



Appendix A

Director General's Assessment Requirements





NSW GOVERNMENT
Department of Planning

Contact: Sally Munk
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 Fax: (02) 9228 6540
 Email: sally.munk@planning.nsw.gov.au

Our ref: 08_0148
 File: S08/01196

Mr Steve Connelly
 Director
 SJ Connelly CPP Pty Ltd
 PO Box 538
 LENNOX HEAD NSW 2478

Dear Mr Connelly,

Subject: Proposed 43 Lot Residential Subdivision, Graham Drive, Sandy Beach (Lot 260 DP 1110719), Coffs Harbour LGA (08_0148)

The Department has received your application (08_0148) for the proposed 43 lot residential subdivision at Graham Drive, Sandy Beach.

The Director-General's Environmental Assessment Requirements (DGRs) for the environmental assessment of the project application are attached to this correspondence at **Attachment 1**. These requirements have been prepared in consultation with the relevant government agencies including Coffs Harbour City Council.

Attachment 2 lists the relevant plans and documents which will be required upon submission of your proposal.

It should be noted that the DGRs have been prepared based on the information provided to date. Under section 75F(3) of the Act, the Director-General may alter or supplement these requirements if necessary and in light of any additional information that may be provided prior to the proponent seeking approval for the project.

If the Environmental Assessment (EA) is not exhibited within 2 years of the date of issue of these requirements, you should consult further with the Director-General in relation to the preparation of the EA.

Please contact the Department at least two weeks before you propose to submit the EA for the project to determine:

- the fees applicable to the application. Note that you will need to provide a signed statement from a Quantity Surveyor to verify the capital investment value of the project;
- consultation and public exhibition arrangements that will apply; and
- number and format (hard-copy or CD-ROM) of the EA that will be required.

A list of some relevant technical and policy guidelines which may assist in the preparation of the EA are attached at **Attachment 3**.

Prior to exhibiting the EA, the Department will review the document to determine if it adequately addresses the DGRs. The Department may consult with other relevant government agencies in making this decision. If the Director-General considers that the EA does not adequately address

the DGRs, the Director-General may require the proponent to revise the EA to address the matters notified to the proponent.

Following this review period, the EA will be made publicly available for a minimum period of 30 days.

If your proposal includes any actions that could have a significant impact on matters of National Environmental Significance (NES), it will require an additional approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This approval is in addition to any approvals required under NSW legislation. It is your responsibility to contact the Commonwealth Department of the Environment, Water, Heritage and the Arts in Canberra (6274 1111 or <http://www.environment.gov.au>) to determine if the proposal is likely to have a significant impact on matters of NES and would require an approval under the EPBC Act. The Commonwealth Government has accredited the NSW environmental assessment process for assessing any impacts on matters of NES. As a result, if it is determined that an approval is required under the EPBC Act, please contact the Department immediately as supplementary DGRs will need to be issued.

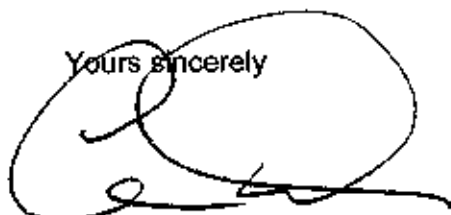
Please note that under section 75U of the Act, Part 3A applications do not require certain permits/approvals required under other legislation. These matters are considered as part of the Part 3A assessment process. For example, Section 87 permits and Section 90 consents under the *National Parks and Wildlife Act 1974* are not required for Part 3A applications. Section 75U applies from the date of issue of the DGRs.

Notwithstanding, the Department still requires an equivalent level of information within the EA as would ordinarily be required for the issue of any such permit/approval to enable an assessment of the relevant works. Please notify the Department should any sub-surface testing be required during the preparation of your EA.

Copies of responses from government agencies to the Department's request for key issues and assessment requirements are enclosed at **Attachment 4**. Please note that these responses have been provided to you for information only and do not form part of the DGRs for the EA.

If you have any queries regarding these requirements, please contact Sally Munk on 9228 6498 or by email at sally.munk@planning.nsw.gov.au.

