

4. Legislation and Planning

This section outlines relevant legislation and planning issues governing the assessment and approval of the proposed Wallarah 2 Coal Mine.

4.1 Statutory Requirements

The primary planning and environmental legislation in NSW controlling developments that are likely to have an impact on the environment are the *Environmental Planning and Assessment Act 1979* (EP&A Act) and the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation). In addition to the EP&A Act and the EP&A Regulation, the following pieces of legislation are also relevant to the assessment of the proposal though not necessarily involve separate approvals:

- ☐ *Mining Act 1992 and Mining Regulation 2003;*
- ☐ *Coal Mine Health and Safety Act 2002;*
- ☐ *Protection of the Environment Operations Act 1997;*
- ☐ *Environment Protection and Biodiversity Conservation Act 1999;*
- ☐ *Native Vegetation Act 2003;*
- ☐ *National Parks and Wildlife Act 1974;*
- ☐ *Aboriginal and Torres Strait Islander Heritage Protection Act 1984;*
- ☐ *Heritage Act 1977;*
- ☐ *Forestry Act 1966;*
- ☐ *Noxious Weeds Act 1993;*
- ☐ *Water Management Act 2000;*
- ☐ *Water Act 1912;*
- ☐ *Conveyancing Act 1919;*
- ☐ *Contaminated lands Management Act 1997;*
- ☐ *Rail Safety Act 2002;*
- ☐ *Roads and Rail Transport (Dangerous Goods) Act 1997;*
- ☐ *Roads Act 1993;*
- ☐ *Threatened Species Conservation Act 1995;*
- ☐ *Threatened Species Conservation Amendment (Biodiversity Banking) Act 2006;*
- ☐ *Crown Lands Act 1989;*
- ☐ *Local Government Act 1993;*
- ☐ *Pipelines Act 1967;*
- ☐ *Native Title Act 1993 (Cth); and*
- ☐ *Aboriginal Land Rights Act 1983.*

Applications for licences and permits that may be required under these Acts for the W2CP would be submitted to the relevant government agencies as required.

Additional detail on the likely requirements or relevance of a number of these Acts is provided in the sub-sections below.

In addition to the above, there are also Local Environmental Plans, Regional Environmental Plans, Water Sharing Plans, Council Management Plans and State Environmental Planning Policies which are relevant to the proposal. Although separate approvals are not required for many of the Acts listed above, the requirements of each have been taken into account in the assessment methodologies for the project.

4.1.1 Environmental Planning and Assessment Act 1979

The planning legislation controlling developments likely to have a significant effect on the environment in NSW is the EP&A Act. The Project is a mining project as defined in Schedule 1 of *State Environmental Planning Policy (Major Development) 2005* (Major Development SEPP). As such, if the Minister for Planning is also satisfied that it meets this definition, it will be a project to which Part 3A of the EP&A Act applies. This means that the Project will be determined by the Minister for Planning.

The Part 3A approval is the most significant approval required for the Project. If this approval is obtained, it is expected that all other statutory approvals necessary for the Project will be able to be procured.

In accordance with the EP&A Act, the Director-General of the Department of Planning (DOP) was consulted regarding the form and content of the Environmental Assessment (EA). The Environmental Assessment Requirements (EARs) by the Director-General are provided in **Attachment 1** and also summarised in **Table 1.1**. This EA has been prepared in accordance with the requirements of the EP&A Act and Regulation and has addressed issues raised in the EARs.

Under the EP&A Act, approval from the Minister for Planning has to be obtained before the proposed coal mine described in this EA can be constructed. The Director-General of DOP will prepare a report for the Minister based on the EA and any representations received as a result of the public exhibition, who will then determine the proposal.

The aim of the EA is to enable members of the public, the determining authority and DOP to properly understand the environmental consequences of the proposal.

4.1.2 Part 3A of the Environmental Planning and Assessment Act

Part 3A seeks to ensure that an appropriate level of community consultation and environmental assessment is undertaken, based on the level of risk or community concern.

The Act also provides for Planning Assessment Commission (PAC) reviews to strengthen the assessment process. According to a media statement by the Minister for Planning at the time of the release of the EARs, the W2CP will be assessed further by a PAC panel of independent experts following public display of the EA. Panel members will be appointed by the Minister and may be required to provide advice at any stage of the assessment process.

The W2CP has already been a key participant in a strategic inquiry by an independent expert panel chaired by Mrs Kerry Chikarovski in relation to potential coal mining in the Wyong Local Government Area (LGA).

4.1.3 Application of other Provisions of the Environmental Planning and Assessment Act 1979

Section 75R of the EP&A Act outlines the applicability of other provisions of the EP&A Act relevant to the assessment and approval of a project under Part 3A:

- ☐ Parts 4 and 5 of the EP&A Act do not, except as provided by Part 3A, apply to a project approved under Part 3A, including the declaration of a project as a

project to which Part 3A applies, and any approval or other requirement under Part 3A for the project.

- ☐ Part 3 of the EP&A Act and State Environmental Planning Policies (SEPPs) apply to the declaration of a project as a project to which Part 3A applies and the carrying out of a project to which Part 3A applies.
- ☐ Non-SEPP Environmental Planning Instruments (EPIs) (e.g. Local Environmental Plans (LEPs) and Regional Environmental Plans (REPs)) do not apply to a project approved under Part 3A.

Notwithstanding the above, under section 75J(3), the provisions of any environmental planning instruments that would ordinarily apply to the project if it were not to be assessed under Part 3A, may be taken into account by the Minister in deciding whether or not to approve the carrying out of the project.

4.1.4 Other Approvals and Legislation that Must be Applied Consistently to Part 3A Projects

Section 75V(1) of the EP&A Act outlines the authorisations that cannot be refused if they are necessary for the carrying out of a project approved under Part 3A. These authorisations must be substantially consistent with the Part 3A approval. The relevant authorisations are those required under the following legislative provisions:

- ☐ section 144 of the *Fisheries Management Act 1994*;
- ☐ section 15 of the *Mine Subsidence Compensation Act 1961*;
- ☐ mining lease under the *Mining Act 1992*;
- ☐ production lease under the *Petroleum (Onshore) Act 1991*;
- ☐ environment protection licence under Chapter 3 of the *Protection of the Environment Operations Act 1997*;
- ☐ Section 138 of the *Roads Act 1993*; and
- ☐ a licence under the *Pipelines Act 1967*.

4.1.5 Other Approvals and Legislation that do Not Apply to Approved Part 3A Projects

Sections 75U(1) and (2) of the EP&A Act outline the authorisations that are not required for a project approved under Part 3A. These authorisations are those ordinarily required under the following legislative provisions:

- ☐ Part 3 of the *Coastal Protection Act 1979*;
- ☐ Sections 201, 205 and 219 of the *Fisheries Management Act 1994*;
- ☐ Division 8 of Part 6, Part 4 and Section 139 of the *Heritage Act 1977*;
- ☐ Section 87 and 90 of the *National Parks and Wildlife Act 1974*; and
- ☐ Section 12 of the *Native Vegetation Act 2003*.

4.2 Mining Act 1992 and Mining Regulation 2003

In addition to approval under Part 3A, the project will also require approvals from the Department of Industry and Investment – Mineral Resources (I&I) under the *Mining Act 1992* and *Mining Regulation 2003*. These approvals are required pursuant to the grant of a Mining Lease and include preparation of a Subsidence Management Plan (SMP), Rehabilitation and Environmental Management Plan, and securing approvals for secondary workings. Separate approvals may be required from DPII-MR in relation to the project's gas management initiatives and Mine Subsidence Board in relation to construction requirements.

The WACJV has made a commitment to compliance with the *Coal Mines Health and Safety Act 2002* and other relevant mining related legislation through all aspects of the operation.

4.2.1 Subsidence Management Approvals

Under current provisions of the *Mining Act 1992*, it is necessary for all underground coal mines to gain approval for potential mining-induced subsidence related impacts. The approval process, although currently under review, requires the preparation of an SMP, review by a Subsidence Management Plan Interagency Committee, and approval by the Director General of DII-MR.

Following granting of Project Approval for the W2CP, an SMP will be prepared in accordance with the *DPI Guideline for Applications for Subsidence Management Approvals*, 2003. The main areas to be addressed by the SMP application will include:

- ☐ the proposed mining system and resource recovery;
- ☐ community consultation undertaken;
- ☐ statutory requirements that apply to the Application Area;
- ☐ expected subsidence and its potential impacts on public safety, the environment, community, land use, surface improvements and infrastructure; and
- ☐ the proposed SMP for the expected subsidence impacts.

The SMP approval requires an outcome-based systems approach. The proposed SMP must be capable of managing potential subsidence impacts to produce outcomes that are consistent with government policies and which take into account community expectations. An SMP application will be assessed by a Departmental SMP Review Committee comprising the Director Environment (Chair), Assistant Director Environment, Chief Inspector of Coal Mines, Principal Subsidence Engineer, Manager Policy and Legislative Review and Chief Geologist Coal and Petroleum.

4.3 SEPP (Mining, Petroleum Production and Extractive Industries) 2007

The *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007* (Mining SEPP) was gazetted on 16 February 2007 and consolidates and updates many existing planning provisions related to mining, petroleum production and extractive industries. It also introduces new provisions to ensure that potential environmental and social impacts are adequately addressed during the assessment and determination of development proposals.

The SEPP highlights some key natural resource and environmental management issues that must be addressed when assessing new mining proposals, including:

- ☐ impacts on significant water resources, including surface and groundwater resources;
- ☐ impacts on biodiversity including threatened species; and

-
-
- ❑ greenhouse gas emissions (including downstream emissions) having regard to any applicable State or national policies, programs or guidelines concerning greenhouse gas emissions.

The Mining SEPP combines a number of existing policies, including the former SEPP 45 – Mining Permissibility, into one consistent set of rules.

The transitional arrangements outlined in the Mining SEPP state that the SEPP does not apply to or with respect to an application for development consent under Part 4 or an approval under Part 3A of the EP&A Act that has been made but not finally determined before 16 February 2007. The provisions of this SEPP therefore apply to the W2CP since the current project application was lodged in November 2007 which is outside the SEPP's transition period.

Given that part of the Project is prohibited under the Wyong LEP, in order to ensure that clauses 8O and 8N of the EP&A Regulation will not operate to preclude the Minister from granting Project Approval, it is necessary to consider whether the SEPP operates to override the prohibition under the Wyong LEP and provide for the permissibility of the Project in those zones under the Wyong LEP where part of the Project is prohibited.

Clause 4 of the Mining SEPP states:

4. This Policy applies to the State.

Clause 5(3) gives the Mining SEPP primacy where there is an inconsistency between its provisions and the provisions in any other environmental planning instrument. Clause 5(3) relevantly provides:

5(3) if this Policy is inconsistent with any other environmental planning instrument, whether made before or after this Policy, this Policy prevails to the extent of the inconsistency.

The practical effect of clause 5(3) for the W2CP is that if there is any inconsistency between the provisions in the Mining SEPP and those contained in the Wyong LEP, the provisions of the Mining SEPP will prevail.

The aims of the Mining SEPP are set out in clause 2 as follows:

2. The aims of this Policy are, in recognition of the importance to New South Wales of mining, petroleum production and extractive industries:

(a) to provide for the proper management and development of mineral, petroleum and extractive material resources for the purpose of promoting the social and economic welfare of the State, and

(b) to facilitate the orderly and economic use and development of land containing mineral, petroleum and extractive material resources, and

(c) to establish appropriate planning controls to encourage ecologically sustainable development through the environmental assessment, and sustainable management, of development of mineral, petroleum and extractive material resources.

Clauses 6 and 7 of the Mining SEPP provide what types of mining development are permissible without consent and what types are permissible with development consent. In this regard, clause 7(1) relevantly states:

7(1) Mining Development for any of the following purposes may be carried out only with development consent:

(a) underground mining carried out on any land,...

The effect of clause 7(1)(a), in conjunction with the operation of clause 5(3) of the Mining SEPP, is that notwithstanding any prohibition contained in the Wyong LEP, development for the purpose of underground mining may be carried out with development consent.

Accordingly, clauses 8N(1) and 8O(1) of the EP&A Regulation have no effect and therefore the Minister is not precluded from granting approval under section 75J to the Project in respect of those parts of the W2CP land where mining is prohibited under the Wyong LEP.

In addition, clause 8 of the Mining SEPP states:

8 Determination of permissibility under local environmental plans

(1) If a local environmental plan provides that development for the purposes of mining, petroleum production or extractive industry may be carried out on land with development consent if provisions of the plan are satisfied:

(a) development for that purpose may be carried out on that land with development consent without those provisions having to be satisfied, and

(b) those provisions have no effect in determining whether or not development for that purpose may be carried out on that land or on the determination of a development application for consent to carry out development for that purpose on that land.

(2) Without limiting subclause (1), if a local environmental plan provides that development for the purposes of mining, petroleum production or extractive industry may be carried out on land with development consent if the consent authority is satisfied as to certain matters specified in the plan, development for that purpose may be carried out on that land with development consent without the consent authority having to be satisfied as to those specified matters.

4.4 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) was introduced to give the Commonwealth greater control and input in development approvals. The main provision of the Act requires that Commonwealth approval be obtained for any actions that are likely to have a significant impact on a matter of National Environmental Significance (NES), in addition to any State approvals.

Matters of NES are:

- ☐ declared World Heritage areas;
- ☐ declared RAMSAR wetlands;
- ☐ listed threatened species and ecological communities;

-
- ☐ listed migratory species;
 - ☐ nuclear actions; and
 - ☐ the environment of Commonwealth marine areas.

Under the EPBC Act consideration of matters that are not of NES remains the responsibility of DOP. However, the development application must be referred to the Commonwealth in the event that there is the potential to affect any items of NES.

The W2CP does not affect any areas of declared World Heritage, RAMSAR wetlands, CAMBA¹ JAMBA² and ROKAMBA³ migratory bird species, critical habitats, regionally significant remnant vegetation or corridors, nuclear actions or the environment of commonwealth marine areas.

The assessment of matters of NES under the EPBC Act shows that the action (direct impacts in the study area) is considered likely to impact on *Angophora inopina*, as the local population represents an “important population” at the limit of its distribution.

Potential impacts may arise due to increased fragmentation, loss of occupancy area and potential for invasion by exotic weed species. Similarly, W2CP will impact on a number of local sub-populations of *Tetradlea juncea* within the study area. Several plants will be removed through the construction of the proposed rail loop and other surface facilities, resulting in loss of occupied habitat. Other plants will avoid any significant direct impacts from development. It is likely that several other unrecorded sub-populations of *T. juncea* occur in adjacent areas, both in WACJV ownership and the contiguous DLALC / Crown lands.

Based on the anticipated impacts on these two species, a referral was made to the Minister for the Environment, Heritage and the Arts. Requirements of the Minister under the EPBC Act have been incorporated into the Director-General’s requirements for this EA.

4.5 Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) became effective on 1 July 1999. It consolidated the main pollution statutes under a single Act. These included:

- ☐ *Clean Waters Act 1970*;
- ☐ *Clean Air Act 1961*;
- ☐ *Environmental Offences and Penalties Act 1989*;
- ☐ *Noise Control Act 1975*;
- ☐ *Pollution Control Act 1970*; and
- ☐ incorporates most of the regulatory provisions of the *Waste Minimisation and Management Act 1995*.

The POEO Act is a NSW State Act, which aims to protect, restore and enhance the quality of the environment in the state, having regard to the need to maintain ecologically sustainable development.

¹ (China-Australia Migratory Bird Agreement),

² (Japan-Australia Migratory Bird Agreement)

³ (Republic of Korea-Australia Migratory Bird Agreement)

4.5.1 Protection of the Environment Operations (Clean Air) Regulation 2002

Although the POEO Act replaced the former *Clean Air Act 1961*, the *Protection of the Environment Operations (Clear Air) Regulation 2002* was later developed to replace the following pieces of legislation:

- ☐ *Clear Air (Domestic Solid Fuel Heaters) Regulation 1997*;
- ☐ *Clear Air (Motor Vehicles and Motor Vehicle Fuels) Regulation 1997*;
- ☐ *Clear Air (Plant and Equipment) Regulation 1997*; and
- ☐ *Protection of the Environment Operations (Control of Burning) Regulation 2000*.

