Somersby Fields Proposal

BACKGROUND PAPER

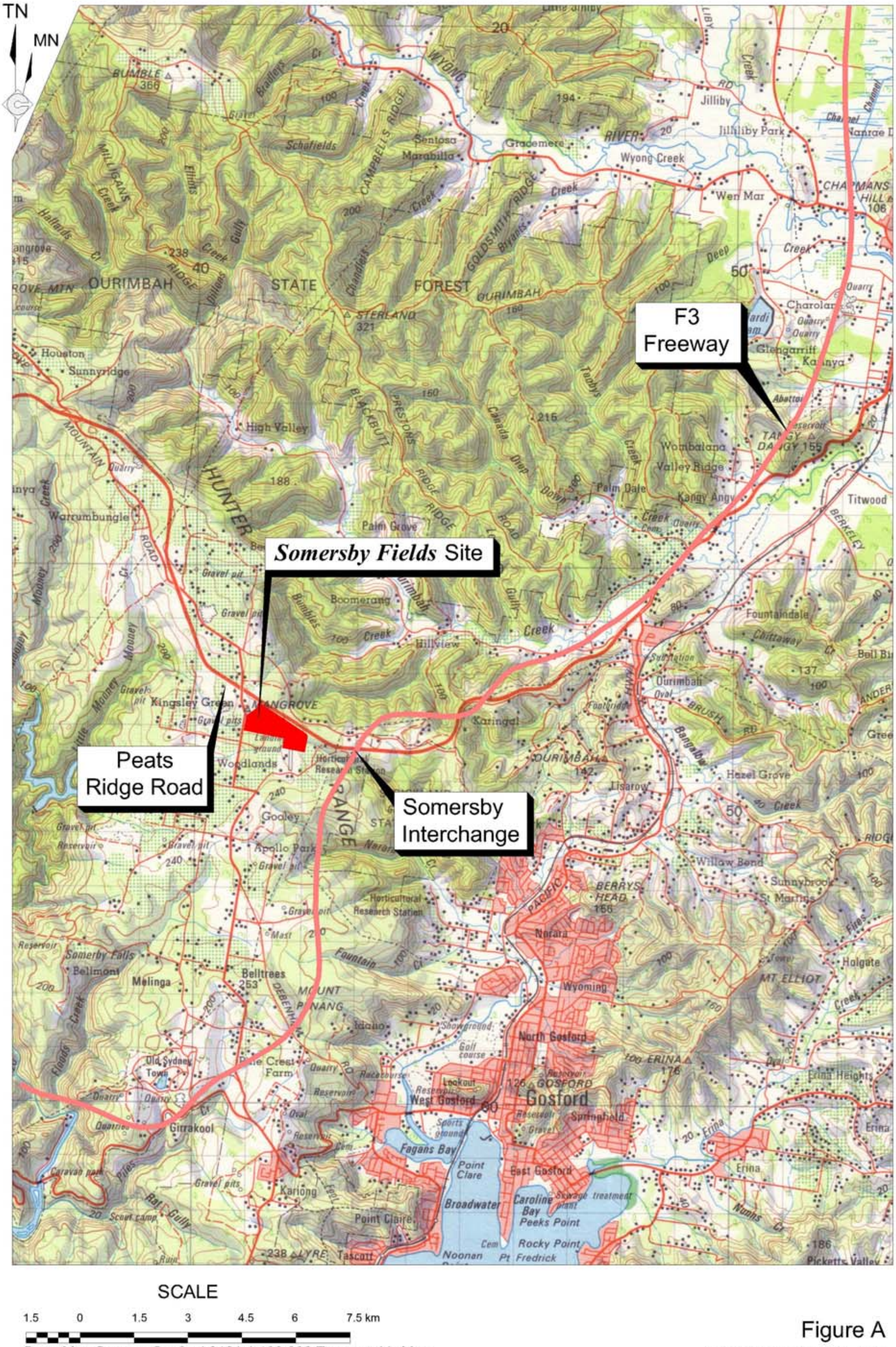
introducing

A Proposal to Develop and Operate the *Somersby Fields* Proposal

Proposal by Somersby Fields Partnership

Compiled in conjunction with: R. W. CORKERY & CO. PTY. LIMITED

MAY 2005



Base Map Source: Gosford 9131 1:100 000 Topographic Map

Figure A
LOCATION PLAN

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Introduction

This background paper has been prepared to introduce the *Somersby Fields* proposal, a venture by the *Somersby Fields* Partnership to extract much-needed construction sand and to progressively develop a series of sporting fields and recreational facilities adjacent to Peats Ridge Road at Somersby (**Figure A**). It is proposed that the sporting fields and associated recreational facilities would be developed as part of the progressive rehabilitation activities associated with a proposed sand extraction operation on site.