Yours sincerely



29.1.09

Chris Wilson
Executive Director
Major Project Assessments
as delegate for the Director General

Attachment 1
Director-General's Environmental Assessment Requirements
 Section 76F of the *Environmental Planning and Assessment Act 1979*

Application number
08_0148
Project
43 lot residential subdivision and associated infrastructure
Location
Graham Drive, Sandy Beach (Lot 260 DP 1110719), Coffs Harbour LGA
Proponent
Sandy Beach Mill Pty Ltd
Date issued
23 January 2009
General requirements
<p>The Environmental Assessment (EA) for the Project Application must include:</p> <ol style="list-style-type: none"> 1. An executive summary; 2. An outline of the scope of the project including: <ul style="list-style-type: none"> • any development options; • justification for the project taking into consideration any environmental impacts of the project, the suitability of the site and whether the project is in the public interest; • outline of the staged implementation of the project if applicable; 3. A thorough site analysis including constraints mapping and description of the existing environment; 4. Consideration of any relevant statutory and non-statutory provisions and identification of any non-compliances with such provisions, in particular relevant provisions arising from environmental planning instruments, Regional Strategies (including draft Regional Strategies) and Development Control Plans; 5. Consideration of the consistency of the project with the objects of the <i>Environmental Planning and Assessment Act 1979</i>; 6. Consideration of impacts, if any, on matters of National Environmental Significance under the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i>; 7. An assessment of the potential impacts of the project and a draft Statement of Commitments, outlining environmental management, mitigation and monitoring measures to be implemented to minimise any potential impacts of the project; 8. The plans and documents outlined in Attachment 2; 9. A signed statement from the author of the Environmental Assessment certifying that the information contained in the report is neither false nor misleading; and 10. An assessment of the key issues specified below and a table outlining where these key issues have been addressed.
Key issues
The EA must address the following key issues:
1. Strategic Planning
1.1 Justify the proposal with reference to relevant local, regional and State planning strategies. Provide justification for any inconsistencies with these planning strategies.

1.2	Demonstrate suitability of the proposal having consideration for the <i>Draft Coffs Harbour City Council Local Environmental Plan Amendment No.29</i> and the <i>Hearnes Lake / Sandy Beach Development Control Plan</i> .
2. Subdivision Design, Layout and Desired Future Character	
2.1	Demonstrate the consistency of the proposal with the character of existing and proposed adjoining development in terms of the locality, street frontage, scale, building envelopes and future built form controls, aesthetics, energy and water efficiency and safety.
2.2	Demonstrate the consistency of the proposed subdivision design and layout with the <i>Coastal Design Guidelines for NSW, NSW Coastal Policy 1997</i> and <i>SEPP 71 – Coastal Protection</i> .
2.3	Demonstrate consistency with Development Consents DA 931/06, 1144/07 and DA 508/07 issued by Coffs Harbour City Council.
2.4	Identify the type of subdivision proposed across the site ie. community, Torrens, strata.
2.5	Provide details of potential building envelope, built form and design quality controls and the means for implementing them.
2.6	Provide details of any staging that demonstrates the lots will be released in an orderly and coordinated manner.
2.7	Outline the long-term management and maintenance of any areas of open space or conservation including ownership and control, dedication arrangements, management and maintenance funding, public access, revegetation and rehabilitation works and bushfire management.
3. Visual Impact	
3.1	Address the visual impact of the proposal in the context of surrounding development and relevant mitigation measures. In particular address impacts on the amenity of the foreshore, overshadowing of public reserves, loss of views from public places and cumulative impacts.
4. Infrastructure Provision	
4.1	Address existing capacity and requirements of the development for sewerage, water, electricity, waste disposal, telecommunications and gas in consultation with relevant agencies. Identify and describe staging, if any, of infrastructure works.
4.2	Address and provide the likely scope of any planning agreement and/or developer contributions with Council/ Government agencies.
5. Traffic and Access	
5.1	Prepare a traffic impact study in accordance with Table 2.1 of the RTA's Guide to Traffic Generating Developments having particular consideration for impacts on the Pacific Highway / Graham Drive intersections.
5.2	Protect existing public access to and along the coastal foreshore and provide, where appropriate, new opportunities for controlled public access. Consider access for the disabled, where appropriate.
5.3	Provide consideration for the RTA's Pacific Highway Planning Strategy.
6. Hazard Management and Mitigation	
<i>Coastal Processes</i>	
6.1	Address coastal hazards and the provisions of the <i>Coastline Management Manual</i> . In particular, consider impacts associated with wave and wind action, coastal erosion, sea level rise and more frequent and intense storms.
<i>Contamination</i>	
6.2	Provide a Preliminary Contamination Assessment, identifying any contamination on site and appropriate mitigation measures in accordance with the provisions of <i>SEPP 55 – Remediation of Land</i> .
<i>Acid Sulfate Soils</i>	
6.3	Identify the presence and extent of acid sulfate soils on the site and, where relevant, appropriate mitigation measures. Identify the need for an Acid Sulfate Management Plan (prepared in accordance with ASSMAC Guidelines).

