	Improved valuation, pricing and incentive mechanisms	Incentive structures and market mechanisms to respond to environmental interests

Figure 2 : Effective NRM is directly aligned with each of the principles of ESD.

Many of the key threats to our natural resources are related to land use change and thus have great relevance to land use planners. A range of NRM issues and particulars are faced across the various NSW council settings.



Metro Fringe Rural

issues are
dependent on
local setting and
pressures for
change. Tools
in response are
being developed
across the State,
tailored to suit the
specific problems
and opportunities.

NRM Challenges		Threats of Particular Relevance to Planners
Land	Encouraging sustainable agriculture (crucial to many local communities), addressing: acid sulfate soils, salinity (dryland and urban), contamination, erosion.	Fragmentation of agricultural land, inappropriate clearing on land subject to degradation, drainage, excavation and earthworks – altering hydrology, inappropriate management of chemicals, effluent, waste and by products
Water	Water quality and quantity crucial for: drinking purposes, as part of the ecosystem, for recreation, crop irrigation, or industrial processes.	Adverse effects of some agricultural activities (particularly adjacent to watercourses), urban land uses (eg stormwater run-off, effluent). Subdivision adjacent to waterways creating additional riparian rights. Industrial land use (eg poor management of waste), recreation, dams and weirs, STP overflows
Biodiversity	Responding to the often dramatic modification to ecological systems since European settlement.	Loss and fragmentation of habitat and ecological communities through clearing of native vegetation, due to urban expansion or other land use intensification. Inappropriate works in waterways. Plant diseases, weeds and feral animals

Figure 3: NRM challenges link to issues faced by planners.

1.5 Development is not the enemy!

Land use and development are themselves activities which are essential to the well being of society. Individually, we appreciate the benefits of small scale development works, for example in our own home renovations. At a broader scale we see the housing availability and employment creation which can be intrinsic to larger land development projects. We see the large areas of degraded landscape in both urban and rural areas of the State. In practical terms, it is sometimes only through private sector capital investment that restoration of these landscapes can occur. Generally we note the intellectual creativity and innovation which development projects can introduce to complex NRM settings.

The challenge is in getting the balance right. There is a need to ensure that any development project is sympathetic to its context, including in regard to the increasingly relevant subject matter of NRM. Planners play a key role here and this guideline is aimed at helping ensure that there is a good knowledge of available tools and a shared understanding of practices that deliver the required balance.

1.6 How can the planning system best respond

In simple terms the planning system can be described as being made up of:

- · Legal framework laws and statutory directions
- Subsidiary policy by government authorities
- · Administrative processes set-up in response to the above
- · Data and knowledge management systems and other tools
- People working within the government authorities, including the teams that are formed to address overlapping responsibilities
- · Landowners who may have a direct interest in a development project
- · Broader community with its long term interests.

A system working well ...

A planning system working well brings together the constituent parts to a cohesive whole, sometimes formalised sometimes less so, but always interested in positively influencing what happens on the ground. At its best the planning system provides effectively for the resolution of stakeholder views and provides for sustainable NRM outcomes.

Figure 4 provides a depiction of the contributing elements to the system when working at its best. The rest of the guideline is aimed at assisting council planners and others in moving towards such an arrangement.



Figure 4: Planning and NRM systems working well

2. NRM in the State and National Planning Framework

What's in this section ...

- 1. Role of the Commonwealth
- 2. State legislation and agency roles
- 3. Regional frameworks including Catchment Management initiatives

2.1 Understanding the Context

There is a substantive State, national and even international framework which underpins the work of council's in NRM. Agreements are in place between the different levels of government which are aimed at streamlining and integrating approaches, although there is much more to be done on this front. The higher order agreements are:

- Intergovernmental Agreement on the Environment 1992 (IGAE)
- committed all Federal, State/Territory and Local governments to pursuing ecologically sustainable development and sought to define respective roles⁴.

Council of Australian Governments' Heads of Agreement on Commonwealth and State Roles and Responsibilities for the Environment 1997

• identified reform targets for a more effective framework for intergovernmental relations on the environment.⁵

These agreements followed international initiatives including that of the World Commission of Environment and Development in 1987, and the 1990 Brundtland Report (ie "Our Common Future").⁶

Subsequently, legislation has been enacted at both Commonwealth and State levels to follow through on these environmental commitments, including those which draw in local government responsibilities for the environment and NRM⁷.

Great **common intent** across the levels of government, statutes and administrative responses – but considerable complexity remains.

2.2 Role of the Commonwealth

Legislation – a brief overview

The Australian Government's central piece of environmental legislation is the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Key features of EPBC Act and subordinate regulation are summarised below⁸:

- Identifies and protects approved matters of National Environmental Significance (NES), and provides an environmental impact assessment process to this end (many matters of NES are also listed under NSW legislation).
- Includes provisions for bilateral agreements with State governments which in the case of NSW have accredited components of the State's environmental assessment process to address matters of NES. This limited to the assessment *process*. The Commonwealth would still make a separate determination under the EPBC Act
- Includes provisions for strategic level assessment which provide a broader and more flexible approach to assessments and a capacity to move away from case-by-case impact assessment.

Considerations at both State and Commonwealth level, including COAG initiatives, continue to seek to harmonise and reduce duplication in the process.

Commonwealth NRM initiatives

Over the past decade the Commonwealth Government has had increased involvement in a range of NRM matters that had previously, primarily been the responsibility of the States. The Commonwealth has managed this responsibility through direct investment in NRM via regional bodies, principally the CMAs. The Natural Heritage Trust (NHT), National Action Plan for Salinity and Water Quality along with the National Landcare Program have all provided significant investments in regional delivery of NRM, Australia-wide.

The Commonwealth Government continues to promote NRM outcomes through its investment under the Caring for our Country Program (CFOC). The Commonwealth's CFOC Business Plan⁹ identifies activities in which the Commonwealth would invest. It is important to note that the changes from NHT to CFOC include the ability of any organisation (not just CMAs) to apply for funds. So councils can directly apply to the Commonwealth for activities listed in the CFOC Business Plan.

Processes are now in place

- to enable more strategic rather than case-by-
- case assessment at the
- Commonwealth level, and
- better teamwork with State
- agencies.

Previously NRM funding from the Commonwealth was mostly directed to CMAs. Under the CFOC Program, parties (such as councils) can apply direct for funds for NRM initiatives, creating a more competitive environment.

2.3 NSW statutory setting

NRM's Statutory Frame in NSW

The responsibilities for NRM in NSW are spread across numerous levels of government and across different departments or divisions within each level of government. This situation mirrors the segmented legislative base. Agency responsibilities are summarised in the table overpage. Key legislation is referenced below and can be sourced through www.legislation.nsw.gov.au.

Legislation	Local government and NRM Focus
Local Government Act 1993	Council charter (includes NRM and ESD focus), public land management, activity approvals, corporate and operational planning, orders powers.
Environmental Planning and Assessment Act 1979	Planning for and regulation of land use through environmental studies and plans (LEP, DCP, REP, SEPP), further orders powers. Ministerial powers to direct councils on content of plans.
Threatened Species Conservation Act 1995	Protects threatened species, populations and communities. Lists "Key Threatening Processes".
Native Vegetation Act 2003	Regulates land clearing in non metro areas.
National Parks and Wildlife Act 1974	Concerned with the conservation of nature and objects of cultural value within the landscape.
Protection of the Environment Operations Act 1997	Aims to protect, restore and enhance the quality of the environment, having regard to ESD. Allocates responsibilities between DECC, local councils and other public authorities.
Water Management Act 2000	Regulates water licensing, and river bank protection issues.
Fisheries Management Act 1994	Protects fish species, habitats, and fish passage.
Noxious Weeds Act 1993	Provides for 5 categories of declared weed with differing control requirements, including local declarations.
Rural Fires Act 1997	Allocates responsibilities for bushfire hazard management, within an environmental protection framework.

Figure 5: NSW legislation of particular significance to NRM¹⁰

Agency	Activities Include
Natural Resources Commission (NRC) www.nrc.nsw.gov.au	 Report on progress to State Plan NRM targets Audit the effectiveness of CMAs and CAPs Develop the State-wide NRM Standard and targets Conduct independent reviews on NRM issues.
Department of Environment and Climate Change (DECC) www.environment.nsw.gov.au	 Manage the State's natural resources (biodiversity, soils and natural vegetation) Manage natural and cultural heritage Mitigation and adaptation of climate change Sustainable consumption, resource use and waste management Regulate activities to protect the environment Conduct research to improve decision making.
Catchment Management Authorities (CMAs)	 Prepare Catchment Action Plans (CAPs) Develop and implement investment strategies for NRM within catchments Responsible for parts of the Native Vegetation Act, particularly approval of Property Vegetation Plans.
Department of Planning (DOP) www.planning.nsw.gov.au	 Strategic land use planning, environmental impact assessment and development approvals Support growth and employment, that is environmentally and economically sustainable Coordinate agency action to service growth Approve council land use planning schemes.
Department of Primary Industries (DPI) www.dpi.nsw.gov.au	 Improve the sustainability and profitability of the agriculture sector Manage biosecurity risks impacting on NSW primary industries Respond to emergencies and disasters Stewardship of the State's mineral resources Manage the forests estate to provide timber Undertake strategic science and research Manage fisheries resources, aquaculture industry and aquatic biodiversity.
Department of Water and Energy (DWE) www.dwe.nsw.gov.au	 Sustainable allocation of water Interstate water sharing arrangements Water sharing plans Administering water licences and approvals Monitoring water resource quantity & quality Water recycling Overseeing local water utility performance Sustainable energy supplies.

The NSW State Plan's **Priority E4** sets out State-wide NRM Targets

Agency	Activities Include
Department of Lands (DOL) www.lands.nsw.gov.au	 Land title registration, property information, valuation, surveying and mapping Management of Crown Land Specialist soil conservation Recording and use of place names Sport infrastructure facilities.
Sydney Catchment Authority (SCA) www.sca.nsw.gov.au	 manages and protects Sydney's drinking water catchments
Rural Fire Service (RFS) www.bushfire.nsw.gov.au	 Implementation of Rural Fires Act Coordinate volunteer bush fire fighting Development of training programs for fire Community fire education programs Risk management planning Hazard reduction Safer building in bushfire prone areas

Figure 6: List of Agencies with responsibility for NRM matters¹¹

2.4 NRM Coordination: State, Region, Catchment

State Plan

The NSW *State Plan: a New Direction for NSW (Nov 2006)* is intended to set out the priorities for NSW Government action over the next 10 years. Priority E4 of the State Plan sets out State-wide natural resource targets for better environmental outcomes for native vegetation, biodiversity, land, rivers and coastal waterways.

Biodiversity

- 1. By 2015 there is an increase in native vegetation extent and an improvement in native vegetation condition
- 2. By 2015 there is an increase in the number of sustainable populations of a range of native fauna species
- 3. By 2015 there is an increase in the recovery of threatened species, populations and ecological communities
- 4. By 2015 there is a reduction in the impact of invasive species.

Water

- 5. By 2015 there is an improvement in the condition of riverine ecosystems
- 6. By 2015 there is an improvement in the ability of groundwater systems to support groundwater dependent ecosystems and designated beneficial uses
- 7. By 2015 there is no decline in the condition of marine waters and ecosystems
- 8. By 2015 there is an improvement in the condition of important wetlands, and the extent of those wetlands is maintained
- 9. By 2015 there is an improvement in the condition of estuaries and coastal lake ecosystems.

Land

- 10. By 2015 there is an improvement in soil condition
- 11. By 2015 there is an increase in the area of land that is managed within its capability.

Community

- 12. Natural resource decisions contribute to improving or maintaining economic sustainability and social well-being
- 13. There is an increase in the capacity of natural resource managers to contribute to regionally relevant natural resource management.

Figure 7: State Plan's Targets for biodiversity, water, land and community capacity¹².

Department of Environment and Climate Change (DECC) is the lead agency responsible for the delivery of Priority E4. However it is clear that land use planning decisions will have a significant effect on the target achievements, particularly in areas where urban development has an influence on natural resource conditions.

Catchment Management and Coordination

Under joint Commonwealth/State legislative and funding arrangement thirteen Catchment Management Authorities have been instituted across NSW as indicated at **Figure 8**. CMAs are specifically required under current legislation¹³ to facilitate measures that will contribute to the achievement of the State Plan targets through their own non-statutory Catchment Action Plans (CAPs).



Figure 8: Thirteen Catchment Management Authorities in NSW14

CMAs are responsible for involving regional communities and local government authorities in the management of the NRM issues facing their region, and are the primary means for the delivery of funding from the NSW and Commonwealth Governments to help land managers improve and restore the natural resources of the State.

Each CMA is required to prepare a Catchment Action Plan (CAP) in partnership with its community and government agencies. The CAP provides a strategic framework for natural resource management in the catchment and direction for future investments to achieve NRM goals.¹⁵ Many of the CMAs have developed most productive collaborative relationships with local councils, which including provision of funding support for council programs. Examples of relevance to planning are provided later in this guideline.

CMAs are also approval authorities under the *Native Vegetation Act 2003*. In this role they provide native vegetation advice to landholders and with them develop property vegetation plans (PVPs) which provide for land clearing but with a central requirement to improve or maintain environmental outcomes. CMAs are required to apply the "Environmental Outcomes Assessment Methodology"¹⁶ which involves achieving maintain or improve outcomes for water quality, salinity, biodiversity and land degradation.

Regional Strategies

The Department of Planning (DoP) has over recent years begun rolling out a series of land use planning documents described as "regional strategies". The State Plan is a principal document driving regional planning strategies in NSW¹⁷.

The regional strategies are intended to guide future planning decisions by councils while also aiding in the decision making in regard to service and infrastructure provision.

Regional strategies commonly include provisions relating to the environment and natural resources. But also reference *Regional Conservation Plans* (RCPs) which are coordinated by the Department of Environment and Climate Change (DECC) and which focus more particularly on NRM considerations.

2.5 The State's NRM Planning Setting

Planners are involved in undertaking strategic land use planning work and DA assessment and as such, when things work well, will regularly engage with, and use the tools which exist for the legal, institutional and policy frames of NRM.

The applied legislative and organisational settings have been outlined above. There is also a wide array of relevant and useful policy instruments which address strategic NRM and related issues, in something of a patchwork quilt across the spatial realm of NSW. Planners need to have an awareness of this planning frame and a series of the more relevant instruments are listed below.

Policy Instruments	Summary Outline
NSW State Plan	Sets priorities for government action across NSW public sector response areas. NRM issues addressed at Priority E4, but State Plan needs to be read as a whole.
NSW Biodiversity Strategy 1999-03	Identifies and tackles particular threats. Includes goals, guiding principles and defines a "landscape planning model".
2008 Discussion Paper	Revised strategy under preparation ¹⁸ .
NSW Coastal Policy (1997)	Provides for population growth but with an Integrative philosophy based on ESD principles, including NRM. Council's need to show consistency with policy in new LEPs.
State Water Management Outcomes Plan	Overall policy context, targets and strategic outcomes for the development, conservation, management and control of the State's water sources.
NSW Salinity Strategy (2000)	Provides a strategic outline to addressing inland salinity issues. Includes update reports. References the Murray Darling Basin Commission's Basin Salinity Management Strategy.

Regional Strategies have been prepared for:

- Alpine (Snowy Mountains) Region
- Central Coast
- Hunter Region
- Northern Region
 - Far North Coast
- Mid North CoastSouthern Region
 - Illawarra
 - South Coast
 - Sydney-Canberra Corridor
- Western NSW

Policy Instruments	Summary Outline
Regional Strategies	Presented as "State government's long term plan" for nominated regions.
	Prepared for 9 regions or subregions to date (Snowy Mountains (Alpine) Region, The Central Coast, The Hunter Region, Far North Coast, Mid North Coast, Southern Region – Illawarra, Southern Region – South Coast, Sydney – Canberra Corridor Region, Western NSW.
Drinking Water Catchments Regional Environmental Plan No1	Concerned with water quality in greater metro area drinking water catchments. Provides for rectification action planning for existing development, strategic land and water capability assessments for LEP work, DA assessment requirements. SCA is key agency which has completed and/or is working on the above.
Threatened Species Recovery Plans	Recovery plans focus on threatened species, populations and ecological communities. Threat abatement plans tackle "key threatening processes".
Threat Abatement Plans	All available plans and drafts can be accessed from this <u>DECC website</u> .
Priority Action Statements (PAS)	The PAS is intended to take a more strategic approach to recovery and threat abatement, including improving local council capacity to contribute eg local biodiversity strategies.
Regional biodiversity plans	Regional biodiversity management plans may be developed for certain areas eg northern rivers http://www.environment.nsw.gov.au/ biodiversity/nrrbiomanagemntplan.htm
	Western Sydney urban bushland and biodiversity planning http://www.environment.nsw.gov.au/surveys/UrbanBushlandSurvey.htm
Catchment Action Plans	CMAs develop these to demonstrate how the State NRM targets will be achieved. See CMA websites.
NSW Invasive Species Plan 2008-2015	Invasive pest animals, weeds and the like provide a major threat to natural resources and reduce the productivity of agricultural land. The Plan outlines a coordinated response to minimise impact and is linked to national prevention systems.
Water Sharing Plans	Water Sharing Plans are being progressively developed around NSW to protect water the environment and to secure the rights of water users. DWE's website documents the location of existing and draft Water Sharing Plans.
NSW Wetlands Management Policy 1996	The policy commits to a whole of government approach to conservation, sustainable management and wise use of NSW wetlands.

Policy Instruments	Summary Outline
State Environmental Planning Policies (SEPPs)	A number of SEPPs have a direct NRM focus. The following list is not exhaustive: SEPP No. 14 – Coastal Wetlands, SEPP No. 19 – Bushland in Urban Areas, SEPP No. 26 – Littoral Rainforests, SEPP No. 44 – Koala Habitat Protection, SEPP No. 55 –
Regional Environmental Plans	Remediation of Land, SEPP No. 71 – Coastal Protection, SEPP No. 62 – Sustainable Aquaculture. Drinking Water Catchments Regional Environmental Plan No. 1

Figure 9: Links to Some Elements of the Array of Useful NRM Policy Instruments

The graphic below provides a rough representation of the quite complicated layers of interests which planners need to have a mind to in their work relating to the important topic of NRM.



Figure 10: Council Planner in the State's NRM Framework¹⁹

3. NRM and Strategic Land Use Planning in my Council

What's in this section...

- 1. Challenges to Effective NRM input into Strategic Planning
- 2. Stages in the Strategic Planning Process
- 3. Case Studies

3.1 Appreciating the Context

Council Strategic Planning

It is important that planners (both strategic and development control) have due involvement in the corporate planning work undertaken by councils. Recently many councils have commenced to focus their broader planning work on the preparation of a "community strategic plan". This plan would form a foundation for the organisation's future direction and operations. Further details are provided in Volume 1 of this guideline package. The image below was prepared by the DLG to assist councils in the conceptualisation of the community strategic plan as a component of a council's broad-based planning and operational programming.

Volume 1 of this guideline package focuses particularly on NRM in the corporate and broader organisational planning of councils.



Figure 11 Council operational planning framework and the proposed "community strategic plan" (source: Department of Local Government)²⁰

Similarly, the strategic land use planning work undertaken by a local council needs inputs and influences from way beyond the town planning department. Leading practice strategic land use planning work is the result of an integrated analysis of the wide range of social, economic and environmental considerations of relevance in the local setting, whether council has direct service or regulatory responsibilities or otherwise. With land use planning just one element of the wider community strategic planning for which council is responsible. As Volume 1 of this guideline package indicates, the adoption of a collaborative approach within the council organisation, with agencies, interested NGOs and the wider community is the starting point, if linked up provisions with good levels of ownership is to occur.



Figure 12: For success, strategic land use plans need to be well linked to council's wider planning frames and have deep ownership across the organisation.

Strategic Land Use Planning Challenges

We need good strategic land use plans if we are to meet our goals for NRM outcomes. It is instructive to consider commonly identified hurdles²¹.

Hurdles	Implications
Base information hard to get and/or expensive. State agency/council data can be disjointed	 Need scientific, factual, up to date data as basis for defensible strategic planning decisions Need greater consistency of measurement of KPIs to enable common base for analysis.
Strategic Land Use Plans are made by, and are seen as belonging to, the "planners"	 Implementation often dependent on other sections of council – with ownership problems Narrow input base means narrow range of opportunities Confusion about other council planning documents Cynicism/sense of <i>fait accompli</i> from stakeholders
Plans respond to the "hot" issue at hand	 Can result in a focus on short term benefits to a few, over long term benefits to many Environmental outcomes / NRM can be a low priority However as cases show – hot issues can bring energy and funding for major change.
Plans can be overly centred on the council	 Lack of clarity on status and implications of other plans or policy instruments prepared by State or the federal government.
Plans don't give enough guidance for DAs	 Assessment planners have little to support or guide them when there is a need to apply discretion in land use decisions involving important NRM principles.

Figure 13: Hurdles to the development of effective strategic plans

Responding to these hurdles

Councils have a demonstrated capacity to respond to such hurdles. The case studies below provide brief particulars on two examples of how this has occurred.

Case Study

Challenge:

Getting quality into the strategic planning approach right at the start, including multi-criteria evaluation for land suitability analysis.

Response:

Eurobodalla Shire Council's work in sensitive coastal settings looked strategically at development pressures. It has evolved into a strategic decision support tool. Early quality planning intended to lead logically to legitimate zoning/land use controls.