Sand produced from the proposed operation would contribute to satisfying the shortage of fine to medium-grained construction sand for the Sydney market predicted to develop within the next few years.

The sand extraction proposal under consideration is of a magnitude that qualifies as a State significant development for which the Minister for Infrastructure and Planning would be the consent authority.

This background paper introduces the *Somersby Fields* Partnership, their landholding and its planning controls. The environmental context of the proposal is also outlined together with the key issues likely to influence the design and operational aspects of the planned sand extraction operation and progressive site rehabilitation. The likely approvals required for the development and operation of the Somersby sand extraction operation are also outlined.

The *Somersby Fields* Partnership has commenced its program of consultation with both Gosford City Council and the local community. This is discussed further on Page 5.

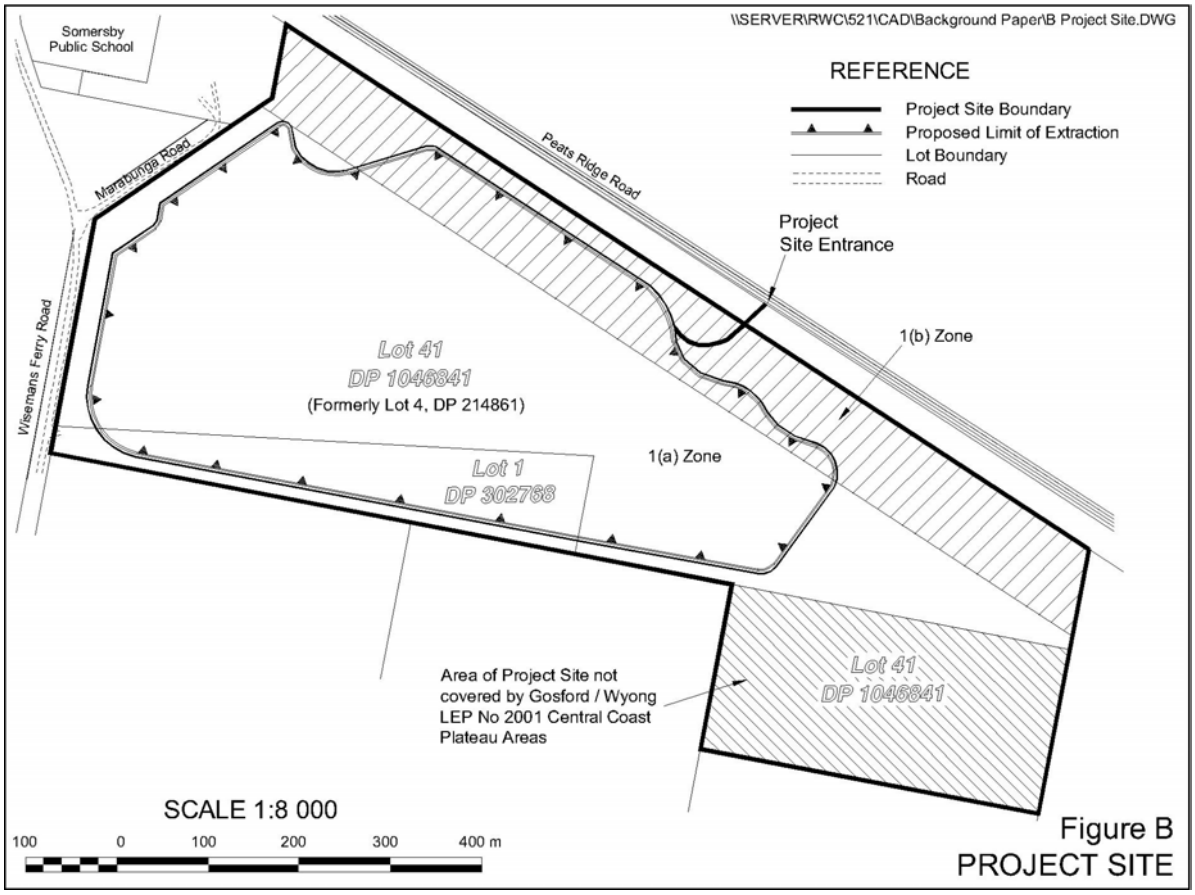
The Project Site

The land the *Somersby Fields* Partnership proposes to form the basis for their Development Application is referred to as the "Project Site" and comprises two parcels of land (see **Figure B**).