Bushfire	
6.4	Address the requirements of Planning for Bush Fire Protection 2006 (RFS).
Geotechnical	
6.5	Provide an assessment of any geotechnical limitations that may occur on the site and if necessary, appropriate design considerations that address these limitations.
Flooding	
6.6	Provide an assessment of any flood risk on site (for the full range of floods including events greater than the design flood, up to probable maximum flood; and from coastal inundation, catchment based flooding or a combination of the two) and having consideration of any relevant provisions of the <i>NSW Floodplain Development Manual 2005</i> . The assessment should determine: the flood hazard in the area; address the impact of flooding on the proposed development, address the impact of the development (including filling) on flood behaviour of the site and adjacent lands; and address adequate egress and safety in a flood event.
6.7	Assess the potential impacts of sea level rise and an increase in rainfall intensity on the flood regime of the site and adjacent lands with consideration of <i>Practical Consideration of Climate Change – Floodplain Risk Management Guideline (DECC, October 2007)</i> .
7. Water Cycle Management	
7.1	Address and outline measures for Integrated Water Cycle Management (including stormwater) based on Water Sensitive Urban Design principles which addresses impacts on the surrounding environment, drainage and water quality controls for the catchment, and erosion and sedimentation controls at construction and operational stages.
7.2	Prepare a conceptual design layout plan for the preferred stormwater treatment train showing location, size and key functional elements of each part of the system.
7.3	Assess the impacts of the proposal on surface water hydrology and quality during both construction and occupation of the site.
7.4	Consider the nature and profile of the groundwater regime under the site, including any hydrologic impacts which would affect its depth or water quality, result in increased groundwater discharge, impact on the stability of potential acid sulfate soils in the vicinity, or affect groundwater dependent native vegetation.
8. Heritage and Archaeology	
8.1	Identify whether the site has significance to Aboriginal cultural heritage and identify appropriate measures to preserve any significance. The assessment must address the information and consultation requirements of the draft <i>Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation (DEC 2005)</i> and <i>Interim Community Consultation Requirements for Applicants (DEC 2004)</i>
8.2	Identify any items of non-indigenous heritage significance and, where relevant, provide measures for the conservation of such items.
9. Flora and Fauna	
9.1	Assess the potential impacts of the development on flora and fauna taking into consideration impacts on any threatened species, populations, endangered ecological communities and/or critical habitat and any relevant recovery plan in accordance with DECC's <i>Guidelines for Threatened Species Assessment (2005)</i> , having particular consideration for impacts on the Osprey. Describe the actions that will be taken to avoid or mitigate impacts or compensate unavoidable impacts, where relevant.
9.2	Outline measures for the conservation of existing wildlife corridor values and/or connective importance of any vegetation on the subject land.
9.3	Address measures to protect and manage adjacent aquatic habitats including Double Crossing Creek, including impacts due to increased recreational usage/visitation.
10. Noise	
10.1	Address potential noise impacts, in particular road traffic noise, for future residents and appropriate mitigation measures.

11. Riparian Corridor

- 11.1 Address potential impacts on the water quality and ecological integrity of Double Crossing Creek Hearn's Lake and its tidal tributaries.
- 11.2 Address measures to protect and manage the Double Crossing Creek riparian corridor, including the provision of appropriate buffers, having consideration for the Hearn's Lake Estuary Management Plan and the Hearn's Lake / Sandy Beach Development Control Plan.
- 11.3 Provide appropriate access to and along Double Crossing Creek.
- 11.4 Provision of design details of the Double Crossing Creek pedestrian footbridge having consideration for fish passage requirements.

Consultation

You should undertake an appropriate and justified level of consultation with the following agencies during the preparation of the environmental assessment:

(a) *Agencies or other authorities:*

- Commonwealth Department of the Environment, Water, Heritage and the Arts;
- Coffs Harbour City Council;
- Department of Environment and Climate Change;
- Department of Primary Industries;
- NSW Rural Fire Service;
- Department of Water and Energy;
- Roads and Traffic Authority;
- Department of Lands;
- NSW Police Service;
- State Emergency Service;
- Northern Rivers Catchment Management Authority;
- Solitary Marine Park Marine Park Authority;
- Local Aboriginal Land Council/s and other Aboriginal community groups; and
- Relevant infrastructure providers.

(b) *Public:*

Document all community consultation undertaken to date or discuss the proposed strategy for undertaking community consultation. This should include any contingencies for addressing any issues arising from the community consultation and an effective communications strategy.

The consultation process and the issues raised should be described in the Environmental Assessment.