Explanation:

Eurobodalla Shire Council has been subject to considerable development pressures including in rural and rural small holding areas. Council's work focused on the importance of setting up a sound strategic approach, which:

- Collated key natural resources data
- Categorises hazardous catchments
- Developed a analytical methodology for determining constraints and the required mix of development and natural areas (based on catchment modelling and GIS techniques), including cumulative impact considerations
- Integrates vegetation types, habitat values, bushfire risk, soils
 landscapes and catchment hydrology as issues for consideration
- Culminates in a Multi-Criteria Evaluation methodology as a decision support tool, which provides as an outcome: GIS-based maps of catchments indicating suitability for development.
- Uses the principles of ESD as a foundation
- Resulted in the generation of excellent GIS data layers for future application, at relatively little capital expenditure.
- Was based on sound cooperation with government agencies.

The project also included a "market analysis" of improved natural resource management, including social and land development expectations, which demonstrated that environmental attributes can add to the value of property, although there was variance in the market's valuation of such assets.

Council believes the use of GIS for techniques such as multi-criteria evaluation is essential for today's strategic land use planners. Sources of data and techniques of interpretation can be readily applied in other coastal locations.

Reference:

ESC, Eurobodalla Coastal Environment Capacity Planning Project.

Strategic Planning Process

It can be useful to consider the elements of the strategic planning process – and the challenges befalling each. For the purposes of the guideline we consider three core elements, described as follows.

1. Lead-up & Preparation

- Engagement with stakeholders to secure shared input
- Data discovery process (land, water biodiversity assets, constraints, hazards), then knowledge on problems and pressures
- · Regional strategies acknowledged
- · Local priorities, options values assessed.

2. Plan Content

- Vision, goals, objectives clear and codify what it is we are seeking to achieve
- Guiding principles are transparent and documented, providing a further practical base for detailed provisions
- · Plan's meaning in spatial and physical sense clearly represented on maps
- Other strategies cogently documented with monitoring/review commitments.

3. Plan Implementation/Review

- Strategies set in place, including LEP, DCP fundamentals
- · Pre-established targets are monitored though committed review provisions
- Monitoring is in sequence with a program of data collection which informs the cycle of ongoing plan-making.

Some cues and principles for each of these elements are outlined below.

3.2 Plan Lead-up and Preparation

It is important that the strategic plan encompasses issues comprehensively and with balance. A plan which is overly focused on NRM will lack acceptance without due acknowledgement of the interdependencies between social, economic and environmental well-being. Indeed opportunities for creative solutions often only present with the linking up of thinking **across** these domains.

Engagement

Objectives of the engagement process in strategic planning include:

- Enriching our understanding of local pressures and problems while overcoming the comfort of familiarity
- Ensuring an appreciation of all the **local instruments of delivery** of NRM policy and practice (government, NGOs, community-based)
- Collaborating with partners (eg State agencies, adjoining councils) to identify and resolve difficult issues, and where possible aligning objectives
- Ensuring strategic planning for NRM well integrated **within** council, both "horizontally" and "vertically"
- Engaging with land owners and community recognising community effort
 and knowledge
- Engaging with private sector acknowledging the capacity for private sector investment to provide public good through creativity and win-wins (VPAs, biobanking and offsetting emerging examples)
- · Influencing actions of other agencies through advocacy of local values
- Learning about what others are doing well elsewhere

Good plans have well thought out lead-up processes



Engagement is about stepping out of the comfort zone and seeking out the benefits of integration and collaboration

Below we itemise some of the identified challenges in the engagement stage of the planning process. Good practice responses are referenced for each.

Case Study

Challenge:

Starting-up a broad engagement process (ie beyond NRM) with Agencies and other Key Stakeholders

Response:

Planning Focus Meetings – informed on regional strategic direction as part of the shared inputs

Explanation:

- There is value in wide early engagement (ie not just NRM agencies) if an appreciation of the interdependence between ESD and social and economic welfare are to be subject to legitimate debate.
- A successful plan needs to have a consciousness of regional strategic issues and direction (eg fragmentation of ecosystems up and down the coast, socio-eco effects of decline in Murray/Darling system).
- In the Northern Rivers region, DoP initiated a meeting with councils and CMA to better position all parties for regional/local planning work. Reports suggest this process was well received by all parties.

Reference:

Principles of stakeholder engagement are well described in the referenced source document which includes extensive easy-access references: Planning NSW: Community Engagement in the NSW Planning System.

Case Study

Challenge:

Determining the specific NRM issues I need to concentrate on in my LGA

Response:

- · Review any existing regional or local state of environment reports
- Invite CMA (and DECC, DWE, DPI) to an NRM scoping session.

Explanation:

- Regional SoE reports, state of the catchment reports or sustainability strategies prepared jointly by councils, and CMAs or ROCs help bring a regional perspective.
- Getting legitimate collaboration among the Agencies is a critical step. Early scoping work helps get this off to a positive start, with significant benefits latter in implementation and statutory plan-making processes.
- Involve an invitation to relevant internal staff and potentially key local NGO and volunteer representatives with NRM knowledge – the theme could be: Local NRM Action Plan, *Local Pressures and Response Options.*
- Murray CMA has prepared a booklet which identifies subregional wildlife issues based on documented scientific survey methodology. The booklet provided an effective engagement device – well designed and friendly to non-NRM experts, as an entry into a higher knowledge on local issues.

References:

20

Namoi Regional State of the Environment Report Planning framework for natural ecosystems – NSW Southern Tablelands & ACT Central Riverina Wildlife Booklet.

Case Study

Challenge:

Linking to broader partnership and strategic engagement opportunities

Response:

- Memorandums of Understanding (MoUs) with CMAs to encourage shared understanding and win-win outcomes.
- Opening up "strategic assessment" opportunities under EPBC Act

Explanation:

- There is often a common interest in setting in place partnership arrangements with the CMA or one or another of the Agencies.
- CMAs have a particular interest in ways and means of helping councils improve NRM responses across all operations and have funding opportunities available, including in regard to planning.
- All Southern Rivers councils, all lower Darling councils and 14 out of 18 Northern Rivers Councils, are among those who have already developed MoUs with their CMAs.
- LGSA has an overarching agreement to work with CMAs and Lachlan CMA has developed a partnership guide to reduce duplication, define roles and responsibilities and maximise the NRM outcomes from resources invested.
- There are examples of direct support for planning programs eg Tweed Council is currently funded to prepare a Biodiversity DCP.
- In another example of common interest, DECC, as a component of work on a biodiversity certification project, is directly engaging the Federal government's environment agency with a view to securing endorsement of the biodiversity certification proposal for Wagga Wagga City Council as a "strategic assessment" under the EPBC Act.

Reference:

LGSA Partnership Agreement

Data collection and analysis

There is extensive data available of relevance to NRM. This data is becoming increasingly accessible with enhanced information and communication technology applications. At the same time there are considerable deficiencies due to coordination problems among different data custodians, and simple lack of awareness from councils in regard to the information base. The data collection stage can be thought of as a three step process.

1.	Information audit	Contact lead agencies to get the ball rolling: CMA as a potential coordinating agency.
2.	Identify information gaps	especially considering areas of key interest and potential NRM gain or land use conflict questions
3.	Further local studies where needed	considering funding sources (land owner funded, DoP funding support, CAP funding support

The templates below highlight a series of common challenges relating to the data collection stages of the planning process, including:

- Where to start on the data collection challenge
- Determining whether data is fit for purpose
- Determining what types of additional investigation may be needed.

Talk to your CMA as some have access to specialised NRM-related data sets which can be shared with councils.

Challenge:

Accessing available NRM-related data sets – where do I start?

Response:

 There is an extensive framework of data sets available to councils and the wider community. The Spatial eXchange (SIX) is now cited as NSW's official source of geospatial data.

Explanation:

- SIX is growing in importance and provides a good opportunity to integrate and view a wide range of NRM and related datasets (topographical, cadastral, air photo), and metadata. There is provision for electronic delivery of local datasets to suit needs.
- SIX now has SCA's stage 1 strategic land and water capability assessment information available in its viewer, critical to many LGAs subject to planning pressures, and soil landscape information collated by former DLWC – very valuable in NRM planning and assessment.
- NSW Natural Resource Atlas is useful starting point for individual NRM data sets. The site provides extended plans and metadata sources. It links a series of featured websites of high NRM relevance:
 - Species information includes wildlife atlas, bionet, faunanet, plantnet
 - Landcare groups CLIO
 - Lands Department spatial portal SIX
 - MinView Geoscience and exploration titles
 - NSW Natural Resources Data Directory NRDD
 - Soil profiles SPADE
 - Spatial data download
 - State of Environment SoEdirect
 - Water quality and quantity WaterInfo
- The Commonwealth government's spatial data site is not integrated with State sites at this stage. See http://www.nrm.gov.au/data/spatial.html and also the following excellent national level resources:
- Australian Natural Resources Atlas
- NRM toolbar
- Regional Knowledge Resource Kit

Reference:

https://six.maps.nsw.gov.au/wps/portal/ http://www.nratlas.nsw.gov.au/wmc/custom/homepage/home.html

Case Study

Challenge:

Linking data and measurement for council strategic land use planning with CMA and council management planning indicators

Response:

To optimise teamwork and value for community dollar, it is important that there be collaboration within council and with CMAs and other Agencies on data collection and ongoing measurement.

Explanation:

- There is a key requirement for integration of NRM-related data collection programs and the identification of how the information collected will be used to inform planning decisions.
- Land use and NRM planning data and "indicators" should be linked back to CMA **and** council corporate management objectives or targets.
- Through MoUs or other protocols, there is a community interest in the alignment of research, data collection and information sharing (see Vol 1 of this Guideline and MoU references above).

Reference:

Regional example: Namoi Regional State of the Environment Report

Case Study

Challenge:

Accessing information fit for local purposes recognising variability in data accessibility, quality and resolution.

Response:

- Some agencies have already worked up a coordinated response to "environmentally sensitive areas" mapping, which can form the basis for strategic plan level mapping (see below)
- Councils may also need to undertake additional broad-based or site specific studies

Explanation:

Easily accessible mapping information on sensitive lands

- In some parts of NSW DECC, DWE, DPI have developed a coordinated and packaged approach to providing regional scale NRM mapping information, output is in the form of three individual maps covering:
 - Sensitive land resources
 - Sensitive water resources
 - Sensitive biodiversity resources.
- The package includes a fourth combined map of environmentally sensitive lands. Individual mapping for all LGAs in the Murray/ Murrumbidgee region is already available. Individual councils can access the Local Government Data Access tool at http://www.mmlga. dnr.nsw.gov.au. This DECC, DWE, DPI package is also aligned to the new Template LEP mapping approach. Other regions are also under investigation for a similar approach.

When further data is required

- Existing data may be sufficient especially for more precise work related to land release. Close collaboration with NRM specialists will be useful in determining detailed investigation requirements.
- NRC has prepared a Standard for Quality NRM which includes guidelines of use in the determination of "fit for purpose" data and its collection.
- DECC, DWE, DPI, CMAs all have useful tools to assist councils in this work. Guidance can be sought on matters such as:
 - Determining appropriate data scale and accuracy
 - Accessing more discrete, difficult to access data sets
 - Effective data interpretation, including recognising limitations
 - Commissioning or assisting in the commissioning of new studies including ensuring State Agency acceptance of approach.

Reference:

NRC, Standard for Quality NRM includes standards for "the collection and use of knowledge".

DWE, DECC, DPI, Practice Note for using spatial information in Strategic Plans and Local Environmental Studies to identify and locate Environmentally Sensitive Areas January 2008

Case Study

Challenge:

Landscape and soil capability assessment and impact analysis

Response:

- Urban land capability assessments have been key investigations prior to decisions on land conversion. Historically undertaken by the NSW Soil Conservation Service, the assessment is essentially focused on the physical capability of the land to support development.
- · Historical work remains available under the auspices of DECC.
- Recently there has been a greater focus on acid sulfate soils and salinity.

Explanation:

- Urban capability assessment is an important element in land and stormwater management for a catchment, and is based on data collected in regard to qualities and limitations of soils and the broader landscape.
- Capability assessements define the suitability of land for urban purposes from this viewpoint, and outline opportunities to mitigate against harm both to the landscape and the downstream aquatic environment.
- Acid sulfate soils are a prominent problem, particularly in coastal settings, with earthworks in at risk locations causing soil and water acidification, and water and habitat degradation and fish kills. There is now good availability of acid sulfate soil risk maps which assign a probability to the occurrence of the problems in different physical settings, of high significance to council land use planning. DECC has also prepared a "hotspots program" aimed at reducing discharges in seven selected coastal locations.
- Soil salinity is a major problem facing the NSW landscape, affecting urban areas and also dryland areas of the nation. Mitigation strategies for urban salinity can be complex and counter-intuitive in regard to standard land development practices, and warrant early investigation and expert input where risk of saline groundwater discharge is evident.

Reference:

24

DECC, Urban Land Capability Assessment

(component of Managing Urban Stormwater: Source Control (Draft)) DECC, Acid Sulfate Soils Maps

DECC, Salinity Solutions – Dryland, Irrigation, and Urban, Industrial Salinity. Some urban salinity reference texts are listed in the endnotes²².

3.3 Plan Content

Towards a Coherent Plan

Strategic land use plans commonly need to deal with a range of complex issues. This can make difficult the challenge of coherence and clarity. The guiding principles used below may assist in the overall formatting of a plan, adapted from criteria recently used in an evaluation of the National Capital Plan²³.



Figure 14: Considering Key Elements which Contribute to Coherence in a Plan

Guiding Strategic Land Use Plan Direction by clear articulation of what it is we are seeking to achieve

As it makes its strategic land use decisions, a council is working within the broad parameters defined in the "council's charter" as nominated in the LG Act²⁴. As such, a council is involved in striking the balance between providing leadership and working towards an engaged community consensus.

Councils attempt to define their strategic objectives and priorities in the preparation of management plans and community strategies (see Volume 1 of this guideline package). As discussed previously, there is distinct value in this work engaging directly and iteratively, with the strategic land use planning for which councils are also responsible.

State government policy instruments such as Regional Strategies, when in existence, can give direction on higher order interests. However it is also common for their to be considerable subjectivity in the evaluation of strategic options by local councils. It can be useful to set down lucid decision-making terms of reference. The resolution and codification of such a framework can help both in ensuring well-founded and disciplined thinking in the plan, but also to promote openness, debate and discussion about final plan content.

A sample frame to help a strategic planning process with competing pressures for development and NRM is reproduced at **Figure 15**.

Guiding Principles for a Land Use Planning Strategy

- **1. Optimising local outcomes while fitting into a Regional Context** Responding to local challenges and opportunities but mindful of wider setting.
- **2.** Careful use and management of resources Ensuring sustainability of natural, social and economic attributes, and that choices and opportunities remain for future generations.
- 3. Ensuring that the benefits of new development opportunities outweigh their costs With a mind to our vision, and long term benefits to many rather than short
 - term benefits to few.
- 4. Promote practical integrated solutions with multiple benefits Capitalising on interdependencies (eg interrelationships between social, economic and environmental well-being) and need for creative solutions.

continues...

Figure 15: Excerpt from Draft Bungendore Land Use Strategy and Structure Plan (local provisions in individual council areas will respond to local circumstances)



Plans can be perceived as being abstract or confusing in describing what they are seeking to achieve. Use of meaningful, descriptive terms can assist in clarifying intent and give guidance to the choices which are made.

For example, the example above, intended as a "thought-starter" only, uses the term "long term benefits to many" contrasting this with "short term benefits to few". This brings a need to examine the actual benefits of development choices and may contest immediate term political pressures and principles like "all development is good development".

Also in regard to the example above, the terms "integrated solutions with multiple benefits" and "capitalising on independencies" may raise the bar and help encourage collaborative work.

References which examine the question of how to best frame guiding principles for strategic land use plans include:

- Development Assessment Forum, Good Strategic Planning Guide (2001)²⁵
- NCA, Review of Format and Language of National Capital Plan (2006)²⁶

NRM Principles as key element to drive strategic land use plan content and subsequent actions

NRM will necessarily be a major consideration in a council's strategic land use planning. Higher order, State and regional principles are presented in the State Plan, SEPPs, Ministerial directions and through regional strategies.

Determining applied local NRM principles will be a key matter for consideration and debate with, at times, the need for priorities to be set and difficult choices taken. See **Figure 16** for some thoughts.

Higher order NRM and related provisions will inform the local contextual decisions	Mindful of State policies, Ministerial s117 directions, and regional strategies.
Local priorities and targets for water, land and biodiversity conservation.	Consider initiating "improve or maintain" target for all significant natural resource features. Statements about avoiding damage to natural assets
New land release sensitive to NRM priorities and targets	Development directed away from environmentally sensitive areas, and areas identified for investment in buffering or as space for reconnection of remnant vegetation
Development as a means of restoring degraded land or other NRM-related gains	Targeting suitable locations with high potential water, land or biodiversity – and particularly, multiple benefits
Incidental development on environmentally sensitive lands	Developments on environmentally sensitive land subject to maintenance of integrity and function of the present natural ecosystems.

Figure 16: Some thoughts on NRM principles for a Strategic Land Use plan

Establishing Strategic Planning Principles for NRM – Case Examples

Below some notes, examples and citations in regard to specific NRM principles and their possible coverage in a strategic land use plan are provided.

Case Study

Challenge:

NRM and planning for urban growth

Response:

- Nominate simple but meaningful overriding principles for NRM :
- 1. Avoid
- 2. Minimise
- 3. Offset

Explanation:

There are some useful guidance documents available both from NSW agencies and those
interstate concerned with balancing natural resources and other considerations in land use
decisions. It can be useful to have some clear simple statements of position to both guide
analysis and help in communication with parties. The DSE in Victoria discusses the principle
of "maintain or improve" for NRM outcomes and outlines a three step framework in support
of this outcome:

1. Avoid

Avoid adverse impacts, particularly through native vegetation removal

2. Minimise

If impacts cannot be avoided, minimise through appropriate planning and design

3. Offset

Identify appropriate offset options.

Reference:

VPP, Managing Native Vegetation in the Planning System - Practice Note.

(Important Note: The above source is provided as a guide to assist councils in setting up simple planning principles. DECC has set up a major site to assist councils with biodiversity and native vegetation planning. See www.environment.nsw.gov.au/biodiversity/BiodiversityResources.htm).

Case Study

Challenge:

Negotiating biodiversity offsets in areas not covered by NV Act and without an existing biodiversity offsets program

Response:

DECC's "Principles for the Use of Biodiversity Offsets in NSW"

Explanation:

DECC has established 13 guiding principles which are summarised below and fully outlined in the web reference.

- 1. Impacts must be avoided first by using prevention and mitigation measures.
- 2. All regulatory requirements must be met.
- 3. Offsets must never reward ongoing poor performance.
- 4. Offsets will complement other government programs.
- 5. Offsets must be underpinned by sound ecological principles.
- 6. Offsets should aim to result in a net improvement in biodiversity over time.
- 7. Offsets must be enduring: they must offset the impact of the development for the period that the impact occurs.
- 8. Offsets should be agreed prior to the impact occurring.
- 9. Offsets must be quantifiable: the impacts and benefits must be reliably estimated.
- 10. Offsets must be targeted.
- 11. Offsets must be located appropriately.
- 12. Offsets must be supplementary.
- 13. Offsets and their actions must be enforceable through development consent conditions, licence conditions, conservation agreements or a contract.

Reference:

DECC, Principles for the use of biodiversity offsets in NSW

Case Study

Challenge:

Biodiversity in an established urban setting with significant Native Vegetation resources

Responses:

- Ku-ring-gai Biodiversity Strategy linked to council's Sustainability Plan
- Randwick Council Biodiversity Conservation Strategy

Explanation:

Ku-ring-gai Municipal Council have developed and adopted a Biodiversity Strategy with the following key objectives.

- Prevent loss of local native biodiversity on public and private lands by eliminating or ameliorating threatening processes
- Protect, enhance and where appropriate increase local biodiversity on public and private lands
- Protect and enhance aquatic and terrestrial ecosystems and habitats and connectivity between reserves
- Increase awareness of biodiversity and its values within our community and Council
- Encourage and maintain active and effective community, government and other stakeholder partnerships with Council to better manage biodiversity
- Extend and seek further opportunities and partnerships with other statutory authorities and non-government organisations.

Randwick City Council's biodiversity conservation strategy has assisted in pulling together existing actions and enabling commencement of new actions. The Biodiversity Conservation program pulls together a range of smaller programs covering:

 Data collection and monitoring, statutory protection measures, physical protection measures, community education, community participation, indigenous plant production, pest animal control, weed control, bush regeneration and pollution control of stormwater.

References:

Ku-ring-gai Biodiversity Strategy Randwick Biodiversity Strategy

Case Study

Challenge:

Water quality management - regional approach

Response:

• Sustaining the Catchments Regional Plan which supports the Drinking Water Catchments REP.

Explanation:

- Multi-award winning project concerned with delivering systemic change to land use and activities within the greater metropolitan area drinking water catchment.
- Plan has an exemplary focus on implementation practicalities and links between environmental, social and economic elements.
- Provides for responses to REP requirements for rectification action planning for existing development, strategic land and water capability assessments to assist council with LEP work, DA assessment requirements.

Reference:

SCA: Sustaining the Catchments Regional Plan
Challenge:

Water management principles

Responses:

Collaborative exchange of both principles and practice examples

- WSUD Portal an important resource for sustainable water management planning and practice
- Urban integrated Water Cycle Program similar resource developed by Hunter Central • Rivers CMA and councils.