While much of this Regulation does not apply to the W2CP, Part 4 of the Regulation deals with emission of air impurities from activities and plant. In particular, Part 4 covers the following aspects that would apply to the W2CP:

- ☐ sets maximum limits on emissions from activities and plant for a number of substances, including solid particles, which may be generated at the coal handling facilities in the form of dust and particulate matter; and
- ☐ imposes operational requirements for certain afterburners and flares, which may be applicable to the method by which the W2CP processes the gas by-product produced as a result of the mining.

The applicability of this Regulation is therefore discussed in the appropriate sections of this EA document and the specialist air quality report contained in Appendix L.

4.6 Other State Legislation

Section 75U of the EP&A Act provides that if the W2CP receives approval under Part 3A of the EP&A Act, there are several other Acts under which approval would no longer be required. However, the provisions of these Acts are still relevant to the assessment of the project and therefore have been included in the scope of the various environmental studies undertaken for the project.

4.6.1 Native Vegetation Act 2003

The objectives of the *Native Vegetation Act 2003* (NV Act) are:

- ☐ to provide for, encourage and promote the management of native vegetation on a regional basis in the social, economic and environmental interests of the State, and
- ☐ to prevent broadscale clearing unless it improves or maintains environmental outcomes, and
- ☐ to protect native vegetation of high conservation value having regard to its contribution to such matters as water quality, biodiversity, or the prevention of salinity or land degradation, and
- ☐ to improve the condition of existing native vegetation, particularly where it has high conservation value, and

-
-
- ❑ to encourage the revegetation of land, and the rehabilitation of land, with appropriate native vegetation, in accordance with the principles of ecologically sustainable development.

Section 25 of the NV Act defines certain clearing of native vegetation as excluded clearing. This includes any clearing that is, or that is part of, designated development within the meaning of the EP&A Act and for which development consent has been granted under that Act. Matters relating to the NV Act have been addressed within the EA and any approval granted for the project will necessarily take into account the provisions of the NV Act.

4.6.2 National Parks and Wildlife Act 1974

The purpose of the *National Parks and Wildlife Act 1974* (NPW Act) is to provide for the protection of the state's native flora and fauna, populations and ecological communities and their habitats. The Act also serves to protect the State's heritage, both Indigenous and Non-Indigenous. These objectives are achieved through the conservation and management of these resources where they are located both within and outside of conservation areas.

The NPW Act provides statutory protection for all Aboriginal relics and places, regardless of significance, land tenure or whether they have been previously recorded in the DECCW Aboriginal Heritage Information Management System (AHIMS). Areas may be gazetted as Aboriginal 'places' when the Minister is satisfied that sufficient evidence exists to demonstrate that the area is or was of special significance to Aboriginal people.

Under the NPW Act it is an offence to knowingly damage, deface or cause or permit the destruction of an Aboriginal relic or place without the prior written consent of the Director-General of the NSW DECCW. Reporting the discovery of previously unknown Aboriginal sites to DECCW within a reasonable time of discovery is also obligatory.

The archaeological assessment of the proposed W2CP surface facilities areas identified three Aboriginal sites and a zone of potential archaeological sensitivity along Wallarah Creek. In accordance with the NPW Act, no object or relic of Aboriginal heritage will be damaged, defaced or destroyed without the prior written consent of the Director-General, DECCW or without approval of the Minister for Planning under Part 3A of the EP&A Act.

4.6.3 Heritage Act 1977

The *Heritage Act 1997* (Heritage Act) provides for the conservation of heritage items such as buildings, works, relics and places of historic, scientific, cultural, social, archaeological, architectural, natural or aesthetic significance.

The Heritage Council of NSW must grant consent prior to the commencement of works which demolish, damage or alter a building, work, relic or place to which an interim or permanent conservation order applies.

The archaeological assessment carried out for the proposed W2CP did not identify any items of heritage significance within the proposed area of impact. Details of the archaeological report are summarised in Chapter 14 of this document, while the full assessment is contained in **Appendix S**.

4.6.4 Aboriginal and Torres Strait Islander Heritage Protection Act 1984

The purposes of this Act are the preservation and protection from injury or desecration of areas and objects in Australia and in Australian waters, being areas and objects that are of particular significance to Aboriginals in accordance with Aboriginal tradition. The Act is administered by the Indigenous Heritage Section of the Australian Government Department of the Environment, Water, Heritage and the Arts.

The Act offers protection for significant places or objects through ministerial decision. Aboriginal people who believe that a place or object is threatened and believe that state government processes offer inadequate protection can apply to the Australian Government Environment Minister to protect the place or object.

No authorisations are presently required under this Act for the W2CP.

4.6.5 Forestry Act 1916

The *Forestry Act 1916* (Forestry Act) was established to provide for the dedication, reservation, control and use of State Forests, timber reserves, and Crown lands for forestry and other purposes.

The Forestry Act does not prohibit or restrict underground coal mining within a State Forest. Whilst the Forestry Act does not prohibit or restrict underground coal mining a permit may be required to be obtained pursuant to section 31 of the Forestry Act to occupy or operate on land owned by NSW State Forests.

4.6.6 Noxious Weeds Act 1993

The *Noxious Weeds Act 1993* provides for the identification and control of noxious weeds and specifies the duties of public and private landholders to control noxious weeds.

The Act stipulates that an occupier of land must take steps to control noxious weeds on their land. Appropriate methods for controlling noxious weed species are defined under the control category or categories for particular species of weeds.

WACJV will ensure that during the construction activities for the surface facilities, and throughout the life of the mine, weed control obligations will be fully complied with under the Act at all properties relating to the project and occupied.

4.6.7 Water Management Act 2000 / Water Act 1912

The *Water Management Act 2000* (WM Act) establishes a framework for managing water in NSW. The Act creates:

- ☐ mechanisms for protecting and restoring water sources and their dependent ecosystems;
- ☐ improved access rights to water; and
- ☐ partnership arrangements between the community and the government for water management.

The WM Act recognises the importance of maintaining the environmental health of the State's water while encouraging innovative and efficient use of this scarce commodity. Provisions to protect the environmental health of our water sources are set in the water sharing plans as well as the rules for a range of new water dealings

for licence holders. Once fully implemented, the WM Act will replace the *Water Act 1912* (Water Act) which still applies in relation to certain matters.

The W2CP has been developed with the health and flow of surface and groundwater systems as a priority. This has seen the mine plan designed to ensure that longwall mining will not take place directly beneath the Wyong River, which is the primary watercourse to feed into the Central Coast Region water supply. This self-imposed restriction of mining beneath the river will effectively limit the potential for subsidence effects on the flow of the river.

As noted earlier, sections 75U(1)(f) and (h) of the EP&A Act provide that the following authorizations will not be required if the W2CP is approved under Part 3A of the EP&A Act:

- ☐ a water use approval under section 89 of the WM Act;
- ☐ a water management work approval under section 90 of the WM Act;
- ☐ an activity approval under section 91 of the WM Act.

Applications for any other licences or permits required under these three Acts for the W2CP would be submitted to the NSW Office of Water (NOW), (formerly Department of Water and Energy) as required.

4.6.8 Conveyancing Act 1919

Part of the land proposed for the rail spur is owned by the Darkinjung Local Aboriginal Land Council. Negotiations are underway to lease any non-company owned land that is required for the proposed W2CP rail infrastructure.

Section 23F of the *Conveyancing Act 1919* provides that a lease over part of an existing lot requires the subdivision of that lot into separate parcels to ensure that the leased land follows the boundary of an existing lot, if the lease is to cover a period greater than 5 years in duration. Consequently, it is proposed to subdivide the Darkinjung land for the purpose only of creating a free standing lot to contain the rail loop, and for no other purposes.

Therefore the sub-division associated with the rail infrastructure is development for the purposes of "coal mining" and pursuant to the Major Development SEPP forms part of the "project" that requires approval under Part 3A of the EP&A Act.

4.7 Local Environmental Plans

LEPs are prepared at the local government level to provide a planning tool that sets legal controls over development in the area to which it applies. LEPs contain zoning controls as well as controls for precincts, heritage conservation areas and protected areas. These controls are applied to land within the LGA and are relevant to the characteristics of that land. These controls determine where and to what extent development may occur.

The proposed W2CP is located in the LGA of Wyong, as shown in **Figure 4.1**. Wyong Local Environmental Plan 1991 (Wyong LEP) applies to the site.

4.7.1 Wyong Local Environmental Plan 1991

The principal planning instrument governing land use in the Wyong LGA is the Wyong LEP.

The overall aims of the Wyong LEP are:

- ☐ to promote the management, development, conservation and economic use of the resources of the Shire of Wyong and to protect the amenity of its environment;
- ☐ to provide a comprehensive planning instrument for the Shire that is clear and explicit but which provides flexibility in its application; and
- ☐ to facilitate and encourage ecological, economic and social sustainability.

Issues covered by the Wyong LEP include population and housing; employment and economic development; maintain and reinforce the viability of commercial centres; open space and tourism facility management and development; provision of community services including transport, rural and environmental areas, and tree preservation.

Under the Wyong LEP selected zones in which mining is permissible in the Wyong LGA are listed in Table 4.1 below, together with an analysis of the compatibility of mining with the zoning objectives.

Table 4.1 Land Use Zonings under the Wyong LEP in Which Mining is Permissible

Land Use Zone		Relevant Objectives	Compatibility with Mining
4a	General Industrial zone	Compatible	to provide opportunities for the development of a wide range of industrial, service and storage activities which do not have a materially detrimental effect on the amenity of adjoining residential areas.
4c	Light Industrial zone	Compatible	to provide opportunities for the development of large scale industrial, service and storage activities which by nature of their operations should be isolated from residential areas, and to restrict commercial, retail or other development except where it is ancillary to the use of land within this zone for industrial, service and storage purposes.
4c	Business Park zone	Not compatible with open cut mining and certain surface facilities	to provide for the integrated development of an industrial business park, and to allow for large scale commercial development which is not in conflict with sustaining and developing commercial zones, and to encourage development appropriate to an industrial business park which generates multi-sector employment.
4e	Regional Industrial and employment development zone	Compatible	to provide land to cater primarily for the special requirements of major industrial or employment-generating development which is within convenient distances to support population growth within the urban centres of the local government area of Wyong and has good road and rail access links, and to facilitate major industrial and employment-generating activities by permitting development which generates significant new

Land Use Zone		Relevant Objectives	Compatibility with Mining
			employment on-site, or requires a large site area but has a significant multiplier effect in the regional economy.
5a	Special uses zone	Not compatible with open cut mining and certain surface facilities	to cater for the provision of community and public facilities and services, and to provide for any other development of land within this zone, with the consent of the Council, provided that the other development is ancillary to or related to the current or future use of the land for the purpose of a community or public facility or service, and the other development does not adversely affect the current or future usefulness of the land for the purpose of those facilities or services.
5b	Railway zone	Compatible	The objective is to recognise existing railway land and to enable its future development for railway and associated purposes.
5c	Local Road Reservation Zone	Compatible	to provide for the acquisition and development of land principally for local roads, and to provide for any other purpose, with the consent of the Council, provided that the purpose does not adversely affect the current or future usefulness of the land for the purposes for which it is zoned, or prejudice proposals for the acquisition of land.
5d	Arterial Road Reservation Zone	Compatible	to provide for the acquisition and development of land principally for arterial roads, and to provide for any other purpose, with the consent of the Council, provided that the purpose does not affect the usefulness of the land for the purpose of arterial roads.
6a	Open Space and Recreation Zone	Not compatible with open cut mining and certain surface facilities	to provide for the open space and recreation needs of the local community and visitors.
6b	Regional Open Space and Recreation Zone	Not compatible with open cut mining and certain surface facilities	to identify land, not in public ownership, that will be acquired by the corporation under the Act, being land proposed to be used principally for the purposes of public recreation or nature conservation, or both, and to allow any other use, with the consent of the Council, provided that the use does not affect the usefulness of the land for the purpose of public recreation or nature conservation, or both.
6c	Proposed Open Space and Recreation Zones	Not compatible with open cut mining and certain surface facilities	to identify land, not in public ownership, that will be acquired by the Council and is proposed to be used principally for the purposes of public open space and recreation, and to allow any other use, with the consent of the Council, provided that the use does not adversely affect the usefulness of the land for the purposes for which it is required, or prejudice proposals for the acquisition of land.

The Tooheys Road site, containing the rail loop and spur line and the coal handling facilities is primarily zoned 4(e) Regional Industrial & Employment Development, with a small area zoned 7(g) Wetlands Management. Mining is permissible in the 4(e) zone but prohibited in the 7(g) area.

The Buttonderry site will provide the main ventilation fans, and access for personnel and services. This site is zoned 1(c) Rural Holdings where development ancillary to mining is permitted with development consent. This site is bordered to the north by 5(a) Waste Disposal, 10(a) Investigation Zone to the east (in the process of being zoned industrial), to the west by rural residential areas zoned 7(b) Scenic Protection, and to the south by areas zoned 6(a) Open Space Recreation, 7(a) Conservation and 7(c) Scenic Protection: Small Holdings.

There are several small areas within the underground extraction area which are zoned 6(a) Open Space Recreation or similar where mining is prohibited. However, since mining is permissible in the majority of the mining area, and in all areas of proposed surface facilities, the project can be determined by the Minister for Planning under the provisions of Part 3A of the EP&A Act. This issue is further explained in the following section.

4.7.2 Reasons Why Wyong LEP does Not Prohibit Part 3A

As noted in Section 4.1.3 above, the provisions of any EPIs that would ordinarily apply to the Project if it were not to be assessed under Part 3A, may be taken into account by the Minister in deciding whether or not to approve the carrying out of the project under section 75J(3) of the EP&A Act.

Section 75J(3) was amended on 20 July 2007 to provide:

In deciding whether or not to approve the carrying out of a project, the Minister may (but is not required to) take into account the provisions of any environmental planning instrument that would not (because of section 75R) apply to the project if approved. However, the regulations may preclude approval for the carrying out of a class of project (other than a critical infrastructure project) that such an instrument would otherwise prohibit.

Clauses 8N and 8O of the EP&A Regulation also commenced on 20 July 2007. Those provisions preclude, in certain circumstances, the grant of approval under Part 3A for the carrying out of a project or part of a project that is prohibited by an EPI. Clauses 8N and 8O relevantly provide:

8N Projects or concept plans for which approval may not be given concerning environmentally sensitive land or sensitive coastal locations

- (1) *For the purposes of sections 75J (3) and 75O (3) of the Act, approval for a project application may not be given under Part 3A of the Act for any project, or part of a project, that:*
- (a) is located within an environmentally sensitive area of State significance or a sensitive coastal location, and*
 - (b) is prohibited by an environmental planning instrument that would not (because of section 75R of the Act) apply to the project if approved.*

8O Other projects prohibited by environmental planning instruments for which project approval may not be given

- (1) *For the purposes of section 75J (3) of the Act, approval for the carrying out of a project may not be given under Part 3A of the Act for any project, or part of a project, that:*
- (a) is not the subject of an authorisation or requirement under section 75M of the Act to apply for approval of a concept plan, and*

-
-
- (b) is prohibited by an environmental planning instrument that would not (because of section 75R of the Act) apply to the project if approved.*

Clause 80A of the EP&A Regulation provides that clauses 8N and 8O do not apply to projects where the Director-General has notified the proponent of the environmental assessment requirements (EARs) prior to 20 July 2007. As the EARs for the W2CP were notified on 10 August 2009 clauses 8N and 8O of the EP&A Regulation are relevant to the W2CP.

Under clause 8N of the EP&A Regulation, approval for the W2CP may not be given by the Minister if the project:

- ☐ is located within an environmentally sensitive area of State significance or a sensitive coastal location, and
- ☐ is prohibited by an environmental planning instrument that would not (because of section 75R of the Act) apply to the project if approved.