Deemed Refusal Period

60 days

Attachment 2

Plans and Documents to accompany the Application

Plans and Documents of the development

The following plans, architectural drawings and diagrams of your proposal as well as the relevant documents will be required to be submitted for your application:

1. The existing site survey plan is to be drawn to 1:500 scale (or other appropriate scale) and show:
 - the location of the land, the measurements of the boundaries of the land, the size of the land and north point;
 - the existing levels of the land in relation to buildings and roads;
 - location and height of existing structures on the site; and
 - location and height of adjacent buildings and private open space.
2. An aerial photograph of the subject site with the site boundary superimposed.
3. A Site Analysis Plan must be provided which identifies existing natural elements of the site (including all hazards and constraints), existing vegetation, property dimensions, footpath crossing levels and alignments, existing pedestrian and vehicular access points and other facilities, slope and topography, natural features such as watercourses, rock outcrops, utility services, boundaries, orientation, view corridors and all structures on neighbouring properties where relevant to the application (including windows, driveways etc.).
4. A locality/context plan drawn to 1:500 scale (or other appropriate scale) should be submitted indicating:
 - significant local features such as parks, community facilities and open space, water courses and heritage items;
 - the location and uses of existing buildings, shopping and employment areas;
 - traffic and road patterns, pedestrian routes and public transport nodes; and
 - The existing site plan and locality plan should be supported by a written explanation of the local and site constraints and opportunities revealed through the above documentation.

The existing site plan, site analysis plan and locality plan should be supported by a written explanation of the local and site constraints and opportunities revealed through the above documentation.
5. A zoning plan must be provided which shows the existing zoning overlaid with the proposed development layout. An extract of the land use table or relevant clauses from the subject LEP is required.
6. Subdivision plans are to show the following:-
 - The location, boundary dimensions, site area and north point of the land, and names of roads fronting the land;
 - Title showing the description of the land with lot and DP numbers etc;
 - Existing and proposed subdivision pattern including all measurements and sites areas of existing and proposed allotments;
 - Location and details of all proposed roads and footpaths;
 - Location of all structures proposed and retained on site;
 - Cross sections of roads, including gradients, widths, road names, footpaths etc.
 - Existing and proposed finished levels in relation to roads, footpaths and structures;

	<ul style="list-style-type: none"> • Location and details of access points to the subdivision; • Existing vegetation on the land and vegetation to be retained; • Location of services and infrastructure, and proposed methods of draining the land; • Any easements, covenants or other restrictions either existing or proposed on the site; • Type of subdivision proposed (Torrens, strata and/or community title). <p>7. Stormwater Management Plan - illustrating the concept for stormwater management from the site and must include details of any major overland flow paths through the site and any discharge points to the street drainage system. Where an on-site detention system is required, the type and location must be shown and must be integrated with the proposed landscape design. Site discharge calculations should be provided.</p> <p>8. Landscape Plan – showing planting design and plant/tree species to be used, listing botanical and common names, mature height and spread, number of plants to be utilised in relation to the treatment of communal/public open space areas, footpaths, driveways and the public domain including details of street trees, furniture, signage, lighting and surface treatments (i.e. pavers).</p> <p>9. Concept Vegetation Management Plan – outlining the existing environmental values and protection of these values, weed management, landform modification works, bushfire considerations, and the management and maintenance regime for areas of open space.</p> <p>10. View analysis – artist's impression, photomontages, etc of the proposed development in the context of the surrounding development.</p>
Specialist advice	<p>Specialist advice, where required to support your Environmental Assessment, must be prepared by suitably qualified and practising consultants in relation to issues including, but not limited to, the following:</p> <ul style="list-style-type: none"> • Planning; • Flora and Fauna; • Bushfire; • Landscaping; • Geotechnical and/or hydrogeological (groundwater); • Stormwater/drainage; • Urban Design/Architectural; • Contamination in accordance with the requirements of SEPP 55; and • Acid Sulfate Soil Management Plan.
Documents to be submitted	<ul style="list-style-type: none"> • Both hard copy and electronic versions of the Environmental Assessment will be required to be submitted. Please contact the Department prior to submitting your Environmental Assessment to determine how many copies will be required. • If the Environmental Assessment is bulky, you will be required to package up each Environmental Assessment ready for distribution by the Department to key agencies.
Electronic Documents	<p>Electronic documents presented to the Department for publication via the Internet must satisfy the following criteria:-</p> <ul style="list-style-type: none"> ▪ All files should be approximately 5 Mb. ▪ Large files of more than 5 Mb will need to be broken down and supplied as different files.

Attachment 3 State Government technical and policy guidelines

The following list provides relevant technical and Policy Guidelines which may assist in the preparation of the Environmental Assessment. It should be noted, however, that this list is not exhaustive as other documents and policies may need to be reviewed. It is also important to note that not of all of these guidelines may be relevant to your proposal.

The majority of these documents can be found on the relevant Departmental Websites, on the NSW Government's on-line bookshop at <http://www.bookshop.nsw.gov.au> or on the Commonwealth Government's publications website at <http://www.publications.gov.au>.

