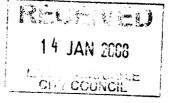
In reply please send to: Newcastle

Our reference: FN92-02046L0

Your reference: F2005/02401

Contact:

Paul Gray 49 084356



General Manager Lake Macquarie City Council Box 1906 HUNTER REGION MAIL CENTRE NSW 2310

10 January 2008

Dear Sir or Madam

REZONING APPLICATION NO TENQ08-02018L1 DRAFT AMENDMENT TO LAKE MACQUARIE LOCAL ENVIRONMENTAL PLAN 2004 TO REZONE LAND AT EDGEWORTH

The Mine Subsidence Board has no objections to the proposed rezoning as described in your letter of 8th January 2008 and accompanying plan.

The applicant should be advised to seek the Board's approval for any proposed subdivision or the erection of improvements at the appropriate time.

Yours faithfully

Paul Gray <u>District Supervisor</u>



NSW Government Offices I 17 Bull Street Newcastle West 2302 PO Box 488G Newcastle 2300 Telephone: (02) 4908 4300 Facsimile: (02) 4929 1032 DX 4322 Newcastle West

WYONG:

Suite 3 Feldwin Court 30 Hely Street Wyong 2259 PO Box 157 Wyong 2259 Telephone: (02) 4352 1646 Facsimile: (02) 4352 1757 DX 7317 Wyong

SINGLETON:

Coal Services Building I Civic Avenue Singleton 2330 PO Box 524 Singleton 2330 Telephone: (02) 6572 4344 Facsimile: (02) 6572 4504

PICTON:

100 Argyle Street Picton 2571 PO Box 40 Picton 2571 Telephone: (02) 4677 1967 Facsimile: (02) 4677 2040 DX 26053 Picton

HEAD OFFICE:

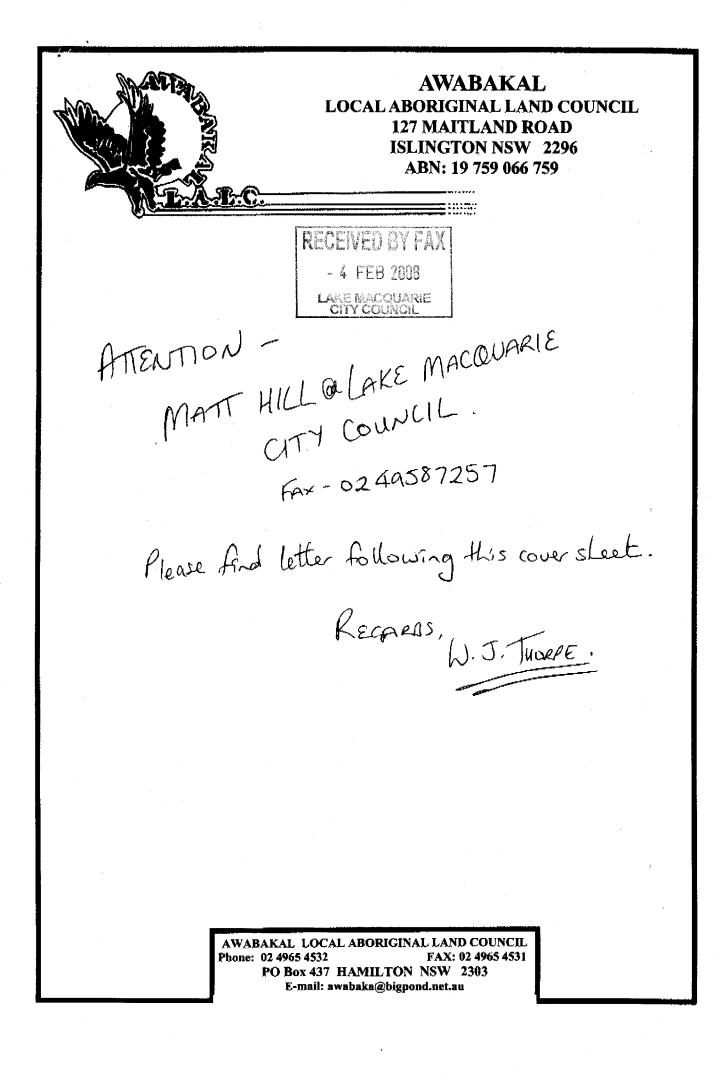
PO Box 488G Newcastle 2300 Telephone: (02) 4908 4395 Facsimile: (02) 4929 1032

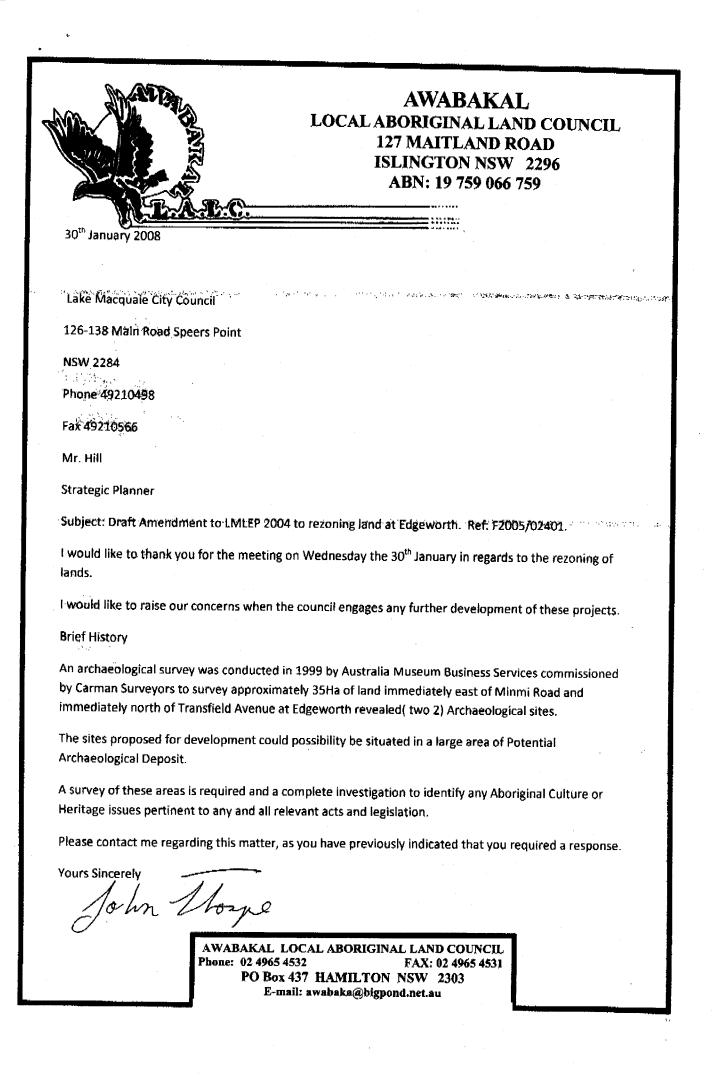


EMAIL: mail@minesub.nsw.gov.au WEBSITE:

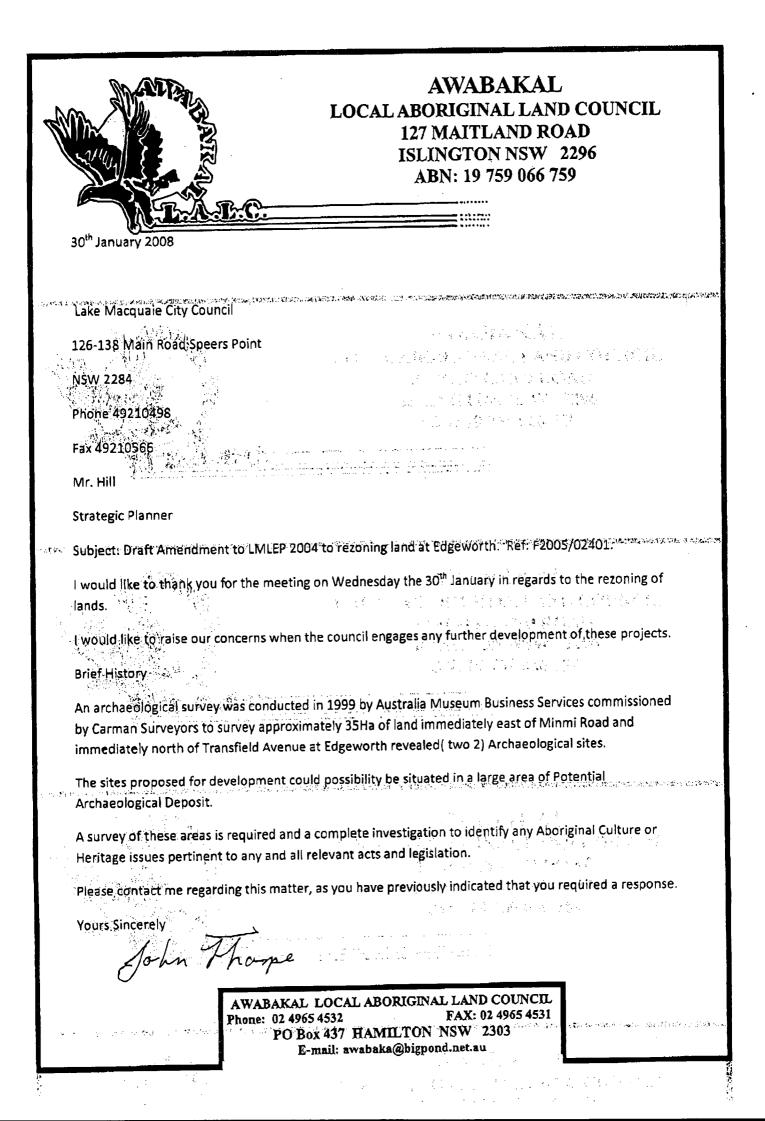
www.minesub.nsw.gov.au

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3 Marist Place Parramatta NSW 2150 Locked Bag 5020 Parramatta NSW 2124 DX 8225 PARRAMATTA Contact: Telephone: 61 2 9873 8500 Facsimile: 61 2 9873 8599

heritageoffice@heritage.nsw.gov.au www.heritage.nsw.gov.au

Contact: Robyn Conroy Telephone: 02-9873-8583 conroyr@heritage.nsw.gov.au File: H98/00082/4 Our Ref: HRL48690 Your Ref: F2005/02401

The General Manager Lake Macquarie City Council Box 1906 HUNTER REGION MAIL CENTRE NSW 2310

Attention: Matthew Hill, Strategic Planner

Dear Sir/Madam

Re: Draft Lake Macquarie Local Environmental Plan 2004 Amendment – to rezone land north of Edgeworth – s.62 Consultation

Thank you for referring the above mentioned draft Local Environmental Plan (LEP) to the Heritage Office for comment. The draft LEP was received on 11 January 2008. This has been reviewed and the following advice is provided to assist Council in its planning process for this area in accordance with the provisions of the Heritage Act, 1977; and in particular Section 21(2) and Part 5 of the Act.

Section 21(2) enables the Heritage Council to comment on any draft environmental planning instrument (amongst other matters), and Section 84(1) in Part 5 of the Act requires that any local environmental plan that will apply to land on which an item of environmental heritage is situated must contain provisions to facilitate the conservation of the building, work, relic, place or precinct. The definition of 'item of environmental heritage' is not limited to properties that have already been listed, but includes any place, building, work, relic, moveable object or relic that has local or state heritage significance. Heritage significance is defined in the Act and the criteria for assessing the value of have been gazetted and are published on the Heritage Office's website at http://www.heritage.nsw.gov.au, publications, A-C (Assessing Heritage Significance).

The onus is on the body preparing the plan to ensure that the requirements of Part 5 of the Heritage Act are met, including the investigation of heritage significance as part of the planning process and ensuring that the provisions of the plan, such as zonings and development potential, will facilitate the conservation of this significance.

It is noted that the draft LEP intends to rezone land to the north of Edgeworth. No information has been provided about the heritage significance of the sites affected by this rezoning although it is noted that Council has highlighted the need for the rezoning process to comply with Section117 direction (Heritage). It is recommended that a heritage study and assessment of the archaeological, built and cultural landscape significance of the site be undertaken to inform the planning process.

It would be appreciated if Council would ensure that the draft Plan reflects the requirements of the Heritage Act and the Section 117 Direction. Providing that any places of heritage significance are listed in the LEP, and that the land uses and development potential established by the plan will facilitate the conservation of this significance, then no objections are raised to the draft LEP.

If you would like the Heritage Council to provide further comment about this plan, or should its likely heritage impacts change as a result of public exhibition, it would be appreciated if the draft could be returned to the Heritage Office for review. I trust these comments are of assistance. If you require any additional information please contact Robyn Conroy on (02) 9873 8583.

Yours faithfully

cae 1/02/08

Vincent Sicari Manager Conservation Team Heritage Office Department of Planning



NSW DEPARTMENT OF PRIMARY INDUSTRIES

Matthew Hill Strategic Planner - Integrated Planning Department Lake Macquarie City Council PO Box 1906 Hunter Region Mail Centre NSW 2310

> Our ref: 06/1734 Your réf: F2005/02401

RECEIVED

1 3 FEB 2008

LAKE MACQUARIE

Dear Matthew,

Re: DRAFT AMENDMENT TO LAKE MACQUARIE LOCAL ENVIRONMENTAL PLAN 2004 TO REZONE LAND AT EDGEWORTH

Thank you for your letter of 16 February 2006 concerning the proposed rezoning of land at Edgeworth cited above.

The Department of Primary Industries has been formed by the merger of NSW Fisheries, Mineral Resources NSW, State Forests NSW and NSW Agriculture. This is a coordinated Department of Primary Industries response that reflects the views of the Minerals Division. There are no issues relevant to the interests of the Fisheries Division of the Department, nor Forests NSW.

The subject land is located within Petroleum Exploration Licence (PEL) 267 held by Sydney Gas Operations Pty Ltd who are currently investigating the potential for coal seam methane resources in the title area. It is understood that any resource development would be carried out in the medium to long term. The title holder should be contacted regarding the proposed rezoning and future development of the subject area at Edgeworth.

The proposed development area is also located within the former Xstrata New Wallsend No. 2 Colliery and covered by the Lake Macquarie Mine Subsidence District. The Division advises that any development on the land will need to comply with appropriate Mine Subsidence Board guidelines.

If you have any further queries on this matter please contact Cressida Gilmore, Senior Geologist, Land Use on 4931 6537 (Minerals).

Yours sincerely.