- Lot 41, DP 1046841, formerly Lot 4, DP 214861 – 38.7ha.
- Lot 1, DP 302768 – 3.2ha.

Both parcels of land are owned by the *Somersby Fields* Partnership.

Lot 4, DP 214861 was purchased from CSR Readymix in 1999. Prior to its ownership by CSR, Lot 4 was used as a source of road construction materials, principally for the development of the F3 Freeway.



The Proponent

Somersby Fields is the name of the partnership comprising Messrs Michael Hoskins, Geoffrey Kells and John Lockett, who are the owners of the Project Site. These gentlemen bring to the proposed development a wide range of operational and management skills and industry experience, ensuring the proposal is operated in an environmentally responsible manner.

Planning Controls

The bulk of the Project Site lies within an area zoned 1(a) under Gosford City Council Interim Development Order (IDO) 122. A 90m wide strip of land adjacent to Peats Ridge Road is zoned 1(b) under IDO122 (see **Figure B**). Extractive industries are a permissible use within Zone 1(a) and the provisions of SREP 9(2) override the land Zoned 1(b).

The land is also covered by two Regional Environmental Plans namely Sydney Regional Environmental Plan (SREP) 8 (**Central Coast Plateau Areas) and SREP 9 (Extractive Industry – No. 2).**

SREP 8 (Prime Agricultural Land) has been amended by the Gosford/Wyong Local Environmental Plan No. 2001 (Central Coast Plateau Areas) which was gazetted on 11 May 2002. This plan specifically identifies the bulk of the Project Site within an area designated as suitable for extractive industry. **Figure B** displays the section of the Project Site not covered by this instrument. The former Lot 4, DP 214861 within the Project Site is identified on Schedule 1(4) within SREP 9(2) as a "sand extraction area of regional significance".

It is noted that prior to the gazettal of the Gosford/Wyong LEP No. 2001 (Central Coast Plateau Areas), parts of the land were defined as "prime agricultural land" which prohibited extraction under the provisions of SREP 8 (Prime Agricultural Land).

Background

Prior to the purchase of Lot 4, DP 214861, CSR Readymix was developing a proposal to extract sand from the land to contribute to satisfying their Company's medium to long-term requirements. This proposal did not proceed beyond a draft Environmental Impact Statement (dated 1996) given uncertainties over the then SREP 8 (Prime Agricultural Land) and uncertainties regarding the implications of the threatened plant, Somersby Mintbush (*Prosthanthera junonis).* Since that time, and with some four years of research under the guidance of the threatened species unit of the Department of Environment and Conservation (National Parks and Wildlife Service), a detailed understanding has been developed of Somersby Mintbush on and surrounding the Project Site.

The *Somersby Fields* Partnership has directed its efforts to develop an environmentally responsible proposal to extract sand from the Project Site and progressively develop a series of sporting facilities for the Somersby / Central Coast community. In doing so, a considerable amount of effort has been expended to establish that the issue of Somersby Mintbush is a manageable constraint within the provisions of the *Environmental Planning and Assessment Act 1979* and the *Threatened Species Conservation Act 1995*.

This work will result in the development of a species management plan and voluntary conservation agreement to ensure the long-term survival of this species on the Project Site and its connection to other plants on adjoining and nearby land managed by the Gosford City Council and the Department of Infrastructure, Planning and Natural Resources.

The range of environmental issues identified in 1996 have been re-assessed, and where appropriate, a series of supplementary studies have been undertaken to provide a clear understanding of the context of the Project Site and the constraints likely to influence the design and operational aspects of the proposed operation and site rehabilitation.