Explanation:

- Both sites provide extensive web based resources including:
 - Water Sensitive Planning Guide
 - Practice Notes
 - Technical Guide
 - Design Specification
 - Case Studies
 - WSUD Literature
 - Council info exchange
 - Toolkits _
 - Wide ranging Links
 - Useful images on matters ranging from bioretention swales to street retrofits to stormwater reuse in public art
 - Details on the Sustainable Water Challenge Program, which propagates information on leading practice in WSUD.
- Both sites issue newsletters. The WSUD site has annual leading practice awards. •
- View the sites for suitable references.

References:

•

http://www.wsud.org/enews.htm http://www.urbanwater.info/

Case Study

Challenge:

Strategic assessment – practice examples

Response:

SCA strategic land and water assessments (SLWCAs) to indicate sensitivities of different landscapes and the risks to water quality from different land uses.

Explanation:

- This work by the SCA is intended to assess the physical capability of the natural features of the land and waterways in the metro area drinking water catchment. The assessments will identify appropriate types and intensities of land use which will not adversely impact on water quality.
- · These SLWCAs will need to be considered by councils in the preparation of LEPs. However the assessment process will also be useful to councils as an applied model of evidence-based strategic assessment work, with a focus on specific industry types and potential impacts.
- To be released across the catchment from early 2009.

Reference:

SCA Strategic Land and Water Capability Assessment web site.

Plan Form and Structure

The final document will have a number of constituent parts. The strategic findings on NRM and other considerations will need to be appropriately represented in a physical plan or set of plans. The plans represent the geospatial structure elements with coverage of both development and conservation principles. This work links cohesively to the statutory planning instruments. The strategic findings will also link to council's wider operational practices (see Volume 1 to this guideline package).



Figure 17: Considering NRM in the Overall form of a Strategic Land Use Plan

It is critical that a coherent NRM strategy underpins the final land use plan. Plan findings and content will identify the demand for land use and zoning changes and include strategic capability assessment of relevant areas within the LGA. The plan should give clear direction to the LEP and DCP content, with NRM analysis applying reasoned weight, and assisting with practical direction. For example direction should be clear on:

- Preferred areas for land use change and thus rezoning, including clarity on boundaries (or particulars on process for final boundary definition)
- Controls or limits to land use, and thus recommended LEP zones and development permissibility under the State's LEP Template
- Minimum lot sizes and other density measures aimed at addressing impact on NRM values
- Critical landscape elements and buffer considerations including in regard to questions of compatibility (NRM, bushfire, residential, industrial etc)
- Further investigations required before change to land use controls.

Figure 18: Land use strategy needs to directly lead LEP and DCP content.

3. NRM and Strategic Land Use Planning in my Council

Effective Land Use Strategies are founded on locally relevant NRM principles and applied strategic directions. This is critical to ensure sustainable environmental outcomes and clarity and predictability in development decisions.

3.4 Plan Implementation and Monitoring

Strategic land use planning at local government level is more than the preparation of structure plans, LEPs and DCPs. It is a holistic activity, itself part of the councilwide management planning. Volume 1 of this guideline package examines NRM in the wider management planning of councils, and refers to a range of monitoring frameworks which have been established in NSW, and nationally.

In its essence planning is about delivering outcomes on the ground. To do this effectively and with a mind to improvement, councils need to be appropriately informed about change as plan implementation occurs.²⁷ It is also important that data collection and monitoring occur in a systematic way and with an appropriate discipline. This is particularly critical for NRM related matters given the regional scale implications, and the fact that data and information is collected from a number of sources and by a number of different parties.

The case example below provides information on systems approach to implementation and monitoring of NRM-related plans and their outcomes.

Case Study

Challenge:

Collaboration in, and systems for, monitoring and evaluation

Response:

• State agencies, CMAs, councils and landowners can all be involved in monitoring outcomes for a range of interests. There are a number of established frameworks for monitoring and evaluation partnerships, which can bring the required level of discipline.

Explanation:

NRM Monitoring, Evaluation, Reporting and Improvement Framework

- The **MERI Framework** defines key human, social, natural, physical and financial measures of relevance to NRM monitoring.
- The framework defines indicative asset classes, assets and indicators. Some indicators have protocols for their measurement and reporting of practical interest to land use planning.
- This can be of future particular use to strategic land use plans and their monitoring.
- MERI framework has been in use by many CMAs and can be usefully linked up to council operations through CMA-council MoUs.

Standard for Quality Natural Resource Management

- This document published by the NSW Natural Resources Commission (NRC) is focused on NSW and includes a set of seven inter-related components that define the characteristics of "quality NRM practice".
- CMAs are required to meet the Standard, however other agencies including councils are also encouraged to implement it.
- The standard is aimed at supporting flexible and innovative NRM planning and includes practical approaches in regard to information management, giving emphasis to future adaptive management, based on audit and response.

Reference:

Commonwealth Government, NRM MERI Framework. NRC, Standard for Quality NRM

The next case example focuses on one issue, biodiversity, and is suggestive of how a planning process can direct a set of issue-specific actions which can deeply affect future processes in terms of both efficiency and securing effective outcomes.

Stages of Strategic Planning Process



Challenge:

Detailed implementation – land use planning particulars

Response:

Actions to implement a biodiversity strategy as an example of wider opportunities for NRM related matters.

Explanation:

The *Biodiversity Planning Guide* details a set of implementation actions which can have wider relevance. It includes methods for implementing biodiversity provisions in plans. It describes how to achieve results with limited resources, apply incentive programs, and carry out monitoring, reporting and program evaluation. Key implementation actions are suggested as follows:

- Revise existing planning provisions and prepare new or amended LEPs so that they reflect biodiversity planning principles
- Identify all land zoned for urban or other development purposes with high biodiversity potential, and revise applicable planning controls.
- Adopt a policy of 'no net loss of biodiversity', incorporate the policy in planning instruments, and implement through development assessment.
- Ensure that planning controls and development decisions maintain the integrity of habitat corridors and reflect regional biodiversity context.
- Assess biodiversity issues at the subdivision stage (including cumulative loss eg implications of dwelling construction and associated bushfire APZs)
- Require management plans for sensitive development sites, and link these to property
 agreements, incentives or consent conditions.
- Train staff about important biodiversity values and issues.
- Cooperate with other councils within the region on broad biodiversity goals and minimum survey standards.
- Support biodiversity conservation initiatives by community groups.

Reference:

Biodiversity Planning Guide for NSW Local Government Also see DECC's, biodiversity and threatened species resource base for many further exemplars: www.environment.nsw.gov.au/biodiversity/BiodiversityResources.htm

Case Study

Challenge:

Implementation practicalities – creative solutions involving voluntary planning agreements

Key Benefits:

- Provides for a practical delivery mechanism for securing undertakings such as environmental offsets, management arrangements or other action, relevant to a planning decision
- Provides flexibility to meet local contextual circumstances allowing for initiative and a "winwin" outcome.

Explanation:

- "Planning agreement" legislation (s93F EPA Act and regulations) now provides disciplined and transparent process to provide for developers to make irrevocable offers of land, capital resources and/or recurrent funding (including in provision of material NRM benefit) as a component of a planning decision.
- Offers are subject to council agreement after community consultation.
- Agreements can be linked directly to the "improve or maintain" tests and with or without connections to biobanking system.
- Agreements can also be struck as biobanking agreements (TSC Act), conservation agreements (NPW Act), property vegetation plans (NV Act), and include treatment of riparian corridors, now limited in s94 planning²⁸.
- These formal arrangements provide practical and important mechanisms for securing outcomes relevant to a planning or DA assessment decision.

Reference:

Planning agreement provisions in s93F of EPA Act and EPA Regulation

4. Local Environmental Plans

What's in this section ...

- 1. Considering LEPs in their wider context
- 2. LEP aims and objectives
- Zones and land use tables which activities should be permitted where
- 4. Local provisions and overlay maps
- 5. Links to biodiversity certification and biobanking
- 6. Other LEP considerations relating to NRM.

4.1 New LEP Template and NRM – Context

The *Standard Instrument* (Local Environmental Plans) *Order, 2006* now substantially governs the content of LEPs prepared by local councils. The Order introduces a template which all LEPs must follow (LEP Template). Importantly, the reforms have also facilitated some concentrated efforts at tackling the inherent challenges of the planning system.

Underpinning many of the system challenges, are the goals of making the system more:

- · Relevant and influential on all environmental outcomes, and
- Coherent, user friendly and accessible.

A common structure and language is now in place for new LEPs in NSW. This should make it considerably easier for applicants, planners and other parties to work their way around the content of LEPs, especially as we move around the State in our interests.

As the fundamental environmental control for land use and development proposals, LEPs of course have a central role in achieving sound NRM outcomes, mindful of the objectives of the EPA Act²⁹ which give considerable emphasis to NRM:

encouraging:

- (i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,
- the promotion and co-ordination of the orderly and economic use and development of land,
- (vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and
- (vii) ecologically sustainable development...

Figure 19: Excerpt from objects of the EPA Act (s5).

LEP reforms have helped concentrate effort on fundamental NRM-related

planning system challenges

A further noteworthy objective of the EPA Act is relevant to LEP preparation is: s5(b) *Promoting the sharing of the responsibility for environmental planning between the different levels of government in the State.*

LEPs are intended to provide the statutory land use control device to help give effect to the strategic land use plan.

LEPs – Statutory Land Use Control Instruments

We continue to develop approaches on best means of providing for NRM content in statutory LEPs. It is useful to consider what might be guiding principles to drive such content:

Coherence	 Convey decisions effectively from the strategic plan Provide a logical and orderly arrangement with due use of emphasis. Aligned with other relevant NRM policy and instruments. 	 Objectives, zones, permissibility of use, local provisions are aligned with Strategic Plan findings, and State/Regional policy. Provisions convey important and less important elements appropriately, having regard for overall statutory system integrity.
Clarity	Unambiguous and understandable to applicants and users	There is a consistency and common understanding of meaning of individual terms and provisions, and how the instrument works as a whole.
Decisiveness	Brings certainty and predictability	 Includes decisive positions on NRM issues and implications based on the evidence.
Flexibility	Capable of adaptation in special circumstances	Nevertheless is open to variations and innovation which delivers the outcome

Figure 20: Some Guiding Principles for LEP content on NRM

In the context of the formal and statutory nature of the LEP, and relevant Ministerial Directions relating to the protection and conservation of environmentally sensitive areas³⁰, the particular NRM integration challenges then include:

- · Providing appropriately for distinctive local NRM aims and objectives
- Land use permissibility acknowledging conservation and recovery considerations and reasoned limits to compatible alternative land uses
- How to best represent NRM considerations spatially in LEPs with a mind to variable mapping accuracy and precision
- Use of special local controls and provisions
- · Implications of biodiversity certification and biobanking opportunities
- Generally retaining some consistency of approach mindful of the intentions of the move to a template LEP across the State.

Ministerial Direction 2.1 under s117 of the EPA Act, requires councils to: *"include provisions* (in any new LEPs) *that facilitate the protection and conservation of environmentally sensitive areas.*

Considerations	Issues to be Addressed
Aims of Overall LEP	Appropriate inclusion of NRM principles
Zones	 Choosing zones and land use based on land capability Which E-Zones to include, Zone objectives, permissible uses, NRM considerations in other zones
Special Provisions	 Appropriate use of local provisions to reflect strategic objectives and land capability
Mapping	 Whether and how to use these more detailed spatial markers in LEP maps other than zoning maps.
Other Matters	 Dealing with: exempt and complying development, principal development standards and other provisions with NRM implications.

Figure 21: Key NRM Questions for LEP content

LEP aims, zones, special provisions and mapping are addressed individually in the rest of this section.

4.2 LEP Aims and Objectives

In accordance with the LEP Template, cl 1.2 of LEP is to present the overall aims of the LEP. It is important that the actual objects of the LEP as a key device within the overall system of land use and development control is clearly articulated, but not lost in overstatement.

Case	Study

Challenge:

Adding Overriding LEP Aims at Clause 1.2

Responses:

- Nominate realistic aims of this statutory plan establishing NRM as a legitimate headline consideration in DA assessment.
- Inclusion of idealistic issues outside the scope of an LEP can be counterproductive in taking attention away from core issues
- Overall LEP aims would **coherently link** with the core principals documented in the **strategic plan**, as well as regional strategies
- Use of specific language to reduce ambiguity.
- Remember scope for specific aims for each zone and any local provisions.
- Appreciate that LEPs are approved by the Minister for Planning and local aims which may be inconsistent with State policy would not be supported.

Explanation:

Add a clause 1.2(2) to the instrument, leading with:

• The particular aims of this Plan are as follows:

LEPs aims with respect to NRM which could be included are suggested as follows:

- to promote development that is consistent with the principles of ecologically sustainable development,
- to improve or maintain biodiversity
- to avoid and minimise impacts on environmental values, and to protect Environmentally Sensitive Areas.

Reference:

DoP is soon releasing a guideline on NRM for new LEPs which includes particular references on LEP aims.

LEP Content: NRM Considerations



Good practice would include literally having a mind to appropriate LEP aims within the actual preparation of the Strategic Plan – the inclusions for clause 1.2 would then follow logically from the strategic planning process, including potentially a council's wider corporate and community plans (see Vol 1 to these guidelines).

4.3 Zones and Land Use Tables

The zoning of land, and identification of the permissibility of various land uses within each zone, are fundamental elements of the statutory development control system in this State.

- **Zone choices** are guided by strategic spatial planning findings, including land capability assessment, with a mind to the LEP Template's mandated objectives and permissible uses, along with published DoP guidelines.
- **Zone objectives** aid the determination permissible uses and provide an important device to guide the assessment of DAs, including in the application of discretion in matters relating to NRM.
- **Permissible uses** in particular for the Environmental Zones, need to balance conservation and recovery goals with questions of reasonableness, and even the capacity for commercial investment to deliver on NRM objectives.

The suggestions contained in this guideline need to be considered as a current response to the new setting, with a mind to DoP advice and other analysis and dialogue³¹. Positions will evolve over time, in response to the legal, environmental and technological changes, and implementation practicalities.

Considering Environmental Zones

Each of the four nominated environmental zones is now examined. Guidelines are provided on:

- When to use each zone
- Potential objectives to add to the mandated objectives for each zone
- Land use tables and permissible uses for each zone.

Later in this section other zones with potential NRM implications are also examined. Must be read in conjunction with LEP practice note PN 09-002 Environment Protection Zones released 30 April 2009.

Zone:	E1 – National Parks and Nature Reserve Zone
When to use it	 Should be applied to National Parks, State Conservation Areas and other lands acquired by DECC but not yet gazetted as Park. DECC can advise local provisions
Zone objectives	Commonly the mandated objectives will be satisfactory
Land Use Tables	• Uses consistent with the <i>National Parks and Wildlife</i> <i>Act 1974</i> are permitted. Regulation of such uses is not necessary under EPA Act, so define as permissible without DA consent.



Zone:	E2 – Environmental Conservation
When to use it	 For areas with high ecological, scientific, cultural or aesthetic values – outside national parks and nature reserves etc. These characteristics in turn bring considerable land use restrictions, and will only allow activities entirely compatible with conservation objectives. Thus use of the zone will be considered and careful. Examples of where the E2 zone should be applied: Old growth forests, significant wildlife or riparian corridors or land containing endangered ecological communities. High conservation coastal foreshores and land acquired, or proposed for acquisition, under a Coastal Lands Protection Scheme Land with a registered BioBanking agreement. Land under the care, control and management of council or another authority for critical town water supply, aquifer or catchment as appropriate. Coastal foreshores and land subject to coastal hazards Land currently and reasonably zoned for environmental protection where strict controls on development apply e.g. steeply sloping escarpment lands, land slip areas High conservation value travelling stock reserves and stock routes, and selected other Crown reserves. Areas subject to SEPP 14 – Coastal Wetlands and SEPP 26 – Littoral Rainforest. Consider inclusion of nominated environmentally sensitive areas from local strategic planning analysis, buffer areas around high conservation areas such as national parks, nature reserves etc. Boundaries determined by appropriate scale mapping and ground proofing There has been suggestion that an E2 zone may trigger compulsory acquisition provisions in some instances. Such provisions are triggered where land is expressly set aside for public purposes. Councils may like to seek advice from DoP or DLG or direct legal advice³².
Zone objectives	 Conservation values will need to be the point of emphasis for this zone. Additional objectives may be introduced eg to recognise compatible public or recreational uses. Examples additional objectives include: ensure that environmental assets are maintained or improved retain any fragmented or remnant native vegetation provide for outdoor recreational activities that promote enjoyment and appreciation of the natural environment, consistent with the protection of these values ensure compatibility with management agreement already on the property pertaining to biodiversity conservation.
Land Use Tables	 The focus of the E2 zone is environmental conservation. It should have only a restrictive set of permissible uses which are centrally about the achievement of the conservation objective. In turn its application will be somewhat sparing. Circumstances in each LGA will dictate which low key uses may be appropriate, old-growth, littoral rainforests, coastal wetlands, may have different use restrictions than some sensitive inland areas. Agriculture and even "apparently" low key agricultural uses (eg bee-keeping and associated spread of feral bees) can bring impacts and may sometimes be inappropriate, or made permissible only on certain sites through the <i>Schedule 1 – Additional Permitted Uses</i> provisions of the LEP Template Sensitive public land zoned E2 with some secondary recreational activity might allow only: <i>Community Facility, Environmental Facility, Environmental Protection Works, Kiosk, Recreational Area and Roads.</i> A key question will be permissibility of one or an additional dwelling on a site. But essentially this zone is about directing development away from high conservation value land. In some instances a dwelling may be sited on E2 zone land without prejudicing such values. It would be important that any such dwellings be subject to DA assessment. The following may be permissible in E2 areas where for example a single Dwelling house is deemed permissible: <i>Earthworks; Environmental facilities; Environmental facilities; Recreation areas; Roads; Water recreation structures, etc.</i> Generally <i>Bushfire hazard reduction</i> would be permissible without consent.

Zone:	E3 – Environmental Management
When to use it	 For areas with special ecological, scientific, cultural or aesthetic values or hazard/risk which require management noting restoration of special environmental values as the primary purpose. Differentiated from E2 in that a wider range of uses including dwelling houses will be compatible, and potentially assist in delivery of the restoration. Consider where development in some areas of a parcel may assist in securing or maintaining biodiversity or connectivity elsewhere on a site, using mapping overlays and/or DCPs to assist. Possible use as a transition between areas of higher conservation value and other land uses such as rural or residential.
Zone objectives	 Additional objectives may be introduced eg to recognise compatible public or recreational uses, or uses which could have potential to practically assist in the environmental management of the area. An example additional objective in regard to the latter point would be: To provide for development that can assist in the enhancement, management and restoration of these (mandated) values.
Land Use Tables	 A range of compatible agricultural and home oriented uses would be suitable, along with compatible commercial uses, including tourism and tourist accommodation uses. DCPs may be needed to address design issues for tourist accommodation and dwellings.
Zone:	E4 – Environmental Living
When to use it	 Land with identified "special ecological, scientific or aesthetic values", but wherein a range of lower impact residential development is seen as compatible. The E4 zone will be particularly applied in settings with high environmental value but which also have a pre-existing zone which creates an expectation of residential or rural-residential development. In the case of land with high environmental values, but with no such development expectations, the other "E-zones" would commonly be more likely to be applied. It is noted that the E4 zone may be considered a residential zone and thus is possibly outside the provisions of the NV Act and its controls on native vegetation clearance. In some settings this may bring a need for councils to implement parallel provisions in DCPs to better control native vegetation clearing under the EPA Act. Generally the DCP is likely to have a critical role to play in regard to E4 zoned land.
Zone objectives	 Additional objectives may be introduced such as those nominated for the E2 and E3 zones.
Land Use Tables	 Dwelling houses are mandated permissible uses. The suggestions for introduction of low impact tourist oriented uses, including bed and breakfast establishments, would seem reasonable. Permissibility of agricultural uses will depend on compatibility with environmental values and any adjoining (sometimes higher density) residential settings. It is noted that "permissible" development is still subject to the discretion of the consent authority and would still need to be well designed and respect the nominated objectives.

Split zones

There is no requirement for zone boundaries to align with cadastral or property boundaries. In some instances it may be entirely appropriate to split the zoning across a parcel of land in accordance with its environmental values. Such a move would be reliant on current, fit for purpose, land and mapping information. For example an area of high conservation rural land may be zoned for environmental

4. Local Environmental Plans

conservation while the major residue portion retains an agricultural zoning. In such instances there will be a need for consideration of:

- Definition of zone boundary (ground survey, or clarity of the planning intent in support documents if no ground survey is undertaken)
- Variation of land use near zone boundary (cl 5.3 of the LEP Template provides for some flexibility of land use near zone boundaries but does not apply such opportunity for RE1, E1,E2, E3 or W1 zones)
- · Development standards for the distinct areas (eg maps indicating minimum lot size controls).

Other potential zones with NRM implications

While the LEP Template provides four specific zones with environmental emphasis, land use within most if not all other zones will also have potential implications for NRM. We give some emphasis below to four particular zones and note the wider implications.