The terms "environmentally sensitive area of State significance" and "sensitive coastal location" are defined as having the same meanings as provided in the *State Environmental Planning Policy (Major Development) 2005*:

environmentally sensitive area of State significance means:

- (a) coastal waters of the State, or*
- (b) land to which State Environmental Planning Policy No 14—Coastal Wetlands or State Environmental Planning Policy No 26—Littoral Rainforests applies, or*
- (c) land reserved as an aquatic reserve under the Fisheries Management Act 1994 or as a marine park under the Marine Parks Act 1997, or*
- (d) land within a wetland of international significance declared under the Ramsar Convention on Wetlands or within a World heritage area declared under the World Heritage Convention, or*
- (e) land identified in an environmental planning instrument as being of high Aboriginal cultural significance or high biodiversity significance, or*
- (f) land reserved as a State conservation area under the National Parks and Wildlife Act 1974, or*
- (g) land, places, buildings or structures listed on the State Heritage Register, or*
- (h) land reserved or dedicated under the Crown Lands Act 1989 for the preservation of flora, fauna, geological formations or for other environmental protection purposes, or*
- (i) land identified as being critical habitat under the Threatened Species Conservation Act 1995 or Part 7A of the Fisheries Management Act 1994.*

sensitive coastal location means any of the following which occur within the coastal zone:

- (a) land within 100m above mean high water mark of the sea, a bay or an estuary,*
- (b) a coastal lake,*
- (c) a declared Ramsar wetland within the meaning of the Environment Protection and Biodiversity Conservation Act 1999 of the Commonwealth,*
- (d) a declared World Heritage property within the meaning of the Environment Protection and Biodiversity Conservation Act 1999 of the Commonwealth,*

-
-
- (e) *land declared as an aquatic reserve under the Fisheries Management Act 1994,*
 - (f) *land declared as a marine park under the Marine Parks Act 1997,*
 - (g) *land within 100m of any of the following:*
 - (i) *the water's edge of a coastal lake,*
 - (ii) *land to which paragraph (c), (d), (e) or (f) applies,*
 - (iii) *land reserved under the National Parks and Wildlife Act 1974,*
 - (iv) *land to which State Environmental Planning Policy No 14—Coastal Wetlands applies,*
 - (h) *residential land (within the meaning of State Environmental Planning Policy No 26—Littoral Rainforests) that is within a distance of 100m from the outer edge of the heavy black line on the series of maps held in the Department and marked "State Environmental Planning Policy No 26—Littoral Rainforests (Amendment No 2)"*

Figure 4.1 below shows that a large portion of the proposed extraction area on the western side is located within the Jilliby State Conservation Area, being land reserved as a State conservation area under the NPW Act. The location of the W2CP therefore falls within paragraph (f) of the definition of an environmentally sensitive area of State significance and paragraph g(iii) of the definition of a sensitive coastal location.

Because the W2CP is located within both an environmentally sensitive area of State significance and a sensitive coastal location, clause 8N of the EP&A Regulation will prevent the Minister from granting approval for the project if it is also prohibited by an EPI that would not (because of section 75R of the Act) apply to the project if approved.

Under clause 8O of the EP&A Regulation, approval for the W2CP may not be given by the Minister if the project:

- ☐ is not the subject of an authorisation or requirement under section 75M of the Act to apply for approval of a concept plan, and
- ☐ is prohibited by an environmental planning instrument that would not (because of section 75R of the Act) apply to the project if approved.

The W2CP is not the subject of an authorisation or requirement under section 75M of the Act to apply for approval of a concept plan.

Accordingly as with clause 8N above, clause 8O of the EP&A Regulation will also prevent the Minister from granting approval for the project if it is prohibited by an EPI that would not (because of section 75R of the Act) apply to the project if approved. Section 75R(3) of the EP&A Act provides that EPIs other than State Environmental Planning Policies (SEPPs) do not apply to or in respect of an approved project. EPIs other than SEPPs include:

- ☐ LEPs;
- ☐ REPs; and
- ☐ Deemed EPIs unless otherwise specifically provided in the EP&A Act.

Therefore if the W2CP is prohibited by a relevant LEP, REP or deemed EPI, approval may not be granted for the project by operation of clause 8O of the EP&A

Act. Relevantly, clause 8O(2) clarifies that a project is not prohibited for the purposes of Clause 8O if:

- ❑ it is not permitted because of the application of a development standard under an EPI, or
- ❑ it is prohibited under an EPI, but is permitted to be carried out because of the application of another EPI to the first EPI, under which the project is prohibited.

As explained in the earlier section which considers the Wyong LEP, parts of the W2CP are prohibited by the Wyong LEP.

However the project is nevertheless permitted to be carried out because of the application of the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (Mining SEPP) to the EPI under which the project is prohibited.

Accordingly, the Minister is not prevented from granting Part 3A approval to the W2CP by clauses 8N or 8O of the EP&A Act Regulation.

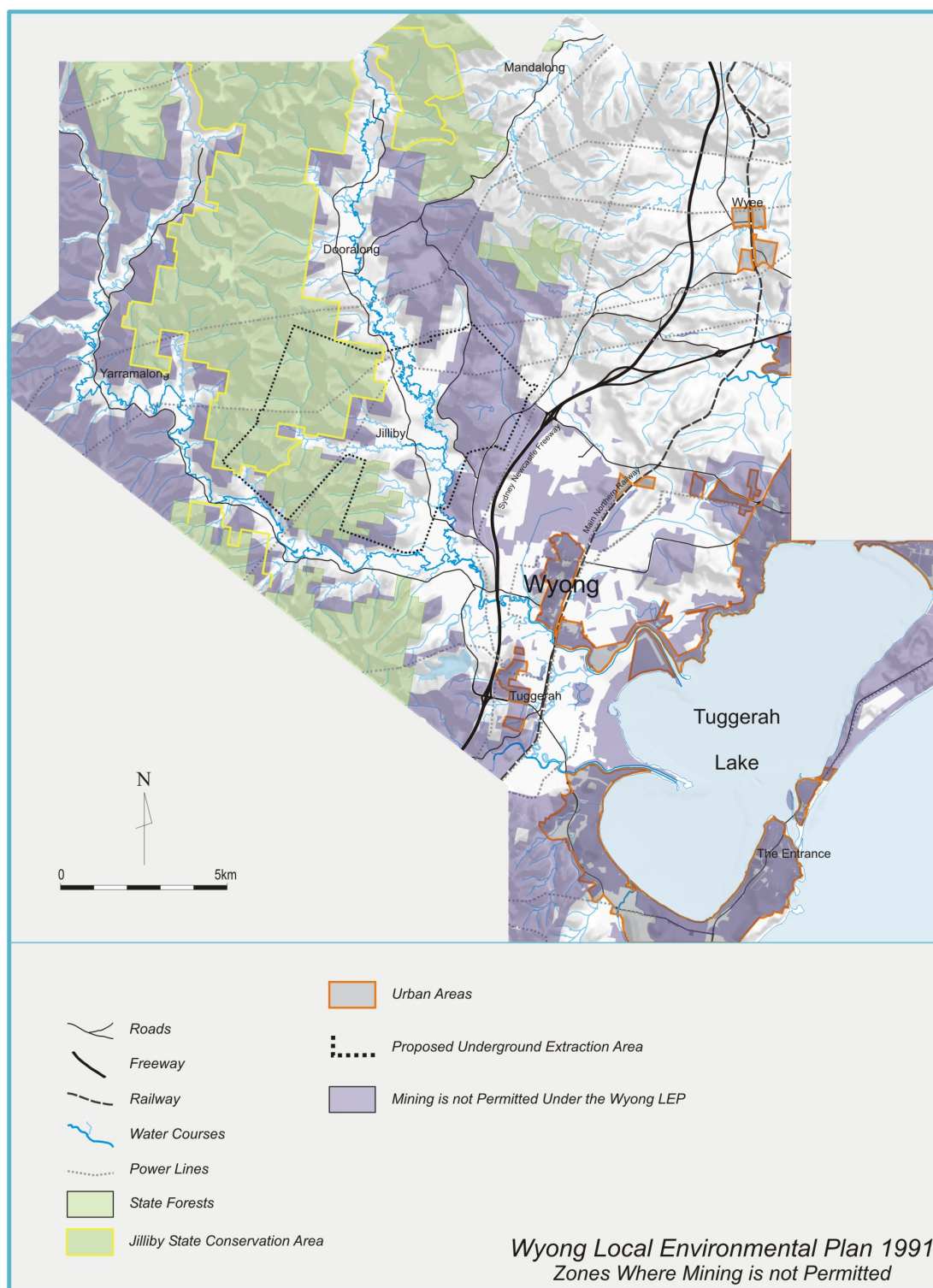


Figure 4.1 Wyong LEP 1991

4.7.3 Wyong Shire Council Management Plan 2009/20010

The Wyong Shire Council's Management Plan 2009/2010 outlines key issues to address over the coming financial year and beyond. Council's principal activities expand on their vision of building a better tomorrow through a better society; a better economy; a better environment, infrastructure, and organisation.

The Management Plan includes a number of key focus areas that contribute towards achieving this vision. They are:

- ☐ build the Wyong Shire Cultural Centre in Wyong;
- ☐ construct sportsgrounds at Warnervale-Wadalba;
- ☐ extend the shared pathway system;
- ☐ complete the Warnervale Town Centre – including construction of a Recreation & Aquatic Centre;
- ☐ implement employment generating projects;
- ☐ complete Stage I of the town centre strategies at The Entrance, Toukley, Warnervale and Wyong/Tuggerah;
- ☐ adopt, seek funding for and implement the Estuary Management Plan;
- ☐ lobby for funding for the Pacific Highway between Tuggerah and North Wyong;
- ☐ secure the water supply;
- ☐ plan for the future of Buttonderry Waste Management Facility; and
- ☐ develop an integrated, sustainable Shire Strategic Vision.

Council is working on a twenty-five year strategic plan that provides the foundation for maintaining quality of life while, at the same time, meeting the challenges of rapid population growth and achieving a sustainable future for the community.

Over the next twenty years Wyong Shire is expected to continue to be a growth area and become home to an additional 63,000 people, reaching a population of some 208,000. However, such a growth in the population provides challenges in ensuring the expansion does not unduly impact on the environment, sufficient water supplies, social disadvantage, high proportion of commuters and limited local jobs. Many of these challenges exist because the rapid population growth and urban development to date has not been adequately resourced by commensurate infrastructure and services.

Wyong Shire Council has stated their commitment to continuing to respond to local needs and provide a range of services and facilities to the community. As such, council has identified a list of priority actions, or Key Focus Areas.

In many instances, these Key Focus Areas set the foundation for Council's longer term aspirations identified in the twenty-five year strategic plan. Where funding has already been identified for these projects (for example, from developer contributions), it has been included in Council's financial forecasts. Where no funds currently exist, opportunities for joint ventures and potential grant funds are being investigated.

The WACJV has identified funding contributions to be used in community projects and assistance as an example of how they can offset the social impacts associated with the W2CP. This goal of the WACJV is consistent with the aims of Council in sourcing funding for community enhancement from local developers. Table 4.2 provides a summary of the principal activities and objectives identified in the Councils Management Plan, and how the development of the W2CP can assist council and the community in achieving these goals.

Table 4.2 Potential Contributions from W2CP to the Goals of the Wyong Shire Council Management Plan

Council's Principal Activity	Council's Objective	W2CP Potential Contribution
A better society	A community that has access to high quality services and facilities.	Increased expenditure within the local economy that will flow on from the W2CP will assist in the generation of sufficient revenue to allow upgrading of local services and facilities. Refer to Chapter 10 for full details.
	A connected community where residents participate in community life, have a sense of belonging and a strong interest in local and regional issues.	The WACJV will continue to run community consultative committees to ensure that the neighbours and community can freely communicate with WACJV and provide input to the management of the W2CP where its operations potentially impact on the community. Refer to Chapter 10 for full details.
	A community that values education, training and lifelong learning.	Continual training and development of skills will be encouraged by the WACJV for all employees.
	A healthy, active community that enjoys an overall sense of well-being.	Economic input into the local and regional economy derived from the W2CP will assist in the economic development of the area boosting the overall health and wellbeing of the community. Refer to Chapter 10 for full details.
	A community with a range of housing choices for all stages of life.	The project will result in only a small number of new people entering the region
	A community where all citizens feel safe.	Elevated levels of unemployment are often directly correlated with increased crime in an area. The W2CP will create approximately 1,000 new direct and flow-on jobs that will greatly alleviate the unemployment in the area and potentially reduce crime rates so citizens feel safe.
	An affordable public transport system that provides good access to facilities and services and an efficient link both across the Shire and to Sydney.	Increased expenditure within the local economy that will flow on from the W2CP will assist in the generation of sufficient revenue to allow upgrading of local services and facilities. Refer to Chapter 10 for full details.
	A community that has opportunities to pursue leisure time activities suitable to their age, interests and physical abilities.	Mine workers are highly paid which provides more opportunities to pursue leisure activities offered on the Central Coast.

Table 4.2 Potential Contributions from W2CP to the Goals of the Wyong Shire Council Management Plan

Council's Principal Activity	Council's Objective	W2CP Potential Contribution
	Sustainable urban development.	The WACJV will set an example in the community by designing and operating the W2CP in keeping with the principles of sustainable development wherever possible.
	Maintain current, acceptable noise levels.	The W2CP will be constructed and operated with stringent noise mitigation measures (refer to Section 11.2 of this EA document for a full description) to ensure that the impact from the development will be minimised at all times as far as practicable and well within designated noise emission levels.
	Conserve significant items of Aboriginal and European heritage.	The WACJV will ensure that the area of archaeological sensitivity along Wallarah Creek identified through the EA assessment of the W2CP is permanently conserved and protected. Refer to Chapter 14 for full details.
A better economy	An economy offering residents income-generating opportunities and career paths.	Generation of around 300 direct employment positions. Up to 70% of new direct jobs sourced locally. Some 750 new jobs could be expected to be supported in the local and regional economy stemming from the indirect effects of the new project.
	A community committed to lifelong learning and participating in the work force.	The W2CP will provide long-term and stable employment with numerous employee incentives and ongoing training.
A better environment	Human settlement, primary production and other land use take place while ensuring sustainability of soil, water and ecosystem resources.	The W2CP will in no way alter the land use within the local community. Through the construction and operation of the mine all necessary measures will be taken to protect the natural environment from adverse impacts originating from the mine or mine-related activities.
	Water quality and quantity meet community needs and natural ecosystem requirements. The physical structure and vegetation of rivers, lakes, wetlands and riparian zones are protected (and rehabilitated where required) to sustain healthy ecosystems.	The W2CP is committed to safeguarding the regional water supply and will potentially be a nett provider of water to the supply system in the long term.

Table 4.2 Potential Contributions from W2CP to the Goals of the Wyong Shire Council Management Plan

Council's Principal Activity	Council's Objective	W2CP Potential Contribution
	Preserve the diversity of native plant and animal species and protect and assist the recovery of threatened and endangered species.	The WACJV will permanently dedicate land in the local area for the sole purpose of conserving the native flora and fauna.
	Air quality ensures the health of current and future generations.	All emissions from the construction and operation of the W2CP will be minimized as far as possible and comply with all necessary air quality parameters.
Infrastructure	A safe, economic road transport system and a satisfactory standard of traffic movement.	The W2CP will not be a significant generator of new traffic on the roads. All product will leave the site by rail. Road movements will be limited to the construction phase, and during operation of the mine will predominantly only be traffic associated with employee movements.
	Minimise damage to properties caused by flooding.	Changes to the existing flood regimes in the area above proposed mining will occur as a result of subsidence. Extensive assessment and modelling of this issue has been carried out by WACJV and their consultants, and is described in detail in Chapter 9 of this EA document.
	A cost effective water supply service that meets customer service standards and conforms to health and environmental requirements.	The W2CP is committed to safeguarding the regional water supply and will potentially be a nett provider of water to the supply system in the long term.
	A cost effective sewerage service that meets customer service standards and conforms to health and environmental requirements.	The W2CP will be constructed at both the Buttonderry and Tooheys Road sites. This will ensure that the mine does not place added strain on the council system and strain on the local community's resources.
	An economically and ecologically sustainable waste management system for the Shire.	The W2CP will undertake recycling of waste materials wherever possible to limit the amount of rubbish that needs to be placed in the Shire's waste management facilities.