The proposal outlines a clear community benefit arising from the progressive release of land which could be developed for sporting fields and recreational facilities together with the surrounding nature conservation areas for the Somersby and Central Coast Community**.**

Consultation

The *Somersby Fields* Partnership has commenced its program of consultation with the Somersby and district community. To date, over 450 newsletters have been distributed and two community information displays held in Somersby. As a result of this program, a wide range of issues have been raised which the community considers needs to be addressed in the EIS for the proposal.

The principal issues raised to date relate to impacts upon groundwater resources, noise, dust, traffic, impacts on Somersby Public School, timetable for the land release for sporting fields and type of fields to be left.

The *Somersby Fields* Partnership intends to maintain its contact with the local community throughout the preparation of the EIS. A second newsletter is planned following the completion of the project design for the proposal.

The *Somersby Fields* Partnership has also made a presentation to Gosford City Council's strategic planning committee about the proposal - principally to inform them about this proposal and its improvements upon the earlier proposal.

Environmental Setting

The *Somersby Fields* Project Site is located on the Somersby Plateau, an area underlain predominantly by sandstone some of which is soft and friable and suited to the production of fine to medium-grained construction sand. Five other sand extraction operations are present on the plateau, four in the Somersby area and one near Calga.

The Project Site lies adjacent to both Peats Ridge Road and Wisemans Ferry Road. Approximately 70% of the Project Site is remnant native bushland and regrowth. The remainder is cleared. A population of Somersby Mintbush is located on the Project Site, principally adjacent to the northern boundary (see **Figures D** and **F**). The land is currently used only for grazing stock (by an adjoining neighbour). Views of the Project Site are limited due to the perimeter vegetation around the property boundary. The land generally slopes to the east (3° to 7°) from an elevation of almost 300 m, AHD near its western boundary to near 230 m, AHD near its eastern boundary. The land drains principally towards Narara and Ourimbah Creeks.

The Project Site is located in an area where the principal existing land uses are rural pursuits (cattle / pigs); rural-residential occupation / hobby farm; Somersby Public School; Somersby Horticultural Research Station, other localised small scale industry. Much of the land used for rural-residential developments is well vegetated with both woodland and/or forest communities. **Plate A** presents a recent oblique aerial photograph of the Project Site and its local setting. **Figure C** shows the location of surrounding residences.

Plate A

Figure C
SURROUNDING RESIDENCES

The Proposal: see Back Page for the Operation's Key Statistics

The Resource

A number of drilling campaigns have identified the sand beneath the Project Site is a fine-grained, grey/white sand and a coarse-grained orange sand. The coarse-grained orange sand typically lies above the fine-grained, grey/white sand.

Up to 9 million tonnes of sand products could be extracted from the Project Site. The quantity of recoverable sand has been established following a review of the various environmental and operational constraints and the Proponent's plans for the proposed final landform and sporting facilities.

Proposed Extraction Area

Figure D presents the possible limit of extraction within the Project Site based upon existing known environmental constraints, namely:

- the western limit of extraction is set back 25m from the property boundary to enable an acoustic bund wall and internal service track to be positioned adjacent to this boundary towards the end of the project life;
- the southern limit of extraction is set back approximately 15m from the property boundary to allow for the retention of existing vegetation and the construction of a service track;
- the northern boundary has been set back approximately 25m from the property boundary. The set back together with a further 25m of natural vegetation in the road reserve adjacent to Peats Ridge Road would be an important component in maintaining a vegetation corridor for the connection of Somersby Mintbush populations surrounding the Project Site.
- the northeastern limit of extraction is set approximately 45m from the known limit of threatened Somersby Mintbush. It is possible (subject to further assessment) that an acoustic bund wall may be positioned adjacent to this boundary and associated internal service tracks would be no closer than 20m to the defined limit of the Somersby Mintbush population.
- the eastern and north-western boundaries are positioned in an area set back from a change in slope and associated moist vegetation types.

Conceptual Extraction Area

A conventional extraction operation is proposed whereby the sand is excavated, transported to an on-site processing plant, processed, stockpiled and despatched to market by conventional highway trucks. No blasting is required.

Extraction is proposed to commence on the eastern side of the Project Site. Two bench levels would be developed to extract both the orange and grey/white sand. Extraction would occur using an excavator near the surface and a bulldozer at depth. The depth of extraction, based on drilling data, is likely to vary from about 10 m near the eastern end of the Project Site increasing to about 20 m at the western end.

The excavated material would be transported by off-road trucks to the sand washing plant located near the centre of the Project Site.