RE1 Public Recreation	 It can be problematic to include land use ranging from natural bushland to mown parks, sporting fields and gardens into an RE1 zone. It is expected that many councils will transfer land currently zoned open space (such as parks and crown reserves) to the RE1 zone, even if it includes significant native bushland etc. In such instances it is important to add to the mandatory zone objectives such as the following: To protect and enhance the natural environment generally, and to ensure that areas of high ecological, scientific, cultural or aesthetic values are protected, managed and restored. Where RE1 land includes natural areas, particularly areas containing EEC or other significant natural resources, it will be critical that Plans of Management, under the LG Act, reflect this appropriately. See Volume 1 of this Guideline.
RE2 Private Recreation	 The principles stated above generally also apply to RE2 lands, with the exception that there are no provisions to manage land under the LG Act. In instances where land formally zoned private open space exhibits very high ecological values it may be necessary to look to an E-zone, or a split zone.
W1 Natural Waterways	 This zone is intended for waterways that are protected due to their ecological and scenic values. In that sense it is differentiated from the land zoned W2 <i>Recreational Waterways</i>. A limited number of low impact uses that do not have an adverse effect on the natural value of the waterway can be permitted in this zone.
RU2 Rural Landscape	 RU2 zone is another potentially important zone for NRM purposes. The NRM interest is in part expressed in the mandated objective which captures the broad term "landscape character": To maintain the rural landscape character of the land. There can be a range of important points of emphasis which warrant nomination dependent on local circumstances. Goulburn Mulwarree's LEP recognises the importance of the groundwater and catchment considerations with the following additional objectives: To protect, manage and restore areas with high conservation, scientific, cultural or aesthetic values. To protect and enhance the water quality of receiving watercourses and groundwater systems and reduce their degradation. To preserve environmentally sensitive land, including catchment areas, and prevent development likely to result in environmental harm.
Other Zones RU1 – Primary Production RU3 – Forestry RU6 – Transition R5 – Large Lot Residential	 Specific reference to NRM objectives warrant consideration for each of the zones nominated at left. Local circumstances will direct appropriateness. Local context will also dictate whether even a wider range of areas warrant NRM attention in regard to zoning objectives and land use tables. Indeed certain councils may want to emphasise NRM principles for all development within the LGA.



Two important steps to securing approval from DoP and PC for local provisions are:

- Early and ongoing liaison
 with local DoP officers
- Reference to other recent examples of local provisions which have been accepted.

4.4 Local provisions and LEP maps

The LEP Template includes the opportunity for individual councils to introduce their own local provisions with the LEP. There will be a need to demonstrate both policy credentials and statutory integrity of any local provisions before acceptance by DoP and Parliamentary Counsel (PC) (see DoP Circular PS 07-019). These parties are concerned with the overall integrity of the State's planning system and the goals of the current reform process including that of making the system more easy to use. Local provisions will not be permitted which are inconsistent with any mandated provisions.

Section 79C of the EPA Act, which provides the heads of consideration for DA assessment, brings its own requirements for the consideration of environmental impacts. So there is already a level of environmental protection available through this basic statutory provision, and the NRM related inclusions in the LEP Template outlined above.

Council's would reasonably include local provisions where such inclusion can positively affect the achievement of one or more of the fundamental goals of the LEP, goals which are not otherwise achieved through inclusion in DCP provisions alone.

Inclusion of particular local provisions would also have a mind to the tests suggested above relating to:

- Coherence
- Clarity
- Decisiveness
- Flexibility.

These tests are seen to be important in the assessment of the appropriateness of inclusion of local provisions, and suggested as relevant to the submission preparation process.

NRM issues which may be candidates for local provisions include the following:

Land

- Acid sulfate soils
- Contaminated land
- Soil salinity management
- · Steep, unstable and highly erodible lands
- · Mine subsidence
- · Significant extractive resources
- Sediment and erosion control
- Karst

Water

- Riparian land and waterways.
- Wetlands
- Coastal and estuarine (see under cl5.5 but subject to review of SEPP 71)
- Stormwater management (for sensitive catchment areas)
- Flooding
- · Unsewered lands
- · Drinking water catchments (other than SCA areas already covered)
- Groundwater management

Biodiversity

- · Biodiversity significance
- Corridors
- Protected regrowth

Figure 22: Potential targets for local provisions

DoP are intending to issue further guidelines in relation to local provisions in the near future.

Maps and local provisions

NRM issues may be addressed through additional maps within the LEP. There are options which councils will consider in terms of the best way forward depending on considerations such as the sensitivity of the consideration and the availability of data and its accuracy.

LGAs with highly accurate mapping may be able to use extensive overlay maps to identify relatively precisely the areas of attention. However, as discussed above in relation to all local provisions, there is a need to ensure only fit-for-purpose use of mapping within LEPs. Mapping can and will also be used extensively within the more flexible DCPs. Regional councils with large areas of coverage and lesser precision mapping can use an alternative approach, such as that outlined in the example below. There is also the alternative of including NRM related mapping as a component of a council DCP (see **Section 5**).

Case Study

Challenge:

Linking the Limited NRM Information Available in Rural Settings to Overlays in LEPs

Response:

 A joint initiative from DWE, DECC, DPI (Fisheries) has already worked up a methodology for practically addressing NRM considerations in LEPs for rural setting (where spatial data is often limited). The methodology is outlined in a practice note (see reference below).

Explanation:

The practice note outlines a simple three map overlay approach across the three common themes of land, water and biodiversity:

- Overlay maps highlight areas where more comprehensive assessment or information may be required – they are not zoning maps with prohibited uses
- Aligned provisions for statutory clauses within the LEP to nominate specific requirements.

The practice note also provides:

- · Examples of maps
- Example clauses
- Example applicants kit to assist DA proponents respond to the clause provision
- Example explanatory notes for council staff on how to use the clauses, and mapping issues and limitations including the regional scale of much of the mapping and discrepancies with local cadastral base information.

The work was awarded a National PIA Award for Excellence in Rural Planning.

Reference:

DWE, DECC, DPI, *Practice Note for using spatial information in Local Environmental Plans to protect and manage Environmentally Sensitive Areas*, January 2008

DoP is soon releasing a guideline on local provisions which should assist in local mapping, and in the use of model clauses.

Local provisions referring to DCPs

An LEP may include a provision which requires a DCP to be prepared before any particular kind of development may be carried out, and also make provisions as to what should be included in such a DCP³³. This provision has been taken up in new LEPs which are being prepared under the Template approach. For example, NRM-related principles are being nominated as matters to be addressed in DCPs before, for example, development consent can be issued for land within an urban release area³⁴.

Other local provisions

Subject to DoP endorsement there is also opportunity for councils to pursue special local provisions for matters of NRM importance through additional local provisions. Great Lakes Council deliberated on the issue in its water quality improvement plan which followed the public health issues arising from the contamination of Wallis Lake oysters. The reference below may assist councils in considering inclusion of special clauses to suit their circumstances.

Case Study

Challenge:

Specific LEP clauses to deal with water quality protection in sensitive catchments

Response:

• **Great Lakes Council** has engaged in this question in the Great Lake Water Quality Improvement Plan. The reference includes a detailed clause in draft form.

Explanation:

- Great Lakes Council believes local provisions in the LEP must play a central role if sustainability in local water quality is to be secured for the lakes system critical to the local economy.
- The particulars of the draft clause proposed are discussed in the reference, including terminology in regard to the "strength" of the clause. While water quality protection is the focus of the draft close links to wider NRM values are also clear.

Reference:

Great Lakes Water Quality Improvement Plan, p293.

The LEP Template provides for minimum lot size as a principal development standard. However there are arguments to suggest that lot averaging or clustering may be more appropriate. The LGSA has examined this issue in recent work.

Case Study

Challenge:

Controlling NRM impacts using "lot averaging" and development "clustering", instead of, or together with minimum lot size.

Response:

 LGSA have had prepared a technical evaluation of the landscape management benefits of lot averaging and clustering compared to minimum lot size controls

Explanation:

- LGSA commissioned a specialist review of opportunities for improved protection of environmentally sensitive areas, while also optimising agricultural and rural land use, and land subdivision, servicing and marketing. The referenced work includes an examination of historical and recent land subdivision practice and the demonstrated environmental outcomes and opportunities.
- The findings include:
 - Minimum lot size controls lack flexibility to design for topographic and environmental features and perpetuate unimaginative design solutions.
 - Lot averaging can lead to more sensitive subdivision and development, taking into account, topographic constraints, flora and fauna ecosystems, and productive agricultural potential
 - Clustering can encourage more economic servicing, clearing for bushfire protection, and retention of large residues for environmental protection or agricultural land use.
- It is noted that the LEP Template does not provide standard clauses for clustering or lot averaging at present. The report includes a model provision for inclusion in local provisions, this subject to DoP approval in local circumstances.
- Should there be a statutory constraint on placing such controls in LEPs, then it is noted that clustering and averaging may best occur within DCPs. However this may mean no minimum lot size control within the LEP at all.

Reference:

Zenith Town Planning and Peter Spurway and Associates, *The landscape management benefits of lot averaging and clustering*, prepared for LGSA 2008

4.5 Other LEP-Related Provisions

Exempt and complying development (Part 3 of LEP)

Clauses 3.1- 3.3 of the LEP Template refer to exempt and complying development provisions. The provisions are concerned with ensuring that routine low impact development is not unreasonably caught up by red tape. Exempt development may be carried out without the need for development consent. Complying development also may be carried out without working through a DA process, and instead requires a council or other accredited certifier to issue a complying development certificate before development can occur.

We are in a transition period at present, with councils developing elements of their own exempt and complying provisions, but with there also existing exempt and complying provisions under State policy.

It is important that development which has potential to cause significant harm to NRM values works through an impact assessment process and is not included as exempt or complying development. At the same time, it is a waste of valued time and energy, both to council and proponents, if innocuous development is unreasonably excluded from the often useful exempt and complying development provisions.

Clause 3.3 provides for the identification of "environmentally sensitive areas" where exempt and complying development is excluded. Subject to the acceptance of the State government, council can add "additional areas" to the list of ESAs. Councils may wish to do this by LEP map references. Clearly a council will need to justify any excluded land demonstrating its environmental values and why the DA process will significantly reduce risk of harm.

Principal development standards (Part 4)

The LEP Template includes (non-compulsory) opportunity to include development standards relating to three nominated elements:

- · Minimum subdivision size
- · Height of building
- · Floor space ratio.

It is noteworthy that if development standards are not adopted for these elements within the LEP, a council is not permitted to introduce a control for that particularly element through the lower order DCP.

Control of minimum subdivision size has the potential to be of relevance to NRM principles, especially in non-urban settings. As a general principle larger minimum lot sizes bring lesser scale and lesser intensity of development. However, minimum lot size, of itself, can provide a coarse instrument of control when dealing with the complexities of NRM.

Building siting, lot averaging and clustering of development, sometimes incorporating community title, often bring more relevant elements of control in regard to minimising environmental harm, while providing flexibility in regard to development outcomes.

Clause 4.6 of the LEP Template includes provisions for exceptions to development standards where compliance is "unreasonable or unnecessary in the circumstances of the case" and "there are sufficient environmental grounds" to justify contravention. There are limitations in the use of the provision for subdivision in all RU zones as well as R5, E2, E3 and E4 zones. Concurrence of the Director General of Planning is required for exceptions under cl4.6.

Preservation of trees or vegetation (clause 5.9)

The LEP Template includes the optional clause 5.9 which prohibits the removal of trees and vegetation without the prior granting of development consent or a permit by the council. The nominated objective of this clause is to "preserve the amenity of an area", and as such not particularly focused on NRM.



Development density needs to be compatible with NRM principles. Changes to minimum lot sizes can go some way to addressing current pressures on say waste-water effects. But controls like dwelling siting, lot averaging and clustering, can provide greater opportunities for sensitivity in building and subdivision design and winwin outcomes.

Nevertheless the effects of the use of such a clause can bring a positive implication from an NRM viewpoint due to the barriers it provides to what might otherwise be unfettered clearing in urban areas. The types of trees or vegetation to which this clause applies can be prescribed in a DCP, which may of itself also introduce NRM related principles.

Certain provisions within cl 5.9 namely (8)(a) have raised some interest and concern. The provisions exempt certain native vegetation clearing from approval. The provisions have an alignment with permitted clearing under Division 2 or 3 of the NV Act (eg routine agricultural management clearing). There is a question whether such provisions will **always** be appropriate (eg in environmental protection zones). At the time of publication there is continuing discussion between DECC and DoP to resolve this issue.

Development within the Coastal Zone (clause 5.5)

This provision implements the NSW Coastal Policy and among other things aims to "protect, enhance, maintain and restore the coastal environment". Clause 5.5 introduces a series of specific heads of consideration for all DAs on sites falling within the defined "coastal zone". Among a considerable raft of matters, councils are required to consider the conservation of biodiversity and ecosystems, and the potential impacts on coastal processes, in the assessment of affected DAs.

4.6 Biodiversity Certification & LEPs

A bio-certified LEP will ensure that biodiversity values are improved or maintained within the certified component of the LEP. The certified LEP would be expected to have the following characteristics³⁵:

- All threatened or over cleared vegetation that is in better than "low condition", and all important habitat for threatened species, is protected within Environmental Zones or by specific conservation management plans or strategies (eg voluntary planning agreement).
- Development Zones in the LEP (eg Residential, Business or Industrial zones) only occur on lands with common vegetation types, or if threatened vegetation it is in poor condition or overcleared already (ie paddock trees).
- Any clearing impacts in Development Zones are adequately offset by the improvement in vegetation extent and condition in Environmental Zones.
- LEP supported by conservation agreements, management plans and guidelines provide clear direction as what must and must not occur within protected and offset areas.

It is noted that current advice is that there is no statutory requirement for biocertification to be actually referenced within the subject LEP. The provisions relating to biocertification are made under the TSC Act. In the Wagga Wagga LEP example the draft biocertification proposal and draft LEP were exhibited simultaneously³⁶.

Case Study

Challenge:

Bio-Certification

Key Benefits:

- Improves development certainty and confidence by removing need for site-by-site "assessment of significance", SIS processes.
- Streamlines DA processing.

Explanation:

- Minister for Environment can confer bio-certification on an EPI (or part thereof) where satisfied that there will be an overall 'improve or maintain' outcome for biodiversity values³⁷. This done under the s126G TSC Act.
- Generally involves planning authority addressing NRM issues in a strategic rather than reactive basis, which can bring wider benefits.
- An objective "metric" approach to the analysis of improve or maintain standard is adopted (see below for reference on the analytical tools).
- At DA stage it can reduce uncertainty, time and the cost of consultant studies by thousands of dollars.
- Biodiversity also possible under the Fisheries Management Act.
- Sydney Region Growth Centres SEPP has received bio-certification. However, this occurred by special legislation rather than through s126G.

Reference:

Guidance on biodiversity certification of environmental planning instruments

5. Development Control Plans

What's in this section...

- 1. Context and Guiding Principles
- 2. Practice examples for a range of NRM considerations.

5.1 Context

Development control plans (DCPs) are subordinate to and thereby sit underneath the statutory LEP. It is a requirement to take into consideration (relevant) DCP provisions when assessing DAs. However, provisions within DCPs are not legally binding on decision-makers³⁸. For the most part, DCPs are representations of the policy position of the local council, albeit often aided by constructive input from specialist agencies. It should also be noted that:

- · Copies of DCPs are required to be provided to DoP once adopted
- · Minister for Planning can direct councils to prepare DCPs
- The State government can have an interest in DCP content in particular when the LEP specifically requires the preparation of a DCP as discussed at Section 4.4 of this guideline.

In NSW, we are moving through a transition period to a point where only one DCP may apply to any single parcel of land. Given the wide range of matters currently covered in DCPs, this change is causing councils to rethink the form and structure of DCPs generally (see DoP Circular PS 05-010).

5.2 Weight to be Assigned to a DCP

Depending on certain factors including the will of a consent authority, DCPs can have considerable force in the assessment of DAs. The Land and Environment Court of NSW now documents planning principles, a number of which have application in NRM consideration. But one judgment, *Stockland vs Manly*³⁹, focused particularly on the weight to be afforded to DCPs in DA decisions. In *Stockland v Manly* the LEC identified the following matters as determinants of the weight to be given to a DCP, or other council planning policy:

- the extent, if any, of research and public consultation undertaken when creating the policy;
- the time during which the policy has been in force and the extent of any review of its effectiveness;
- the extent to which the policy has been departed from in prior decisions;
- the compatibility of the policy with the objectives and provisions of relevant environmental planning instruments and development control plans;
- the compatibility of the policy with other policies adopted by a council or by any other relevant government agency;
- whether the policy contains any significant flaws when assessed against conventional planning outcomes accepted as appropriate for the site or area affected by it.

There's particular scope for initiative in DCPs. Due to inherent flexibility, DCPs can provide:

For DA proponents -

details on exactly what they need to do

For DA assessors – interpretive guidelines and a discipline for practical DA assessment

DCPs do not need to address the formalities and statutory tests imposed on LEPs. In turn there is significant opportunity for flexibility in their form and content. In regard to NRM, DCPs provide an opportunity to follow through on the land, water and biodiversity values of a council, with detailed development performance requirements and controls, which can be readily understood by DA proponents and the general public.

Flexible in form	Allows plain English words and graphic communication to engage with users
Flexible in content	 Can focus explicitly on local issues, priorities, performance requirements and controls Can provide for specific assessment guidelines and interpretive material which LEPs cannot
Relatively easy to update	Responding to emerging issues and evidence, and thus retaining system credibility and confidence

Figure 23: Some Strengths of DCPs

5.3 User-Focus

DCPs draw the link between the fundamental outcomes we are aiming for and specific controls which might apply to individual parcels of land and for particular types of development. As stated above, in NSW we are curently moving through a transitional period to a requirement that only one DCP can apply to the same parcel of land⁴⁰. There is a considerable challenge in providing a single coherent DCP for a parcel of land, or more commonly for an entire LGA, given the wide spatial and policy scope that can be involved.

The above challenge needs to be coupled with that of ensuring an end-user focus. DCPs which are mindful of the user's perspective, will "connect-up" the relevant issues applying to a site. A key challenge is therefore in the integration of the raft of issue and location-specific which may confront an application.



Figure 24: Good practice user-focus would position an applicant to access (download) just those provisions that apply to the specific proposal on the particular site.

Seamless presentation of the controls which apply to a particular type of application on the subject parcel of land constitutes leading practice, and the best opportunity to engage professionally with DA applicants and other stakeholders. For example relevant NRM provisions applying to a site need to be clearly and emphatically articulated and not lost in a background chapter or appendix component of the DCP.

Challenge:

User Focus – Easy Access and Seamless Listing of Controls

Response:

 Pittwater Council includes large areas of environmentally sensitive lands and is one of a number of councils with an integrated web-based system which allows applicants to download those controls, and only those controls which apply to their site and the type of development proposed.

Explanation:

- Relies on high standard and comprehensive map-based land and planning information
- Selects relevant DCP and LEP content applying to a site and development type and is available for web download – this downloadable 24/7 and titled "My DCP"
- · Nominates the actual criteria/tests which staff use in DA assessment
- Includes considerable NRM information given the sensitive nature of the locality.
- Pittwater's work in its planning system has won a number of State and National awards. Much of Pittwater's innovative work has been supported by Federal and State funding.

Reference:

Pittwater Council Masterplan Enquirer

5.4 DCPs and "Technically Excellent" NRM Policy

While the challenge of coherent presentation of DCP content to users is important in securing meaningful engagement, the actual technical quality of the DCP provisions are more critical. The goal can be termed "technically excellent policy and standards" a term coined in a publication prepared by the Centre for Developing Cities for the Development Assessment Forum⁴¹. Excellent policy would be expected to:

- · Respond to State and regional policy initiatives
- Reflect local strategies and thus things which are important to the local community
- Rely on a spatial database which is fit for the intended purpose
- · Be based on a solid evidence or established principles
- Be web-accessible and provide for customisation to suit different circumstances
- · Wherever practicable, provide clear objective tests of compliance.

As NRM challenges become more acute we need to build our competencies in regard to our DCP policy base, including having regard to innovations and initiative in general. There are many excellent examples of policy application in place around the State and country at present. A goal is to improve information exchange on good practice DCP content, and in turn facilitate adoption and/or adaptation of good practice content to local settings.

The LEP Template places limits on the NRM content of LEPs into the future however some existing LEP content can provide useful material for consideration by councils as they work on their DCP content. **Blue Mountains City Council** LEP/DCP and mapping bundle provides an exemplar in this regard.

- DCPs perhaps provide
- the greatest untapped
- opportunity for knowledge
- sharing among councils.

- The BMCC LEP/DCP bundle has been influential in controlling development in the World Heritage listed Blue Mountains of NSW.
- It provides an excellent example of applied use of NRM-related data as a base for the development control system in place across that LGA.
- The LEP has considerable detailed content provisions relating to NRM which may transfer across to DCP use under the new LEP Template arrangements.
- Council's <u>Better Living DCP</u> addresses "Protection of the Environment" in a holistic way with an
 extended explanation of the substance behind our interest in land water and biodiversity including
 an emphasis on the importance of soil as a basis for biodiversity.
- The LEP/DCP package includes user friendly information including higher order aerial photography and publicly accessible mapping information relating to NRM.
- The package provides clear and practical assistance to proponents whether large or smaller scale in their intentions.

Blue Mountains City Council's development control policy bundle provides leading practice examples of content provisions for application in future DCPs.

5.5 Leading Practice Examples – DCPs and NRM

The rest of this chapter provides a limited number of leading practice examples to assist councils in addressing particular NRM-related content items for inclusion in a DCP.

Case Study

Challenge:

Water Sensitive Urban Design (WSUD) – sustainability in urban and suburban landscapes.

Response:

- The Sydney Metropolitan Catchment Management Authority's (SMCMA) *Water Sensitive Urban Design in Sydney* Project is leading practice in its coverage of the topic.
- The web-based resource provides exhaustive practical information and cross-references relating to WSUD, including particular material suitable for inclusion within DCPs.