The Wyong Shire Council Management Plan was prepared in accordance with the requirements of the Local Government Act 1993 and was adopted by Council following consideration of community comments and submissions.

4.7.4 Wyong Shire Residential Development Strategy

In December 2002 the Wyong Shire Council developed the *Wyong Shire Residential Development Strategy* (RDS), for the purpose of identifying and prioritising residential development for both existing and greenfields areas within the LGA. The majority of these areas are concentrated in the northern half of Wyong LGA, with a focus on the Warnervale / Wadalba release area.

The RDS recognises the presence of mining in the area, with mine subsidence affecting the density of housing and diversity of developments that can be permitted in the new release areas. At present, the Warnervale and Wadalba release areas are restricted to a single storey brick construction. Although some small footprint two storey construction is possible, the subsidence parameters still limit opportunities for medium and high density development.

4.7.5 Central Coast Regional Strategy

The Central Coast Regional Strategy (CCRS) was developed by the State government to assist in planning for an anticipated population growth in the region of 100,000 people by 2031. As a result of this, it is expected that more than 45,000 additional jobs will be required, to be met through the promotion of Gosford as a regional city and Tuggerah-Wyong as a major centre. The North Wyong Structure Plan Precinct will be the focus of new employment lands releases.

The Wyong Employment Zone (WEZ) has been identified in the Strategy as a major employment opportunity for the Central Coast Region. WEZ has been categorised by the State Government as a state significant project, and is discussed further in Section 4.8.5. Planning for this area will include investigation of land to the immediate west of the Sparks Road – F3 Freeway interchange for future employment opportunities that take advantage of this key transport interchange. W2CP's proposed Buttonderry site which includes ventilation facilities and access to the mine is also proposed for this Sparks Road area, and would be consistent with State government planning to utilise the area for employment opportunities.

The Tooheys Road site was zoned industrial more than 10 years ago by the NSW State Government as a significant regional employment precinct. The CCRS retains and reinforces this site as key employment land, although with some constraints. These constraints include vegetation and surface drainage systems which have been identified by this project and appropriate protection measures have been incorporated into the design of the W2CP surface facilities in this locality.

The proposed W2CP is consistent with the aim of the Strategy in providing additional employment in the region, as it will generate around 300 new jobs directly, and provide additional employment opportunities for around 750 people through increased expenditure in the local economy and normal flow on effects.

The CCRS also recognises that the region's employment growth is largely driven by the resource base attracting investment in agriculture, mining and energy sectors.

4.8 State Environmental Planning Instruments and Policies

4.8.1 NSW State Plan – A New Direction for NSW

In November 2006 the NSW State Government, under direction from the then Premier, Mr Morris Iemma, launched the *NSW State Plan – A New Direction for NSW*. The NSW State Plan was developed to guide the delivery of government services in NSW over the next 10 years.

The State Plan focuses on five areas of activity of the NSW Government:

- ☐ Rights, Respect and Responsibility – the just system and services that promote community involvement and citizenship;
- ☐ Delivering Better Services – key services to the whole population including health, education and transport;
- ☐ Fairness and Opportunity – services that promote social justice and reduce disadvantage;
- ☐ Growing Prosperity Across NSW – activities that promote productivity and economic growth, particularly in rural and regional NSW; and
- ☐ Environment for Living – planning for housing and jobs, environmental protection, arts and recreation.

Outlined in Table 4.3 are the Priorities of the State Plan, and how the W2CP complies with and complements the vision and direction for the State.

Table 4.3 W2CP and the NSW State Plan

State Plan Goal	State Plan Priorities	W2CP
<i>Growing Prosperity Across NSW</i>		
NSW: Open for Business	P1 – Increased business investment.	The W2CP estimate that on-site construction and preparation work would require initial expenditure of approximately \$700 million, and total output impact of over \$1,000 million for the Central Coast economy.
	P2 – Maintain and invest in Infrastructure.	W2CP will facilitate new infrastructure for the area by underwriting the initial cost of roads, water, power and telecommunications, which will be available for the expanding area.
	P3 - Cutting Red Tape.	Not applicable.

Table 4.3 W2CP and the NSW State Plan

State Plan Goal	State Plan Priorities	W2CP
	P4 – More people participating in education and training throughout their life.	W2CP will work with the local Council and relevant educational institutions to implement training and education programs for the project as well as to facilitate local employment opportunities within the Wyong Shire.
	P5 – State AAA credit rating Maintained.	W2CP will contribute up to \$20 million in royalties as State revenue each year at full production.
Stronger Rural and Regional Economies	P6 – Increased business investment in rural and regional NSW.	W2CP will provide significant investment in the Wyong area which is part of the Central Coast region of NSW.
	P7 – Better access to training in rural and regional NSW to support local economies.	W2CP has committed to providing significant annual contributions during operations, to be invested in education and training.
<i>Environment For Living</i>		
Securing Our Supply of Water and Energy	E1 – A secure and sustainable water supply for all users.	W2CP has provided a firm commitment to protecting the region's water supply, with potential for additional water to be added to the system.
	E2 – A reliable electricity supply with increased use of renewable energy.	A number of options will be considered for utilisation of gas produced from the coal seam, including potential for use in electricity generation.
Practical Environmental Solutions	E3 – Cleaner air and progress on greenhouse gas reductions.	During the initial years of mining, captured methane gas from underground workings will be brought to the surface to gas management facilities to be flared and will provide a major greenhouse emissions reduction. Further opportunities for gas utilisation will be explored. Strict management of operations on site will ensure W2CP does not have a significant impact on the air quality, and offset strategies will ensure vegetation is retained and improved, which assists greenhouse management.
	E4 – Better environmental outcomes for native vegetation, biodiversity, land, rivers and coastal waterways.	On site and offsite measures and actions set out in the Biodiversity and Land Management Strategy (refer to Section 16.9).

Table 4.3 W2CP and the NSW State Plan

State Plan Goal	State Plan Priorities	W2CP
Improved Urban Environments	E5 – Jobs closer to home.	During construction W2CP will generate 2,989 jobs in the local region. In its first year of operation the mine is expected to generate 428 jobs in the Central Coast economy which will rise to 726 jobs by the fifth year of operation.
	E6 – Housing affordability.	Increased expenditure in the local economy by the mine may assist in making housing more affordable.
	E7 – Improve the efficiency of the road network.	W2CP will not generate large volumes of traffic. All product will leave the site by rail. The mine will therefore have a neutral impact on the road network.
	E8 – More people using parks, sporting and recreational facilities and participating in the arts and cultural activity.	W2CP has committed to establishing a multi-pronged Community Enhancement Program including a Community Trust. The Trust will be available for funding community, social and environmental projects covering these priority areas.

The W2CP is compatible with the plan for the State to encourage business investment, in terms of economics, education and training, and provision of infrastructure, and can be seen as a positive step forwards for the NSW state government in the implementation of the State Plan.

4.8.2 SEPP No 14 – Coastal Wetlands

SEPP 14 was developed to ensure coastal wetlands are preserved and protected for environmental and economic reasons. The policy applies to LGAs outside the Sydney metropolitan area that front the Pacific Ocean, and includes the Wyong LGA. The policy identifies over 1300 wetlands of high natural value from Tweed Heads to Broken Bay and from Wollongong to Cape Howe. Land clearing, levee construction, drainage work or filling may only be carried out within these wetlands with the consent of the local council and the agreement of the Director-General of the Department and Planning. Such development also requires an environmental impact statement to be lodged with a development application.

There are no wetlands within the mining or surface infrastructure areas of the W2CP that are listed under SEPP 14, therefore this planning policy does not apply.

4.8.3 SEPP No 33 – Hazardous and Offensive Development

SEPP 33 came into force in 1992 with a focus on the identification and assessment of potentially hazardous industry. It applies to any development proposal which falls under the Policy's definition of "potentially hazardous industry" or "potentially offensive industry".

Certain activities may involve handling, storing or processing a range of substances which in the absence of locational, technical or operational controls may create an off-site risk or offence to people, property or the environment. Such activities would be defined as potentially hazardous or potentially offensive.

For development proposals classified as 'potentially hazardous industry' the policy establishes a comprehensive test by way of a preliminary hazard analysis (PHA) to determine the risk to people, property and the environment at the proposed location and in the presence of controls. Should such risk exceed the criteria of acceptability, the development is classified as 'hazardous industry' and may not be permissible, depending on the local zoning.

For developments identified as 'potentially offensive industry', the minimum test for such developments is meeting the requirements for licensing by the DECC or other relevant authority. If a development cannot obtain the necessary pollution control licenses or other permits, then it may be classified as 'offensive industry', and may not be permissible in most zonings.

In order to determine whether the W2CP is a Potentially Hazardous development, the Risk Screening Method outlined in the *Applying SEPP 33 Hazardous and Offensive Development Application Guidelines* was used. The assessment, contained **Appendix O** concluded that the W2CP is not a Potentially Hazardous development.

The key consideration in determining whether or not a project is a Potentially Offensive development (and whether or not SEPP 33 applies) is whether the emissions and discharges are likely to have a significant impact on the receiving environment. This EA document contains extensive details of all anticipated emissions and discharges, and the mitigation measures that will be employed. The proponent and expert consultants involved in this project are confident that the mitigation measures will be adequate to ensure that there is no significant impact, and therefore the W2CP is not Potentially Offensive.

Table 4.4 presents the assessment process undertaken, concluding that the W2CP is not a Potentially Hazardous or Potentially Offensive development, therefore SEPP 33 does not apply.

Table 4.4 SEPP 33 Assessment for the W2CP

Test	W2CP
Does the proposal fall under the definition in SEPP 33 of "industry" or "storage establishment"?	Industry
Does the proposal require development consent or approval under Part 3A or Part 4 of the EP&A Act?	Part 3A of the EP&A Act.
Is the development potentially hazardous?	No – refer to the Risk Screening Assessment contained in Appendix O.
Is the development potentially offensive?	No – adequate mitigation measures can be employed to ensure that emissions from the W2CP are not significant.

4.8.4 SEPP No 44 – Koala Habitat Protection

The Wyong LGA is identified under Schedule 1 – Local Government Areas of SEPP 44.

This policy seeks to protect the species by encouraging the proper conservation and management of areas that provide habitat for Koalas. All study areas for the W2CP except for the Western shaft area contains two preferred Koala feed tree species listed in Schedule 2 of the SEPP, *Eucalyptus robusta* (Swamp Mahogany) and *Eucalyptus haemastoma* (Broad-leaved Scribbly Gum).

The W2CP study areas are also within the Central Coast Koala Management Unit area identified in the Draft Koala Recovery Plan, which includes *E. tereticornis* (Forest Red Gum) as a primary feed tree and *E. capitellata* (Brown Stringybark) as a supplementary feed tree species. Only Brown Stringybark occurs in the study areas (excluding Western shaft).

A colony of Koala was once known from the Wyong LGA, however records are scattered and the nearest record of a Koala is two kilometres to the south of the Tooheys Road study area. Habitats connecting each study area to the location of the above mentioned record are fragmented by urban development.

Given that the density of feed trees in the current W2CP study area does not meet the SEPP 44 definition of potential Koala habitat, and no Koalas were recorded during the study, SEPP 44 is of no further relevance to the project.

4.8.5 SEPP (Major Development) 2005

On 25 May 2005, the Minister for Planning gazetted a new SEPP outlining which developments are classed as Major Projects and to require the Minister's approval. As part of a major overhaul of the planning laws (which has included a new Part 3A of the EP&A Act described in Section 4.1.2 above), new types of development require the Minister's consent while other developments will return to local council for approval.

The aim of the Major Development SEPP is to simplify the approval system for major development by reducing around 85 planning instruments into a single SEPP allowing major employment and investment opportunities - including commercial, some residential and mining projects to be declared as to be a project to which the SEPP applies.

Projects to which the Major Development SEPP applies are listed in Schedules 1, 2 and 3 of the SEPP. Coal mining is listed in Schedule 1, and consequently the SEPP applies to the W2CP and it will be assessed under Part 3A of the EP&A Act. This means that any approval for the project will be granted by the Minister for Planning.

4.8.6 Wyong Employment Zone (WEZ)

The Wyong Employment Zone (WEZ) lies adjacent to the Sydney-Newcastle Freeway at the Sparks Road interchange and totals an area of 744.3 ha. It is bounded by Porters Creek wetland catchment to the north, Porters Creek wetland to the south, the Main Northern Rail Line to the east, and Hue Hue Road to the west.

In order to meet the anticipated growth in population for the region, and the required employment opportunities to support such a population increase, it is proposed to

rezone approximately 340 ha of the WEZ land for general industrial purposes around the intersection of Sparks Road and the F3 Freeway. It is expected that this will generate employment for 6,000 people.

In addition to the rezoning for industrial purposes, the WEZ will include a further 349 hectares for the protection and enhancement of significant vegetation and habitat in the area, to be rezoned for conservation purposes.

On the 3 July 2006, the Minister for Planning agreed to consider the WEZ site as a State Significant Site. As such, it has been listed in Schedule 3 of the Major Development SEPP. This amendment establishes three land use zones:

- ☐ IN1 General Industrial;
- ☐ SP Infrastructure; and
- ☐ E2 Environmental Conservation.

The proposed draft SEPP is derived from Wyong Shire Council's State Significant site study, proposed draft LEP and associated technical studies.

Under the current Wyong LEP 1991, the WEZ contains 61.4 ha of land zoned industrial / employment, and 95 ha for conservation purposes. However, the draft SEPP proposes an increase in the industrial zoned land to 340 ha (including Warnervale Business Park), and land for conservation purposes will be expanded to approximately 349 ha.

The increase in land area for the WEZ recognises the value of the region to the state's ability to accommodate and provide employment for the growing population. As shown on **Figure 4.2**, the W2CP Buttonderry Site lies adjacent to the western boundary of the WEZ, while the Tooheys Road site is approximately 1.2 km north east of the WEZ. The land use and employment generating capability of the W2CP is compatible with the objectives of the WEZ.

4.8.7 NSW Rivers and Estuaries Policy

The NSW Rivers and Estuaries Policy encompasses a suite of component policies each focusing on the protection or management of ecosystem processes and associated values and provides clear management objectives and principles which reflect the State's commitment to resources sustainability and which must be consciously balanced against other social and economic objectives in resources management decisions.

Through this Policy the NSW Government encourages the sustainable management of the natural resources of the State's rivers, estuaries and wetlands and on the adjacent riverine plains to reduce 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.

The W2CP has been designed with this Policy in mind, to ensure that mining and associated activities do not adversely impact on local rivers or waterways.