1ain PatersonActing Team Leader, Land Use4 February 2008

Mineral Resources NSW

PO Box 344 Hunter Region Mail Centre NSW 2310 516 High Street Maitland NSW 2320 ABN 51 734 124 190 www.dpi.nsw.gov.au Tel: 02 4931 6666 Fax: 02 4931 6790 All communications to be addressed to:

Head Office NSW Rural Fire Service Locked Mail Bag 17 Granville NSW 2142

Telephone: (02) 8741 5555

Head Office NSW Rural Fire Service 15 Carter Street Homebush Bay NSW 2127

Facsimile: (02) 8741 5550

The General Manager Lake Macquarie Council Box 1906 Hunter Region Mail Centre NSW 2310

Your Ref: F2005/02401 Our Ref: LEP/0075 A08/0049 GB

Attention: Matthew Hill

6 February 2008

Dear Sir,

Re: Draft Amendment to Lake Macquarie Local Environmental Plan 2004 To rezone land at EDGEWORTH NSW

I refer to your letter dated 8 January 2008 seeking our advice in accordance with Section 62 of the *Environmental Planning & Assessment Act 1979* for the draft amendment to the above Local Environmental Plan (LEP).

The NSW Rural Fire Service (RFS) notes that the subject site at Edgeworth is identified as bush fire prone on the Lake Macquarie Bush Fire Prone Land Map.

The RFS has no objection to the rezoning however advises that any future residential subdivision will need to comply the requirements of *Planning for Bush Fire Protection* 2006, and would be subject to assessment in accordance with section 100B of the *Rural Fires Act* 1997.

For any enquiries regarding this correspondence please contact Garth Bladwell.

Yours sincerely

Nika Fomin Co-ordinator, Development Control Services

The RFS has made getting additional information easier. For general information on *Planning for Bush Fire Protection 2006*, visit the RFS web page at <u>www.rfs.nsw.gov.au</u> and search under *Planning for Bush Fire Protection 2006*.

Rural Fire Service Advisory Council

Your reference Our reference Contact : F2004/02401 : DOC08/1035 & DOC08/1242; FIL06/921-06 : Richard Bath, 4908 6805

Mr B Bell General Manager Lake Macquarie City Council PO Box 1906 HUNTER REGIONAL MAIL CENTRE NSW 2310

1 5 FEB 2008

RECEIVED

1 8 FEB 2008

LAKE MACOUARIE

CITY COUNCIL

Attention: Mr Mathew Hill

Dear Mr Bell

SECTION 34A AND SECTION 62 CONSULTATION - DRAFT AMENDMENT TO LAKE MACQUARIE LOCAL ENVIRONMENTAL PLAN 2004 - EDGEWORTH

I refer to your letters of 8 and 10 January 2008 requesting section 34A and 62 comments from the Department of Environment and Climate Change (DECC) on the above matter.

The DECC notes that this site is identified in the *Lower Hunter Regional Strategy (October 2006)* as a proposed urban area and understands that the draft amendment to the Local Environmental Plan (LEP) proposes to rezone land to a variety of zones to enable both urban development and conservation outcomes.

In the preparation of a draft LEP for the above site, the following issues should be considered:

- Impacts on areas of native vegetation, with special reference to threatened or regionally significant flora and fauna species, populations and ecological communities. Where impacts are proposed on areas of biodiversity value, the proponent should clearly demonstrate how they propose to offset any loss in biodiversity value to meet the 'improve or maintain' threshold.
- Any potential landuse conflicts associated with air, noise and odour impacts are adequately addressed, particularly in relation to premises scheduled under the *Protection of the Environment Operations Act 1997*.
- The proposed LEP adequately considers the relevant threatened species provisions of the *Environmental Planning and Assessment Act 1979*, State Environmental Planning Policy (SEPP) 44 Koala Habitat Protection, SEPP 71 Coastal Protection and the *Native Vegetation Act 2003*.
- In preparing the LEP, an appropriate level of Aboriginal cultural heritage assessment has been undertaken, and that the proposed LEP is not likely to impact on areas of cultural significance

PO Box 488G, Newcastle NSW 2300 117 Bull Street, Newcastle West, NSW 2302 Tel: (02) 4908 6800 Fax: (02) 4908 6810 ABN 30 841 387 271 www.environment.nsw.gov.au

Department of Environment and Conservation NSW

to the Aboriginal community. Also, it is important that the views of Aboriginal community groups be sought and fully considered in regard to the preparation of the LEP.

- Potential direct and indirect impacts on DECC estate, wilderness areas, wild rivers and recognised areas of high conservation value have been adequately considered and avoided, ameliorated or compensated as appropriate.
- Any areas of contamination on the site are identified and managed in accordance with the *Contaminated Land Management Act 1997.*
- Stormwater emanating from the area must be managed in a sustainable manner to prevent any impacts on the adjacent rivers, wetlands or estuaries.

Your attention is also drawn to the Commonwealth legislation, the *Environment Protection and Biodiversity Conservation Act 1999.* If the proposed LEP affects any species requiring consideration under this legislation then consultation may be required with the the Australian Government, Department of the Environment, Water, Heritage and the Arts (formerly the Department of the Environment and Water Resources).

Please find enclosed a list of environment issues that may guide assessment of the site and the preparation of the draft LEP.

If you have any enquiries concerning this advice, please contact me on 4908 6805.

Yours sincerely

DIANE CROSDALE Head Planning Unit - Hunter Environment Protection and Regulation

Enclosure

Department of Environment and Conservation NSW

Department of Environment and Climate Change (DECC)

Guidelines for Preparing Local Environmental Plans (Working Draft – February 08)

1. Introduction

Environmental Planning Instruments (EPIs), made pursuant to the *Environmental Planning and Assessment Act 1979* (EP&A Act), provide a key mechanism for the identification and protection of environmental, cultural and conservation values at the strategic planning stage. In particular, the preparation of Local Environmental Plans (LEPs) by councils offers clear opportunities to address these issues at the earliest possible stage in the planning process, thereby providing greater certainty in delivering future environment and development outcomes.

2. Statutory roles

The DECC has legislative responsibilities relevant to strategic land use planning, including:

- (1) the establishment and management of conservation reserves (*National Parks and Wildlife Act 1974* NPW Act);
- (2) conserving natural ecosystem functions, biodiversity, and threatened species, populations and endangered ecological communities (*Threatened Species Conservation Act 1995* TSC Act);
- (3) protecting Aboriginal cultural heritage values (NPW Act);
- (4) sustaining clean and healthy air, water and land (*Protection of the Environment Operations* Act 1997 – POEO Act, Contaminated Land Management Act 1997 – CLM Act).

On 27 April 2007 DECC's responsibilities were extended to include climate change and Marine Parks, as well as a number of responsibilities in relation to biodiversity and water management previously exercised by the former Department of Natural Resources. This advice takes into account these new responsibilities.

The DECC does not have a statutory approval role for EPIs with the exception of those EPIs that are proposed for "biodiversity certification" – this is discussed further below. To achieve biodiversity certification, key environment protection and conservation measures must be embedded in the EPI, to provide certainty of permanent protection.

Attachment 1 provides background information and recommended planning approaches to applying DECC's strategic policies in the preparation of LEPs.

ATTACHMENT 1

DECC POLICY GUIDELINES AND RECOMMENDED PLANNING OUTCOMES

1. CONSERVATION RESERVES

1.1 Approaches to planning

When preparing new or amended LEPs, councils should undertake the following steps:

- <u>identify any existing or proposed areas</u> that are reserved under the NP&W Act. Existing reserves can be found at *http://maps.environment.nsw.gov.au*. Information on lands owned by the DECC but not yet gazetted as conservation reserve can be obtained from the DECC.
- <u>identify threats</u> to reserves from surrounding or up-stream land-uses. This should include consideration of existing and possible future land-uses, not only associated with direct physical impacts (e.g. new housing developments bordering a reserve) but also related impacts, such as increased visitor numbers to the reserve.

Any proposals to increase the scale or change the type of land uses in areas bordering a DECC reserve should be subject to specific consideration of likely impacts on the reserve. These include:

- Erosion and sediment control;
- Stormwater runoff;
- Management implications, for example from domestic animals, weed incursion, edge effects;
- Fire and the location of Asset Protection Zones (APZ);
- Boundary encroachments;
- Visual, odour, lighting, air quality and amenity impacts; and
- Threats to ecological connectivity.