Explanation:

Water cycle management is the key to environmental sustainability in urban landscapes. This commonly requires integration of stormwater, wastewater, recycling, native vegetation, maintenance, recreation, social interaction, and pedestrian/cycleway cost considerations.

The project webpage details many high quality projects and policy documents including DCPs which consider the above and provide evidence based solutions, including:

- · The project's Sustainable Water Challenge including case studies / winners
- Council sustainable water information exchange site provides summaries and references to numerous council DCPs or similar policy documents which target particular areas of WSUD.
- · Technical guides and specifications to do with WSUD
- Information on seminars and events including for example bus trips to visit good practice examples of water sensitive urban design.

Councils can subscribe to the project newsletter which advises on upcoming program elements

References:

WSUD Capacity Building Project Other source documents for WSUD include: Landcom, The Blue Book – Managing Urban Stormwater

Challenge:

Making DCP fully applied to the Planning/DA problems

Response:

Great Lakes Council has engaged in this question in the Great Lake Water Quality Improvement Plan, (WQIP) which includes:

- Tool for WSUD "recipes" for different DA types
- Integrated water cycle management requirements linking water supply, sewerage and stormwater.

Explanation:

Infill and Redevelopment Projects

- Great Lakes WQIP and its support documents has commenced documenting WSUD "recipes" which indicate required treatments to reduce sediments, phosphorous and nitrogen (example developments include: major home renovations, single lot subdivision to 2 lots, up to 8 apartments, small commercial developments.
- Expected costs per property are provided and have been used in industry meetings where general support has been secured.
- The scheme uses the well regarded MUSIC urban water quality model, which is also used in SCA modelling.

Greenfields projects

For Greenfield sites, integrated water cycle management in which water supply, sewerage and stormwater are required to be considered together in masterplan preparation. The work provides an extended table listing NRM objectives and then specific targets for achievement. The example below addresses one of eight modelled objectives, only.

Objective	Target
Treat urban runoff to remove contaminants	 Suspended solids 80% retention of avg annual load for particles sized 0.5mm or less Total Phosphorous – 45% retention of avg annual load Total Nitrogen – 45% retention of avg annual load Litter – greater than 50mm for flows up to 3 month ARI peak Coarse sediments – retention of sediment coarser than 0.125mm for flows up to 3 month ARI peak Oil and grease – no visible oils for flows up to 3 month ARI peak Maximise use of vegetated paths Maximise at source stormwater infiltration where appropriate

These documented objectives and performance measures give clear direction for DCP and masterplan requirements.

Reference:

Great Lakes Water Quality Improvement Plan, p299.

Challenge:

Connecting-up commonly overlapping NRM issues

Response:

Wyong Council's DCP provisions integrating subdivision, vegetation management, threatened species and other urban interface issues.

Explanation:

The DCP provides an upfront analytical device for resolution of common issues at the interface, noting conflicting goals (eg bushland and bushfire). Provides parameters for a multi-purpose corridor to:

- manage edge effects on retained vegetation;
- suitably locate bushfire protection and WSUD infrastructure;
- provide appropriate access to public lands;
- · provide suitable buffers to retained natural watercourses;
- streamline the requirements of diverse regulatory regimes and expedite State government approvals;
- provide assistance to developers in estimating lot yield and purchase of land for subdivision
- improve and simplify ongoing management of retained native vegetation and related maintenance costs.

Reference:

http://www.wyong.nsw.gov.au/development/PDFs/DCP66_130208.pdf

Case Study

Challenge:

Locality or precinct-specific NRM controls - bringing an "outcomes" focus

Response:

 Inclusion of Locality Statements or statements of Desired Environmental Outcome within DCPs.

Explanation:

- Locality statements can bring a frame to the desired future character of a precinct, assisting in setting individual DA assessment within the larger picture.
- Locality statements are generally not supported under the LEP Template and will need to be included within DCPs.
- Locality statements bring a means of connecting-up NRM with wider social and economic considerations, including assigning values and priorities in different local settings.
- In 2000 Warringah Council introduced *desired future character* statements for precincts across its LGA as a means of introducing more of an outcomes focus for planning and assessment. Since then a number of other councils have followed suit (see below for examples).
- Qld's planning system requires councils to nominate statements of *Desired Environmental Outcome* within planning instruments. This has brought forward numerous examples of outcomes-focused planning provisions which may be of interest to NSW councils.

References:

Warringah Council LEP 2000 and, Pittwater Council's DCPs are commonly cited examples of locality statements which include NRM emphasis. The following citations are examples: Warringah Council: a reference to the Narrabeen Lagoon Locality Statement: Pittwater Council DCP: includes locality statements at A4.

In regard to Qld's IPA Legislation it may be useful to refer to council planning instruments which encompass sensitive lands (eg Gold Coast City Council – which is addressing growth pressures in sensitive lands).

Challenge:

How to consider vegetation offsetting in response to urban growth proposals

Response:

• Examples of Native Vegetation Offset Particulars.

Explanation:

- DCP work which responds to proposed conversion of non-urban land to an urban or resource-based use would be responsive to the location of existing NRM assets and constraints. Higher conservation value assets would generally be included for retention in any masterplanning work.
- Councils will also need to consider approaches to dealing with requests for removal of scattered vegetation in urban zoned lands or in other areas not covered by NV Act provisions.
- It would seem pertinent for a DCP to outline the principles for offsetting the loss of scattered or unavoidable native vegetation elements.
- Camden's Natural Assets Policy includes an example of an offsetting regime adopted by local government. The table below provides a snapshot of a provision option.

Table 1 – Protection Multiplier Table			
		Class of Protected Habitat	
		Core Habitat – Regional	Core Habitat – Local
Class of Affected Habitat	Core Habitat – Regional	6	7
	Core Habitat – Local	5	6
	Support for core	4	5
	Other Native Vegetation	3	4

Example of Protection Provision. – An area of 2ha of bushland is to be cleared for a quarry. It is determined that this patch of bushland is within an area classified as Support for Core. The Council is satisfied that ALL alternative options have been considered and that the clearing of bushland is unavoidable and has been minimised. The proponent has submitted a Management Plan indicating that the 2 ha of habitat to be impacted will be offset by the provision of protection of over 8 ha of Core Habitat – Regional land. This is in accordance with Table 2 above which indicated that a protection multiplier of x 4 applies (ie; 2 ha x 4 = 8ha) to the affected support land where protection is provided on Core land. The Core land is actually located on a separate parcel of land, however the proponent has paid the owner for this 8 ha of land to be protected by means of a covenant and a management plan.

Source: Camden Council Natural Assets Policy

- Councils will need to determine their own policy position with respect to offsetting, with the biobanking guidelines including a useful detailed reference.
- · LEC judgements directly relating to the evaluation of offsets can assist.

References:

Camden Council Natural Assets Policy (includes other applied NRM principles related to the planning system) VPP Practice Notes EPBC Act Discussion Paper on Offsets LEC cases focusing on offsets include: Sanctuary Investments, Gales Holdings

6. Development Assessment

What's in this section...

- Statutory context project assessment under Part 3, 4 and 5 of the EPA Act.
- 2. Barriers to effective DA assessment and drivers which deliver effective NRM input
- 3. Opportunities and good practice through the stages of project assessment
- 4. Case Studies
- 5. Considering activity under Part 5 of the EPA Act.

6.1 Statutory Context

Environmental assessment of development proposals is undertaken under three different Parts of the EPA Act:

EPA Act Reference	Characteristics
Part 4	 Development which requires consent under an environmental planning instrument is subject to the provisions of this Part DAs will be lodged by an applicant with the consent authority Councils most commonly are the consent authority, however upon appeal the Land and Environment Court becomes consent authority for that matter The majority of projects requiring environmental assessment will be undertaken under the provisions of Part 4. Section 79C of the EPA Act provides heads of consideration for the assessment of DAs lodged under this Part.
Part 5	 Activities to be undertaken by government authorities which do not require <i>consent</i>, but do require <i>approval</i> of the <i>determining authority</i>⁴² Often the proponent of an <i>activity</i> will also be the <i>determining authority</i> – with certain council activities (eg certain infrastructure projects) examples of this There is a <i>duty</i> for the determining authority to consider the environmental effect of an activity "to the fullest extent possible". Routine activities and the like are excluded from assessment under s111A of the EPA Act.

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Part 3A	 Certain major infrastructure and other projects that are declared by the Minister to be projects to which Part 3A applies
	State Environmental Planning Policy (Major
	Projects) 2005 provides a list of the types (also
	known as classes) of development which can be
	considered major projects. The Minister can also
	declare Part 3A projects by Order in the Government
	Gazette
	The Minister or his/her delegate (eg the Planning
	Assessment Commission has certain delegations to
	determine Part 3A projects).

This guideline for planners concentrates particularly on the DA assessment process under Part 4 of the EPA Act. However the principles outlined are in general equally relevant to Part 5 assessment. Part 5 assessment is also examined in particular at Section 6.4 with reference to good practice guidelines. Major Projects as assessed under Part 3A of the EPA Act are not given particular consideration in this guideline. The DoP's Major Projects website includes useful particulars on the Major Projects assessment process and the types of projects which are captured by Part 3A.

6.2 Development assessment problems and responses

The development assessment stage brings the practical implications of changes on the ground into focus. Personal and commercial aspirations are often directly at stake. Capital is more evident, and time can be of the essence. There are occasions where innovative opportunities can arise – the challenge is to position ourselves to be able to direct, or respond to, such opportunities.

In practice of course, the DA process can be complicated and problematic. The following kinds of problems with the DA stage of the planning system are commonly expressed by assessing officers and applicants.⁴³

Unclear rules – layers of issues,	Council requirements/development
layers of documentation – poorly	"rights" rarely predictable – so ambit
integrated and rarely aligned with the	claims abound and poor quality DAs
actual DA decision-problem	common at start of process
Effective collaboration between	One size fits all process rather
DA and strategic planners is hard	than streaming of DAs to respond
enough, let alone harmonisation with	"appropriately" to routine or more
other Agencies	complex matters
Human resource problems – high	Problems meeting expected customer
level competencies required,	service standards
aligned with effective administrative	(internal and external customers),
structures and personnel	frustrations with processing times
Access to local data and knowledge	Little time for review of results,
on NRM can be difficult with loss of	feedback to policy, performance
knowledge as staff move on	management
Bogged down in "bushfires" or	Lack of confidence in private
political issues, leaves little time	certification system and ongoing
to be prepared to respond to	management of development post
innovations.	consent.

Figure 25: commonly expressed problems in development assessment system⁴⁴

The earlier planning work should have been focused particularly on preparing councils for the DA stage.

DA processing is the most acute stage of the system.

Policies are tested by practicalities.

To optimise NRM outcomes, DA processing needs to be founded on predictability but

also open to innovative ideas.

Effective NRM responses to DA problems

To be effective in NRM we need to be well positioned to respond to the challenges which are a reality across the DA system. We can describe six system elements which will be operating well in a good practice DA system:

- Legal framework responds to the complexities of the NRM setting while facilitating practical development outcomes
- 2. Statutory assessment processes clear and predictable which can allow for responses in a timely manner and minimise duplication and rework
- 3. Local policy settings decisive yet practical and responsive to innovation
- **4. Data and information** Factual NRM knowledge, at site and landscape level, can be readily accessed by users
- System tools user friendly but technologically advanced working tools for assessment officers to reduce low value input time, and maximise useful inputs from proponents
- 6. **People** positioned to work professionally and collaboratively across the issues.

The graphic below indicates a single good practice example for each system element. Further examples are provided in the body of this section.





6.3 Considering Steps in the DA Process

DA PROCESS	GOOD PRACTICE PERFORMANCE INDICATORS
1. Pre-Lodgement Processes Site Inspections, Consultation	 Collaboration and integration provides capacity to provide "whole of Council" and even "whole of government" advice on NRM – minimises surprises Capacity to introduce NRM upfront and respond to special cases and opportunities Process and policy documentation: availability/focus/quality Appreciation of the actual NRM issues relevant to the site and assessment info requirements Capacity to pull together right staff for pre-consultation advice Whole system encourages early meetings.
2. Lodgement of Application	 Clear advice on what to lodge, including environmental documentation Effective screening and response – both at counter and by specialists Testing for special case process (eg integrated development, E- zones, EEC) Streaming of application types (fast track, routine, impact assessment) Idiosyncrasies re file creation (eg provision for inclusion of quality NRM worksheets).
3. Referrals Internal / External & Public Notification	 Clearly documented policy on need for notifications/referrals (including statutory) Agreements with agencies on referrals Performance (time) targets on initiating notifications/referrals Any frameworks to reduce or fast track referrals File management including quality NRM worksheets for DA assessment.
4. Assessment & Decisions	 Initial direction from multi-disciplined team Access to assessment criteria Paper work aids/tools, use of IT Quality control and consistency among officers- in areas of conflicting policy Keeping applicant informed Conflict resolution/mediation systems Practical/effective NRM conditions Time saving report production systems (Council / delegated).
5. Follow-Up& Monitoring	 Administration – system to ensure follow-up requirements logged Commonly there will be conditions which involve ongoing management of NRM considerations and perhaps management plans.

Figure 27: Good Practice in Steps in the Development Assessment Process Flow



STAGE 1 Pre-Lodgement Processes

- Capacity to respond to special cases and opportunities pull together right staff
- Process and policy documentation: availability/focus/quality

Remarks

Loading up the front end of the DA process with effective exchanges is critical to both a good outcome and minimising waste and rework. For NRM especially, collaboration is needed for "whole of council" and "whole of government" advice.

Practice examples

Case Study

Challenge:

Clear principles established and spelled out upfront

Example Response:

 "Improve or maintain" principles for NRM and "three-step" approach to managing potential harm – developed for native vegetation assessment but has much wider potential application for NRM issues

Explanation:

 In identified environmentally sensitive areas, including within or on the bounds of development precincts, it can be useful to have established upfront policy positions on maintain or improve outcomes, as discussed earlier in this guideline. Such a policy could reference the "three-step approach". Below we consider the 3 step approach, and questions which may be framed for applicants at the pre-DA stage.

1. Avoid Adverse impact

Questions for the applicant to demonstrate a basic avoidance of adverse impact can include:

- How has the proponent attempted to avoid adverse NRM impacts (eg native vegetation removal)?
- Are there alternative sites on the property that could reasonably accommodate the proposed use or development that avoid the removal?
- If adverse impacts are likely, is the land suitable for the proposed use or development at all?
- Are there alternative viable property use/management options that will avoid impacts?

2. Minimise Impact

If harm cannot be avoided, the second step requires the amount of impact to be minimised (including expert input to project design or management). Questions to applicants can include:

- Has the proposal been planned and designed to minimise removal?
- Would a modified proposal involve less removal or removal of vegetation of lower significance?
- Is a modified proposal that minimises impacts to vegetation feasible?

3. Offsets

Once harm has been avoided and minimised to the fullest extent practicable, appropriate offset options must be considered.

For native vegetation removal an appropriate offset is based on calculation of the actual loss of native vegetation. Use of the biobanking methodology or VPAs can be used to deliver the required offset.

Reference:

DECC: Biobanking Guide to Biodiversity Assessments for Developers DSE: VPP Practice Note on native vegetation removal.

For DAs on sites in non-urban areas which require clearing of native vegetation, early consultation with CMAs is a must. A council approval can be worthless when there is a "red light" under the NV Act.

Challenge:

Win-Win Response to Special Case Opportunities: at the Start of the Process

Example Response:

Water Management Act Controlled Activity Exemption

Explanation:

- In a large staged subdivision with a significant riparian corridor, Landcom and Baulkham Hills Shire Council initiated pre-DA consultation with the DWE (predecessor) to secure ground rules for treatment of corridor and setbacks and a single blanket "controlled activity exemption". The model developed in the Rouse Hill Town Centre and masterplan precinct has been adopted for further use throughout the metro Growth Centres.
- This is a major saving in time and cost while delivering a planned outcome, based on maintain or improve principles. It exempts future DAs from referral and Water Management Act activity approvals.

Reference:

Water Management Amendment (Controlled Activities) Regulation 2008 (Gazette No 10 of 25 January 2008, page 152).

Case Study

Challenge:

Dealing with Conflicting Perceptions on Rural Activities, Rural Fringe Living and Associated Development Opportunity

Example Response:

- Guideline documents which list common rural and rural/urban interface problems, policy
 positions and tools available to help deal with conflicting perceptions.
- · "Recommended practice" guides for rural development.

Explanation:

- Rural and rural fringe living seems to be gaining in popularity as people seek to get away from it all and buy into rural properties, sometimes with land use or development plans which may bring environmental threat
- Without selecting the right site and good management such activity can have a significant effect on NRM assets.
- User friendly guidelines have been prepared to help communicate our joint responsibilities for maintaining healthy rivers, streams and bushland, and to at the same time head-off misconceptions prior to DA stage, and possibly prior to the purchase of property.
- The first reference below for examples includes the following checklists which will aid parties before the property purchase stage let alone the DA process:
 - a rural property wish list
 - a rural property inspection checklist.
- SCA's website includes a most useful compendium of currently endorsed management practices for a range of rural fringe development activities, including:
 - composting, use of poultry litter, pesticide use, horse properties, deep litter housing for pigs, etc

Reference:

Living and Working in Rural Areas (collaboration Northern Rivers CMA, DPI, CCAL, SCU, DECC) Goulburn Rural Living Handbook

Guide to Rural Residential Living in the Hunter SCA Current Recommended Practice



STAGE 2 Lodgement of Applications

- Clear advice on what to lodge
- Effective screening and response both at counter and by specialists
- Streaming systems.

Remarks

Lodgement stage provides the other significant opportunity to get an assessment process off on the right foot. Apart from the key points above, lodgement stage provides opportunity for:

- · Testing for special case process eg integrated development, E- zones, EEC
- Advanced streaming of application types (fast track, routine, referral and/or substantial impact assessment)
- Setting up efficient and idiosyncratic systems for file creation eg provision for inclusion of quality NRM worksheets where needed.

Practice examples

Case Study

Challenge:

Clear and specific advice on what to lodge

Example Response:

 Pittwater Council's "Masterplan Enquirer and Applicant" program includes a downloadable DA form which is compiled to respond to the controls applying to the subject land and the subject type of development.

Explanation:

- Council's advanced GIS system is linked to web site inquiry from applicants
- Allows applicant to enter property information and "type" of development.
- Applicants can then download a customised set of planning controls.
- A customised form is provided which lists the specific DA lodgement requirements including detailed provisions relating to NRM applying to site as extracted from GIS system, DCPs and other policy instruments.
- Advanced practice aimed at delivering clear information up front 24/7.

Reference:

Pittwater Council's "Masterplan Enquirer and Applicant" program.

Case Study

Challenge:

Packaging up guidelines for DA lodgement stage: ie specific applied queries for different types of DAs

Example Response:

• Lodgement guidelines for small and medium sized industry in urban and regional town settings focusing on NRM-related principles

Explanation:

- Applicants complain sometimes that generic pre-DA guidelines ask questions with little application to the type of DA at hand.
- Good practice provides for customisation of the pre-DA queries to promote serious analysis and useful input by applicants.
- The reference below provides DA lodgement questions for each of a range of small and medium sized industries.

Reference:

Guidelines for Small and Medium-Sized Industry – LGSA Document Repository details to come.

Challenge:

Responding to Identified Pressures with higher order information requests and assessment tools

Example Response:

"Neutral or Beneficial Effect" assessment guidelines have been prepared by SCA to assist
applicants comply with the statutory requirements to meet this water quality related test in the
greater metro catchment area.

Explanation

- The SCA has released guidelines for affected applications which provide clear directions on:
 - the meaning of a neutral or beneficial effect on water quality
 - how to demonstrate it
 - how to assess an application against the neutral or beneficial effect test
 - how it will assist councils, applicants and consultants.
- The guideline includes detailed technical information requirements and particulars of the specialist investigation required for development which has potential to cause adverse effect.
 - An outline of base level information requirements is summarised below: 1. pre-development and post-development run-off volumes and pollutant loads from the site
 - pre-development and post-development run-off volumes and pollutant loads from the site of the proposed development,
 - whether the development will have a neutral or beneficial effect on the water quality of rivers, streams or groundwater in the hydrological catchment, including during periods of wet weather,
 - 3. whether the water quality management practices proposed to be carried out as part of the development are sustainable over the long term,
 - whether the development is compatible with relevant environmental objectives and water quality standards for the hydrological catchment, where these objectives and standards are established by the Government,
 - 5. the impacts of the development on receiving waters,
 - 6. the water cycle management strategies and best practices proposed to be employed to address those impacts, and
 - 7. the arrangements to be made for the ongoing maintenance and monitoring of the water cycle management system.

Reference:

SCA: Neutral or Beneficial Effect on Water Quality Assessment Guidelines. This guideline referenced a number of times in regard to the assessment process.

Case Study

Challenge:

Responding to Identified Pressures with higher order information requests and assessment tools

Example Response:

• Regional Fauna and Flora Survey Guidelines

Explanation

- Another very subject specific tool which has received widespread acknowledgement as leading
 practice initiative with a practical emphasis.
- Aligned with NPWS recommended approaches
- Emphasis on local threatened, endangered, vulnerable species, and linked to regional vegetation community mapping undertaken by the same regional group of councils.

Reference:

Lower Hunter Central Coast Regional Fauna and Flora Survey Guidelines



STAGE 3 Referrals Internal / External & Public Notification

- Identifying statutory referrals early
- Minimising low-value referrals which can be wasteful to Agencies and internal staff
- Strategic approach to referrals and public notification management.