Aspect	Policy /Methodology
Biodiversity	
	Draft Guidelines for Threatened Species Assessment (DEC & DPI, 2005)
	Draft Threatened Biodiversity Survey and Assessment Guidelines (DEC, 2004)
	Why do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries, 2003)
	Policy and Guidelines: Aquatic Habitat Management and Fish Conservation (NSW Fisheries, 1999)
	Threatened Species Management Manual (NPWS, 1998)
Coastal Planning	
	NSW Coastal Policy 1997 - A sustainable Future for the New South Wales Coast, NSW Government, 1997
	Coastal Design Guidelines for NSW, PlanningNSW, February 2003
	NSW Wetlands Management Policy (DLWC, March 1996)
	Coastline Management Manual (NSW Government 1990)
Community Consultation	
	Guidelines For Major Project Community Consultation, (NSW Department of Planning, 2007) http://www.planning.nsw.gov.au/assessingdev/pdf/Dr3%20DOP%20Guide%20MajProComConsult%20BRO.pdf
Bushfire	
	Planning for Bushfire Protection 2006 (NSW Rural Fire Service)
Contamination and Soils	
	Managing Land Contamination: Planning Guidelines SEPP 55 – Remediation of Land (DUAP & EPA, 1998)
	Best Practice in Contaminated Sites (Commonwealth DEH, 1999, ISBN 0 642 546460)
	Contaminated Sites: Sampling Design Guidelines (EPA, 1999)
	NSW Acid Sulfate Soil Management Advisory Committee - Acid Sulfate Soil Manual (ASSMAC, 1998).
Environmental Management Systems	
	NSW Government Interim Water Quality and River Flow Environmental Objectives (DEC)
	Guidelines for the preparation of Environmental Management Plans (DIPNR, 2004)

Aspect	Policy /Methodology
Heritage	
Aboriginal	Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (DEC, 2005) Interim Community Consultation Requirements for Applicants (DEC, 2004)
Non-Indigenous	Assessing Heritage Significance Update for Heritage Manual, NSW Heritage Office, 2000 Statements of Heritage Impact, NSW Heritage Office 2002 NSW Heritage Manual, NSW Heritage Office 1996
Noise	
	Environmental Criteria for Road Traffic Noise (EPA, 1999) Acoustics - Road traffic noise intrusion - Building siting and construction (Standards Australia, 1989, AS 3671-1989)
Safety and Hazards	
	Electrical Safety Guidelines (Integral Energy)
Traffic & Transport	
	Guide to Traffic Engineering and Guide to Geometric Design of Rural Roads (Ausroads, 2003, AP-G1/03) Guide to Traffic Generating Developments (RTA, 2002)
Urban Design: Cycleway/Pathway Design	
	Guidelines for the Design and Construction of Paths and Cycleways along Watercourses and Riparian Areas (Version 2) (DIPNR/DNR)
Water	
Water Quality	Water quality guidelines for the protection of aquatic ecosystems for upland rivers. (ANZECC, 2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC 2000)
Effluent Reuse	Environmental Guidelines for the Utilisation of Treated Effluent by Irrigation (NSW DEC 2004)
Floodplain	NSW Government Floodplain Development Manual - the Management of Flood Liable Land (DIPNR, 2005) Practical Consideration of Climate Change – Floodplain Risk Management Guideline (DECC, October 2007)
Groundwater	NSW State Groundwater Quality Protection Policy (DLWC, 1998, 0 7313 0379 2) NSW State Groundwater Quality Protection Policy (DLWC 1998) NSW Groundwater Dependent Ecosystem Policy (DLWC 2000)
Stormwater	Managing Urban Stormwater: Soils & Construction (NSW Landcom, March 2004) - "The Blue Book"
Waterways	Waterways Crossing Design & Construction (Version 4 – DIPNR/DNR Draft Guidelines) Haines P.E. (2006) 'ICOLL Management: Strategies for a sustainable future' BMT WBM Pty Ltd
Wetlands	NSW Wetlands Management Policy (DLWC 2000)
EPBC Act	
	Commonwealth Environment Protection and Biodiversity Conservation Act 1999: Guide to implementation in NSW: March 2007

**Attachment 4
Agency Responses to Request for Key Issues
For Information Only**



NSW Government

Department of Water & Energy

Ms Sally Munk
Coastal Assessments Branch
Department of Planning
GPO Box 39
Sydney NSW 2001

Contact: Rod Browne
Phone: (02) 6740 2347
Fax: (02) 6742 3129
Email: rod.browne@dnr.nsw.gov.au

Our ref: ER20486
Your ref: MP 08_0148
File: 9051026

30 January 2009

Dear Ms Munk,

MP 08_0148, Residential Subdivision, Lot 260, Graham Drive, Sandy Beach Key Issues and Assessment Requirements

I refer to your letter of 23rd December 2008 and attached Preliminary Environmental Assessment (PEA) on the above proposal, seeking Departmental (DWE) comment on matters for inclusion in the Environmental Assessment (EA).