Note that the DECC does not support the placing of APZs for new urban development on DECC estate. Stormwater and sediment/erosion control measures should ensure there is no adverse change to quality or quantity of water entering DECC reserves.

1.2 Recommended planning outcomes

The LEP should ensure that land gazetted or proposed to be gazetted under the *NPW Act* is correctly zoned, and that land uses adjoining or likely to impact on conservation reserves are subject to zoning and development controls that avoid or limit the potential impacts.

2. BIODIVERSITY

2.1 Approaches to planning

A detailed biodiversity assessment should be undertaken to enable councils to identify, assess and appropriately conserve the ecological attributes of the landscape. The scope and detail required in the assessment will vary depending on the existing and potential attributes of the study area. In broad terms the DECC considers that an assessment of biodiversity values should include, but not necessarily be restricted to, the following information:

- detailed description and mapping of all vegetation communities in the study area;
- identification of any vegetation communities or plant species that are of local, regional or state conservation significance (including threatened species, populations, endangered ecological communities and their habitats or critical habitat, listed under the *TSC* Act). The criteria for establishing significance should be documented;
- description of known or expected fauna assemblages within the study area;
- identification of fauna habitat likely to be of local, regional or state significance (including habitat of threatened species, populations, ecological communities or critical habitat listed under the *TSC Act*);

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- identification of habitat corridors and linkages between areas of remnant native vegetation that may assist faunal movement, transfer of seeds and pollen and other forms of gene flow through the area, and an assessment of the conservation significance of these; and
- prediction of the likely impact of any zonings or provisions proposed in the LEP on the above attributes (quantification of the extent of impact where practical).

Information sources

The DECC can provide the following information resources:

- Vegetation mapping (and in some cases fauna assessments) and biodiversity analyses for State, regional and local significance – contact the Northern GIS Support Officer on 6659 8243 for details.
- NSW Wildlife Atlas http://wildlifeatlas.nationalparks.nsw.gov.au/wildlifeatlas/watlas.jsp
- Threatened species website including the Priority Action Statement which contains threatened species actions for each LGA, at <u>http://www.threatenedspecies.environment.nsw.gov.au/index.aspx</u>
- Survey and assessment guidelines –
 www.nationalparks.nsw.gov.au/pdfs/tbsa_guidelines_draft.pdf

Further guidance on planning for biodiversity conservation can be found in the: •

 Biodiversity Planning Guide for Local Government (NPWS, 2001) – this includes sample planning provisions for use in EPIs, DCPs and council management plans and can be found at <u>http://www.nationalparks.nsw.gov.au/npws/nsf/Content/Biodiversity+planning+guide+for+NSW</u> +local+government

2.2 Recommended planning outcomes

(a) Areas of high biodiversity value and adjoining areas of moderate value

Examples of such areas include, but are not limited to, lands identified as of State or regional biodiversity significance in Regional Strategies or Regional Conservation Plans, endangered ecological communities, key coastal lands and wetlands, threatened species habitat, declared wilderness or World Heritage, vegetated linkages across the landscape. Such land has limited development potential due to legislative protection under the TSC Act, the NP&W Act, the *Wilderness Act* and the *Native Vegetation Act*. These lands should be managed to ensure that no development or activity, including public access, recreation and land management activities, result in adverse impacts or loss of biodiversity values.

(b) Areas of moderate biodiversity value (not adjoining areas of high value) and low value

Examples of such areas include, but are not limited to, lands of lesser ecological integrity and/or lands which fulfil a buffer function to higher ecological integrity areas. These could also include important linkage lands intended for protection and/or restoration as identified in Regional Conservation Plans or CMA catchment action plans. A limited range of land uses only should be permitted, consistent with the objectives of the zone, to ensure that development or activity, including public access, recreation and land management activities, results in no net loss¹ in the area's ecological values.

(c) Waterways and riparian corridors

The DECC considers the protection of natural waterways and riparian corridors essential if improvements in environmental outcomes are to be achieved. Natural waterways and riparian corridors are key to the protection of the structural stability of waterway bed and banks and existing terrestrial and aquatic biodiversity values, as well as providing major opportunities for future rehabilitation and development of biodiversity corridors and linkages. They are also an

¹ 'no net loss' implies that additional beneficial conservation actions are required to counter-balance any proposed losses of ecological values. Beneficial action might include the protection and management of high value areas and revegetation of strategic corridor areas.

integral part of the stormwater management system and support multiple values, such as aquatic health, floodplain management and Aboriginal heritage (discussed further below), as well as providing a significant recreational resource.

The DECC recommends that in environmentally sensitive areas any rezoning should include a riparian corridor at least 50m wide (i.e. 40m core riparian zone and 10m buffer) to provide the potential to retain vegetative connectivity across the landscape, maintain stream-bank stability and in-stream water quality.

(d) Salinity

DECC mapping indicates that your LGA may be affected by salinity. Accordingly, Council should ensure that the impact of future development on the salinity process is considered.

(e) Acid Sulfate Soils

Proposed development may disturb, expose or drain acid sulfate soils and cause environmental damage. Council should ensure that assessment of the site is in accordance with the *Acid Sulfate Soils Management Guidelines* so as to minimise the actual or potential impact to the environment arising from disturbance of the soils.

2.3 Biodiversity certification

Under the *TSC Act* the Minister for the Environment may grant biodiversity certification to an EPI. It does not include a DCP or any other strategic or development planning document. Biodiversity certification will require councils to demonstrate that the EPI will lead to "improved or maintained" biodiversity values. If granted, certification will "switch-off" the need for further threatened species assessments at the development application stage.

A paper is available on the DECC website providing the current status of bio-certification. It can be accessed at <u>http://www.environment.nsw.gov.au/resources/biobanking06135.pdf</u>.

Early discussions should be sought with the DECC if the planning authority wishes to seek biodiversity certification of an EPI.

3. ABORIGINAL CULTURAL HERITAGE

The DECC recommends that Councils consult with the local Aboriginal community early in the LEP drafting process to determine a mutually acceptable approach to addressing ACH within the LEP. It is important that consultation be undertaken in a culturally appropriate manner. Inappropriate consultation techniques/ processes are one of the main barriers that may undermine the ability of Council and the Aboriginal community to engage and to achieve protection of ACH.

Aboriginal heritage has both cultural and archaeological significance. DECC recommends that Councils incorporate an assessment and consideration of both types of Aboriginal heritage values during preparation of draft LEPs:

- an archaeological assessment involving the identification and assessment of Aboriginal objects (often referred to as "sites") and their management based on archaeological criteria; and
- a cultural heritage assessment involving consultation with Aboriginal stakeholders (groups and individuals) and which can include historical and oral assessment and broader values assessment (e.g. landscape and spiritual values).

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Information sources

Aboriginal Heritage Information Management System (AHIMS). For further information on AHIMS contact the AHIMS Registrar on 9585 6470 or go to:

http//:www.nationalparks.nsw.gov.au/npws.nsf/Content/Aboriginal+Heritage+Information+Manage ment+System.

4

Assessments should be undertaken in accordance with the DECC:

- Aboriginal Cultural Heritage Standards and Guidelines Kit: (http://:www.nationalparks.nsw.gov.au/PDFs/aboriginal_heritage _guidelines_kit_final.pdf)
- as modified by the Interim Community Consultation Requirements for Applicants: (http://:nationalparks.nsw.gov.au/PDFs/interim_consultation_guidelines.pdf).