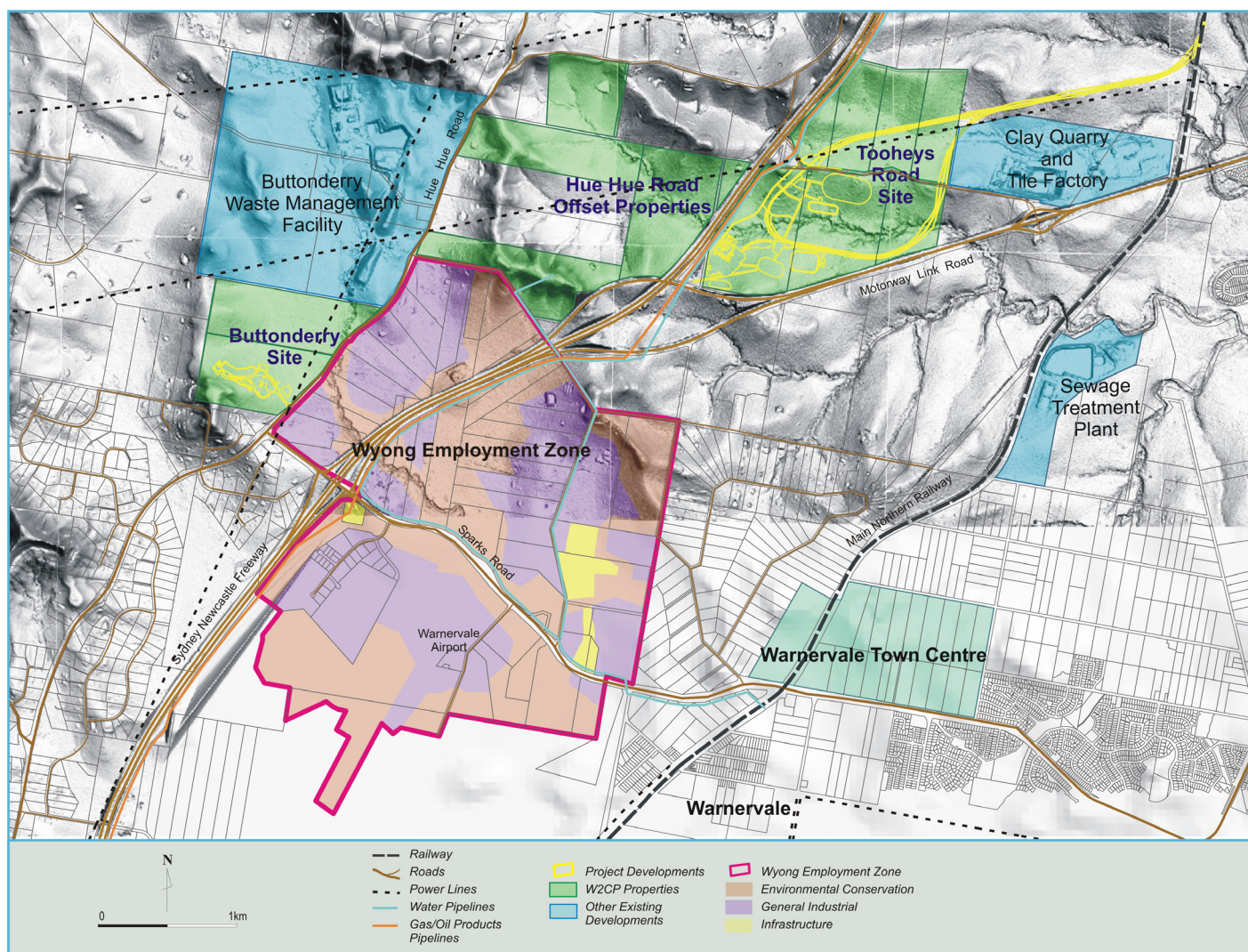


Figure 4.2 Location of the WEZ (crimson outline), W2CP Surface Facilities and other Industrial Sites

4.8.8 NSW Floodplain Development Manual

On 6 May 2005 the Floodplain Development Manual was gazetted. It incorporates the NSW Flood Prone Land Policy, which aims to reduce the impact of flooding on individual owners and occupiers of flood prone property and to reduce private and public losses resulting from floods. The policy also recognises the benefits of use, occupation and development of flood prone land.

This State Government manual indicates that responsibility for management of flood risk remains with local government. That is, Councils are responsible for ensuring that new developments are not allowed within the flood prone areas.

Extensive survey and modelling work has been undertaken for the W2CP to determine what impact subsidence resulting from the mine will have on the flood regimes of the Yarralong and Doorlong Valleys. This information is discussed in Chapter 9 of this EA document and Appendix C, and was presented to Wyong Shire Council as it became available to assist them in ongoing planning and development applications within their LGA that may be impacted by a change in the current flooding regime.

4.8.9 The NSW Wetlands Management Policy

The goal of the NSW Government *NSW Wetlands Management Policy* is to assist in the protection of wetlands in good conditions, rehabilitate degraded wetlands where feasible, and support appreciation of wetlands by:

- ☐ Protecting wetland biodiversity, functions and services;
- ☐ Protecting social and economic benefits of wetlands;
- ☐ Providing flow regimes that mimic natural conditions where possible;
- ☐ Providing wetlands with water of appropriate volume and quality;
- ☐ Limiting further fragmentation and reconnecting wetland systems;
- ☐ Preventing or limiting catchment activities that impact upon wetlands;
- ☐ Protecting the cultural heritage and spiritual significance of wetlands;
- ☐ Rewarding wetland managers who improve the conditions of wetlands; and
- ☐ Promoting the importance of wetlands to the community.

There are no wetlands identified within the mining area or proposed surface facilities for the W2CP. Suitable water management of the Tooheys Road and Buttonderry sites will ensure that there are no impacts on downstream wetlands through the discharge of water from site.

4.8.10 NSW Groundwater Policies

In order to manage the State's groundwater resources so that they can sustain environmental, social and economic uses for the people of NSW, Department of Land and Water Conservation (now the Office of Water under DECCW) developed the *NSW Groundwater Policy Framework Document*; *NSW Groundwater Quality Protection Policy*; *NSW Groundwater Quantity Management Policy*; and the *NSW Groundwater Dependent Ecosystem Policy*.

Adoption of the State Groundwater Policy provides a clear NSW government policy direction on the ecologically sustainable management of the State's groundwater resources. It requires that careful consideration be given to all factors affecting the stability, vulnerability, and productivity of these systems.

The detailed groundwater assessment undertaken for the W2CP (summarised in Chapter 8 and contained in Appendix B) clearly demonstrates that the impacts of the proposal do not pose a serious threat to the State's groundwater resources, and it is therefore consistent with the objectives of the State's Groundwater Policies.

4.8.11 NSW Salinity Strategy

"Taking on the Challenge: NSW Salinity Strategy" is the NSW Government's response to the Salinity Summit held in March 2000. The Strategy incorporates the recommendations of the Summit, and is designed to slow down the increase in salinity over a ten-year period from 2000, and lay down the foundations for salinity management beyond that.

Salinity has been increased through the following human-induced activities:

- ☐ Clearing native vegetation;
- ☐ Replacing native vegetation with shallow rooted plants such as pastures and crops;
- ☐ Extensive irrigation of crops; and
- ☐ The use of inappropriate drainage and watering systems.

These activities have caused water to move through the landscape differently, bringing salt with it. Depending on what has caused the salinity, and where it is expressed, it can be categorised as irrigated, dryland, urban, river or industrial. The Strategy deals with each of these different types of salinity. The Strategy recognises the following activities as important steps to minimise the increase in salinity:

- ☐ Protect and manage native vegetation;
- ☐ Use land so less water goes into the watertable;
- ☐ Use water more effectively and efficiently;
- ☐ Use engineering solutions;
- ☐ Make better use of land affected by salt; and
- ☐ Focus efforts on priority salinity hazard landscapes.

The targets set in the Strategy over the ten year period to slow down the rising salinity levels are focused on the inland river systems. The W2CP is not located, nor will it impact in any way on these river catchments. However, the principles outlined in the Strategy for reducing salinity represent sound environmental management principles that can be implemented across the entire state. The W2CP has therefore adopted many of the goals proposed under the strategy. These are listed in Table 4.5 below, and the specific actions are detailed in following chapters.

Table 4.5 W2CP Initiatives to Minimise Salinity

Goal	W2CP Action	Details
Protecting native vegetation	<p>The W2CP has developed the surface infrastructure layouts to minimise the need to clear native vegetation.</p> <p>The W2CP has developed an ecological offset strategy to offset the impact of clearing.</p>	<p>Section 2.8.8 – Roads and access design</p> <p>Section 2.13.8 – General Vegetation Clearing Principles</p> <p>Section 13.1.15 – Mitigation Strategies</p> <p>Section 16.9– Ecological offset strategy</p>
Using water more efficiently and effectively	The W2CP will be a net water producer once fully operational. Water mainly will be required for underground and surface dust suppression purposes and bathhouse purposes.	Section 2.12.7
Disposal of groundwater	Reverse Osmosis plant to treat saline mine groundwater prior to re-use or offsite discharge.	Section 2.12.3 - Reverse osmosis plant

With the implementation of the management procedures and mitigation measures to be employed by the W2CP, the operation will not result in a rise in salinity in the catchment area.

4.8.12 NSW Greenhouse Plan

The NSW Greenhouse Plan was developed by the NSW Government in November 2005 to reduce the emissions of its own activities and to work with other stakeholders to reduce the emissions from their activities. The main objectives of the Plan are to:

- ☐ Increase awareness among those expected to be most affected by the impacts of climate change;
- ☐ Achieve a better understanding of climate change and its impacts on NSW;
- ☐ Limit the growth of greenhouse emissions and enhance the establishment of offsets such as trees;
- ☐ Place NSW on a long-term pathway to reduce emissions to levels required to avoid dangerous climate change;
- ☐ Facilitate industry take-up of new business opportunities in growing international markets for low-emission goods and services;
- ☐ Work with other governments (both nationally and internationally) towards a coordinated global solution; and
- ☐ Put NSW on track to meeting its targets of limiting 2025 emissions to 2000 levels, and reducing emissions by 60% by 2050.

Specific aspects in the NSW Greenhouse Plan that relate to coal industry projects include encouraging reporting of fugitive emissions from coal mines and development of fugitive emissions mitigation strategies that look to identify opportunities for better use of the coal mine methane resource. The Plan expresses its support for clean coal technologies by its participation in the COAL21 National Action Plan (refer www.coal21.com.au). It also proposes to continue to monitor the numerous carbon capture and storage demonstration projects throughout the world and undertake preliminary work on reviewing the potential for geological storage in NSW. Encouraging vehicle fuel efficiency, energy efficiency, demand management and energy-smart building design are other measures potentially relevant to all major developments.

In keeping with the NSW aim of reducing greenhouse gas emissions, the NSW Government has also implemented a scheme to manage the growth of greenhouse emissions from the stationary electricity sector. The Greenhouse Gas Abatement Scheme establishes a local market for emissions reductions and greenhouse credits. Under the scheme, mandatory annual targets based on NSW per capita greenhouse emissions must be met by electricity retailers.

The United Nations Framework Convention on Climate Change (UNFCCC) came into force in 1994 and provides an overall framework for the international efforts to tackle climate change. The Australian Government ratified the Convention in 1992 and has since ratified the Kyoto Protocol to that Convention. One of the primary objectives of the Framework Convention is to stabilise Greenhouse gas concentrations in the atmosphere at a level that would prevent “dangerous” human interference with the climate system.

4.8.13 Energy Savings Action Plan

In response to the growing awareness and concern of rising greenhouse gas emissions and the impact on the environment, the NSW Government has developed energy savings initiatives to encourage business, government and households to use energy more efficiently. The initiatives include new requirements for certain high energy users to prepare Energy Savings Action Plans. These initiatives are established under Part 6A of the *Energy and Utilities Administration Act 1987*.

Energy Savings Action Plans provide a comprehensive analysis of an organization's energy use and management strategies. Plans involve determining current energy use, undertaking a management review, undertaking a detailed technical review and assessing and identifying savings measures.

A list of organisations required to prepare savings action plans was published as an Energy Savings Order in the NSW Government Gazette on 28 October 2005. They include:

- ☐ Businesses in NSW using more than 10 gigawatt-hours per year at a site;
- ☐ All local councils in NSW with populations of more than 50,000 people; and
- ☐ NSW Government agencies which use more than 10 gigawatt-hours per year at a site.

Typically underground coal mining requires approximately 11 kWh/t of coal. In the case of the W2CP, once production reaches the anticipated maximum of 5 Mtpa, it is estimated that the mine would use up to 55 GWh per year. Therefore the W2CP is required to prepare an Energy Savings Action Plan for the development.

The W2CP Energy Savings Action Plan will be developed in accordance with the *Guidelines for Energy Savings Action Plans* (Department of Energy, Utilities and Sustainability, October 2005), once the mine has become operational, in order to accurately determine the project's baseline energy use.

4.9 National Water Quality Management Strategy

The National Water Quality Management Strategy (NWQMS) has been developed to coordinate a national approach to improving water quality in Australia's waterways. The NWQMS has progressed since its development in 1992, the Australian Government working in cooperation with State and Territory governments.

The NWQMS has three major elements: policies, process and guidelines.

4.9.1 Policies

The main policy objective of the NWQMS is to achieve sustainable use of the nation's water resources by protecting and enhancing their quality while maintaining economic and social development. The policy is outlined in the *"National Water Quality Management Strategy – Policies and Principles, A Reference Document, April 1994"*.

The NWQMS policy document contains the guiding principles of the strategy. These are listed in Table 4.6, and how the W2CP complies with them.

Table 4.6 Guiding Principles of the NWQMS

NWQMS Principle	W2CP Compatibility	Further Information
Decision making processes should effectively integrate both long and short term economic, environmental, social and equity considerations.	The W2CP has been designed with a life expectancy of at least 20 years. In order to achieve this, it is imperative that it is viable both short and long term in all aspects, including social, environmental and economic considerations.	Section 2.6.2
Where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.	Where environmental assessments have concluded that the W2CP would result in an unacceptable level of harm or damage, the project has been revised. All areas of impact can be managed with effective mitigation strategies.	Mitigation measures included in each chapter of this document.
The global dimension of environmental impacts of actions and policies should be recognised and considered.	The W2CP contains a global aspect to the project, with the major markets for the coal being East and North Asian power stations.	Section 3.1 - World reliance on coal. Greenhouse Gas - Section 12.7.
The need to develop a strong, growing and diversified economy which can enhance the capacity for environmental protection should be recognised.	The W2CP will provide substantial revenue to the NSW government through coal royalty payments. Under this principle, it is beneficial if the NSW State government uses the royalty payments to further protect and enhance the environment. In addition, the W2CP will provide flow-on economic benefits to a range of sectors and industries.	Section 10.5 – economic impact of the W2CP.
The need to maintain and enhance international competitiveness in an environmentally sound manner should be recognised.	Competition for sale of coal on the export market does not reduce the level environmental protection for any coal mines in NSW.	
Cost effective and flexible policy instruments should be adopted, such as improved valuation, pricing and incentive measures.	The W2CP is committed to complying with all relevant local, state and federal policies for the protection of the environment.	Chapter 4 details the W2CP compliance with relevant planning instruments.
Decisions and actions should provide for broad community involvement on issues which affect them.	The W2CP has been committed to open and transparent consultation with the community and all relevant stakeholders through the entire planning stages of the project.	Chapter 10 details the consultation undertaken and attitudes towards the project.

4.9.2 Process

The process for implementing the national vision of achieving sustainable use of water resources by protecting and enhancing their quality while maintaining economic and social development, is implemented at the State level using water quality planning and policy instruments. The planning process also needs to recognise the potential for increasing population and changes to population distribution and levels of urbanisation to impact on water quality. This translates into a management process where:

- ☐ The State uses its own water quality planning and environmental policy tools to set water quality objectives, consistent with the agreed national guidelines;
- ☐ In the context of this process, regional communities are encouraged to participate in the identification of local environmental values to be protected; and
- ☐ Local management strategies are developed and implemented by relevant stakeholders.

The process results in management plans with an integrated and workable set of desirable water quality objectives and feasible management options. It involves:

- ☐ Establishing current water quality information and uses of the water resource;
- ☐ Proposing environmental values the community desires for the local waters;
- ☐ Evaluating the proposed values' environmental, social and economic impacts;
- ☐ Agreeing on acceptable impacts and amending the proposed values as necessary; and
- ☐ Establishing water quality objectives based on the agreed environmental values governing endorsement of the objectives.

The W2CP has considered the existing background water quality and flows, how the project would impact on these, anticipated community attitudes to the projects and perceived impacts, and the management strategy to mitigate any negative impacts. Details of these issues can be found in later chapters of this document.

4.9.3 Guidelines

The “*National Water Quality Management Strategy: Implementation guidelines*” were developed to assist government agencies and the community to prepare and implement plans to manage the nation’s water resources. It also provides information on determining the quality aspects of the water authority’s water, sewerage and drainage services.

Information contained in the Guidelines was used to assess the implications of the W2CP on the surrounding water systems, and has formed the basis for impact assessment and mitigation strategies, with the ultimate product being the sites Water Management Plan.

4.9.4 Water Quality Monitoring and Reporting

Under the NWQMS is Paper 7 – “National Water Quality Management Strategy: Australian Guidelines for Water Quality Monitoring and Reporting”. The Monitoring Guidelines provide a comprehensive framework and guidance for the monitoring and reporting of the quality of fresh and marine waters and groundwater. The document does not discuss drinking water, wastewater and effluents as they are covered by separate NWQMS guidelines documents.