Remarks

Referrals management is a high maintenance area of the DA system. Almost all councils place significant reliance on external agencies to assist in management of complex NRM issues related to DAs. This is important value added by State agencies. However, investigations have shown that some 70% of referrals from councils to agencies do not have any value-added, ie no change to DA⁴⁵. Unnecessary or inappropriate referrals bring significant costs to applicants, agencies and councils.

Ongoing communication and collaboration, both within councils and with external agencies, are keys to effective referrals management. The goals include common understanding of the basic principles behind the referrals (purpose, resourcing, and turnaround management), the identification of pitfalls and waste, training and or preparation of guidelines which build skills within councils and clarify when a referral should and should not occur.

Practice examples

Case Study

Challenge:

Guidance on referrals to agencies – reducing low value referrals which waste resources of all parties

Example Response:

SCA Referral Guidelines

Explanation

- Councils in the Sydney Catchment Authority area must obtain the concurrence of the SCA before they can issue consent for a development application when, they are not satisfied that a proposed development has a "neutral or beneficial effect" (NorBE) on water quality.
- To assist councils in NorBE assessment, SCA has prepared leading practice guidelines modelling development types and locations.
- These guidelines have been accompanied by extensive training programs.

Reference:

SCA, Neutral or Beneficial Effect on Water Quality Assessment Guidelines, 2006

Challenge:

Practical determination of how far to go before the need for specialist NRM advice

Example Response:

Customised biodiversity impact assessment Pro-formas

Explanation

Many councils have limited specialist advisers to assist with environmental assessment. **Shoalhaven City Council** has a comprehensive DA assessment template which includes highly practical:

- · Desktop GIS-based assessment checklist
- Threatened Species Preliminary Site Assessment pro-forma
- Preliminary 7 Part Test under s5A of EPA Act.

The framework indicates the need for further specialist analysis/site study.

Reference:

Shoalhaven threatened species impact assessment pro-formas – example only

STAGE 4 Assessment & Decisions

- Access to environmental information and assessment criteria
- Quality control and consistency
- Conflict resolution and mediation
- Practical effective NRM conditions

Remarks

This section examines the actual assessment of the application and ultimately the resultant decision – the hub of the DA process of course. Fundamentally DA assessment requires:

- Analysis of existing site conditions often NRM values will not be well represented in aerial photos, mapping or zoning
- 2. Identification of the range of potential impacts the proposal may bring
- 3. The **mindset shift**: creatively consider opportunities for mitigation
- 4. Synthesising the above into a determination.





Figure 28: DA Assessment in concept (Adapted from work in D. McCallister, Evaluation in Environmental Planning, 1988).

"rule base", based on guidelines, DCPs and other policy instruments, as well as the application of informed discretion. Moving from analysis of a range of disparate issues to an integrated assessment decision is a key challenge. The decision also brings a need for standard and special development consent conditions which succinctly convey the importance of NRM principles but also mindful of compliance problems and practicalities.

Practice examples



- Provides for a disciplined system to generate maximum biodiversity gains in areas where most cost-effective to do so.
- Defined biodiversity gains can be offset against losses on a future development site.
- Provides for a more predictable investment setting and streamlined DA processing.
- Provides system for "stewardship" of biodiversity values on private lands.

Explanation:

- Provides for early and site specific project scoping, and scenario modelling using *preliminary assessments* of biodiversity value using assessment tools
- Accredited biobanking assessors required to make formal assessments under the Biobanking Assessment Methodology.
- Establishes a market for biodiversity offsets on biobank sites and thus commercial value for biodiversity gains, and recurrent funding for ongoing management improvements
- Final biobanking statement only issued by Director General of DECC based on improve or maintain determination
- Simplifies the DA stage for council whenever "biobanking statement" is obtained council not required to assess threatened species considerations.

References:

DECC – Biobanking Framework

- DECC Biobanking Handbook for Local Government
 - 62

Leading practice councils are aware that the decision process commonly requires both a transparent

Challenge:

Applying discretion – Decision support when dealing with that discomforting doubt

Example Response:

Land and Environment Court (LEC) planning principles

Explanation

- It is important that the exercise of discretion is transparent and legitimate. This may be aided by documented interpretive guidelines/principles which direct the use of performance-based controls (rather than prescriptive standards).
- LEC "planning principles" are also useful in providing principles to sit beside the application of discretion in DA decisions, a number of the LEC principles relate to NRM issues.
- A list of references is provided below.
- Leading practice would suggest a need for councils developing their own planning or assessment principles as complex cases involving discretion arise.
- A base of knowledge then develops for future reference and can prevent the need for "re-inventing" an analysis and synthesis process with similar assessment problems.

Principle	Specific Aspect	Case Reference
ESD and the precautionary principle	Explanation of the precautionary principle and framework for its implementation	Telstra Corporation Limited v Hornsby Shire Council [2006] NSWLEC 133
ESD principles	What regard should a consent authority give to the principles of ecologically sustainable development	BGP Properties Pty Limited v Lake Macquarie City Council [2004] NSWLEC 399 revised – 05/05/2005
non-statutory regional planning policies	Assessing the role of non- statutory regional planning policies vis-à-vis statutory local plans	Direct Factory Outlets Homebush v Strathfield Municipal Council [2006] NSWLEC 318
Plan of management	Adequacy or appropriateness of a plan of management to the particular use and situation	Renaldo Plus 3 Pty Limited v Hurstville City Council [2005] NSWLEC 315
DCPs and Council policies	Weight to be given to Development Control Plans and to policies which had been adopted by councils although not embodied in DCPs	Stockland Development Pty Ltd v Manly Council [2004] NSWLEC 472 revised – 01/10/2004

Reference:

LEC Planning Principles.

Challenge:

Getting on top of the variety of significant NRM issues facing different DA types

Example Response:

Compendiums of Specialist Reports, Guidelines and Tools

Explanation

The DoP website provides ready access to specialised background reports and assessment aids, including assessment information on the basis of type of DA. While often related to designated development, the work can provide applied assessment tools for smaller scale proposals, when a council is the consent authority. The references often include useful information about practical conditions of consent.

Some areas of NRM relevance for which guidelines are provided are listed below.

Acid Sulfate Soils, Biodiversity, Coastal Management, Stormwater & Wastewater, Threatened Species, Vegetation Management, Water Quality, Wetlands.

Other specialist compendiums include the WSUD sites developed by Sydney Metropolitan CMA, and Hunter-Central Rivers CMA. These sites adopt a WSUD emphasis but include or link to wider NRM tools and references.

References:

DoP Register of Development Assessment Guidelines http://www.wsud.org/enews.htm http://www.urbanwater.info/

Case Study

Challenge:

Threatened species impact assessment

Response:

Guideline on "Assessment of Significance"

Explanation

- Section 5A of EPA Act requires an assessment of significance under the "7-part Test".
- This has at times been problematic especially for councils without specialist NRM officers at hand.
- DECC's 2007 publication (referenced below) includes the recent amendments which concentrate on likely impacts to the local rather than regional environmental setting.

Reference:

DECC, Threatened species assessment guidelines

There are a number of

surrounding threatened

team for further details.

current and effective training programs in place to assist council staff with issues

species impact assessment . Please contact LGSA's NRM
Case Study

Challenge:

Specialised assessment of industry types

Response:

Guidelines for a range of different industries

Explanation

- DECC has extensive documentation providing applied information which can be useful to councils faced with the assessment of industrial activities. Industry types include: liquid chemicals, wood preservation, piggeries, livestock processing, rural waste landfill, asphalt manufacturing etc.
- The reference below refers to a range of compliance reports which point to possible conditions of consent.

Reference:

DECC Environmental Action Series

Case Study

Challenge:

Supporting tools to bring discipline to DA assessment

Response:

 SCA's Neutral or Beneficial Effects (NorBE) Assessment Guidelines includes an extended commentary and toolkit on DA assessment. While water quality is the focus, the tools and approach have wider application

Explanation

- Defines and streams different types of development into a defined and suitable assessment process
- Provides NorBE assessment devices including an electronic assessment tool designed for council use
- Outlines current recommended practices and specific references relevant to assessment topic areas including: wastewater management, erosion and sediment control, stormwater management, WSUD, agricultural management practices, waste and recycling.
- Provides a series of worked examples for the application of the tools using common DA applications faced by local councils.

Reference:

SCA: Neutral or Beneficial Effect on Water Quality Assessment Guidelines

Challenge:

Valid conditions of consent

Response:

- The LEC has referenced the Newbury Test as the basis for assessing validity of conditions (explained in brief below)
- The approach to conditions for NRM-related matters is evolving with the changing legislative framework. Reference to consents, including those undertaken under Part 3A can be useful references
- SCA's Neutral or Beneficial Effects (NorBE) Assessment Guidelines also lists recommended and commonly used consent conditions, including non-standard conditions which should also be of practical help to councils.
- In regard to NRM matters the provisions of s80A(4) in regard to outcomes-based conditions should be considered
- It is a requirement to nominate reasons for consent conditions which when well explained can be a useful device to engage a puzzled proponent.

Explanation

Newbury Test requires a condition to:

- be imposed for a planning (or environmental)⁴⁶ purpose (eg responding to an environmental impact issue, including in reference to s79C of the EPA Act)
- fairly and reasonable relate to the proposed development (rather than something extraneous to the development)
- be reasonable (ie be such that an authority acting reasonably would impose).

Standards or Outcome based conditions can be usefully to mitigate against potential NRM-related impacts and can specify:

- standards to be meet
- an express outcome or objective, and (eg
- clear criteria against which achievement of either the standard or objective will be measured.

The "maintain or improve", "no net increase" or NorBE tests can thus be directly linked to conditions of consent for particularly NRM performance indicators.

References:

Farrier and Stein, *Environmental Law Handbook*, chapter 5. DoP, <u>Major Projects Determinations</u> – a review of a selection of determinations can suggest useful means of dealing with non-standard NRM issues through conditions.

SCA: Neutral or Beneficial Effect on Water Quality Assessment Guidelines

STAGE 5 Follow-Up & Monitoring

- Administration system to ensure follow-up requirements logged
- Special focus on conditions requiring ongoing management of NRM considerations and perhaps management plans

Remarks

All the efforts associated with the process of assessment and conditional approval for a DA involving sensitive NRM concerns can be almost a waste of time unless there is an adequate system for follow and ongoing monitoring. Leading practice councils are:

- Introducing compliance systems within consent conditions and developing and implementing a compliance process to ensure the long-term enforcement of development consent conditions
- Implementing a system to ensure that consent conditions applying to a property are communicated to concurrent property owners.

Practice examples

Case Study

Challenge:

Making compliance monitoring and reporting systemic to DA approvals with significant NRM risk

Response:

 Conditions imposed by DECC, DoP and other authorities in regard to major project assessment provide good models for review and adaptation to suit local circumstances.

Explanation

- Responsibility for performance monitoring has become commonplace for major projects. Authorities set out performance requirements in regard to various NRM principles (either as DA or license conditions), often as a consolidated environmental management plan and stipulate requirements for annual reporting to the responsible authority, sometimes with peer review a further matter for consideration.
- Review of conditions to major projects, or various specialist assessment guidelines referenced can be useful for councils framing their own compliance monitoring systems.

Reference:

DoP, Major Projects Determinations

Case Study

Challenge:

Responsible Long Term Management for Major Land Release Projects

Response:

Water cycle management in Warriewood Valley Release Area

Explanation

- Proponents are required to submit a Water Management Report at each subdivision stage
- The report details water quality management and testing results, flood protection and water cycle management.
- **Pittwater Council** in turn reports this data to the wider community in an annual water quality report and on its web-site.

Reference:

WSUD Program details on Warriewood Valley project



Case Study

Challenge:

Dealing with compliance matters on the urban fringe

Response:

Audit guidebook and protocol for rural businesses and rural residential properties

Explanation

- Provides particulars to better position council staff to deal with environmental management issues at the urban fringe.
- Topics including water quality, chemical and spill management, waste, air, noise, contamination.

Reference:

DECC, Environmental Management at the Urban Fringe

Case Study

Challenge:

Ensuring Activities Conform with DA requirements/conditions

Response:

Compliance Audit Handbook

Explanation

- There is a constant challenge of maintaining the integrity of the development control system. Fear of audit can be a useful device in ensuring the credibility and robustness of conditions of DA consents.
- DECC's handbook on compliance audit has useful ground rules which councils may consider in their own compliance regime.

Reference:

DECC, Compliance Audit Handbook

6.4 Activities under Part 5 of the EPA Act

Part 5 of the EPA Act provides for an assessment and approval process for *activities* which require *approval* of a *determining authority*⁴⁷. *Activities* by definition do not need development consent under Part 4 of that act. Often the proponent of an *activity* will also be the *determining authority* – with certain council activities (eg certain infrastructure projects) examples of this.

On other occasions another party may be the proponent, possibly acting as an agent for the determining authority. Minor and routine activities (eg maintenance of infrastructure), and proposed modifications of activities which have already been subject to assessment and which will have reduced overall environmental impact are excluded from assessment through s111A of the EPA Act.

NRM considerations in Part 5 approvals.

There is a *duty* for the determining authority to consider the environmental effect of an activity requiring approval "to the fullest extent possible". The seriousness of this matter has been drawn out clearly in regard to recent parallel LEC proceedings in the matters of Garrett v Freeman (No. 5); Garrett v Port Macquarie Hastings Council and Carter v Port Macquarie Hastings Council [2009] NSWLEC 1. These matters had regard to the construction of roads by a council, as it was proven, without any valid assessment of the activity. Findings were against both Hastings Council and a senior officer of that Council with heavy fines and legal cost orders imposed, and significant harm to threatened species habitat.

Every "activity" undertaken by a council requires an environmental assessment. If an activity to be undertaken by or on behalf of a council is exempt from the requirement for a DA, an impact assessment is required under Part 5 of the EPA Act.

Is there likely to be a significant effect on the environment?

It is the responsibility of the determining authority to decide whether the activity is "likely to significantly affect the environment (including critical habitat) or threatened species, populations or ecological communities, or their habitats". The courts have indicated that the test of the term "likely" is that of a "real or not remote chance", rather than a test of "more probable than not".⁴⁸ If it determined as "likely" to significantly affect the environment, then an EIS must be prepared.

Case Study

Challenge:

Council deciding whether an EIS is required for a Part 5 activity

Response:

Department of Planning Guidelines

Explanation

- DoP has released best practice guidelines to assist councils and other determining authorities in the decision as to whether an EIS is required for an activity.
- The guideline takes authorities through a step by step process to the test of whether it is likely that a significant effect on the environment will occur, including in relation to NRM issues.

Reference:

DoP, Is an EIS Required – Best Practice Guideline

Review of environmental factors

Even if there is no need for an EIS to be prepared for a Part 5 activity there is nevertheless a requirement for a review of all the environmental factors which may be relevant to the consideration of the environmental effect of the proposal. It is important for councils to have in place systems which ensure that the review of environmental factors is properly undertaken. A template approach to the review of environmental factors can be useful in this regard. See case study below.

Case Study

Challenge:

Systematic approach to preparation of review of environmental factors

Response:

 An example response is the SCA's template for the review of environmental factors within the Drinking Water Catchment REP area.

Explanation

- SCA has prepared a customised template for Part 5 Activities Assessment. The template is applied to the Drinking Waters Catchment REP requirements, including the test of "neutral or beneficial effects".
- In the interest of maintaining or improving environmental resources generally, such a test may be useful for broader application as a component of Part 5 assessments, by councils and other determining authorities.
- Having a systematic process in place with appropriate technical rigour will prevent other incidents such as that which befell the difficult case cited above.

Reference:

SCA, Part 5 Assessment Guideline

7. Concluding Remarks – Towards a Holistic Approach

What's in this section...

- Suggestions on the appropriateness of a holistic approach to NRM in council land use and development control planning
- 2. Reference to examples where this has been put in place

7.1 Commentary

Local Government has both the opportunity and responsibility to play a central role in the management of the State's natural resources. The planning activities of councils, both strategic and development assessment- related, are particular important given that this work critically defines the ground rules for "change" in our rural and urban landscapes.

This guideline has analysed the individual stages of the land use planning system in NSW with a view to encouraging and facilitating good practice NRM interventions in each stage. Our planning system is required to respond to complex social, economic and environmental issues. In turn there are complexities and difficulties confronting planners at work. The guideline has attempted to tackle this issue head-on, and is based on the specific identification of the key challenges facing NRM in the various stages of the planning system. The guide nominates good practice examples from councils and agencies which have already been set in place in response.

It is emphasised that there are most certainly other good practice examples which we have not been made aware of in the preparation of the guideline. However, we are confident that the circulation of the work will promote further discussion and exchange of information among players all of which should assist in improving our capacities.

7.2 Holistic Approach

The final point to be made in the guideline is that effective practice is more than the implementation of changes to practice in the discrete elements of the planning system outlined in the guideline. Rather it is about the development of a holistic attitude across the work unit which is focused on optimising NRM outcomes. This guideline is concerned with land use planning functions, and the driver for this attitudinal change may originate within the planning unit. Volume 1 of the guideline package looks at councils corporate planning activities. A drive to improved organisational NRM performance could also be led from other areas of the council organisation.

This guideline concludes with reference to just three references which present as evidence of a whole of planning system response to particular NRM issues. Again we emphasise there are many other organisations and practices which warrant similar reference, some of which may have been cited in the guidelines already.

In particular a number of CMAs, provide excellent exemplars and source materials to aid councils in the delivery of holistic approach to NRM management. The final cases refer to the recent work of:

- Great Lakes Council and its organisation-wide work on a Water Quality Improvement Program with planning system elements prominent.
- Sydney Catchment Authority in its work surrounding the Sustaining the Catchment Regional Plan and extensive local government liaison
- DECC in particular in regard to its recent work in compiling web-based biodiversity and threatened species resources for councils – useful across all the stages of the planning system.

Case Study

Challenge:

Overcoming hurdles to develop a planning response to acute NRM problems, with significant community interest

Response:

- Great Lakes Council Water Quality Improvement Program (WQIP).
- Initiated after serious public health issues arose associated with the consumption of Wallis Lake oysters⁴⁹.
- Council's response program (developed with a range of authorities and community members) has had a profound effect on planning and management systems, community behaviours and water quality in the lakes.
- The economic prospects of the region have been significantly affected by the program.

Explanation:

- This case presents as leading practice in the development of a strategy to address serious systemic problems associated with non-point pollutant inflows into the lakes (especially sediments, nutrients, acid drainage and faecal coliforms) and consequential impacts on the lakes ecological condition.
- In 1997, very serious food poisoning events resulted in the closure of the local oyster industry and major employment losses.
- The council response is based on a holistic planning framework, funded in part under the federal government's *Coastal Catchments Initiative*. It presents as a lead example in all stages of the planning process with features including:
 - Data collection based on applied research and "fit for purpose" scientific modelling of sediment and nutrient loading issues in particular.
 - Deep community engagement recognising the importance of attitudinal and human behavioural change in this matter.
 - Comprehensive plan of action including development of authoritative decision support tools to assist LEP, DCP and DA decisions into the future.
 - Focus on innovation and creative solutions eg heads of consideration for voluntary planning agreements to promote innovative delivery of "no net increase" in pollutants.
 - Monitoring system that sets targets to follow up, including "no net increase" criteria, will result in continuous improvement of the program particulars.
 - Founded on powerful factors like building a "business case" for actions, importance of partnerships, celebrating success with community and other stakeholders.
- The reference itself outlines the conception process and can be sourced direct. Further particulars of the project including in regard to LEPs, DCPs and DA processes are outlined latter in this guideline.

Reference:

Great Lakes Council, Great Lakes Water Quality Improvement Plan 2009

Great Lakes Council

provides a leading practice example in planning and outcome management, after Wallis Lake oysters caused a serious public health incident in 1997. Closure of the local oyster industry resulted in major local job losses. NRM interventions, supported by wider community have turned things around to a position of sustainability.

Snapshot:

- Develop a comprehensive planning framework
- Integrate conservation and development strategies
- Apply no net increase in
- pollution objective
- · MUSIC model peer review
- Manage urban runoff
- frequency

Public health concerns were also the catalyst for Sydney Catchment Authority's leading practice work in complex catchment management interventions. The SCA website has further particulars. A number of other examples of SCA work are referenced later in the quideline

Case Study

Challenge:

Implementation Program as Integral to a Major NRM Initiative

Response:

 Sustaining the Catchments Regional Plan by SCA (which incorporates the Drinking Water Catchments REP), had implementation practicalities as a core element.

Explanation:

- The SCA acknowledges that the objectives of the regional plan are dependent on actions of land and water managers including State agencies, councils, landowners, and water users both within and outside the region. The action plan in turn lists the priority issues for attention:
 - data gaps and inconsistencies in existing information
 - future risks to catchment health and water quality
 - impacts from existing land uses and activities
 - fragmentation of responsibilities and resources among government agencies, and costs of protecting the catchments for water consumers.
- The action plan maps out specific actions to address each issue. Evidence of this is clear to councils within the SCA with the range of education programs and guideline documents to assist councils provided by SCA.
- This advice assists councils in all stages of the planning and development control process in a critical geographical area of the State, one subject to highly significant development pressures.

Reference:

SCA, Sustaining the Catchments - Regional Action Plan, 2007.

Case Study

Challenge:

How to ensure councils have the best practical tools and resources at hand given their front line role in complex and dynamic NRM policy areas

Response:

 DECC's threatened species and biodiversity resources site for local government.