(Note: Although these documents were written for assessment and consultation at the DA stage, the methodologies are still applicable at the strategic stage).

4. WATER QUALITY

Much of the development pressure for the north east region of NSW has the potential to impact on downstream environments. Impacts may either be as a result of its immediate proximity to sensitive bushland, waterways or estuaries, or as a result of runoff from new development upstream in catchments having downstream impacts due to excessive quantity of runoff as well as poor runoff quality.

4.1 Objectives for planning

Stormwater runoff from urban areas has a significant impact on downstream receiving environments. The NSW Government has endorsed environmental values for all waterways in NSW. These environmental values include aquatic health, aesthetic values and secondary water contact (primary contact in the longer term). These are published as Water Quality and River Flow Objectives.

The DECC's strategic planning objective for water management is to assist councils to protect and enhance the environmental values of water bodies and bushland by minimising the impacts of stormwater runoff. Accordingly, the DECC is finalising a new series of *Managing Urban Stormwater* which will provide updated guidance for councils in developing Stormwater Management Plans and setting specific objectives and targets across their local government area that are tailored to specific receiving environments. These will include objectives and targets for:

- streams and rivers
- wetlands
- lakes
- estuaries
- bushland

A major feature of the guidance material will be the provision of a range of stormwater targets that can be readily used in the conceptual and detailed design of urban developments and associated stormwater management systems, and in the assessment of those designs by consent authorities.

4.2 Strategic planning for stormwater management

When undertaking stormwater management planning, either across an entire LGA or for new developments or major redevelopment, councils should implement the principles of Water Sensitive Urban Design (WSUD). WSUD is an approach to stormwater management that aims to minimise the impacts of development upon the water cycle and achieve more sustainable forms of urban development. It generally involves a treatment train approach by targeting management measures at source, during conveyance and end-of-pipe, which results in a distributed stormwater system.

Source controls include rainwater tanks, rain gardens, buffer strips, bio-retention systems, gross pollutant traps (GPTs), trash racks and oil and grease separators. Conveyance systems can also include bio-retention systems, GPTs, vegetated swales, pipes, etc. End-of-pipe measures include detention basins, wetlands and sand filters.

One of the aims of WSUD is to retain as much as possible of small storm or rain events on site (retain one in three month event) as in natural environments this would rarely reach the receiving

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waters. The aim is then to disperse runoff via the conveyance system as much as possible so that it is not piped directly to the stream providing "flashy" input, which erodes and scours streambeds.

When undertaking strategic planning, the DECC recommends the preparation of a water management study to assist in the investigation, planning and design of an appropriate WSUD strategy that can meet the stormwater management objectives for a site or area.

The level of detail addressed in the study would be guided by the scale of the planning project. However, regardless of scale, the water management study should:

- Identify stormwater management objectives and any other water management objectives (including reuse in order to meet the requirements of BASIX, flooding management, salinity hazard);
- Identify and assess relevant site characteristics and constraints;
- Identify potentially feasible stormwater management strategies, which may comprise stormwater reuse options, best planning practices, stormwater treatment measures (in both the public and private domain) and indicative maintenance requirements and arrangements;
- Assess those potential strategies, including the nature, basis and outcomes of stormwater modelling used to assess alternative solutions. This assessment of alternative strategies should address their compliance with management objectives, life-cycle costs, ongoing operations and maintenance requirements, land-take requirements, expected reliability and likely level of community acceptance; and
- Provide a suitably detailed description of the preferred WSUD strategy, in the form of documents, plans and conceptual diagrams.

Further information is available on the DECC website. As noted above, the DECC is currently finalising the new *Managing Urban Stormwater* series. To date, the following guidelines from the new series have already been released:

- Managing Urban Stormwater: Harvesting and Reuse (DECC,2006)http://www.environment.nsw.gov.au/stormwater/pubs.asp; and
- Erosion and Sediment Controls: A Resource Guide for Local Councils (DECC, 2006).

5. AIR QUALITY

5.1 Air quality and the north east region

The DECC's strategic planning objectives for air quality management relevant to the North East Branch relate to greenhouse gases, non-greenhouse gases (including particles, ozone, and other emissions which may impact on human health or amenity) and airborne dust.

The Central Coast and Hunter are part of the Metropolitan airshed and thus is included in *Action for Air*, the NSW Government's 25-Year Air Quality Management Plan, which is policy framework and associated air quality monitoring regime designed to improve ozone and particle pollution levels so that they consistently meet National Environment Protection Measure (NEPM) standards. Although air quality in the Central Coast and Hunter is amongst the best in the Metropolitan airshed, the strategic planning objectives and strategies of *Action for Air* must be factored into the strategic planning processes of councils in these areas. These include reducing or limiting vehicle kilometres travelled (VKT) in urban areas through compact urban forms and regular public transport.

Being part of the Metropolitan airshed also means that the Central Coast and Hunter are included in a major new database known as the Air Emissions Inventory that provides information on air pollution sources by area or type of emission source and allows projections to be made of the cumulative air quality impacts of development proposals. This is a significant new planning aid that provides councils with an accessible tool to understand their existing local air quality and 'test' the impacts of proposed development on air quality.

5.2 Objectives for planning

Throughout the region, particularly in regional centres, strategic planning can contribute to making progress on greenhouse gas reductions by ensuring new development is located so that vehicle trips are as short as possible and so that all opportunities are taken to reduce the number of car trips (e.g. by encouraging train, bike or pedestrian access). Compact development building on existing centres is preferred to remote dormitory villages where jobs and services are few.

Information sources

The following information is available to assist councils in working to improve air quality:

- Planning Guidelines for Walking and Cycling (Department of Planning and RTA, 2005) <u>http://www.planning.nsw.gov.au/plansforaction/pdf/guide_pages_cover_14.pdf</u>
- Improving Transport Choice: Guidelines for Planning and Development (Transport NSW, RTA and DUAP, 2001) - <u>http://www.planning.nsw.gov.au/programservices/</u> pdf/prg_transport.pdf

5.3 Recommended planning outcomes

<u>Regional centres and major urban areas</u> - Where possible, high trip-generating commercial and residential development should be located within 400 metres of a bus stop or, if services available (i.e. Central Coast and Hunter), 800 metres of a train station (recognising the potential need for a noise buffer for residential areas).

Councils can facilitate the use of public transport, walking and cycling through the provision of compact urban forms and attractive pedestrian and cycle paths/facilities linking centres to their surrounding towns and villages.

In the Central Coast and Hunter Regions planning to extend existing employment areas or propose new employment zones should take into account data on current local air quality (available via the Air Emissions Inventory) as well as the potential for cumulative air quality impacts associated with new sources of air pollution. It may be that local air quality problems may justify councils acting to discourage some forms of high emission industry.

<u>New residential areas</u> – Where growth management strategies are being developed specific consideration should be given to creating compact urban forms and minimising the length of vehicle trips between new residential areas and employment and service centres in order to minimise fuel use and associated greenhouse emissions.

Particularly in areas prone to winter inversions, where reticulated gas is available, DCPs should discourage reliance on solid fuel burning for heating.

As in major urban centres, councils can facilitate the use of public transport, walking and cycling through the provision of attractive pedestrian and cycle paths/facilities linking centres to their surrounding towns and villages.

6. ENVIRONMENTAL AMENITY - NOISE, ODOUR AND DUST

6.1 Planning issues and approaches

Noise is a major urban issue. Motor vehicles are the most significant source of noise, but noise associated with industrial uses, intensive agricultural uses and proximity to key infrastructure, such as rail routes and airports, can also pose particular environmental challenges.