Water quality monitoring is important for the W2CP at two stages of the project:

- ☐ Planning phase – to gain an understanding on the existing background water quality prior to construction and operation of the W2CP, and provide a benchmark against which impact assessment can be compared; and
- ☐ Construction and operation phase – water quality monitoring will verify the predictions made in the EA, and assess what impacts the project is having on the receiving waters and whether mitigation measures are effective or require refining.

All water monitoring conducted for the W2CP has been and will continue to be carried out in accordance with the Guidelines.

4.10 ANZECC Guidelines

In 2000 the Australian and New Zealand Environment Conservation Council (ANZECC) published the revised *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*. These guidelines were developed to provide government, industry and community with a framework for conserving ambient water quality in our waterways. The ANZECC guidelines form the central technical reference of the National Water Quality Management Strategy.

The ANZECC has also published a guidance document called *Using the ANZECC Guidelines and Water Quality Objectives in NSW* to assist users of the guidelines in their implementation and the principles behind the guidelines.

Both the Guidelines themselves and the guidance document have been used in assessing the impact of the W2CP on surrounding water quality.

4.11 Carbon Pollution Reduction Scheme

In response to the growing global concern over climate change, the Australian Government released the White Paper on 15 December 2008, outlining the Federal policy for the Carbon Pollution Reduction Scheme (CPRS) to meet Australia's emissions reduction targets in the most flexible and cost effective way, to support an effective global response to climate change, and to provide for transitional assistance for the most affected households and firms.

The CPRS is based on the key findings of the Garnaut Climate Change Review Final Report and sets the target range for emissions reduction to be achieved by 2020 at 5 – 15 percent below 2000 levels. Given delays in developing this policy, the Scheme is set to commence in 2011 subject to passing of relevant legislation. The CPRS proposes to cover all greenhouse gases listed under the Kyoto Protocol

– carbon dioxide, methane, nitrous oxide, sulphur hexafluoride, hydrofluorocarbons and perfluorocarbons.

The National Greenhouse and Energy Reporting Scheme (NGERS), which will underpin the CPRS, has already commenced. NGERS requires certain corporations to report GHG emissions, energy consumption and energy production from their facilities on an annual basis. The reporting obligation relates to corporations which have operational control of facilities where the GHG emissions, energy consumption or energy production exceed the thresholds applicable to the facilities or the corporation's group. GHG emissions, energy consumption or energy production associated with the construction and use of buildings are included under NGERS.

In general, direct CPRS's obligations would apply to entities with a facility that has direct emissions of 25,000 tonnes of CO₂ equivalent per annum or more. The legislation enabling the scheme has yet to be passed by Federal Parliament and the final arrangements relating the coal industry are not confirmed at this stage.

4.11.1 CPRS and the Coal Mining Industry

In the coal mining industry, a significant proportion of greenhouse gas emissions can be fugitive emissions from the methane trapped within the coal seams. Mining of the coal releases these gases. Other emissions, such as from the combustion of fuel in mining equipment and other machinery are released at a rate similar to other mining extraction or comparable construction activities. There is a significant variation in the amount of methane from each mine, which often depends on the coal seam being mined.

It is recognised that a number of coal mines are very emissions intensive and would face a significant cost impact as a result of the Scheme, and will not be eligible for the originally proposed energy intensive trade-exposed (EITE) industry assistance arrangements at the commencement of the Scheme. A Coal Sector Adjustment package has been proposed within the Climate Change Action Fund to assist the most emissions-intensive mines following the introduction of the Scheme. However, the details of the final CPRS legislation and its following regulations are not yet finalised.

4.11.2 CPRS and the W2CP

GHGs relevant to the W2CP include CO₂ and N₂O, which will be liberated when fuels are burnt in diesel-powered equipment and in the generation of the electrical energy that will be used by the project. In addition, there will be emissions of CH₄ and CO₂ as the coal seams being mined are broken up during coal extraction.

Potential sources of GHG emissions involved with the W2CP include:

- ☐ Ventilation air;
- ☐ Electricity use;
- ☐ Diesel use;
- ☐ Transport of the coal; and
- ☐ End use of the coal.

The GHG emissions associated with the project are comprehensively addressed in Section 12.7 and the specialist report contained in Appendix L.

Under the CPRS as currently proposed, the following are relevant to the W2CP:

Policy position 6.2 - In general, direct Scheme obligations will apply to W2CP since its emissions are predicted to exceed the threshold of 25 000 tonnes of CO₂-e a year of direct (Scope 1) emissions.

Policy position 6.4 - Transport emissions will be covered from Scheme commencement and obligations will be applied to upstream suppliers of transport fuels. While emissions from the transport of coal generated by the W2CP will be covered by the Scheme, obligations for these emissions will rest with the upstream supplier of transport fuels.

Policy position 6.12 - The Government will apply Scheme obligations to entities that first supply coal and coal byproducts for use in the domestic market.

Policy position 6.14 - Scheme obligations will not apply to emissions from combustion of biofuels and biomass for energy, including CO₂-e emissions from combustion of methane from waste landfill facilities; they will receive a 'zero rating'.

During the initial years of mining where insufficient volumes of gas will be generated to warrant offsite transfer or power generation, the gas will be flared. It is currently uncertain what scale of obligation might apply to W2CP from this emission source.

Policy position 7.13 - Entities reporting fugitive emissions from underground coal mines will be required to use National Greenhouse and Energy Reporting System Methods 2–4 for the estimation of emissions under the Scheme.

The W2CP will be subject to the CPRS and therefore accountable for the greenhouse gases generated by the mine.

4.12 BioBanking – Biodiversity Banking and Offsets Scheme

The Biodiversity Banking and Offsets Scheme (BioBanking) was established by the *Threatened Species Conservation Amendment (Biodiversity Banking) Act 2006*. This Act amended both the *Threatened Species Conservation Act 1995* and the EP&A Act in order to provide an alternative process to the threatened species assessment requirements. The BioBanking scheme is administered by DECCW to help address the loss of biodiversity and threatened species in the state.

Biodiversity offsets are commonly used by industry and developers to counterbalance the impact of development on biodiversity. The BioBanking Scheme works by enabling landowners in NSW to establish conservation areas on their properties, for which they are given credit. The scheme creates a market for these credits, where landowners can sell the credits to developers, and use the money to fund the future management of the site. Developers can buy the credits to offset the impacts of their development. Those organisations or people buying the credits are securing the conservation of biodiversity in perpetuity. All BioBanking agreements are registered on the land title and the obligation to protect and manage the land is binding on both current and future owners of the site.

The WACJV has developed a Biodiversity and Land Management Strategy (refer to Section 16.9) that is similar to the principals and objectives of the BioBanking Scheme. The ecological offsets proposed from the W2CP will see both existing natural vegetation permanently conserved, and agricultural land revegetated consistent with surrounding natural forests. The WACJV will be directly responsible for, and accountable for the management, protection and success of the ecological offset areas.

However, discussions will be sought with the DECCW to seek advice as to whether the ecological offset program proposed is suitable for, and eligible to enter into the Biobanking scheme.

4.13 Catchment Action Plan for the Hunter – Central Rivers CMA

The Catchment Action Plan (CAP) is a regional plan for natural resource management, which all Catchment Management Authorities (CMA) in NSW are required to develop under the *Catchment Management Authorities Act 2003*.

The CAP is designed to guide projects to address priority natural resource management issues within the CMA region, ensuring that these projects lead to the best outcomes for the environment and the community. In addition, the CAP will enable the CMA to secure funding from the Natural Heritage Trust and other sources over the 10 years of the plan. The CAP will also form the basis for partnerships with landholders, community groups, business and industry, and all levels of government.

The CAP for the Hunter-Central Rivers CMA region applies to the area from Taree to Gosford and Merriwa to the coast. It builds on the work of the existing Catchment Blueprints for the Central Coast, Hunter and Lower North Coast, which were endorsed by the NSW Government in February 2003 and have guided natural resource management in these areas since that time. The CAP commenced in July 2006 and has a term of ten years.

The CAP addresses mining and extractive industries with the objectives of minimising the impacts of mining and extractive industries on natural resources and ensuring appropriate rehabilitation of affected land.

The CAP has developed a number of Policy Statements with regard to mining and extractive industries. Table 4.7 lists these Policy Statements and how they have been addressed by the W2CP.

Table 4.7 Policy Statements from the HCR CAP and Relevance to W2CP

CAP Policy Statement	W2CP
No surface water flows should be lost or diverted because of subsidence or geological cracking caused by extraction.	WACJV has committed to protecting surface water flows and developed the mine plan accordingly. Refer to Section 7.9.
Activities should not be approved where there is a potential for reducing an aquifer's highest beneficial use or an inter-connected groundwater-dependent ecosystem.	WACJV have provided a detailed assessment of the potential impact on groundwater systems, as summarised in Chapter 8 and 9 as well as specialist reports in Appendix B and Q.
Mining developments should not be approved until a draft water management plan (WMP) is completed. This WMP applies to the full life span of mine including when and after the mine closes. The WMP will show how mining will be conducted so that water resources are managed sustainably. Development and approval of the WMP should be open and clear.	A draft WMP is provided in Section 2.12, Chapter 8 and 9 and water commitments made in Chapter 16

Table 4.7 Policy Statements from the HCR CAP and Relevance to W2CP

CAP Policy Statement	W2CP
Monitoring must occur throughout the life of a project (planning, operational, and post project) ie. whilst the activity maintains the potential to impact on groundwater, river flows, water quality, river stability or ecosystem health. Environmental monitoring should be open and transparent and reporting to the relevant stakeholders should be part of any extraction activity. Specifically, water management audits should be regularly undertaken and made public.	A comprehensive environmental monitoring program commenced in 1987 to provide baseline data and will continue throughout the life of the project and beyond, until a stable and self sustaining landform is achieved. Details of monitoring are provided in the relevant chapters of this document and summarised in Section 16.21.1.
Rehabilitation of sites should occur before environmental degradation develops. The end extraction landform, particularly its stability and ability to intercept water (run-off and ground water) can potentially impact on the volumes of salt transferred from sites to groundwater.	WACJV is committed to carrying out rehabilitation works on both temporary and permanent areas to prevent land degradation. Rehabilitation works will be undertaken as soon as practicable following disturbances.
There needs to be development, and progressive implementation of post activity management plans and site rehabilitation programs. Environmental, social and economic factors must be considered during decisions about post mining land use.	Rehabilitation programs have already been designed for the operation. However these will remain flexible to cater for shifts in government and community expectations, required land uses and advancements in technology. Rehabilitation and Environmental Management Plans (REMPs) are a statutory requirement under the Mining Act, as required under the Mining Lease. REMPs provide both short and long term rehabilitation plans and are generally prepared every 7 years. These plans are prepared in consultation with relevant stakeholders, including government authorities, the general community and other interested parties.
Once extraction is completed, land should be progressively rehabilitated either to a previous agricultural land use or to a healthy native vegetation community structure or sustainable ecosystem that is consistent with previous pre-European historical vegetation types of the area.	At this stage, it is envisaged that the decommissioned surface facilities and infrastructure areas will be returned to either a compatible native vegetation community or some other agreed land use after consultation with the community and relevant government authorities.
Mines should supply cleared timber to organisations for non-commercial purposes that benefit natural resource management—e.g. used as ‘large woody debris’ in in-stream rehabilitation work.	All requests received for cleared timber for such purposes will be carefully considered and accommodated wherever possible providing that the removal and use of timbers can be safely orchestrated.
Adequate buffers must be maintained between extraction activities and surface water/alluvial aquifers and significant Aboriginal culture and heritage values.	The mine plan has been designed specifically to provide a buffer between extraction areas and the Wyong River so that the river will not be subject to any significant effects of subsidence.

Table 4.7 Policy Statements from the HCR CAP and Relevance to W2CP

CAP Policy Statement	W2CP
Further research on the environmental impacts of extraction, new approaches of mitigating these impacts, and state-of-the-art remediation is encouraged and supported. Research topics of particular importance are the impact of relocating streams in mining areas on the water table, the impact of water movement having a high salt content out of the voids that result from mining, the effectiveness of 'grout curtains' to protect river and groundwater quality, acid mine drainage and the rehabilitation of resilient ecosystems.	Specialist consultants have been used in the design and assessment of the W2CP meeting current industry standards and up to date technology.
Monitoring must occur throughout the life of the development (pre-mining, operational, and post mining) ie. whilst there is potential to impact on river flows, water quality, river stability or ecosystem health.	<p>A comprehensive environmental monitoring program commenced in 1987 to provide baseline data and will continue throughout the life of the project and beyond, until a stable and self sustaining landform is achieved.</p> <p>Details of monitoring are provided in the relevant chapters of this document and summarised in Section 16.21.1.</p>
The activities of extractive industries should be undertaken in such a way as to minimise the destruction of culture and heritage sites and impacts on culturally significant landscapes.	An archaeological survey and assessment has been undertaken to locate any items or places of interest, assess the potential impact, and develop suitable mitigation measures. These details are summarised in Chapter 14 while the specialist report is contained in full in Appendix S.
Landscape plans (e.g. Mine Synoptic plans) should be used as a mechanism to rehabilitate the biodiversity values and ecosystem services that can be provided by disused extraction sites.	Rehabilitation plans have been developed for the end use of disturbed sites. These will be further refined and specialist input sought at the time when relevant.
Derelict extraction sites in the region should be rehabilitated through partnership arrangements and consultation with the community.	WACJV is committed to the life of the project and responsible environmental management. In addition, a substantial bond will be lodged to fully cover the cost of final close down and rehabilitation of the mine.

4.14 Water Sharing Plans

4.14.1 WSP for the Jilliby Jilliby Creek Water Source

The Water Sharing Plan (WSP) for the Jilliby Jilliby Creek Water Source commenced on 1 July 2004, and applies until 30 June 2014. The WSP was slightly revised in 2009 following consultation in late 2008 and early 2009. The purpose of the Plan is to allocate water for the environment, as well as specifying how the water is to be shared among the different water users. The changes gazetted in 2009 were necessary to provide adequate protection for the environment, particularly during periods of low flow when the demand for water is greatest, and to more clearly define the rights of individual licence holders.

The Jilliby Jilliby Creek WSP applies only to the surface water resources of Jilliby Jilliby Creek itself and any lakes and wetlands in the water source area. The WSP does not include any water contained within the aquifers underlying the water source.

The W2CP will not be seeking a licence to extract any water from this system.

The purpose of the Plan is to set limits on the overall extraction of water from the Creek on an annual basis (the long-term average extraction limit) and also set limits on the daily extractions (the total daily extraction limit (TDEL)).

4.14.2 WSP for the Central Coast Unregulated Water Source

The Central Coast Unregulated Water Sources WSP commenced on 1 August 2009. The water source relevant to W2CP under this plan is the Wyong River water source. Although Jilliby Jilliby Creek is a tributary of Wyong Creek, it remains a separate management unit but with linkages between the respective plans enabling opportunities for co-ordinated water resource management.

This WSP also specifies the maximum amounts and rules for water extraction from the various water sources within this plan area. The Wyong River Water Source is one such source under the WSP whereby flow extractions for irrigation licensees and town water supply are managed as well as environmental flow requirements to maintain instream biodiversity values. All extractions are subject to variation based on rules related to river flow conditions. The key management elements provided for phasing in under the plan relate to cease-to-pump and daily flow share arrangements.

In terms of the Wyong River water source, the WSP for the Central Coast Unregulated Water Sources only applies to the surface water resources of Wyong River itself and any lakes and wetlands in the water source area. It does not include any water contained within the aquifers underlying the water source, including alluvial sediments.

4.15 Mine Subsidence Districts

In recognition of the importance of the coal resources within the Wyong LGA, the government has proclaimed four mine subsidence districts (MSDs) since the 1960s:

- ☐ Hue Hue mine subsidence district;
- ☐ Mandalong mine subsidence district;
- ☐ Wyong mine subsidence district; and
- ☐ Swansea - North Entrance mine subsidence district (and its accompanying expansion).