The project site is adjacent to that of MP 08_0120, located alongside Double Crossing Creek, in the catchment of Hearnese Lake. The creek and lake, as confirmed in the PEA, are part of the waters of the Solitary Islands Marine Park. The riparian zone of the creek therefore forms an important habitat and ecological buffer area. Site drainage and impacts on water quality of receiving waters are important issues, with erosion and sediment control a key aspect. The PEA recognises the potential presence of acid sulfate soils (ASS) under or near the site, and the risk of mobilisation of acid waters affecting the creek is another key issue for the EA. The groundwater regime under the site is not described in the PEA and deserves more attention in the EA. A critical requirement is to maintain a relatively stable water table above any potential ASS in the locality. The site and locality is covered by a number of existing and proposed environmental planning instruments and strategies, as documented in the PEA, particularly the Hearnese Lake DCP, and the proposal needs to be consistent with these.

Consistent with our previous response to MP 08_0120, attached are DWE's general issues and requirements for Environmental Assessment (EA). The following specific points emphasise the key aspects relevant to this proposal.

- The Hearnese Lake DCP and the Hearnese Lake Estuary Management Plan provide guidance for development in this locality and DWE would expect the EA and proposal to address and be consistent with these documents.
- The proposed measures for rehabilitation and management of the riparian zone along Double Crossing Creek should be clearly described, and preferably consistent with DWE guidelines.
- The EA should provide a comprehensive description of proposed water management and drainage across the site, including any reliance on local stormwater or groundwater, and measures to minimise adverse impacts on water quality in receiving waters, such as through erosion and sediment control, stormwater management and buffer zones.
- The EA should provide a description of the groundwater regime underlying the site, including its general quality, any use by surrounding landholders, and the prevailing depth to water tables, and identify any potential adverse impacts due to the proposal.

Gunnedah Resource Centre, 9127 Kamilaroi Highway, PO Box 462, Gunnedah NSW 2380 Australia
t (02) 67402340 | f (02) 6742 3129 | e information@dwe.nsw.gov.au

www.dwe.nsw.gov.au | ABN 58 132 718 272

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- The EA should clarify, in accordance with procedures in the Acid Sulfate Soils Manual, the presence, distribution and potential hazard of any acid sulfate soil material beneath the site, and any likely development interactions and management procedures. Similarly if non-sulfate soil acidity only is confirmed, the EA should outline the risk of acid mobilisation due to the proposal and any management actions to minimise impacts on surface or ground water quality.

Please contact me if you have any inquiries on the above.

Yours sincerely

Rod Browne
Senior Planning Officer
Major Projects, Mine Assessments and Planning

Department of Water and Energy

General Assessment Requirements for Major Project Proposals Under Part 3A of *Environmental Planning & Assessment Act 1979*

The Department of Water and Energy (DWE) provides the following advice for consideration:

Relevant Legislation

The assessment is required to take into account the requirements of the following legislation (administered by DWE), as applicable:

- *Water Act 1912*
- *Water Management Act 2000 (WMA)*

In particular, proposals and management plans should be consistent with the Objects (s.3) and Water Management Principles (s.5) of the *WMA*.

Water Sharing Plans

Gazetted Water Sharing Plans (WSPs) prepared under the provisions of the *WMA* establish rules for access to, and the sharing of water between the environmental needs of the surface or groundwater source and water users. If the proposal is within a gazetted WSP area the assessment is required to demonstrate consistency with the rules of the WSP. Refer to: <http://www.dnr.nsw.gov.au/water/plans.shtml>

Relevant Policies

The assessment is required to take into account the following NSW Government policies, as applicable:

- *NSW Groundwater Policy Framework Document - General*
- *NSW Groundwater Quantity Management Policy*
- *NSW Groundwater Quality Protection Policy*
- *NSW State Groundwater Dependent Ecosystem Policy*
- *NSW State Rivers and Estuaries Policy*
- *NSW Sand and Gravel Extraction Policy for Non-Tidal Rivers*
- *NSW Wetlands Management Policy*
- *NSW Farm Dams Policy*
- *NSW Weirs Policy*

In addition assessments should consider the following strategies:

- *NSW Salinity Strategy*
- *NSW Water Conservation Strategy*

The majority of these documents can be found at:

<http://www.dnr.nsw.gov.au/water/legislation.shtml>

Guidelines

The assessment is required to take into account the following DWE Guidelines for Controlled Activities (February 2008), as applicable:

- Riparian corridors (and associated Vegetation Management Plans)
- Watercourse crossings
- Laying pipes and cables in watercourses
- Outlet structures
- In-stream works

Refer to: http://www.dnr.nsw.gov.au/water/controlled_activity.shtml

Groundwater

DWE is responsible for the management of groundwater resources so they can sustain environmental, social and economic uses for the people of New South Wales.