Annual sand production is likely to commence at 250 000 tonnes to 300 000 tonnes during the first two years, increasing to 450 000 tonnes by the end of Year 5, as other supply sources to Sydney markets are exhausted. The Proponent envisages extraction would be completed over a 15 year period.

On-Site Processing

The *Somersby Fields* Partnership expect approximately 90 per cent of its products would be washed sand for use in concrete with the remaining 10 per cent simply dry-screened to yield a mortar sand. The sand washing plant would be located within Stage 3/4 in the centre of the Project Site.

The *Somersby Fields* Partnership has identified a suitable design for the sand washing plant to produce a high quality washed sand. The plant would be enclosed to reduce noise and dust impacts. The sand washing plant would separate

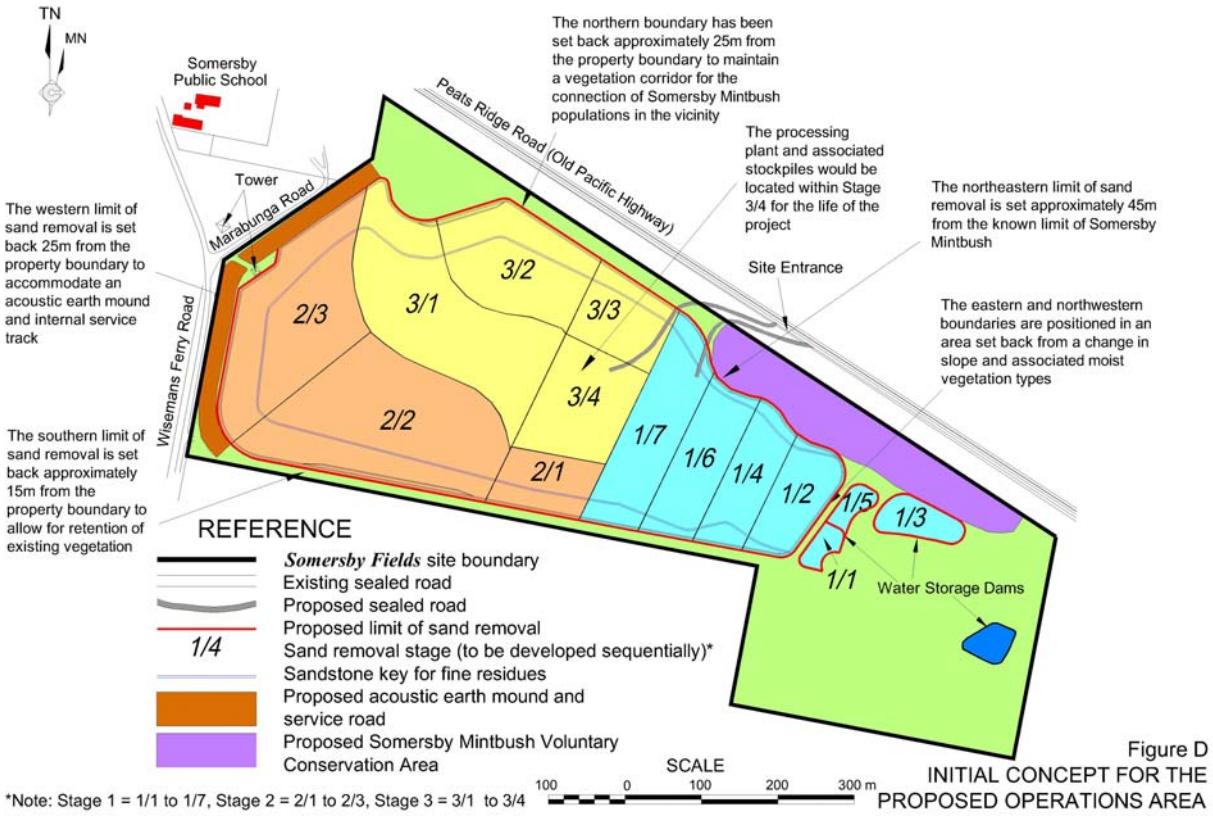


Figure D
INITIAL CONCEPT FOR THE PROPOSED OPERATIONS AREA

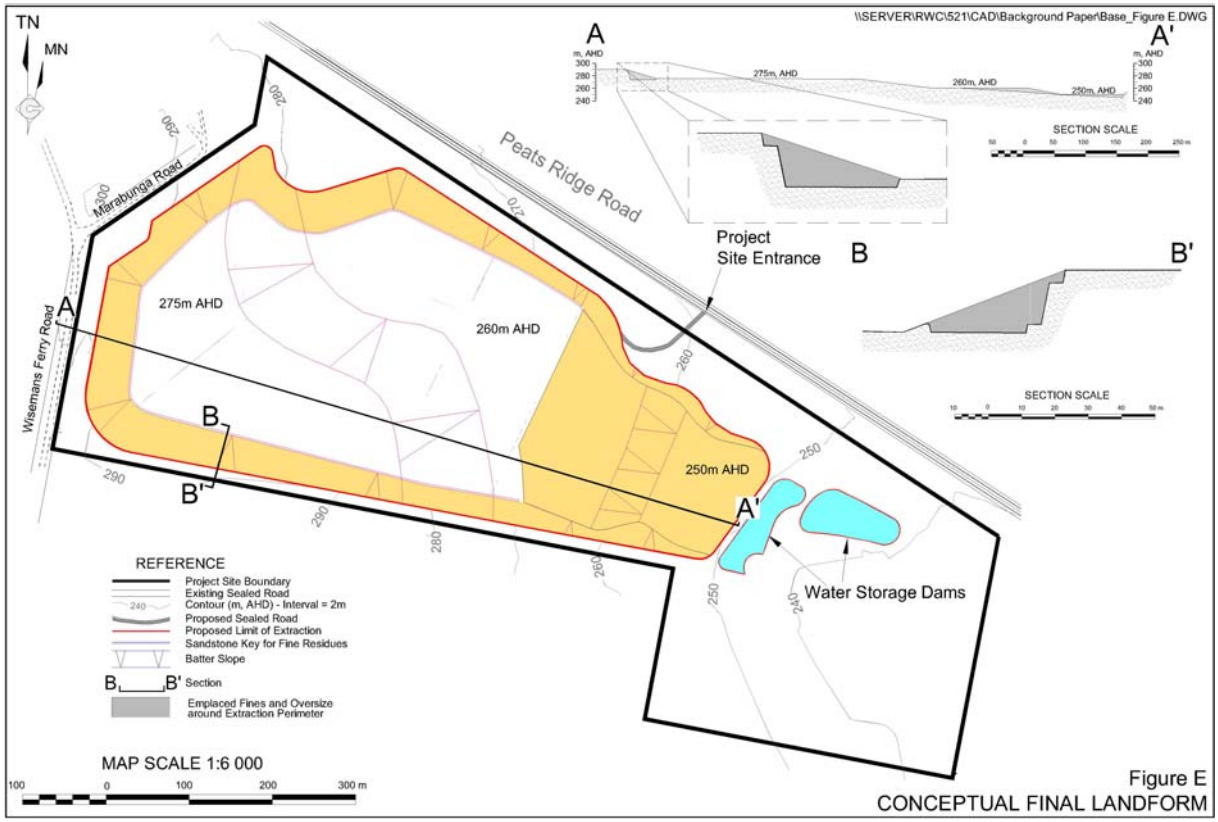


Figure E
CONCEPTUAL FINAL LANDFORM

the bulk of the clay component from the sand, which would be directed in a slurry form to a site thickener. Underflow from the thickener would be processed through a filter press producing a material of sufficient density to be used for site rehabilitation. The plant design will incorporate a closed water circuit which, in conjunction with the filter press process, would avoid the need for dams to contain the processing fines and completely eliminate the need for supplementary bore water. The EIS would address the *Somersby Fields* Partnership's planning for site rehabilitation using such materials and the progressive development of sporting and recreational facilities.

Transportation

The Project Site is well situated to gain access to the F3 for distribution of its sand products to the Sydney and Central Coast markets. **All** laden trucks would turn right out of the Project Site onto Peats Ridge Road and travel directly to the F3. **All** unladen trucks would similarly travel directly from the F3 to the Project Site. The intersection between Peats Ridge Road and the site access road would be designed to meet RTA standard intersection requirements.

Daily and hourly levels of truck movements would vary in response to fluctuations in market requirements, rain days etc. Daily truck movements (1 load = 2 movements) are likely to vary from an average of 80 in Year 2 to 140 in Year 5 and beyond.