The two key MSDs in the northwestern section of the Wyong LGA (Wyong and Hue Hue MSDs) are shown below in Figure 4.3 while these and other regional MSDs are also shown in Figure 4.4. The Hue Hue MSD was proclaimed in 1985 and the Wyong MSD declared in 1997. The MSDs are administered by the Mine Subsidence Board which ensures that planning and construction of houses and other buildings and infrastructure can be done so as to consider the likely future subsidence effects when future mining occurs and so that later impacts can be managed in an orderly way.



WYONG

MINE SUBSIDENCE DISTRICT

PROCLAIMED 9th APRIL, 1997. NOTIFIED 18th APRIL, 1997.

UNDER SECTION 15(1) MINE SUBSIDENCE COMPENSATION ACT 1961.

PARISHES OF MORISSET, MUNMORAH, OLNEY, OURIMBAH, TUGGERAH AND WYONG
COUNTY OF NORTHUMBERLAND

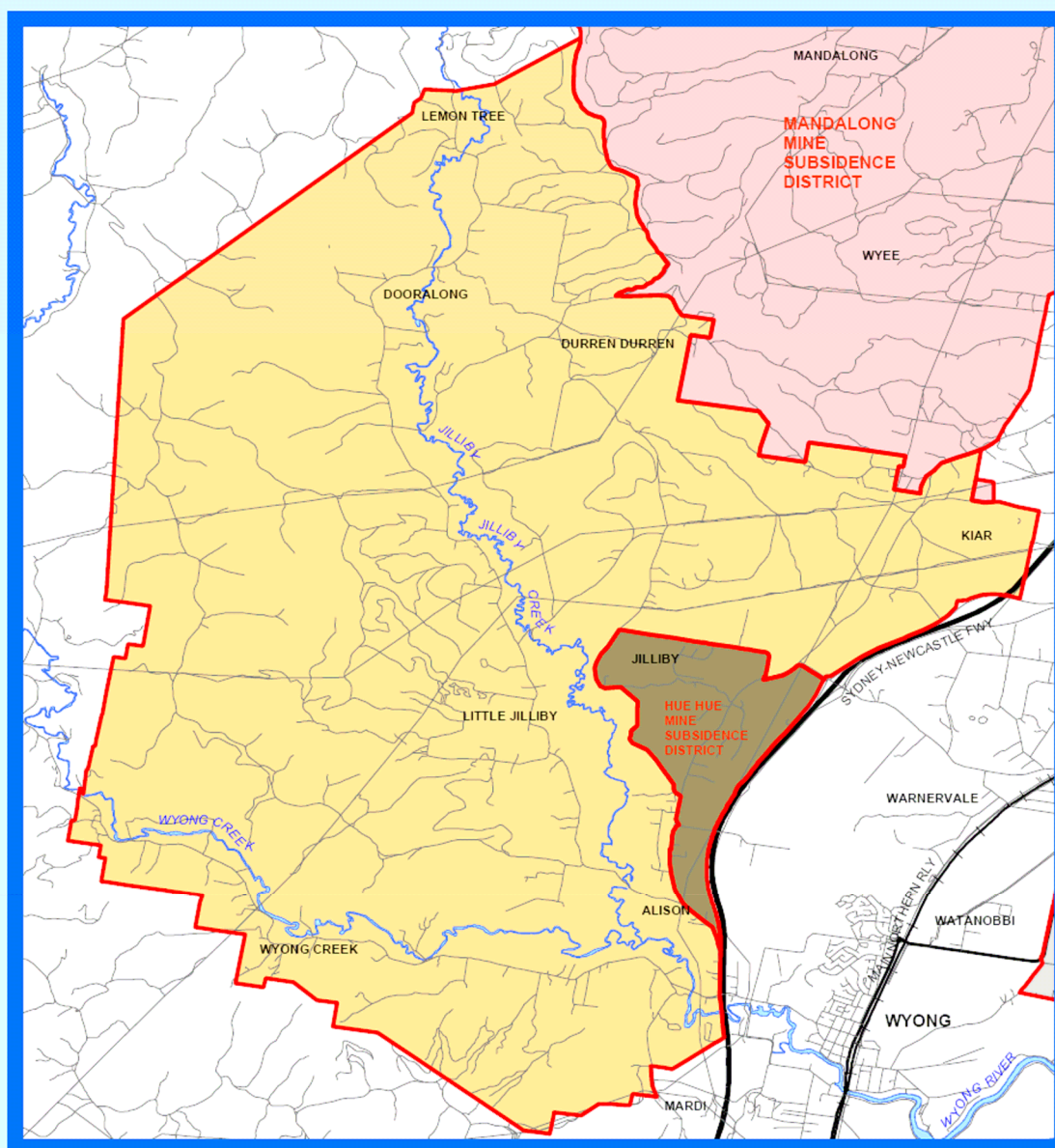


Figure 4.3 Wyong and Hue Hue MSDs

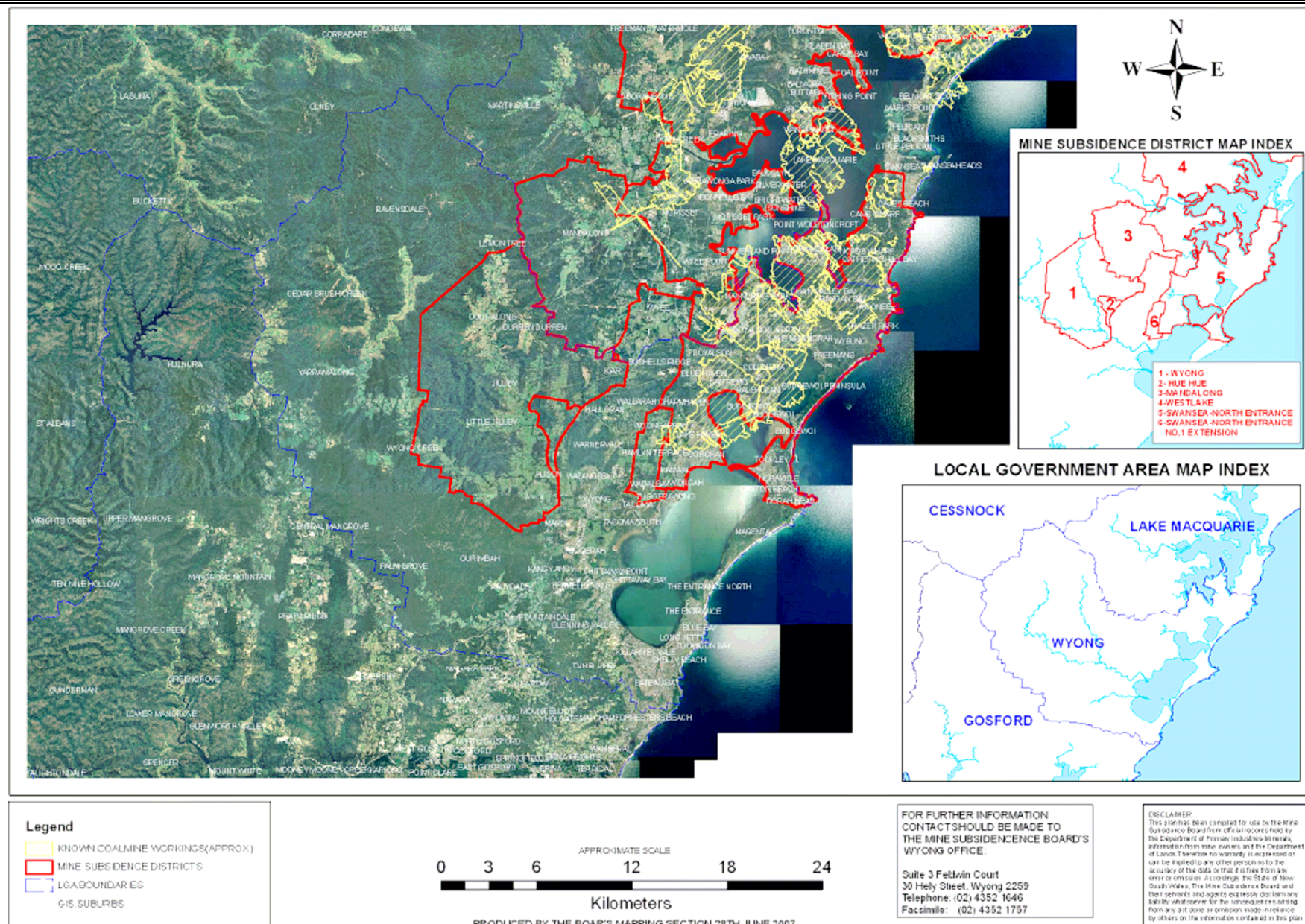


Figure 4.4 Known Coal Mine Workings in the Wyong LGA (source MSB 2007)

4.16 Soil and Landscape Issues in Environmental Impact Assessment

The *Soil and Landscape Issues in Environmental Impact Assessment, Technical Report No. 34, 2nd edition* was developed by the NSW Department of Land and Water Conservation to provide a guide to requirements and methodology relating to the assessment of soil and landscape issues during the EA process.

This document has been considered in the environmental assessment of the proposed W2CP and used as a reference guide in the preparation of this EA document and development of soil and erosion control strategies and mitigation measures proposed.

4.17 Contaminated Sites

There are a number of guidelines that have been developed to assist landowners and developers deal with contaminated sites:

- ☐ Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (rescinded);
- ☐ SEPP 55 – Remediation of Land; and
- ☐ National Environment Protection Council (NEPC) - Assessment of Site Contamination Measures 1999.

Detailed site surveys of the surface facility areas proposed for the W2CP have not identified any areas of contamination. However, if during the course of construction contaminated areas are found, or site contamination occurs as a result of the construction activities, these guidelines will be referred to for clean up and remediation guidance and principles.

4.18 Managing Urban Stormwater

The NSW Government has developed a range of documents on managing urban stormwater:

- ☐ Managing Urban Stormwater: Council Handbook;
- ☐ Managing Urban Stormwater: Source Control; and
- ☐ Managing Urban Stormwater: Soils and Construction.

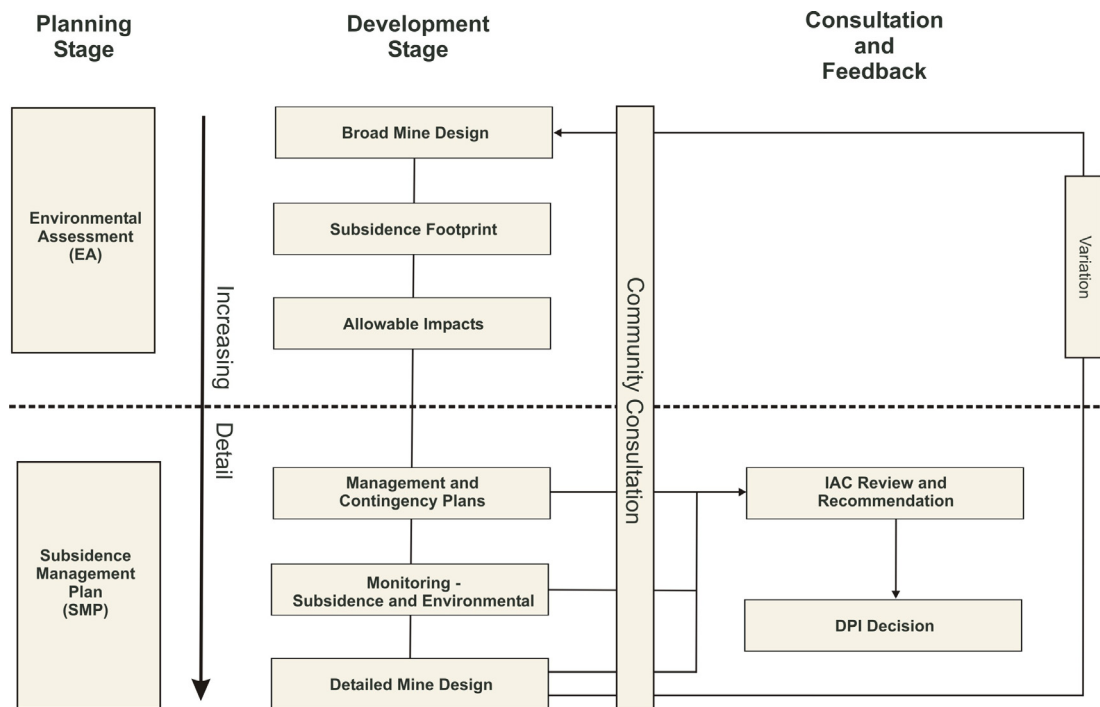
The aim of these documents is to provide guidance to developers and approval authorities on the selection and design of a range of structural stormwater quality management practices in managing urban stormwater.

While these documents provide useful guidance for urban developers, a site specific water management plan has been developed for the W2CP that is appropriate for a mine site in a rural location.

4.19 Environmental Assessment Process

The Part 3A approval is the most significant approval required for the Project. If this approval is obtained, it can be expected with a reasonable degree of certainty that all other statutory approvals necessary for the Project will be able to be procured.

The significance of the Part 3A approval is underscored by the fact that the Minister for Mineral Resources would be prohibited from granting a mining lease for the Project until a Part 3A approval is granted under the EP&A Act by the Minister for Planning.



Part 3A Planning Approval Process

4.19.1 Step 1 – Preparation of the Environmental Assessment Document

Initially, WACJV lodged a Preliminary Assessment Report (PAR) with the Director-General of the Department of Planning which contained the following:

- ☐ a description of the Project;
- ☐ a preliminary assessment of the Project based on a guideline issued by the Department;
- ☐ a request that the Minister acknowledge that the Project is a project to which Part 3A of the EP&A Act applies; and
- ☐ an indication as to whether or not WACJV will be seeking a concept plan approval or a full approval from the Minister.

The Department of Planning then informed WACJV of the Minister's confirmation that the Project is to be assessed under Part 3A. The Director-General of the Department then notified WACJV of the EARs for the EA document.

Prior to the receipt of the Director-General's EARs and compilation of the project's EA document, the Minister for Planning announced that a strategic inquiry would be held to review the issues related to potential coal mining in the Wyong LGA. A description of the process and outcome of the strategic inquiry is discussed below in Section 4.20.

4.19.2 Step 2 – Lodgement and Exhibition

The completed EA document is to be submitted to the Director-General of the Department of Planning.

The Director-General, on the advice of his Department, will then make a determination as to whether the EA adequately addresses his environmental assessment requirements. Depending on this determination, WACJV may be required to submit a revised EA.

In the event that the EA is accepted by the Director-General, the Director-General must make the EA publicly available for a minimum period of 30 days. The EA is made available on the Department's website and in such other locations as the Director-General determines.

During the exhibition period, any person (including a public authority) may make a written submission to the Director-General concerning the Project.

The Director-General is required to provide copies of submissions received during the exhibition period, or a report of the issues raised in those submissions, to:

- ☐ the proponent;
- ☐ DECCW; and
- ☐ any other public authority the Director-General considers appropriate.

As a result of the Director-General's consideration of the EA and/or submissions received, he may require the proponent to submit:

- ☐ a response to the issues raised in submissions;
- ☐ a "preferred project report" that outlines any proposed changes to the project to minimise its environmental impact; and/or
- ☐ any revised statement of commitments.

If the Director-General considers that the "preferred project report" involves any significant changes to the nature of the project, the Director-General may require the proponent to make the "preferred project report" available to the public.

4.19.3 Step 3 – Planning Assessment Commission Inquiry

As a step in the environmental assessment process, the Minister has the discretion to refer any aspect of the project for assessment to a panel of experts or a panel of officers representing the Department and other relevant public authorities. The Minister announced in a media statement in August 2009 that the PAC will be directed to establish an expert panel to undertake an inquiry into the project.

The PAC panel is to exercise its functions in accordance with arrangements set out in the EP&A Act and approved by the Minister. For the purpose of its assessment, the panel may receive or hear submissions from interested persons. The panel's

task is completed by submitting a report to the Director-General within the time specified by the Minister. The Minister is not bound to follow the findings or recommendations of the panel's report.