Groundwater Source

The assessment is required to identify groundwater issues and potential degradation to the groundwater source and provide the following:

- Details of the predicted highest groundwater table at the development site.
- Details of any works likely to intercept, connect with or infiltrate the groundwater sources.
- Details of any proposed groundwater extraction, including purpose, location and construction details of all proposed bores and expected annual extraction volumes.
- Describe the flow directions and rates and the physical and chemical characteristics of the groundwater source.
- Details of the predicted impacts of any final landform on the groundwater regime.
- Details of the existing groundwater users within the area (including the environment) and include details of any potential impacts on these users.
- Assessment of the quality of the groundwater for the local groundwater catchment.
- Details of how the proposed development will not potentially diminish the current quality of groundwater, both in the short and long term.
- Details on preventing groundwater pollution so that remediation is not required.
- Details on protective measures for any groundwater dependent ecosystems (GDEs).
- Details of proposed methods of the disposal of waste water and approval from the relevant authority.
- Assessment of the need for an Acid Sulfate Management Plan (prepared in accordance with ASSMAC guidelines).
- Assessment of the potential for saline intrusion of the groundwater and measures to prevent such intrusion into the groundwater aquifer.
- Details of the results of any models or predictive tools used.

Where potential impact/s are identified the assessment will need to identify limits to the level of impact and contingency measures that would remediate, reduce or manage potential impacts to the existing groundwater resource and any dependent groundwater environment or water users, including information on:

- Details of any proposed monitoring programs, including water levels and quality data.
- Reporting procedures for any monitoring program including mechanism for transfer of information.
- An assessment of any groundwater source/aquifer that may be sterilised as a consequence of the proposal.
- Identification of any nominal thresholds as to the level of impact beyond which remedial measures or contingency plans would be initiated (this may entail water level triggers or a beneficial use category).
- Description of the remedial measures or contingency plans proposed.
- Any funding assurances covering the anticipated post development maintenance cost, for example on-going groundwater monitoring for the nominated period.

Licensing

All proposed groundwater works, including bores for the purpose of investigation, extraction, dewatering, testing or monitoring must be identified in the proposal and an approval obtained from DWE prior to their installation.

Groundwater Dependent Ecosystems (GDEs)

The assessment is required to identify any impacts on GDEs.

GDEs are ecosystems which have their species composition and natural ecological processes wholly or partially determined by groundwater. GDEs represent a vital component of the natural

environment. GDEs can vary dramatically in how they depend on groundwater from having occasional or no apparent dependence through to being entirely dependent. GDEs occur across both the surface and subsurface landscapes ranging in area from a few metres to many kilometres. Increasingly, it is being recognised that surface and groundwaters are often interlinked and aquatic ecosystems may have a dependence on both.

Ecosystems that can depend on groundwater and that may support threatened or endangered species, communities and populations, include:

- Terrestrial vegetation that show seasonal or episodic reliance on groundwater.
- River base flow systems which are aquatic and riparian ecosystems in or adjacent to streams/rivers dependent on the input of groundwater to base flows.
- Aquifer and cave ecosystems.
- Wetlands.
- Estuarine and near-shore marine discharge ecosystems.
- Fauna which directly depend on groundwater as a source of drinking water or that live within water which provide a source.

The *NSW Groundwater Dependent Ecosystem Policy* provides guidance on the protection and management of GDEs. It sets out management objectives and principles to:

- Ensure the most vulnerable and valuable ecosystems are protected.
- Manage groundwater extraction within defined limits thereby providing flow sufficient to sustain ecological processes and maintain biodiversity.
- Ensure sufficient groundwater of suitable quality is available to ecosystems when needed.
- Ensure the *precautionary principle* is applied to protect GDEs, particularly the dynamics of flow and availability and the species reliant on these attributes.

A number of gazetted WSP list and map priority GDEs and set out the management strategies and actions for sharing and protecting groundwater quality, quantity and dependent ecosystems.

Surface Waters

DWE is responsible for the sustainable management of rivers, estuaries, wetlands and adjacent riverine plains.