The EIS would provide a greater level of detail relating to proposed traffic movements.

Final Land Use of *Somersby Fields*

Discussions with Gosford City Council have identified the community's need for additional sporting and recreational facilities. This need has been identified in a strategic review of the sporting needs of the Central Coast. The identification of "rural tourist facilities" on and around the Project Site in the Gosford/Wyong LEP No. 2001 would be compatible with the *Somersby Fields* concept.

It is proposed that a substantial proportion of the *Somersby Fields* site would be made available progressively and dedicated (without charge) to the community for the development of these facilities. The development of the sand removal operation, rehabilitation and revegetation activities would be undertaken progressively to achieve this outcome. The *Somersby Fields* Partnership plans to progressively release the land for the community's use in three stages after approximately 5, 10 and 15 years from the commencement of sand removal operations.

Figure F illustrates a conceptual view of *Somersby Fields* potential community use including:

- sporting fields;
- passive recreation areas for playgrounds, walking etc.; and
- nature conservation areas including the proposed voluntary conservation area incorporating the main population of Somersby Mintbush.

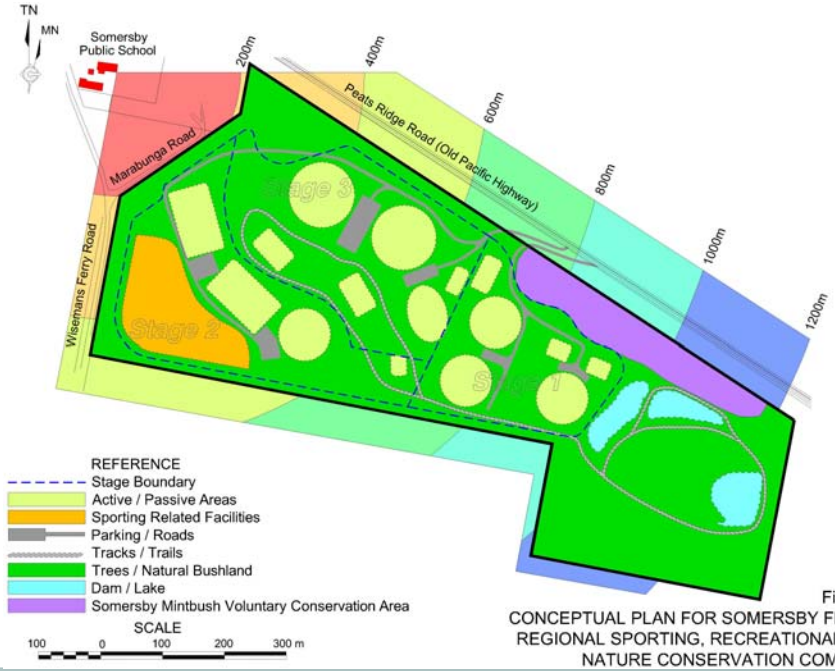


Figure F
CONCEPTUAL PLAN FOR SOMERSBY FIELDS REGIONAL SPORTING, RECREATIONAL AND NATURE CONSERVATION COMPLEX

Potential Mitigation/Management Measures and Impacts

Introduction

The *Somersby Fields* Partnership would avoid and/or minimise impacts upon its neighbours and surrounding land uses principally through the design of the project itself. It would, however, be necessary to incorporate a range of specific mitigation and management measures for various components of the operation.

Key issues and likely mitigation measures and controls include the following. Each of these measures would be detailed in the EIS.

Noise

The *Somersby Fields* Partnership would ensure that noise levels at surrounding residences and the Somersby Public School meet DEC requirements. This will be achieved through the design and location of the extraction operation, together with the selection of equipment and controls (e.g. residential class mufflers). The extraction sequence (**Figure D**) has been designed to commence operations well away from the Somersby Primary School and gradually work towards the school subject to demonstrating compliance with relevant noise criteria.

Air Quality

The sand contains considerable moisture, and hence little dust is likely to be generated during extraction. A water truck would be used to suppress any dust generated on on-site roads and cleared surfaces. Sand processing would yield negligible dust, particularly since it will occur within a building.

Groundwater

Initial studies undertaken suggest that the base of the sand removal operations would intersect the regional groundwater table and cause limited local changes to the groundwater levels.