Explanation:

- DECC has recently completed a major resource to support local government's role in conservation and management of biodiversity. The site addresses council's role as a planner and regulator and as a public land manager.
- The site provides extensive guidelines and working examples, responding to each of the steps of the planning process and beyond, covering:
 - Biodiversity surveys and mapping including examples of survey guidelines for particular species in particular geographical settings.
 - Strategic planning including biodiversity strategies
 - DA and environmental impact assessment including checklists and guidelines
 - Bushland and natural area management including reference to plans of management and operational guidelines
- The DECC site is focused on practicalities and value for public monies reducing time and costs "re-inventing the wheel".

Reference:

DECC, www.environment.nsw.gov.au/biodiversity/BiodiversityResources.htm

The work of Great Lakes and Sydney Catchment Authority demonstrates what can be done to transform NRM planning processes and outcomes when the seriousness of the risks are apparent to the wider community.

Features of the work by these two organisations is instructive to all and includes:

- Demonstrated willingness to identify problems with existing systems and processes
- Demonstrated willingness to look outward and work collaboratively with public and private sector partners to develop innovative solutions
- Demonstrated ability to develop and commit to disciplined policy positions and implementation frameworks
- Demonstrated commitment to ongoing monitoring programmes.

The approach, and emphasis, of DECC's work on biodiversity and threatened species resources for councils, also brings with it an important message. It is the message of sharing good practice, a message which this guideline package is also concerned with. There is disciplined analysis and creative responses to NRM challenges being developed by various players everyday. One of the key challenges we face in the future is that of continuing to spread the word on good practice NRM across its many dimensions in practical and engaging ways.

7. Concluding Remarks – Towai
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NSW Government Authorities and Organisations

Note: Principal NSW Government Authorities with NRM interests – listed at Section 2.3

Agency Name	Activities	Website
Border Rivers CMA	The CMAs are responsible for managing natural resources at the catchment scale. Key	www.brg.cma.nsw.gov.au
Central West CMA	roles include preparing Catchment Action Plans (CAPs) and managing incentive programs to implement these plans.	www.cw.cma.nsw.gov.au
Hawkesbury Nepean CMA		www.hn.cma.nsw.gov.au
Hunter / Central Rivers CMA	 Planning and investment Provide financial assistance for catchment activities. 	www.hcr.cma.nsw.gov.au
Lachlan CMA	Provide advice to local government and State Government agencies on the impact of	www.lachlan.cma.nsw.gov.au
Lower Murray Darling CMA	environmental planning instruments on natural resources.	www.lmd.cma.nsw.gov.au
Murray CMA	Native vegetation Administer and manage Property Vegetation Plans. 	www.murray.cma.nsw.gov.au
Murrumbidgee CMA	 Administer and manage native vegetation consents under the Native Vegetation Act 2003. 	www.murrumbidgee.cma.nsw.gov.au
Namoi CMA	Water	www.namoi.cma.nsw.gov.au
Northern Rivers CMA	Manage environmental water licences and water conservation trusts.	www.northern.cma.nsw.gov.au
Southern Rivers CMA	 Help communities make decisions on water management. 	www.southern.cma.nsw.gov.au
Sydney Metro CMA	 On-ground works Undertake or facilitate on-ground NRM works, e.g. river rehabilitation, native vegetation 	www.sydney.cma.nsw.gov.au
Western CMA	management and salinity mitigation programs.	www.western.cma.nsw.gov.au
	 Manage soil conservation and erosion mitigation projects. Help landholders do works to improve catchment health. 	
	Community engagementProvide technical advice on vegetation management	
	 Consult Aboriginal communities on natural resource programs Provide community information and support 	

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Livestock Health and Pest Authorities (formally Rural Lands Protection Boards)	 operate under the <i>Rural Lands Protection Act 1998</i> frontline animal health service in NSW safeguard agricultural production from bio-security risks posed by disease and pests manage travelling stock reserves, stock movement and identification and assist with drought relief 	http://www.lhpa.org.au
Rural Assistance Authority	 a Schedule 1 Department under the <i>Public Sector Employment and Management Act, 2002</i> and constituted pursuant to the <i>Rural Assistance Act 1989</i> administers a wide range of assistance measures to the Rural Sector both Commonwealth and State funded 	www.raa.nsw.gov.au
Natural Resource Advisory Council of NSW	 an independent body reporting to the Minister for Climate Change and the Environment 27 members representing a range of NRM stakeholders, including local government provides policy advice and prioritises resources and strategies to promote sustainable natural resource management in NSW oversees the policy and regulatory environment and the NRM legislative reforms in NSW 	www.nrac.nsw.gov.au
Roadside Environment Committee	 formed in 1994 to encourage better management of the roadside environment comprises 12 organisations, including the RTA, with interests in roadside management encourages better management of roadside ecological, social and economic resources 	www.rta.nsw.gov.au/environment

Federal Government Agen	cies/Programs	
Agency Name	Activities	Website
Department of Environment, Water, Heritage and the Arts	Coordinates Federal Government environmental programs Guides Government Investment strategy in NRM through funding activities like "Caring for our Country"	www.environment.gov.au
Department of Agriculture, Forestry and Fisheries	Coordinates many Federal Government NRM programs eg Sustainable Resource Management Division, provides policy advice and manages programs aimed at ensuring that agriculture production is undertaken sustainably within the capacity of the landscape	www.daff.gov.au
"Caring For Our Country"	Major funding mechanism for regional NRM projects	www.nrm.gov.au
Murray Darling Basin Authority	Promotes and coordinates planning and management for the sustainable use of the land, water and environmental resources of the Murray-Darling Basin under the Murray-Darling Basin Agreement 1992. Other organisations created as part of the Agreement include the Murray-Darling Basin Ministerial Council and the <u>Community Advisory Committee</u> (CAC). Councillors can apply to join this Committee.	www.mdbc.gov.au
National Water Commission	Established under the <i>National Water Commission Act 2004</i> and is the lead Australian Government agency for driving national water reform under the National Water Initiative (an intergovernmental agreement).	www.nwc.gov.au

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Non Government Organisat	tions	
NGO	Activities	Website
Greening Australia	Manage NRM projects across Australia, complete work commercially or through devolved funding from State and Federal Governments	www.greeningaustralia.org.au
Conservation Volunteers Australia	Work with volunteers who want to be involved in productive environmental projects including NRM projects. Can provide project management/training. Can provide project management support to corporate projects	www.conservationvolunteers.com.au
Landcare Australia (including Coastcare)	A conduit for government funding to NRM. Very strong in working with community volunteers. Coastcare Strong community engagement on NRM programs in coastal regions	www.landcare.net.au www.coastcare.com.au
Murray Darling Association	Aims to provide a focus for Local Government and community participation in the major natural resource management issues of the Murray-Darling Basin. Provides information, facilitates debates, identifies needs and priorities, undertakes projects and education initiatives, promotes research, and aims to influence the policies of government.	www.mda.asn.au
Inland Rivers Network	A coalition of environment groups and individuals concerned about the degradation of the rivers, wetlands and ground waters of the Murray-Darling Basin.	www.irnnsw.org.au
Birds Australia	Since 1901, Birds Australia (formerly the Royal Australasian Ornithologists Union) has been bringing together people who care about birds.	www.birdsaustralia.com.au
Environmental Defenders Office (EDO)	Assist community in environmental issues. Excellent resource for summary of environmental laws across Australia. Also do legal training.	www.edo.org.au

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Attachment A

Meeting the NRM Challenges – Recommended Resources

NRM Challenges	Recommended Resources	
LAND		
Acid Sulphate Soils	NSW Department of Primary Industries (DPI) Website www.dpi.nsw.gov.au/agriculture/resources/soils/ass	
	CSIRO Website www.clw.csiro.au/acidsulfatesoils/index.html	
	Acid Sulphate Soils Hotspots Remediation Program NSW Department of Environment & Climate Change (DECC) www.naturalresources.nsw.gov.au/soils/hotspots.shtml	
	Acid Sulphate Soil Manual NSW Department of Planning (DoP) www.planning.nsw.gov.au/programservices/infoservices.asp	
Salinity	Australian Government Department of Environment, Water, Heritage & the Arts www.environment.gov.au/land/pressures/salinity/index.html	
	DPI Website www.dpi.nsw.gov.au/agriculture/resources/soils/salinity	
	Salinity Information Package: Tools for improved management of dryland salinity Murray Darling Basin Commission (MDBC) www.ndsp.gov.au/salinitytools/tools/package_fs.html	
	Basin Salinity Management Strategy 2001-2015 (MDBC) www.mdbc.gov.au/salinity/basin_salinity_management strategy_20012015	
	Local Government Salinity Initiative (DECC) www.naturalresources.nsw.gov.au/salinity/solutions/solutions_urban.htm	
	Example Council Urban Salinity Projects: Dubbo City Council	
	www.dubbo.nsw.gov.au/public/content/default.asp?xcid=4912	
	www.alburycity.nsw.gov.au/www/html/404-urban-salinity-program.asp	
	Urban Salinity Local Government Forum 2007 Proceedings Murrumbidgee CMA www.murrumbidgee.cma.nsw.gov.au/index.php?id=805	
Contaminated Land	DECC Website http://www.environment.nsw.gov.au/clm	
	<i>Draft Managing Land Contamination Guidelines (</i> DoP and DECC) http://www.planning.nsw.gov.au/asp/drafts.asp The Guidelines are currently under review until early 2009	
	Fact Sheets Environmental Defender's Office (NSW) http://www.edo.org.au/edonsw/site/factsh/fs03_2.php	

Erosion & Sediment Control	A Resource Guide For Local Councils: Erosion And Sediment Control (DECC) www.environment.nsw.gov.au/stormwater/index.htm	
	<i>Education and Training (</i> NSW Department of Lands) www.lands.nsw.gov.au/soil_conservation/education_and_training	
Land Capability	Urban Land Capability Assessment (DECC) www.environment.nsw.gov.au/resources/stormwater/usp/sculca.pdf	
	DPI Website www.dpi.nsw.gov.au/agriculture/resources/land	
FLORA AND FAUNA		
Biodiversity	The Biodiversity Toolbox Australian Government Dept of Environment, Water, Heritage and the Arts www.environment.gov.au/biodiversity/toolbox/index.html	
	Protected Matters Search Tool Search system for protected species and places protected under the EPBC Act in a local government area http://www.environment.gov.au/cgi-bin/erin/ert/ert_dispatch.pl?loc_type=l ga&search=Search&report=epbc	
	NSW Biodiversity Planning Guide NSW National Parks & Wildlife Service (now DECC) www.environment.gov.au/biodiversity/toolbox/templates/nsw-bio-plan- guide.html	
	Biodiversity Website NSW Local Government and Shires Association (LGSA) http://www.lgsa.org.au/www/html/290-what-is-biodiversity.asp	
	Fish Habitat Management – Council and Developer Toolkit NSW Department of Primary Industries www.dpi.nsw.gov.au/fisheries/habitat/protecting-habitats/toolkit	
Threatened Species	Threatened Species Website (DECC) www.environment.nsw.gov.au/threatenedspecies	
	Threatened Species Publications (DECC) www.environment.nsw.gov.au/threatenedspecies/ ThreatenedSpeciesPublications.htm	
	A Guide For Managing Community Involvement In Threatened Species Recovery (DECC) www.environment.nsw.gov.au/threatenedspecies/tscominvmanint.htm	
	Threatened Fish and Marine Vegetation – What is currently listed? (DPI) http://www.dpi.nsw.gov.au/fisheries/species-protection/species- conservation/what-current	
Native Vegetation	Native Vegetation Website (DECC) www.environment.nsw.gov.au/vegetation/nvmanagement.htm	
	Native Vegetation Information Sheets (No. 17 & 20) (DECC) www.environment.nsw.gov.au/vegetation/publications.htm	
Pests and Weeds	Pest & Weed Legislation, Policy, Strategies, Resources And Training (DPI) http://www.dpi.nsw.gov.au/agriculture/pests-weeds	
	Pests & Weeds Website (DECC) www.environment.nsw.gov.au/pestsweeds	

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FIRE

Hotspots Fire Program Nature Conservation Council of NSW www.nccnsw.org.au/index.php?option=com_content&task=blogcategory&id=317&Itemid=642

Bushfire Risk Management Planning Guidelines NSW Rural Fire Service http://www.rfs.nsw.gov.au/dsp_content.cfm?cat_id=1030

Bushfire Environmental Assessment Code Conditions of Hazard Reduction and Aboriginal Heritage NSW Rural Fire Service http://www.rfs.nsw.gov.au/dsp_content.cfm?CAT_ID=536

CLIMATE CHANGE

Climate Change Action Pack NSW Local Government and Shires Association (LGSA) www.lgsa-plus.net.au/www/html/1903-climate-change-action-pack.asp

WATER

Water Quality & Quantity	National Water Commission Publications/Urban Water for "How To" Guides on Water Reuse www.nwc.gov.au		
	LGSA <i>Website</i> www.lgsa.org.au/www/html/333-water.asp		
	DECC Website www.environment.nsw.gov.au/water		
	Best Practice Guidelines for the Management of Water Supply and Sewerage Integrated Water Management Guidelines Drought Relief For Country Towns NSW Department of Water and Energy (DWE) www.deus.nsw.gov.au/publications/publications.asp		
	NSW Government Water For Life Program http://www.waterforlife.nsw.gov.au/about		
	Local Planning For Healthy Waterways – Using NSW Water Quality Objectives (DECC) www.environment.nsw.gov.au/water/planningusingwqos.htm		
	On-site Sewage Management Risk Assessment System – Septic Safe Program NSW Department of Local Government www.dlg.nsw.gov.au/dlg/dlghome/dlg_osras.asp		
	Water Availability in the Murray Darling Basin: Report (CSIRO) www.environment.gov.au/water/mdb/yields.html		
Groundwater	Groundwater Management Handbook For Local Government Sydney Coastal Councils Group www.sydneycoastalcouncils.com.au		
Coasts and Marine	Australian Local Government Association (ALGA) www.alga.asn.au/policy/environment/coasts		
	Coastal Protection & Planning (DOP) www.planning.nsw.gov.au/plansforaction/coastalprotection.asp		
	Wetlands, Coasts and Floodplain Management (DECC) www.naturalresources.nsw.gov.au/coasts/index.shtml		

CULTURAL HERITAGE		
Cultural Heritage Management	Protecting Local Heritage Places – A guide for communities; & other publications Australian Government Heritage Council www.environment.gov.au/heritage/ahc/publications/index.html	
	Local Government and Cultural Heritage – emerging issues paper Australian Government Department of Environment, Water, Heritage and the Arts www.environment.gov.au/soe/2006/publications/emerging/local-heritage/ index.html	
Indigenous Australians and NRM	Indigenous Australians Caring For Country website (DEWHA) www.environment.gov.au/indigenous/index.html	
	Indigenous Heritage Website (DEWHA) www.environment.gov.au/heritage/about/indigenous/index.html	
	Ask first guide to respecting indigenous heritage places and values Australian Government Heritage Council www.environment.gov.au/heritage/ahc/publications/commission/books/ ask-first.html	
Aboriginal Natural Resources Kit NSW Natural Resources Advisory Council www.nrac.nsw.gov.au/projects/projects.htm		
AIR		
Air Quality DECC Website www.environment.nsw.gov.au/air/index.htm		
Local Government Air Quality Toolkit (DECC) www.environment.nsw.gov.au/air/lgaqt.htm		
NRM & LOCAL GOVERNMENT		
NSW Local Government and Shires Association (LGSA) Website www.lgsa.org.au/nrm		
Australian Local Government Association (ALGA) Website www.alga.asn.au/policy/environment/nrm		
Local Government Association of Queensland Website See NRM/Publications on integrating NRM into land use and corporate planning www.lgaq.asn.au/lgaq/general/environment/NRM		
NRM and Local Government Fact sheets Western Australian Local Government Association www.walga.asn.au/news-publications/publications/nrm/lg_nrm_factsheets		
COMMUNITY EDUCATION		
Rural Landholder's Guide To Environmental Law In New South Wales, 2nd Edition NSW Environmental Defender's Office http://www.edo.org.au/edonsw/site/publications.php#landholder		
Sustainable Schools Network NSW Department of Education and Training (DET) & DECC www.sustainableschools.nsw.edu.au		

Website – engaging communities (DECC) www.environment.nsw.gov.au/community/engagingcommunities.htm

Education for Sustainability Hub www.efslearninghub.net.au

Our Environment It's a Living Thing Program www.livingthing.net.au/index

Attachment B

List of Web References

The table below lists URLs and the locations of references within guideline document.

Section	Reference	URL
2.4	Priority E4	http://www.nsw.gov.au/stateplan/index. aspx?id=62394cb5-5efd-4865-9f62-54147ec4cf9d
2.4	Regional Strategies	www.planning.nsw.gov.au/plansforaction/ whatshappening.asp
2.5	State Plan	http://www.nsw.gov.au/stateplan/
2.5	NSW Biodiversity Strategy, 1999-2003	http://www.environment.nsw.gov.au/biodiversity/ nswbiostrategy.htm
2.5	2008 Discussion Paper	http://www.environment.nsw.gov.au/resources/ biodiversity/08398biostr.pdf
2.5	NSW Coastal Policy (1997)	http://planning.nsw.gov.au/plansforaction/pdf/CPPARTA. PDF
2.5	State Water Management Outcomes Plan	http://www.naturalresources.nsw.gov.au/water/pdf/ swmop_part1.pdf
2.5	NSW Salinity Strategy	http://www.environment.nsw.gov.au/salinity/government/ nswstrategy.htm
2.5	Regional Strategies	http://www.planning.nsw.gov.au/plansforaction/ whatshappening.asp
2.5	Snowy Mountains (Alpine) Region	http://www.planning.nsw.gov.au/plansforaction/snowy. asp
2.5	The Central Coast	http://www.planning.nsw.gov.au/plansforaction/central_ coast.asp
2.5	The Hunter Region	http://www.planning.nsw.gov.au/regional/hunter.asp
2.5	Far North Coast	http://www.planning.nsw.gov.au/plansforaction/ northcoast.asp
2.5	Mid North Coast	http://www.planning.nsw.gov.au/plansforaction/mid_ northcoast.asp
2.5	Southern Region – Illawarra	http://www.planning.nsw.gov.au/plansforaction/illawarra. asp
2.5	Southern Region – South Coast	http://www.planning.nsw.gov.au/southcoast/index.asp
2.5	Sydney – Canberra Corridor Region	http://www.planning.nsw.gov.au/plansforaction/ queanbeyan.asp
2.5	Western NSW	http://www.planning.nsw.gov.au/plansforaction/western. asp
2.5	rectification action planning	http://www.sca.nsw.gov.au/publications/publications/135
2.5	strategic land and water capability assessments	http://www.sca.nsw.gov.au/publications/publications/134
2.5	DA assessment requirements	http://www.sca.nsw.gov.au/publications/publications/136
2.5	Recovery Plans, Threat Abatement Plans, Priority Action Statements	http://www.environment.nsw.gov.au/threatenedspecies/ RecoveryPlans.htm

Section	Reference	URL
2.5	DECC website	http://www.environment.nsw.gov.au/threatenedspecies/ RecoveryPlans.htm
2.5	NSW Invasive Species Plan 2008-2015	http://www.dpi.nsw.gov.au/agriculture/pests-weeds/nsw- invasive-species-plan
2.5	Water Sharing Plans	http://www.dwe.nsw.gov.au/water/plans.shtml
2.5	NSW Wetlands Management Policy 1996	http://www.naturalresources.nsw.gov.au/water/wetlands_ manage_policy.shtml
2.5	State Environmental Planning Policies	http://www.planning.nsw.gov.au/planningsystem/sepp1. asp
2.5	Regional Environmental Plans	http://www.planning.nsw.gov.au/planningsystem/rep1. asp
3.1	Eurobodalla Coastal Environment Capacity Planning Project.	http://www.esc.nsw.gov.au/ECECP/reports/project.pdf
3.2	Community Engagement in the NSW Planning System	http://203.147.162.100/pia/engagement/index.htm
3.2	Namoi Regional State of the Environment Report	http://narrabri.cfm.predelegation.com/files/uploaded/file/ Planning and Development/Namoi Regional SoE report- FINAL DRAFT.pdf
3.2	Planning framework for natural ecosystems – NSW Southern Tablelands & ACT	http://incp.environment.act.gov.au/planningframework/ index.aspx
3.2	Central Riverina Wildlife Booklet	http://www.murray.cma.nsw.gov.au/includes/documents/ pdf/Central_RiverinaWildlifeBooklets010408.pdf
3.2	LGSA Partnership Agreement	http://www.lgsa.org.au/www/html/294-nrm-partnership- agreement-mou.asp
3.2	Species information	http://www.nratlas.nsw.gov.au/wmc/custom/popups/ identify_species.html
3.2	wildlife atlas	http://wildlifeatlas.nationalparks.nsw.gov.au/wildlifeatlas/ watlas.jsp
3.2	bionet	http://www.bionet.nsw.gov.au/BioNet.cfm?is_ie5up
3.2	faunanet	http://faunanet.gov.au/
3.2	plantnet	http://plantnet.rbgsyd.nsw.gov.au/
3.2	Landcare groups – CLIO	http://clio.dlwc.nsw.gov.au/
3.2	Lands Department spatial portal	https://six.maps.nsw.gov.au/wps/portal/
3.2	MinView – Geoscience and exploration titles	http://minview.minerals.nsw.gov.au/
3.2	NSW Natural Resources Data Directory – NRDD	http://www.canri.nsw.gov.au/nrdd/
3.2	Soil profiles – SPADE	http://spade.dlwc.nsw.gov.au/
3.2	Spatial data download	javascript:openWinChoice('http://www.canri.nsw.gov.au/ download/','Download',800,600,'yes');
3.2	State of Environment – SoEdirect	http://soedirect.nsw.gov.au/app/index.jsp
3.2	Water quality and quantity – WaterInfo	http://waterinfo.nsw.gov.au/

