



NSW Government

Department of Water & Energy

The General Manager
Tweed Shire Council
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Your ref: DA 07/0055
File: MUR00035(1)

Attention: Rowena Michel

18 September 2007

Dear Ms Michel

Subject: Development Application DA07/0055 - Site Rehabilitation Works at Lot 71 DP 819194, Duranbah Road, Duranbah.

Thankyou for providing the Department of Water and Energy (DWE) the opportunity to comment on the development application DA07/0055. The DWE has reviewed the development application and the further information provided by Gilbert and Sutherland and makes the following comments.

The present development application proposes works ostensibly to improve the sites capability for cattle grazing and possibly for a dwelling house at some point in the future. The works are noted to comprise:

- Establishing piped agricultural drains along existing drainage lines including Blacks Creek;
- Construction of a surface water channel towards the east of the site;
- Earthworks and weed control to re-establish a suitable spillway on the upstream neighbours dam
- The importation of approximately 78,000m³ of sand to nominally raise the land surface 0.5m.

The site, in its present condition, represents a wetland in degraded condition but reasonable rehabilitation potential. The site is currently used for grazing.

Policies relevant to the present development application are:

1. *National Strategy for Ecologically Sustainable Development (NSES D)* as adopted by State and Territory Governments through the Inter Governmental Agreement on the Environment (IGAE) in 1992. The goals, objectives and principles underpin the interpretation and administration of all other government policies. The NSES D includes the following guiding principles:
 - decision-making processes should effectively integrate both long and short-term economic, environmental, social and equity considerations;
 - the need to develop a strong, growing and diversified economy which can enhance the capacity for environmental protection should be recognised;

- to protect biological diversity and maintain essential ecological processes and life-support systems.
2. The NSW State Rivers and Estuaries Policy encourages the sustainable management of the natural resources of the State's rivers, estuaries and wetlands and on the adjacent riverine plains, so as to reduce, and where possible halt:
- declining water quality;
 - loss of riparian vegetation;
 - damage to river banks and channels;
 - declining natural productivity;
 - loss of biological diversity; and
 - declining natural flood mitigation.
3. The NSW Wetlands Management Policy 1996 aims to:
- identify degraded wetlands;
 - actively rehabilitate degraded wetlands and their habitats and processes as far as is practicable;
 - halt and where possible reverse the loss of wetland vegetation, declining water quality and falling natural productivity; and
 - ensure that adequate water is available to restore wetland habitats. In so doing, water entering wetlands should be of sufficient quality so as to not degrade the wetlands

DWE acknowledges the consultant's response to a request for further information (dated 18th June 2007) arising from a site visit on the 27th July, arranged by the consultant. DWE is satisfied the proposal will not increase afflux nor increase the erosion risk inherent at the site. However, notwithstanding the present impacts from ASS on the site, the proposed works will destroy rather than rehabilitate a degraded wetland for the purposes of establishing a low value land use on a site of questionable suitability. The current proposal is therefore inconsistent with the principles and aims of each of the policies listed above.

The NSW legislation triggered by the proposed development and which DWE has statutory responsibility for are the Water Act 1912, and the Rivers and Foreshores Improvement (RFI) Act, 1948.

Part 2 section 5 of the Water Act 1912 defines a river as a stream of water, whether perennial or intermittent, flowing in a natural channel, or in a natural channel artificially improved, or in an artificial channel which has changed the course of the stream. As Blacks Creek satisfies this definition the proposed alteration of its course would require a licence issued under Division 3 Section 10 (1) of the Water Act 1912. The installation of slotted agricultural drains under any proposed fill may also require licensing under the Water Act.

Part 3A section 22A of the Rivers and Foreshores Improvement (RFI) Act, 1948 defines protected land as:

- (a) land that is the bank, shore or bed of protected waters, or
- (b) land that is not more than 40 metres from the top of the bank or shore of protected waters (measured horizontally from the top of the bank or shore), or

(c) material at any time deposited, naturally or otherwise and whether or not in layers, on or under land referred to in paragraph (a) or (b)

Section 22B states that a permit is required to make an excavation in, on or under protected land. Since the development application proposes extensive excavation on and in protected land a Part 3A permit would be required.