Groundwater modelling indicates that by midway through the life of the operation, the removal of sand would cause reductions in the saturated aquifer thickness and lower the water table in four registered bores within 500m by approximately 2m to 6m.

By the end of the life of the operation, the rehabilitated landform would cause the groundwater levels to rise slightly above those predicted to occur at the midway point of the operation.

The *Somersby Fields* Partnership is committed to mitigating these impacts and upgrading any affected bores by deepening the bores or drilling a new bore.

Surface Water

Surface water would be easily managed on site given the absence of defined creeks within the proposed operations area. The existing dam and those proposed would source water from surface runoff and near surface groundwater.

Water flow/seepage "downstream" from existing on-site water storage towards the adjoining Research Station would be maintained.

Vegetation

The proposed operation would result in the removal of up to 13.5ha of native remnant vegetation and regrowth. Vegetation similar to that on the *Somersby Fields* site is adequately conserved in other areas on the Somersby Plateau and nearby areas. The presence of Somersby Mintbush, a plant listed on Schedule 1 of the *Threatened Species Conservation Act 1995,* has been reflected in the design of the proposed sand removal area and site access road. A voluntary conservation area is proposed for the Somersby Mintbush on the *Somersby Fields* site.

Other Issues

A range of other issues have been identified including Aboriginal heritage, soils, visibility, traffic numbers, ecologically sustainable development and employment. Each of these will be comprehensively addressed in the environmental impact statement.

Approvals Required

The *Somersby Fields* project would be an integrated and designated development requiring up to five approvals, namely:

1. Development Consent (*Environmental Planning and Assessment Act 1979)*: Consent Authority – Minister for Infrastructure and Planning (A State Significant Development);
2. Environment Protection Licence (*Protection of the Environment and Operations Act 1997)*: Approval Body – Department of Environment and Conservation (relating to air, water and noise);
3. Water Licence (*Water Management Act 2000*): Approval Body – Department of Infrastructure, Planning and Natural Resources (relating to the collection and use of surface / groundwater above the landowner's harvestable right.)
4. Section 138 Road Permit (*Roads Act 1993*): Approval Body – Gosford City Council (relating to the improvement of the site entrance / intersection with Peats Ridge Road.)
5. Significant impact upon Threatened Species (*National Parks and Wildlife Act 1974*): Approval Body – Department of Environment and Conservation (relating to the potential impact upon a Threatened plant species-the need for this approval is yet to be fully evaluated).

Conclusion

Planning for the *Somersby Fields* proposal and the associated sand extraction operation has to date established that an environmentally responsible operation can be developed on the Project Site. The ongoing design of the proposed operation and environmental impact assessment will focus upon compiling all necessary documentation for inclusion in the EIS. The Proponent is keen to ensure that the *Somersby Fields* project will be of significant benefit to the local community.

For further information:

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The Operation's Key Statistics

The *Somersby Fields* Site

- Property area = 43 ha
- Operational area = 25.6ha

Sand Resource and Products

- Sand depth = 10m to 20m
- Recoverable sand = 9 million tonnes (before washing)
- Quantity of sand products = 7.2 million tonnes
- Maximum annual production = 450 000 tonnes

Product Despatch

- Distance from site entrance to Somersby Interchange (onto F3 Freeway) = 700m
- Hours of product transportation
  Monday—Friday—5.00am to 10.00pm
  Saturday—5.00am to 4.00pm
- Average return truck trips per day
  = 40 (Year 1)
  = 70 (Year 5 onwards)

Production

- Average daily production = 1 900 tonnes
- Hours of operation—extraction / processing
  Monday to Friday 6.00am—6.00pm
  Saturday 6.00am—4.00pm
- Employment = 30 people (on-site and drivers)

Nature Conservation

- Area of site undisturbed = 17.4ha (40%)
- Area of proposed Voluntary Conservation Agreement (for Somersby Mintbush) = 3.3ha
- Area of native vegetation retained = 14.2ha
- Area of native vegetation planted = 18ha

Somersby Fields End Use — Indicative Area

- Active playing fields and service areas = 10.6ha
- Passive recreational area = 6ha
- Natural values = 9ha
- Undisturbed areas = 17.4ha

Indicative Land Release for Community Use

- Stage 1: End Year 5
- Stage 2: End Year 10
- Stage 3: End Year 15