Section	Reference	URL
3.2	Australian Natural Resources Atlas	http://www.anra.gov.au/index.html
3.2	NRM toolbar	http://www.nrmtoolbar.net.au/
3.2	Regional Knowledge Resource Kit	http://www.rkrk.net.au/index.php/Regional_Knowledge_ Resource_Kit_(RKRK)
3.2	Namoi Regional State of the Environment Report	http://narrabri.cfm.predelegation.com/files/uploaded/file/ Planning and Development/Namoi Regional SoE report- FINAL DRAFT.pdf
3.2	accreditation	http://www.environment.nsw.gov.au/ threatenedspecies/#consultants
3.2	Standard for Quality NRM	http://www.nrc.nsw.gov.au/content/documents/ Standard%20for%20quality%20NRM.pdf
3.2	hotspots program	http://www.naturalresources.nsw.gov.au/soils/hotspots. shtml
3.2	Urban Land Capability Assessment	http://www.environment.nsw.gov.au/resources/ stormwater/usp/sculca.pdf
3.2	Acid Sulfate Soils Maps	http://www.naturalresources.nsw.gov.au/soils/as_maps. shtml
3.2	Salinity Solutions – Dryland, Irrigation, Urban, Industrial Salinity	http://www.dnr.nsw.gov.au/salinity/solutions/solutions_ urban.htm
3.3	Drinking Water Catchments Regional Environmental Plan No1	http://www.sca.nsw.gov.au/publications/publications/138
3.3	Good Strategic Planning Guide	http://www.daf.gov.au/reports_documents/pdf/ dafstratplan.pdf
3.3	Review of Format and Language of National Capital Plan	http://www.nationalcapital.gov.au/downloads/planning_ and_urban_design/Format_Language.pdf
3.3	Managing Native Vegetation in the Planning System	http://www.udiavic.com.au/images/PDF/ ManagingnativeveginplanningsystemSep08.pdf
3.3	Principles for the use of biodiversity offsets in NSW	http://www.environment.nsw.gov.au/biocertification/ offsets.htm
3.3	Ku-ring-gai Biodiversity Strategy.	http://www.kmc.nsw.gov.au/resources/documents/ Biodiversity_Strategy_May_2006_final_for_adoption1. pdf
3.3	Randwick Biodiversity Ku-ring-gai Biodiversity Strategy.Strategy	http://www.randwick.nsw.gov.au/Looking_after_ our_environment/Sustaining_our_city/Biodiversity/ Biodiversity_strategy/index.aspx
3.3	rectification action planning	http://www.sca.nsw.gov.au/publications/publications/135
3.3	strategic land and water capability assessments	http://www.sca.nsw.gov.au/publications/publications/134
3.3	DA assessment requirements	http://www.sca.nsw.gov.au/publications/publications/136
3.3	Sustaining the Catchments Regional Plan	http://www.sca.nsw.gov.au/the-catchments/regional-plan
3.3	Strategic Land and Water Capability Assessment web site	http://www.sca.nsw.gov.au/publications/publications/134

Section	Reference	URL
3.4	NRM MERI Framework	http://www.nrm.gov.au/publications/frameworks/pubs/ meri-framework-march09.pdf
3.4	Standard for Quality NRM	http://www.nrc.nsw.gov.au/content/documents/Standard for quality NRM.pdf
3.4	Sustaining the Catchments – Regional Action Plan	http://www.sca.nsw.gov.au/publications/publications/138
3.4	Biodiversity Planning Guide for NSW Local Government	http://www.environment.nsw.gov.au/biodiversity/ bioplanningguide.htm
3.4	EPA Act	http://www.austlii.edu.au/au/legis/nsw/consol_act/ epaaa1979389/s93f.html
3.4	EPA Regulation	http://www.austlii.edu.au/au/legis/nsw/consol_reg/ epaar2000480/s25b.html
4.3	Goulburn Mulwarree's LEP	http://www.legislation.nsw.gov.au/scanview/ inforce/s/1/?EPITITLE=%22Goulburn%20 Mulwaree%20Local%20Environmental%20Plan%20 2009%22&nohits=y
4.4	DoP Circular PS 07-019	http://www.planning.nsw.gov.au/planningsystem/pdf/ ps07_019_comprehensive_leps.pdf
4.4	Great Lakes Water Quality Improvement Plan	http://www.greatlakes.nsw.gov.au/documents09/ naturalsystems/wqip/final_wqip_exhibition_full_report. pdf
4.7	Guidance on biodiversity certification of environmental planning instruments	http://www.environment.nsw.gov.au/biocertification/ biocertepis.htm
5.1	DoP Circular PS 05-010	http://www.planning.nsw.gov.au/planningsystem/pdf/ circulars/ps05_010_dcps.pdf
5.3	Pittwater Council Masterplan Enquirer	http://www.pittwater.nsw.gov.au/buildingand development/development_application_tools
5.4	Better Living DCP	http://www.bmcc.nsw.gov.au/yourcouncil/ policyandplanregister/developmentcontrolplans/ betterlivingdcp
5.5	Sustainable Water Challenge	http://www.wsud.org/case_studies.htm
5.5	Council sustainable water information exchange	http://www.wsud.org/Exchange.htm
5.5	Technical guides	http://www.wsud.org/tech.htm
5.5	Information on seminars and events	http://www.wsud.org/seminar.htm
5.5	WSUD Capacity Building Project	http://www.wsud.org/
5.5	Great Lakes Water Quality Improvement Plan	http://www.greatlakes.nsw.gov.au/documents09/ naturalsystems/wqip/final_wqip_exhibition_full_report. pdf
5.5	Warringah Council	http://www.warringah.nsw.gov.au/plan_dev/documents/ LEP_App_B.pdf
5.5	Pittwater Council DCP	http://www.pittwater.nsw.gov.au/data/assets/pdf_ file/0014/42440/Preliminary_and_Part_A.pdf
5.5	Camden Council Natural Assets Policy	http://www.camden.nsw.gov.au/files/environment/ natural_assests_policy.pdf

Section	Reference	URL
6.1	State Environmental Planning Policy (Major Projects) 2005	http://www.legislation.nsw.gov.au/fullhtml/inforce/ epi+194+2005+FIRST+0+N/
6.2	Biobanking Guide to Biodiversity Assessments for Developers	http://www.environment.nsw.gov.au/resources/ biobanking/08527bbdevguide.pdf
6.2	VPP Practice Note on native vegetation removal	http://www.dpi.vic.gov.au/CA256F310024B628/0/8DADD 80489463E35CA25712B00287FF0/\$File/Assessing+ap plications+involving+native+vegetation+removal.pdf
6.3	Living and Working in Rural Areas	http://www.dpi.nsw.gov.au/research/alliances/centre_ for_coastal_agricultural_landscapes/living-and-working- in-rural-areas
6.3	Goulburn Rural Living Handbook	http://www.goulburn.nsw.gov.au/environment/4724/4726. html
6.3	Guide to Rural Residential Living in the Hunter	http://www.ruralresidentialliving.com.au/
6.3	SCA Current Recommended Practice	http://www.sca.nsw.gov.au/the-catchments/regional- plan/regional-plan-current-recommended-practices
6.3	Pittwater Council's "Masterplan Enquirer and Applicant" program	http://www.pittwater.nsw.gov.au/buildingand development/development_application_tools
6.3	Neutral or Beneficial Effect on Water Quality Assessment Guidelines	http://www.sca.nsw.gov.au/publications/publications/136
6.3	Lower Hunter Central Coast Regional Fauna and Flora Survey Guidelines	http://www.hccrems.com.au/biodiversity/index.html
6.3	Neutral or Beneficial Effect on Water Quality Assessment Guidelines	http://www.sca.nsw.gov.au/publications/publications/136/ NorBEdoc.pdf
6.3	Assessment tools	http://www.environment.nsw.gov.au/biobanking/tools.htm
6.3	Biobanking Framework	http://www.environment.nsw.gov.au/biobanking/ biobankframework.htm
6.3	Biobanking Handbook for Local Government	http://www.environment.nsw.gov.au/resources/ biobanking/08526bblocalgovhb.pdf
6.3	Telstra Corporation Limited v Hornsby Shire Council [2006] NSWLEC 133	http://www.lawlink.nsw.gov.au/lecjudgments/2006nswlec. nsf/c45212a2bef99be4ca256736001f37bd/fdf89ace6e00 928bca25713800832056?OpenDocument
6.3	BGP Properties Pty Limited v Lake Macquarie City Council [2004] NSWLEC 399 revised - 05/05/2005	http://www.lawlink.nsw.gov.au/lecjudgments/2004nswlec. nsf/2004nswlec.nsf/WebView2/F8683B0FC9B8B988CA 256ED9000C3215?OpenDocument
6.3	Direct Factory Outlets Homebush v Strathfield Municipal Council [2006] NSWLEC 318	http://www.lawlink.nsw.gov.au/lecjudgments/2006nswlec. nsf/c45212a2bef99be4ca256736001f37bd/d1127f9d955 11668ca25718700161795?OpenDocument
6.3	Renaldo Plus 3 Pty Limited v Hurstville City Council [2005] NSWLEC 315	http://www.lawlink.nsw.gov.au/lecjudgments/2005nswlec. nsf/d1efd3b3c2f68e05ca256736001f37be/da06b303d73 f56f0ca25701c001fccbf?OpenDocument
63	Stockland Development Pty Ltd v Manly Council [2004] NSWLEC 472 revised – 01/10/2004	http://www.lawlink.nsw.gov.au/lecjudgments/2004nswlec. nsf/2004nswlec.nsf/WebView2/6CDED24C1343B6D6C A256EFA000FBD17?OpenDocument

Section	Reference	URL
6.3	LEC Planning Principles	http://www.lawlink.nsw.gov.au/lawlink/lec/ll_lec.nsf/ pages/LEC_planningprinciples
6.3	Acid Sulfate Soils	http://rdaguidelines.planning.nsw.gov.au/pubSearch. cfm?categoryID=444
6.3	Biodiversity	http://rdaguidelines.planning.nsw.gov.au/pubSearch. cfm?categoryID=450
6.3	Coastal Management	http://rdaguidelines.planning.nsw.gov.au/pubSearch. cfm?categoryID=453
6.3	Stormwater & Wastewater	http://rdaguidelines.planning.nsw.gov.au/pubSearch. cfm?categoryID=484
6.3	Threatened Species	http://rdaguidelines.planning.nsw.gov.au/pubSearch. cfm?categoryID=486
6.3	Vegetation Management	http://rdaguidelines.planning.nsw.gov.au/pubSearch. cfm?categoryID=489
6.3	Water Quality	http://rdaguidelines.planning.nsw.gov.au/pubSearch. cfm?categoryID=491
6.3	Wetlands	http://rdaguidelines.planning.nsw.gov.au/pubSearch. cfm?categoryID=492
6.3	Register of Development Assessment Guidelines	http://rdaguidelines.planning.nsw.gov.au/register.cfm
6.3	Threatened species assessment guidelines	http://www.environment.nsw.gov.au/resources/ threatenedspecies/tsaguide07393.pdf
6.3	Environmental Action Series	http://www.environment.nsw.gov.au/sustainbus/ environmentalactionseries.htm
6.3	Major Projects Determinations	http://majorprojects.planning.nsw.gov.au/
6.3	Neutral or Beneficial Effect on Water Quality Assessment Guidelines	http://www.sca.nsw.gov.au/publications/publications/136
6.3	Warriewood Valley project	http://www.wsud.org/downloads/2004 SWC Projects/ PittwaterC 2004.pdf
6.3	Environmental Management at the Urban Fringe	http://www.environment.nsw.gov.au/resources/ stormwater/usp/enviroassess04107.pdf
6.3	Compliance Audit Handbook	http://www.environment.nsw.gov.au/resources/licensing/ cahandbook0613.pdf
6.4	Garrett v Freeman (No. 5); Garrett v Port Macquarie Hastings Council and Carter v Port Macquarie Hastings Council [2009] NSWLEC 1	http://www.lawlink.nsw.gov.au/lecjudgments/2009nswlec. nsf/000000000000000000000000000000000000
6.4	critical habitat	http://www.austlii.edu.au/au/legis/nsw/consol_act/ epaaa1979389/s4.html#critical_habitat
6.4	threatened species	http://www.austlii.edu.au/au/legis/nsw/consol_act/ epaaa1979389/s4.html#threatened_species
6.4	populations	http://www.austlii.edu.au/au/legis/nsw/consol_act/ epaaa1979389/s4.html#population
6.4	habitats	http://www.austlii.edu.au/au/legis/nsw/consol_act/ epaaa1979389/s4.html#habitat
6.4	Is an EIS Required – Best Practice Guideline	http://www.planning.nsw.gov.au/assessingdev/pdf/ gu_isaneisrequired.pdf

Section	Reference	URL
7.2	Great Lakes Water Quality Improvement Plan 2009	http://www.greatlakes.local-e.nsw.gov.au/ environment/9292/14392.html
7.2	Sustaining the Catchments – Regional Action Plan	http://www.sca.nsw.gov.au/publications/publications/138
Attachment A	Murray-Darling Basin Ministerial Council	http://www.mdbc.gov.au/about/murraydarling_basin_ ministerial_council
Attachment A	Community Advisory Committee	http://www.mdbc.gov.au/CAC_background
End notes	PS 07-018	http://www.planning.nsw.gov.au/planningsystem/pdf/ ps07_018_infrastructure_contributions.pdf
End notes	Review of the Format and Language of the National Capital Plan – Discussion Paper	http://www.nationalcapital.gov.au/downloads/planning_ and_urban_design/Format_Language.pdf
End notes	Good Strategic Planning Guide	http://www.daf.gov.au/reports_documents/pdf/ dafstratplan.pdf
End notes	guidelines on LEP content	http://www.planning.nsw.gov.au/planningsystem/ localplanning.asp
End notes	accompanying material	http://www.environment.nsw.gov.au/resources/nature/09 37WaggaBiocertification.pdf

Endnotes

- 1. NPWS, Biodiversity guide for NSW local government, 2001, p7.
- According to a major study of the community's attitudes to the environment (DEC 2004), water quality is the most important issue for the NSW community, with water conservation and management topping the list of concerns. <u>http://www.environment.nsw.gov.au/water/</u> planningusingwqos.htm
- 3. See LGSA's web site: http://www.lgsa.org.au/resources/documents/Survey_Report_Finalversion.pdf. The Australian Local Government Association (ALGA) has also undertaken a survey of councils across Australia on the challenges of natural resource management Available at http://www.alga.asn. au/policy/environment/nrm/survey/
- 4. Farrier, D and Stein P, The Environmental Law Handbook, 4th edition, 2006, p4
- 5. See the following site for summary information on the target areas: <u>http://www.environment.gov.au/</u>epbc/publications/coag-agreement/index.html
- 6. For further particulars see PhD thesis by Kelly, A: The role of local government in the conservation of biodiversity, University of Wollongong 2004, p13 and <u>http://www.library.uow.edu.au/adt-NWU/public/</u>adt-NWU20050311.094226/index.html.
- 7. For example the Local Government Act 1993 requirements for councils to promote the principles of ecologically sustainable development in its roles and responsibilities (s8 Council's Charter).
- 8. On 31 October 2008 the Minister for the Environment, Heritage and the Arts commissioned an independent review of the EPBC Act.
- 9. http://www.nrm.gov.au/business-plan/index.html
- 10. Adapted from: LGSA, Fact Sheet 6, Key NRM Legislation for Local Government
- 11. Sourced from LGSA, Councillor Training Manual.
- 12. The State Plan Priorities E1 and E3 also have relevance to NRM and can be examined individually within chapter 6 of the State Plan at <u>http://www.nsw.gov.au/stateplan/index.aspx?id=8f782cbd-0528-</u> 4077-9f40-75af9e4cc3e5
- 13. Catchment Management Authorities Act 2003
- 14. http://www.cma.nsw.gov.au/pdf/cma_3mile_041206.pdf
- 15. See NRC website: http://www.nrc.nsw.gov.au/Workwedo/Catchmentactionplanreviews.aspx
- 16. See the following source for details from DECC website: <u>http://www.environment.nsw.gov.au/</u>vegetation/nvmanagement.htm
- 17. See http://www.planning.nsw.gov.au/plansforaction/whatshappening.asp
- 18. Subject to review as at February 2009. See:<u>http://www.environment.nsw.gov.au/resources/</u>biodiversity/08398biostr.pdf
- ^{19.} Sourced from Ecological Australia, *Review of the Integration of the NSW Land-Use Planning System* and Regional NRM Delivery Model – Discussion Paper 2009.
- 20. DLG, Planning a Sustainable Future options paper on integrated planning and reporting, 2006, p10
- 21. Referenced to author's work with local councils in the review of planning and approvals system, also see P&A Walsh Consulting & UTS Centre for Local Government, Comparative Performance Measurement and Benchmarking Planning and Development Assessment Systems, Prepared for Development Assessment Forum, 2002
- 22. Urban salinity references include: NSW DLWC, (Collings, A) Indicators of Urban Salinity, 2002; and NSW DIPNR (Ryan, M) Introduction to Urban Salinity, 2003. Sourced from <u>http://www.dpi.vic.gov.au/</u> dpi/vro/vrosite.nsf/pages/urban_salinity_indicators
- 23. The review included an analysis of a series of high performance strategic plans both nationally and internationally. Ref: National Capital Authority in conjunction with P&A Walsh Consulting, <u>Review of</u> the Format and Language of the National Capital Plan – Discussion Paper, 2006
- 24. See s8 LG Act 1993, http://www.legislation.nsw.gov.au/scanview/inforce/s/1/?TITLE=%22Local%20 Government%20Act%201993%20No%2030%22&nohits=y
- 25. DAF, Good Strategic Planning Guide, prepared by Morris Consultants, Canberra, Daris Olsauskas & Associates, Planning Integration Consultants Pty Ltd, Watson Agriculture Resources & Environmental Consulting, Foulsham and Munday Pty Ltd, 2001 <u>http://www.daf.gov.au/reports_</u> documents/pdf/dafstratplan.pdf

- 26. http://www.nationalcapital.gov.au/downloads/planning_and_urban_design/Format_Language.pdf
- 27. See for example: UK Planning Advisory Service, *A benchmark for the spatial planning function*, Version 3.0, undated
- 28. Section 94 of the EPA Act provides for developer contributions towards provision of amenities and services. Under recent directions local contributions are no longer be permitted to fund acquisition of land for riparian corridors. See DoP Planning Circular PS 07-018
- ^{29.} EPA Act s5(a).
- ^{30.} S117 Direction 2.1 relating to environmental protection zones has an objective of "protecting and conserving environmentally sensitive areas".
- 31. Note DoP have issued a number of relevant guidelines on LEP content . See <u>http://www.planning.</u> nsw.gov.au/planningsystem/localplanning.asp
- 32. Acquisition provisions are triggered under the Land Acquisition (Just Terms) Compensation Act 1991. References on the question of zoning and compensation include: Ecological Australia, *Review of the Integration of the NSW Land-Use Planning System and Regional NRM Delivery Model – Discussion Paper 2009, p53.* This work was a component of the *Integrating Natural Resource Management into Local Government Land Use Planning*, project managed by the LGSA.
- ^{33.} This provision (s74D of EPA Act) applies to any environmental planning instrument including SEPPs, REPs and LEPs.
- 34. See an example at clause 6.3 in Wagga Wagga draft LEP 2008.
- 35. DECC letter to Wagga Council dated 17/4/08.
- 36. Details are provide in the accompanying material for Wagga LEP biocertification, as prepared by DECC. See http://www.environment.nsw.gov.au/resources/nature/0937WaggaBiocertification.pdf
- 37. S126G under the Threatened Species Conservation Act 1995
- 38. Farrier et al, op cit, p74.
- 39. Stockland Development Pty Ltd v Manly Council [2004] NSWLEC 472 revised 01/10/2004
- 40. S74C(2) EPA Act. Note there is a transitional period in place for this arrangement.
- 41. Centre for Development Cities University of Canberra, Leading practice Model for Development Assessment Processes, Leveraging the Long Term, prepared for Development Assessment Forum, September 2003.
- 42. See s110 of EPA Act for definitions of these terms.
- 43. UTS Centre for Local Government and P&A Walsh Consulting, 2002 op cit,
- 44. Referenced to author's work with local councils in the review of planning and approvals system.
- 45. DAF, Unfinished Business Prospects for an intergovernmental agreement on development assessment (undated), p19: http://www.daf.gov.au/reports_documents/pdf/unfinished_business.pdf
- 46. Farrier et al, op cit, p175
- 47. See s110 of EPA Act for definitions of these terms.
- 48. See Farrier et al, op cit, p231 and various cited cases.
- 49. Wallis Lake is one of the largest oyster growing areas in Australia. In 1997 one person died and over 400 others contracted Hepatitis A after eating contaminated oysters taken from Wallis Lake. These events resulted in serious social distress, the closure of the local oyster industry, major national media attention and Federal court litigation, which found against the environmental management and monitoring systems for the lake. Overall there were profound social, economic and environmental impacts as a consequence. See for example *NSW Public Health Bulletin Jan-Feb 2007*. http://www.publish.csiro.au/?act=view_file&file_id=NB97001.pdf.