There are a number of issues related to the biophysical and economic aspects of the proposal that cause the DWE major concern. These include: the suitability and capability of the soils on site and of the proposed fill material to support the intended land use; economic feasibility of the proposal; and, sustainability of the proposal.

The Murwillumbah-Tweed Heads Soil Landscapes 1:100,000 map sheet indicates the site has Ophir Glen soils. Due to major limitations on the capabilities of these soils, the sole sustainable land use recommended for the soil type is light grazing. The soils also have a moderate to high foundation hazard due to the presence of waterlogged sub-soils of low bearing capacity which may have significant implications for the possible future development proposals on the site.

Given the agricultural limitations of the soils on site it is understandable that the applicant seeks to fill the area to improve grazing capability. However, the use of sand as the fill material is counter intuitive since sand itself has low moisture and nutrient holding capacity, potentially requiring large ongoing inputs of fertiliser and water to maintain pastures capable of supporting a grazing enterprise. As such, it is difficult to envisage any significant agricultural benefit being realised if the proposed development were to proceed. Further, these ongoing activities may have implications for groundwater contamination and, given the proposed drainage structures, possible surface water pollution downstream.

Previous correspondence dated 23 March 2007 from the Department of Natural Resources (now DWE) requested the applicant provide a justification for the project given the intended land use. The DWE does not consider the applicant's response to this request satisfactory.

Nominal gross margin returns from grazing enterprises in the Northern Rivers are in the order of \$100-\$200 per hectare per annum. Given the application relates only to about 30 hectares and indicates that approximately \$700,000 would be required to undertake the proposed works it is difficult envisage the economic feasibility of the proposal. The DWE encourages the proponent to seek technical input from the Department of Primary Industries concerning the sustainability of the proposal and the suitability of the site for the intended land use.

If it is the intention of the applicant to gain consent for the proposed development with the purpose of reducing its flood liability, and to speculate on a future rezoning based on this reduced liability and the sites proximity to Kings Forest, then DWE would encourage the applicant to develop a master plan and approach council so that a full and proper assessment can be made and due consideration can be given to the higher value of the intended land use.

At this time DWE remains opposed to the development proposal and declines to issue general terms of approval for the present Development Application.

Yours sincerely







Patrick Pahlow
Natural Resource Project Officer
Licencing (North)