Watercourse/Riparian

The assessment is required to consider the impact of the proposal on the watercourses and associated riparian vegetation within the site and provide the following:

- Identify the sources of surface water.
- Details of stream order (using the Strahler System).
- Details of any proposed surface water extraction, including purpose, location of existing pumps, dams, diversions, cuttings and levees.
- Detailed description of any proposed development or diversion works including all construction, clearing, draining, excavation and filling.
- An evaluation of the proposed methods of excavation, construction and material placement.
- A detailed description of all potential environmental impacts of any proposed development in terms of vegetation, sediment movement, water quality and hydraulic regime.
- A description of the design features and measures to be incorporated into any proposed development to guard against long term actual and potential environmental disturbances, particularly in respect of maintaining the natural hydrological regime and sediment movement patterns and the identification of riparian buffers. (See note below)
- Details of the impact on water quality and remedial measures proposed to address any possible adverse effects.

The *Rivers and Foreshores Improvement Act 1948 (RFIA)* has now been repealed and the controlled activity provisions in the *WMA* have commenced. The provisions relating to controlled activities replaced the *RFIA* from 4 February 2008.

Riparian corridors form a transition zone between terrestrial and aquatic environments and perform a range of important environmental functions. The protection or restoration of vegetated riparian areas is important to maintain or improve the geomorphic form and ecological functions of watercourses through a range of hydrologic conditions in normal seasons and also in extreme events.

Although Part 3A Major Projects are exempt from requiring a controlled activity approval (s91 of *WMA*), the assessment is required to take into account the objectives and provisions of relevant legislation and guidelines.

Note: Recommended Core Riparian Zones (as applicable):

- Minimum of 10m for any intermittently flowing 1st order watercourse;
- 20m for any permanently flowing 1st order watercourse or any 2nd order watercourse;
- 20m – 40m (merit based assessment) for any 3rd order or greater watercourse.

[Refer to DWE Guidelines for Controlled Activities (February 2008) – Riparian Corridors].

Water Management Structures/Dams

DWE is responsible for the management and licensing of these structures under water legislation.

If the proposal includes existing or proposed water management structures/dams, the assessment is required to provide information on the following:

- Date of construction (for existing structure/s).
- Details of the legal status/approval for existing structure/s.
- Details of any proposal to change the purpose of existing structure/s.
- Details if any remedial work is required to maintain the integrity of the existing structure/s.
- Clarification if the structure/s is on a watercourse.
- Details of the purpose, location and design specifications for the structure/s.
- Size and storage capacity of the structure/s.
- Calculation of the Maximum Harvestable Right Dam Capacity (MHRDC).
- Details if the structure/s is affected by flood flows.
- Details of any proposal for shared use, rights and entitlement of the structure/s.
- Details if the proposed development/subdivision has the potential to bisect the structure/s.

DWE's Farm Dams Assessment Guide provides details on harvestable rights and the calculation of the MHRDC. Refer to: <http://www.dnr.nsw.gov.au/water/dams.shtml>

Basic Landholder Rights

The *WMA* identifies Basic Landholder Rights (BLRs) for access to water whereby landholders over an aquifer or with river or lake frontage can access water for domestic (household) purposes or to water stock without the need for a water licence (although a works approval may still be required). This has the potential to impact inequitably on existing licensed water users (under a WSP) in the case where riparian frontage continues to be subdivided, creating new basic rights for water extraction.

If this is an issue for the proposal the assessment should identify any potential for creation of new BLRs along the frontage to major waterways or over any sensitive aquifers. For those subdivisions fronting rivers/lakes, innovative subdivision design which allows the creation of additional lots without direct river/lake frontage or utilises collective or community title to manage the use of any existing BLR could provide a satisfactory way of managing this issue

whilst still allowing for subdivision. Subdivisions over a sensitive aquifer however, may be more limited in using this approach.

Sustainable Water Supply

Many gazetted WSPs to-date have identified particular surface and groundwater systems that are currently over-allocated (that is, water licence volumes issued to landholders operating in these catchments exceed the sustainable volumes/flows within these systems). In the case of over-allocation, the systems have subsequently been embargoed and no new water licences are to be issued within these catchments. Any new or expanded development within such catchments will therefore be unable to obtain any new water entitlements directly and will have to enter the water trading market (if available within that catchment) to seek additional water. Therefore, there can be no guarantees of obtaining additional water via this mechanism and there is the potential of restrictions on further development within such catchments.

Whilst there is provision in the *WMA* to allow for limited growth in Town Water Supplies (TWS) this could still impact subsequently on other water users.

The assessment is required to address the issue of provision of a sustainable water supply for any project proposal. The assessment should include Water Management Plans detailing how a sustainable and efficient water supply can be sourced and implemented with minimal reliance on accessing valuable surface and groundwater resources.

Through the implementation of BASIX, Integrated Water Cycle Management and Water Sensitive Urban Design, any proposed development must also be able to exhibit high water use efficiency. Access to information on sustainability can be found via:
http://www.deus.nsw.gov.au/business_industry.asp

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