Odour and dust can also have significant impacts on amenity and community well being. Many commercial, industrial and rural premises produce odours that can adversely impact on community well-being. Dust is a particular issue for industries such as quarrying and concrete production, but is also relevant in the development of new urban areas and infrastructure, such as roads.

The strategic planning objectives for environmental amenity include:

- minimise the impacts of noise, odour and dust on sensitive land uses by ensuring adequate separation between incompatible land uses;
- ensure that new development is capable of being designed to achieve acceptable noise levels for occupants (i.e. indoor noise levels); and
- ensure that new development will not impose unrealistic demands on existing activities.

Information sources

The following guidelines on noise and air pollution are the most recent ones available for use by councils:

- NSW Industrial Noise Policy (INP) 2000 (EPA) this deals with noise from industrial sources.
- Environmental Criteria for Road Traffic Noise (ECRTN) 1999 (EPA) includes a procedure to test whether a proposed development site is likely to be significantly affected by road traffic noise.
- Consideration of Rail Noise and Vibration in the Planning Process (Railcorp) recommends that a noise and vibration assessment, including recommendations for acoustic treatment, be carried out for apartment buildings and other sensitive land uses within 60 metres of a railway line. Any recommended acoustic treatments should be incorporated into the development consent.
- Noise Guide for Local Government 2004 (DECC) general information for councils about noise regulation under the POEO act. The Guide also has a section (3.1, Preventing Noise Impacts) on land use planning principles.
- Draft Policy: Assessment and Management of Odour from Stationary Sources in NSW 2001.
- **Register of Licensed Premises** This public register of premises licensed under the POEO Act is available at http://www.environment.nsw.gov.au/prpoeoo/licences.htm.

6.2 Recommended planning outcomes

Given that residential zones are very sensitive to the impacts of noise, odour and dust, Council should ensure that the proposed development is specifically assessed to avoid residents being exposed to unacceptable amenity.

7. LAND CONTAMINATION

7.1 Planning issues and approaches

In NSW, the management of contaminated land is shared by the DECC, the Department of Planning and planning consent authorities (usually local councils). Under the *Contaminated Land Management Act* (CLM Act) the DECC regulates contaminated sites that pose a significant risk of harm to human health or the environment. Contaminated sites that are not regulated by the DECC are managed by local councils through land use planning processes.

The planning and development control process under the EP&A Act is important in the management of land contamination. It aims to ensure that land is not allowed to be put to a use that is inappropriate because of the presence of contamination, and incorporates mechanisms to ensure that:

- councils consider contamination issues when they are making rezoning and development decisions;
- local councils provide information about land contamination on planning certificates that they
 issue under section 149 of the EP&A Act; and
- land remediation is facilitated and controlled through SEPP55 Remediation of Land.

Under SEPP55, councils are required to consider, at the rezoning and development approval stages, the potential for contamination to adversely affect the suitability of a site for its proposed use. The policy states that land must not be developed if it is unsuitable for a proposed use because it is contaminated. If the land is unsuitable, remediation must take place before the land is developed.

Information sources

- Managing Land Contamination: Planning Guidelines SEPP55 Remediation of Land, (DUAP and EPA,1998) - these guidelines aim to establish 'best practice' for managing land contamination through the planning and development control process. The guidelines provide advice to councils on the early identification of contaminated sites, consideration of contamination in rezoning and development applications, recording and use of information, and ways to prevent contamination and reduce the environmental impact of remediation activities. http://www.environment.nsw.gov.au/resources/gu_contam.pdf
- Contaminated Sites Guidelines on Significant Risk of Harm and Duty to Report (EPA, 1999) - <u>http://www.environment.nsw.gov.au/resources/sroh.pdf</u>
- Significant Risk of Harm sites these sites are available on the web at http://www.environment.nsw.gov.au/clmm/searchregister.aspx.

7.2 Recommended planning outcomes

The DECC recommends that councils comply with the requirements of SEPP 55 when preparing LEPs that may cover areas of known or potential contamination.

8. FLOODPLAIN RISK MANAGEMENT

8.1 Assessment guidelines

Any development should be in accordance with the State Government's Flood Prone Land Policy as outlined in the *NSW Government's Floodplain Development Manual (2005)* (the Manual). The primary objective of the Policy is to reduce the impact of flooding and flood liability on individual owners and occupiers, and to reduce private and public losses for the full range of flood risk.

A Section 117 Direction (4.3 Flood Prone Land) applies to all Councils that contain flood prone land when they are preparing a draft LEP. *Planning Circular PS07-003 New Guideline and Changes to Section 117 direction and EP&A Regulation on Flood Prone Land* also indicates the need to consider the *Guideline on Development Controls on Low Flood Risk Areas* which supplements the Manual.

8.2 Recommended planning outcomes

The DECC provides the following issues for consideration. The assessment should:

- be consistent with the Floodplain Development Manual 2005;
- be consistent with the Flood Prone Land Policy and its primary objective;
- consider the different measures and requirements to manage hazard to people and property;
- be consistent with the recommendations of council floodplain risk management plans;
- be cognisant of existing controls council has in place to manage flood hazard;
- consider the full range of flood risk;
- facilitate appropriate floodplain risk management outcomes no matter the level of information held by councils and must deal with the case where councils have no specific information at the location;
- be able to be readily updated by councils as their knowledge of flood risk improves (ie mapping should be either incorporated into DCPs or in separate documents referenced in DCPs);
- consider the implications of climate change (sea level rise and increased rainfall intensity) on flooding;
- consider critical infrastructure and development vulnerable in emergency response.





NSW Government

DEPARTMENT OF WATER AND ENERGY

Your Ref: F2005/02401 Our Ref: ER7565

15 February 2008

General Manager Lake Macquarie City Council Box 1906 HUNTER REGION MAIL CENTRE NSW 2310

Attention: Mathew Hill

Dear Sir

PROPOSED DRAFT AMENDMENT LAKE MACQUARIE LEP 2004 EDGEWORTH

I refer to Council's letter of 08 January 2008 concerning the above proposal.

The proposal has been initially reviewed and the following Department of Water and Energy (DWE) related issues are considered relevant for consideration during the preparation of the LES and any concept plans for this site.

Relevant legislation

In developing and assessing proposal options for the site, Council should take into account the objectives and regulatory requirements of the following legislation, if applicable:

- Water Act, 1912
- Water Management Act 2000
- Gazetted Water Sharing Plans

Relevant policies

Council should also be aware of the following policies that may be relevant. Policies relevant to the LES may include, but not be limited to

- NSW Groundwater Policy Framework Document General
- NSW Groundwater Quantity Management Policy
- NSW Groundwater Quality Protection Policy
- NSW 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



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Groundwater and groundwater dependent ecosystems

Any proposal must demonstrate consistency with the spirit and principles of the NSW State Groundwater Policy Framework Document, the NSW State Groundwater Quality Protection Policy and the NSW State Groundwater Dependent Ecosystems Policy. These policies guide the management of the groundwater resources so that they can sustain environmental, social and economic uses for the people of NSW. The environmental assessment should:

- Identify key groundwater issues for the site, including any potential degradation issues.
- Provide details of any proposed groundwater extraction, including purpose, location and construction details of all proposed bores and expected annual extraction volumes.
- Provide details of any proposed works likely to intercept groundwater.
- Describe the aquifer system, including the direction and rate of groundwater flow through the site (considered in relation to existing vegetation), physical and chemical characteristics.
- Describe the flow directions and rates and the physical and chemical characteristics of aquifers.
- Provide details of the predicted impacts of any final landform on the groundwater regime.
- Provide details of the existing groundwater users within the area (including the environment) of the proposal and any potential impacts on these users.
- Identify potential groundwater dependant ecosystems.
- Provide details on protective measures for any groundwater dependent ecosystems (eg. buffer zones).
- Provide 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 but not limited to:

- An assessment of any aquifer that may be impacted or sterilised as a consequence of the proposal.
- Identify 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.