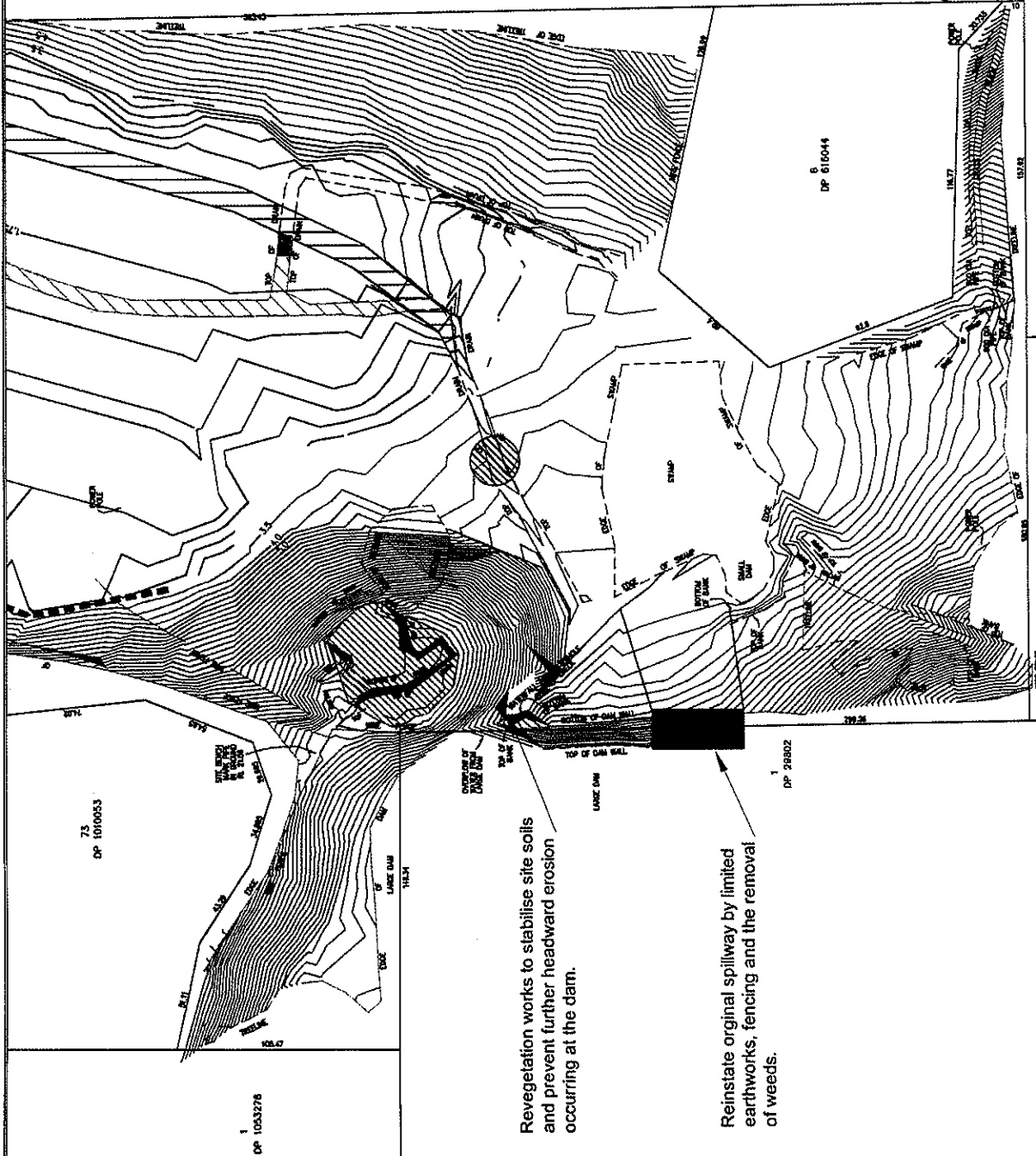
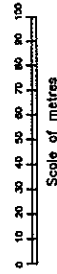
Rehabilitation sequence

- 1) Existing drainage line to be bunded at the northern extent of the works area
- 2) Topsoil to be stripped and stockpiled
- 3) Existing drain sides to be limed at a rate of 5kg/m²
- 4) Existing drains to be filled with pine mulch and sand to a minimum level of 0.5m AHD.
- 5) Agricultural drainage pipes to be installed above existing drains and backfilled with pine mulch and sand
- 6) Construction of new drainage channel sections (sides to be limed at a rate of 5kg/m²)
- 7) Rehabilitation of existing drainage channel (sides to be limed at a rate of 5kg/m²)
- 8) Import and place approximately 78,000m² sand to achieve final grade
- 9) Re-plant topsoil
- 10) Seed with pasture grasses

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DP 1050087

Legend

-  Ag drains are to be installed (above a minimum 0.5m AHD) in existing drainage lines and backfilled with sand, lime and pine mulch.
-  Formation of a more natural surface water drainage system for the site by the construction / rehabilitation of a channel.
-  Water quality treatment area
-  Table drain
-  Potential house site for future development application
-  Location of grade stabilisers



Revegetation works to stabilise site soils and prevent further headward erosion occurring at the dam.

Reinstate original spillway by limited earthworks, fencing and the removal of weeds.

<p>GILBERT+SUTHERLAND Agricultural and Environmental Consultants</p> <p>12, Ryemount Drive 140 Netherby Trossachs Drive, Inverkeithing, OX 4200 Phone 55786044 Mobile 0418 760919 Fax 55786045</p>		<p>PROJECT SUPPLEMENTARY REHABILITATION MANAGEMENT PLAN LAND ADJACENT TO CUDGEN SANDS Loders Road, Cudgen</p>
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