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

Watercourses and riparian vegetation

The NSW State Rivers and Estuary Policy calls for the explicit consideration of sustainable management of rivers, estuaries, wetlands and adjacent riverine plains. DWE is the manager of the State's waters, including stream and river flows, groundwaters and the riverine corridor extending to 40 metres from the top of bank of defined streams. The environmental assessment should therefore consider the impact of the proposal on any watercourses and



DEPARTMENT OF WATER AND ENERGY

associated riparian vegetation within the site, by providing:

- A detailed description of any proposed development including all proposed construction, clearing, draining, excavation and filling. An evaluation of the proposed methods of excavation, construction and material placement should be discussed.
- A detailed description of all potential environmental impacts of any proposed development in terms of vegetation, fauna, sediment movement, river flow, water quality, and hydraulic regime.
- A description of the design features 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.

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.

The assessment of this site is required to take into account the objectives and provisions of the WMA, including any appropriate relevant legislation and guidelines.

DWE's *Guidelines for Controlled Activities - Riparian Corridors* (February 2008) recommends the following minimum Core Riparian Zones (CRZ) widths (refer to website below):

- CRZ of 10 metres (on both sides of the watercourse) for:
 - Any first order watercourse where there is a defined channel where water flows intermittently;
- CRZ of 20 metres (on both sides of the watercourse) for:
 - Any permanently flowing first order watercourse, or
 - any second order watercourse where there is a defined channel where water flows intermittently or permanently;
- CRZ of 20 40 metres (on both sides of the watercourse) for:
 - Any third order or greater watercourse where there is a defined channel where water flows intermittently or permanently. Includes estuaries, wetlands and any parts of rivers influenced by tidal waters (merit assessment based).

[Note: Watercourse order as classified under the Strahler System]. http://www.dnr.nsw.gov.au/water/controlled_activity.shtml

In addition to the above recommended CRZs, an additional **vegetated buffer (VB) of 10 metres** should be provided on both sides of the watercourse, measured from the outer edge of the CRZ, to allow for edge effects.



DEPARTMENT OF WATER AND ENERGY

Any works which involve excavation on 'waterfront land' will require a 'controlled activities' approval under the WMA. In order to avoid the need for referral of future development applications to DWE, Council is encouraged to ensure that development is excluded from these areas via appropriate zoning. Appropriate riparian buffers, as indicated above, should be included in any such zoned areas. DWE requires that all structural works, including works for stormwater capture and treatment, are located outside any riparian buffer.

Sustainable water supply

The environmental assessment must address the issue of provision of a sustainable water supply for any proposed development. Through the implementation of BASIX, Integrated Water Cycle Management, and Water Sensitive Urban Design, proposed development must also be able to exhibit high water use efficiency. The draft LEP could include specific local provisions requiring the development of site *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

Farm dams

There could be a number of existing farm dams within the proposed site. Prior to any rezoning, the current legal status and intended use of these farm dams, under the Water Act 1912 and/or the WMA 2000, needs to be determined - as the legal status of these structures will most likely be affected by any subsequent subdivision or development. For details about the Farm Dams Assessment Guide and information on Harvestable Rights and calculation of the Maximum Harvestable Right Dam Capacity, see

http://www.naturalresources.nsw.gov.au/water/farm_dams/index.shtml

DWE would be pleased to provide more detailed comment once any LES for the site has been completed, and a draft LEP is available for comment. Should there be any further enquiry in this matter in the interim, please contact me on (02) 4904 2634.

Yours sincerely

Jeff Hunt Senior Project Planner



4 April 2008

Ref: 2008-246 Your Ref: F2005/02401

The General Manager Lake Macquarie City Council Box 1906 HRMC NSW 2310

Attention: Matthew Hill

Dear Matthew

RE: SECTION 62 CONSULTATION - DRAFT AMENDMENT TO LAKE MACQUARIE LOCAL ENVIRONMENTAL PLAN 1984 – VARIOUS PARCELS OF 10 ZONED LAND AT EDGEWORTH

Thank you for your letter of 8 January 2008 seeking comments about a proposed rezoning of 10 zoned land identified as various lots (15 in total), Minmi Rd & Transfield Ave, Frederick & Impala Sts, Edgeworth as part of the Section 62 consultation process. I wish to apologise that comments were not provided by 11 February 2008 as requested in your letter.

I understand that our comments will still be able to be considered as part of the Section 62 consultation process. If not, we request that the following comments are considered as a submission to the public exhibition of the draft local environmental plan.

The entire site could place a potential additional loading of up to 1,000 Equivalent Tenements on the existing water distribution and wastewater transportation systems. As a result of this analysis, the following information is offered:

Water Supply

The site is located in the South Wallsend water supply network. The site was identified in Hunter Water's current servicing strategy under development areas A-5 (2008 - Ultimate: 670 ET) which covers the western sector; and A-6 (2008 - Ultimate: 330 ET) that covers the eastern sector of the specified area. The existing water supply system; along with all required lead in mains to the development area; can currently service areas up to RL 57m AHD.

Development area A-5 elevation ranges to approximately RL 62m. Multiple direct connection points to the development will be required. Areas lower than RL 57m are developable without the provision of a booster pump. The site may require connections to existing DN 150 mm wm Transfield Ave, DN 200 mm wm Nelson Street, and the DN 100 mm wm Minmi Road.

Development area A-6 elevation ranges to approx 44m RL. The existing system can service areas up to 57 m RL. Multiple connection points will be required, with a minimum DN 150 mm lead in main to the development. The site may connect to the existing DN 150 mm wm Main Road Edgeworth, and the DN 150 mm wm Lake Road Glendale.

A developer funded servicing strategy will be required to identify the optimal servicing arrangement for the subject land.

Wastewater Transportation

The site is located in the Edgeworth Wastewater Treatment Works (WWTW) catchment and the site drains to Cardiff 1 Wastewater Pimping Station (WWPS).

Currently, the operation of Cardiff 1 WWPS is limited due to hydraulic capacity constraints at the WWTW inlet works. Upgrades to the inlet works will be completed early 2009 after which there will be adequate capacity for this development.

A developer funded servicing strategy will be required to identify the optimal servicing arrangement for the subject land.

Recycled Water

Hunter Water is currently reviewing recycled water opportunities in its area of operation and this site has been identified for possible reuse. Given the site's close proximity to Edgeworth WWTW and high demands, there is a potential for non-potable effluent reuse applications within the development.

Wastewater Treatment

This development was identified in the upgrade strategy study for Edgeworth WWTW. Inlet works, aeration system and clarifier upgrade works are scheduled to be undertaken by 2009. Edgeworth WWTW will not be able to accept flows from this development site until these works are completed.

Should you require any further information, please do not hesitate to contact Malcolm Withers on 4979 9545.

Yours faithfully

1. Uttes

Brett Lewis Manager Sales and Business Development



MINISTRY OF TRANSPORT

Level 19, 227 Elizabeth Street Sydney 2000 GPO Box 1620 Sydney 2001 Telephone 9268 2800 Facsimile 9268 2900 Internet www.transport.nsw.gov.au ABN 25 765 807 817

> Mr Brian Bell General Manager City of Lake Macquarie PO BOX 1906 HUNTER REGION MAIL SERVICE NSW 2301

Att: Mr Matthew Hill

Dear Mr Bell,

SECTION 62 CONSULTATION DRAFT LAKE MACQUARIE LOCAL ENVIRONMENTAL PLAN 2004 - EDGEWORTH

I refer to your letter dated 8 January 2008 seeking comment on the proposed draft Local Environmental Plan (LEP) to rezone land for residential development at Edgeworth. The Ministry appreciates this opportunity to provide comment on the draft Plan.

The Ministry notes that Coal and Allied are also presently seeking major project approval for substantial residential development adjacent to the subject site, which includes the town of Minmi.

The Ministry has reviewed the major project application by Coal and Allied for land in the Minmi locality and has requested the preparation of a Transport Management and Accessibility Plan (TMAP). It is critical that the proposal and adjacent developments are planned in a consistent manner to ensure the proper integration of land use and transport.

The Ministry considers that, given the proposed scale of development, a TMAP is required and should address the following matters:

- Justification of the proposed developments against the requirements of the transport policy package under Section 117 Direction 3.4 *Integrating Land Use and Transport*;
- The effective integration the proposal with existing and planned developments within the locality to achieve a sustainable settlement pattern;
- The requirements of the draft Interim TMAP Guidelines (available at <u>http://www.rta.nsw.gov.au/doingbusinesswithus/downloads/technicalmanuals</u>). A list of key transport planning resources is also attached to assist in this process;
- The capability of staged development to achieve consistency with Ministry of Transport bus planning service guidelines (available at www.transport.nsw.gov.au);
- The need to identify and resolve barriers to efficient and safe pedestrian and cycle access;

11 APR 2008

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- Justification of a proposed maximum shift to non-car modes with detailed transport modelling, which considers a range of scenarios including a *business as usual* base case. Scenarios should test different packages of transport measures to increase public transport use and reduce dependence on private vehicles over time;
- The testing of measures to support a maximum mode shift to non-car modes, which may include infrastructure, services and other travel demand management incentives; and
- The likely transport needs of future residents/workers and the capacity of existing services to meet these demands. Subsequently, identify what level of additional infrastructure will be required to satisfy such demands and the likely cost to Government in the short, medium and longer term.

The Ministry would also appreciate continued close consultation on the preparation of any planning agreements, which have the potential to secure funding for local and regional public transport including priority bus measures and roadside infrastructure.

If you would like to discuss this further, please contact David Hartmann, Senior Transport Planner, on 9268 2228 or email <u>david.hartmann@transport.nsw.gov.au</u>.

Yours sincerely,

Brendan Bruce Director, Transport Planning

TP08/00148

Encl: Transport planning resource list

CC: Mr Michael Leavey - Regional Director, Hunter and Central Coast



MINISTRY OF TRANSPORT

Policy Resource List

- 2005-10 National Cycling Strategy (Australian Bicycle Council, June 2007) <u>http://www.austroads.com.au/abc/</u>
- State Plan, including priorities: S3 Improved health through reduced obesity (DoH lead); S6 Increasing share of peak hour journeys in a safe and reliable public transport system (MoT); S7 Safer roads (RTA); E3 Cleaner air and progress on greenhouse gas reductions (DECC); E7 Improve the efficiency of the road network (MoT). http://www.nsw.gov.au/stateplan/
- Sydney's Metropolitan Strategy and subregional strategies <u>http://www.metrostrategy.nsw.gov.au/dev/ViewPage.action?siteNodeId=28&languageId=1&c</u> <u>ontentId=-1</u>
- Regional strategies (outside the Sydney metropolitan area) http://www.planning.nsw.gov.au/plansforaction/whatshappening.asp
- Integrating Land Use and Transport policy package http://www.transport.nsw.gov.au/abouttrans/planners-land-use.html
- State Infrastructure Strategy <u>http://www.treasury.nsw.gov.au/sis/part1-pp1-52.pdf</u>
- Urban Transport Statement <u>http://www.nsw.gov.au/urban_transport.asp</u>
- Local Bike Plans and Pedestrian Access and Mobility Plans
- TravelSmart Bikeability Toolkit http://www.travelsmart.gov.au/bikeability/
- Planning Guidelines for Walking and Cycling (NSW Government, 2004) http://www.planning.nsw.gov.au/plansforaction/pdf/guide_pages.pdf
- Guide to Traffic Engineering Practice part 13, Pedestrians (Austroads 1995) www.austroads.com.au/publications.html
- Guide to Traffic Engineering Practice Part 14, Bicycles (Austroads 1999) www.austroads.com.au/publications.html Australian technical standard for design and construction of cycle facilities but also contains useful advice on related matters, e.g. planning, education and encouragement.
- NSW Bicycle Guidelines (RTA, 2003)
 www.rta.nsw.gov.au/trafficinformation/downloads/technicalmanuals_dl1.html
- How to Prepare A Bikeplan (RTA 2002)
 www.rta.nsw.gov.au/trafficinformation/downloads/technicalmanuals_dll.html
- How to Prepare a Pedestrian Access & Mobility Plan (RTA 2002) www.rta.nsw.gov.au/trafficinformation/downloads/technicalmanuals dll.html
- Producing and using Transport and Access Guides (RTA, SEDA) can be found at www.rta.nsw.gov.au and www.energysmart.com.au
- TravelSmart <u>http://www.travelsmart.gov.au/</u>
- Premier's Council for Active Living (PCAL) <u>http://www.pcal.nsw.gov.au/</u> Includes planning and design guidelines on designing places for active living, with sections on active and public transport:
- Cycling Promotion Fund promotes cycling, eg by providing funding and other support to
 projects and programs, which encourage people to cycle. The Fund is supported by the
 financial contributions from the major importers and wholesalers.
 e-mail: office(acyclingpromotion.com.au web site www.rideabike.com.au

- Local Bicycle User Groups under the umbrella organisation of Bicycle New South Wales. A complete list with contact numbers is published regularly in Australian Cyclist or is on the BNSW web site: <u>http://www.bicyclensw.org.au/advocacy.html</u> <u>http://www.pushon.com.au/Admin/listBUGs.asp</u>
- Pedestrian Council of Australia http://www.walk.com.au
- The Pedestrian and Bicycle Transport Institute of Australasia aims to provide a networking and educational association for those professionals involved in pedestrian and bicycle planning in Australasia. This is to promote excellence in active transport planning.<u>http://www.pedbiketrans.asn.au/aframset.html</u>
- Regional transport profiles <u>http://www.transport.nsw.gov.au/abouttrans/planners.html</u>
- Walking for Transport and Health: Trends in Sydney in the Last Decade http://www.patrec.org/atrf/papers/2005/Corpuz.%20Hay%20&%20Merom%20(2005).pdf
- Health and Innovation: Promoting Active Transport Through WalkSmart and CycleSmart http://www.patrec.org/atrf/papers/2006/1484_Dean%20(2006).pdf
- Climate, Geography and the Propensity to Walk: environmental factors and walking trip rates in Brisbane http://www.patrec.org/atrf/papers/2006/1480_Burke,%20Sipe.%20Evans%20&%20Mellifont %20(2006).pdf
- Land use, walking and cycling: A Review of Recent Research, Australian Policies and Suggestions for Further Work
 http://www.patree.org/otrf/papers/2002/Harmett@/20.8.0/2002. Http://www.patree.org/otrf/papers/2002. Http://www.patree.org/otrf/papers/2002/Harmett@/20.8.0/2002. Http://www.patree.org/otrf/papers/2002. Http://wwww.patree.org/otrf/papers/2002. Http://wwwwwwwwwwwwwwwwwwww

http://www.patrec.org/atrf/papers/2003/Hamnett%20&%20Radbone%20(2003).pdf