4.19.4 Step 4 – Assessment and Determination

The next step is for the Director-General to provide his report on the Project to the Minister. Ordinarily, this report will contain a recommendation as to whether or not the Minister should grant approval and the recommended conditions if he decides to grant an approval.

The Minister then considers the Director-General's report and the report of the PAC inquiry and decides whether or not to grant approval for the Project.

4.19.5 Step 5 - Appeals

Provided that a public inquiry is held into the project, the Minister's decision to either grant a Part 3A approval to the project or to otherwise refuse approval for the project will not be subject to a merit appeal by any objector or by the proponent.

The W2CP has, and will continue to follow the steps in the planning process described above in a transparent and professional manner, involving relevant stakeholders during each step in the approval process.

4.20 Strategic Inquiry into Potential Coal Mining in Wyong LGA

On 5th February 2007 the Minister for Planning announced an independent strategic inquiry into potential coal mine developments within the Wyong LGA, including the Dooralong and Yarramalong Valleys. An Independent Expert Panel was appointed to conduct the inquiry.

Terms of Reference

The panel was to examine and report on:

- ☐ Whether coal mining under the catchment for the Mardi Dam would compromise, in any significant way, the water supply of the Central Coast;
- ☐ Environmental impacts of any underground coal mining, with a particular emphasis on:
 - surface and groundwater resources, especially on drinking water supply and flooding;
 - hazards and risks of subsidence impacts; and
 - the amenity of the community, including dust and noise impacts;
- ☐ Social and economic significance of any underground coal mining to the local community, the region and State; and
- ☐ Areas where mining should not be permitted, or if permitted the conditions under which it may proceed, having regard to the matters listed above and the NSW Government's strategic planning policies that apply to the area.

Panel Members

The panel members were Ms Kerry Chikarovski (Chair), Emer Prof Jim Galvin (Subsidence Expert), Assoc Prof Noel Merrick (Hydrology Expert) and Mr Brian Elton (Social & Community Impact Expert).

Submissions Received

Submissions to the Panel were received from a wide ranging group of interested parties, listed in Table 4.8. In addition to the submission listed Table 4.8, there were 66 individual submissions from the community and 293 form letters.

Table 4.8 Submission Made to the Independent Strategic Inquiry

Government and Related	Interest Groups	Industry
Association of Mining Related Councils Inc.	Australian Coal Alliance	Centennial Coal Pty Limited
Department of Environment, Climate Change and Water	Dooralong Valley Residents Association Inc.	CFMEU
Department of Planning	Nature Conservation Council	NSW Minerals Council
Department of Industry & Investment	Total Environment Centre Inc.	Peabody Pacific Pty Limited
Department of Water and Energy	Wyong-Tuggerah Chamber of Commerce	Wallerah 2 Coal Project
EPA Board	Yarramalong Valley Progress Association Inc.	
Gosford-Wyong Council's Water Authority		
Hunter-Central Rivers CMA		
Member for Lake Macquarie – Greg Piper MP		
Member for Wyong – David Harris MP		
Wyong Council		

WACJV Input

The WACJV lodged a Submission and Reference Document to the expert panel in July 2007. Following the Strategic Inquiry and Hearings of the Independent Expert Panel held in Wyong on 27 and 28 August 2007, the WACJV prepared a Submission – in – Reply to address issues raised in submissions to the Inquiry.

Findings of the Inquiry

On the 17 December 2008 the final report on the Inquiry was publicly released. Key findings of the report and the consistency of the W2CP with these findings is summarised in Table 4.9 below.

Table 4.9 Key Findings of the Inquiry Report

Report Finding	W2CP
"...longwall mining is likely to cause subsidence-related impacts within the water supply catchments associated with Wyong River and Jilliby Jilliby Creek. However, because of the depth of the coal seams, this subsidence is unlikely to compromise in any significant way the water supply of the Central Coast, since the nature of the geology, geomorphology and depth of the coal seams make it unlikely that underground mining will result in a loss of surface water."	Confirms the W2CP position that surface waters will be protected.
"With appropriate mine planning, there is also little likelihood for deterioration in the quality of surface waters or contamination from hard rock saline aquifers."	Confirms the W2CP position that surface waters will be protected.
"There is a lack of information relating to groundwater in the Wyong LGA in general... However, based on the available data, while groundwater sourced from the Wyong River and Jilliby Jilliby Creek alluvial systems does make a significant contribution to the water supply of the Central Coast (estimated to be between 3.5 and 6%), any mining activity would not significantly impact on the existing groundwater levels or groundwater availability."	Confirms the W2CP position that groundwater will not be significantly impacted.
"In relation to the Wallarah 2 mining proposal, impacts arising from upsidence are likely to be minimal given the distance that mining is planned to stop short of the Wyong River. Given the wide and flat nature of the valley in which Jilliby Jilliby Creek is located, upsidence could also be expected to be minimal. Impacts arising from upsidence are also likely to be minimal because of the nature and thickness of the alluvial deposits and underlying strata."	Confirms the W2CP position that subsidence impact will not result in significant damage.
"...based on the information available, damage to water supply infrastructure is extremely unlikely to arise from either direct subsidence effects or far-field horizontal movements."	Confirms the W2CP position that water supply infrastructure will not be impacted.
"The WACJV submitted that, because of the shape of the Dooralong Valley, mine subsidence will result in little change in flood levels other than at the downstream end of the Valley. However, the Panel is not in a position to express an opinion on or conduct an independent review of these matters."	Detailed flood studies have been undertaken for the W2CP. Refer to Chapter 9 and the specialist report contained in Appendix C.

Table 4.9 Key Findings of the Inquiry Report

Report Finding	W2CP
"The Panel considers that there is a likelihood of some change in the distribution and extent of ponding, due to mining-induced subsidence. To alleviate any adverse consequences, effective mitigation and remediation measures should therefore be planned and implemented."	Mitigation measures are proposed to alleviate any potential adverse consequences of ponding from subsidence.
"The Panel considers that no mining causing subsidence of the Lake should be approved unless a high level of knowledge about the Lake's ecology and hydrology (including seagrasses, tidal flows, currents, water quality and mixing) has been demonstrated and sufficient certainty and assurance provided to ensure that there would be no unacceptable adverse impacts on the Lake or its key values."	The WACJV are not proposing to mine beneath the Lake at this point in time and this does not form part of this project application.
"The impacts of mining-related subsidence on built structures can generally be adequately dealt with in accordance with the existing provisions within the Mine Subsidence Compensation Act 1961 which apply equally within declared mine subsidence districts and in all other areas of Wyong LGA and the State."	Confirms the W2CP position on the repair of damage to houses as a result of mining related subsidence.
"...it considers that rectification of subsided dwellings should elevate them to this level (at least 300 mm above the 1% AEP flood level) wherever that is feasible and is requested by the owner of the dwelling."	W2CP will undertake any required remediation or mitigation measures as required by consent conditions or as may be agreed with landholder
"There are existing environmental standards in relation to both dust and noise, and any mining proposal would be required to show compliance with those standards through the approval process."	Assessment for both noise and dust emissions have been undertaken for the W2CP. Refer to Chapters 11 and 12.
"Existing standards for assessment and monitoring procedures for noise provide sufficient safeguards against noise impacts for new mine proposals."	Confirms the Noise assessment undertaken for the W2CP.
"Around 40% of the State's installed coal-fired electricity-generating capacity is located within the Wyong and Lake Macquarie LGAs. The continued operation of these power stations with low input costs is a very significant benefit to the people of NSW."	The W2CP does not introduce a "new" industry to the LGA.
"The potential economic contribution of underground mining to the local, regional and State economy is significant. However, any economic contribution by mining will need to be assessed against the economic significance of employment and economic activity likely to be generated by the adopted economic growth scenario in the Central Coast Regional Strategy (CCRS)."	The CCRS has been considered in this assessment.

Table 4.9 Key Findings of the Inquiry Report

Report Finding	W2CP
"All potential coal mining operations, regardless of location, must include a robust, transparent community engagement process."	Community Consultation has been undertaken through one-on-one and group meetings, presentations and briefings, open days, media (radio, television, newspapers and internet) and newsletter distribution.
"Given the significance for the strategic future of the Wyong LGA of the potential social and economic impacts, full social and economic impact assessments should be required for any new mine proposal in the LGA."	Detailed social and economic assessments have been undertaken for the W2CP. Refer to Chapter 10.

In addition, the Inquiry report goes further to make a number of recommendations, which should apply to any future coal mine development within Wyong LGA, including the Wallarah 2 proposal. These are recommendations, and how they have been addressed by the W2CP are summarised in Table 4.10.

Table 4.10 Recommendations of the Inquiry Report and W2CP Response

Report Recommendation	W2CP Response
"Increased focus should be given to risk assessment in the environmental impact assessment process, and that a rigorous, standardised risk assessment process be developed and implemented by relevant government agencies in consultation with affected mining companies, representative bodies and the community."	Detailed risk assessment was undertaken to identify issues, refer to Chapter 5.
"Future coal mine proponents in the Wyong LGA should be required to demonstrate a strong commitment and systematic approach to keeping the community informed and responding to community concerns. Particular issues that need to be addressed by future mine proponents include: a) developing a trust relationship between the mine proponent and the local community; b) investing in relationships and an information sharing process with other companies and government agencies in order to gather accurate and consistent baseline data; c) providing the community with accurate, high quality information; and d) establishing processes to respond to and review community concerns or complaints."	W2CP has been proactive in providing information to the community and listening to their concerns. W2CP maintains significant and positive trust relationships with numerous landowners and stakeholders. W2CP has already demonstrated a willingness to share information with the provision of the detailed flood studies that have been used by the Wyong Council. Detailed information has been provided on websites, radio, newsletters, public meetings and discussions with individuals. All community complaints and issues have been considered and addressed as appropriate.
The Department of Planning and other relevant approval agencies should require future coal mine proponents to provide evidence of a clear, transparent and	WACJV has achieved this recommendation throughout the planning phase of the W2CP.

Table 4.10 Recommendations of the Inquiry Report and W2CP Response

Report Recommendation	W2CP Response
accessible community consultation process through the preparation of communications and engagement plans. In keeping with a high quality, transparent process, these plans should specify the type and frequency of consultation activities and the resources allocated to enhancing community relationships and information across the various phases of the project, from the concept stage, through pre-lodgement, lodgement, assessment, post-approval and delivery.	
Any new coal mine project application should include comprehensive information concerning both the above-mentioned consultation and the potential social and economic impacts identified as part of the social and economic impact assessments.	Provided in Chapter 4 of this EA document.
Subsidence impacts from new underground coal mines within the Wyong LGA should be mitigated such that affected privately-owned dwellings will be in accordance with Wyong Shire Council's Flood Prone Land Development Policy after mining is completed (either by impact minimisation or rectification), or otherwise subject to appropriate compensation.	Subsidence and subsidence related impacts such as flooding have been assessed in detail by highly qualified specialists, and the findings of the assessments summarised in the main chapters of this document, and the original report contained in the Appendices in full.
That because of the significant environmental, social and cultural values of Tuggerah Lake and the potential for mining subsidence to impact on these values, no mining causing subsidence of the Lake should be approved unless a high level of knowledge about the Lake's ecology and hydrology (including seagrasses, tidal flows, currents, water quality and mixing) has been demonstrated and sufficient certainty and assurance provided to ensure that there would be no unacceptable adverse impacts on the Lake or its key values.	The W2CP does not propose to mine beneath the Lake or its foreshores under the current development application.
Any new coal mining proposal that would impact on wetlands in the Wyong LGA should provide appropriate offsets to meet the 'maintain or improve' principle. Such offsets could include the creation of new wetlands where impacts on natural wetlands are unavoidable or unforeseen. The development of these strategies should be undertaken in conjunction with Department of Environment, Climate Change and Water and Wyong Shire Council, in the context of their requirements for constructed wetlands and the broader restoration and development programs that are underway within the LGA.	W2CP acknowledges that a variety of local and State listed wetlands occur within the Wyong LGA. Although W2CP will not impact on any significant wetlands, it supports the principle of using properly designed and constructed new wetlands to offset for any loss of wetlands, whether predicted or unforeseen. Further, W2CP considers that this wetland offset principle should be applied across all development classes and types with the Wyong LGA (including residential, commercial, industrial, subdivision, infrastructure, etc).

Table 4.10 Recommendations of the Inquiry Report and W2CP Response

Report Recommendation	W2CP Response
<p>The DECC should consider reviewing its current air quality standards, particularly the existing deposited dust standard, and establish new standards for smaller particulates to ensure that such standards are consistent with current scientific knowledge and community expectations.</p> <p>Any coal mine surface facility which is near residences should be required to comply with world's best practice in relation to coal stockpiling, storage and dust emissions.</p>	<p>W2CP considers that the current air quality standards, particularly for deposited dust, have been demonstrated to be robust and continue to be generally in accordance with international scientific standards. In relation to fine particles (aerodynamic diameter less than 2.5 micron), very fine and ultrafine particles (sub micron), these are typically associated with combustion emissions such as power stations, certain manufacturing processes, motor vehicles and domestic wood heating appliances. Accordingly, the main sources of these particles are not emissions from coal extraction operations and W2CP makes no specific comment in relation to the recommendation regarding general air quality policy for fine particulates from other sources in the Wyong LGA or the DECCW's need to go beyond the nationally agreed goal-setting and reporting standards for PM2.5 particles in the National Environment Protection Measure for air quality. However, W2CP has assessed the emission of fine particulates in this EA.</p>
<p>Further mining in the Wyong LGA should be subject to a comprehensive socio-economic cost/benefit analysis which takes into account the direct and indirect cost and benefits, including likely employment gains from mining and risks to residential growth, current and future employment and property prices.</p>	<p>WACJV/W2CP has undertaken numerous social and economic reviews, surveys and analyses and has communicated the general findings of these as appropriate. Details are provided in Chapter 10 of this EA document.</p>
<p>Given that the shallower coal resources in the Northeastern Area appear to have been largely exhausted and that there are apparently no current plans to mine deeper seams in this area, there is potential to relax or remove some of the current constraints on new developments east of the F3 freeway in the Wyong LGA. There may also be potential to relax mine subsidence related restrictions on building codes in some parts of declared mine subsidence districts west of the F3 Freeway. A planning forum involving all relevant government agencies and other key stakeholders should evaluate options for future mining-related development controls in the Wyong LGA.</p>	<p>The W2CP has some surface facilities located east of the F3 Freeway, however its mining plan restricts subsidence to certain areas west of the F3. Nevertheless, the WACJV holds exploration licence areas east of the F3 and therefore would welcome the opportunity to participate in the Panel's suggested planning forum involving all stakeholders east of the F3 to evaluate the potential for (mine subsidence related) planning controls to be relaxed east of the F3 Freeway in the Wyong LGA. However, W2CP makes no comment on the relative merits of such an action until such time that it is informed of the facts and issues on the matter through engagement with all relevant stakeholders.</p>
<p>In respect of the Wallarah 2 Project proposal: a) subject to the recommendations contained within this report, the Wallarah 2 proposal should be assessed under Part 3A of the Environmental Planning and</p>	<p>W2CP supports the Panel recommendation and encourages the efficient progress of the assessment process so that all stakeholders may benefit from timely</p>

Table 4.10 Recommendations of the Inquiry Report and W2CP Response

Report Recommendation	W2CP Response
<p>Assessment Act 1979;</p> <p>b) consideration should be given to an independent review of the final Wallarah 2 proposal as part of the Department of Planning's assessment process;</p> <p>c) given the proximity of the proposed Wallarah 2 surface facility to residential areas, noise and dust emissions from the proposed surface facilities should be minimised as recommended in this report;</p> <p>d) If these emissions are unable to be satisfactorily minimised, the Wallarah 2 proponent should review the proposed location and size of its coal stockpile, including the potential for it to be moved west of the F3 Freeway;</p> <p>e) the Wallarah 2 proposal should apply best practice community consultation, engagement and participation (eg NSWMC and DoP guidelines); and</p> <p>f) Wyong Shire Council and the community should be encouraged to allow water monitoring stations to be installed and accessed to allow for better collection of baseline and monitoring data.</p>	<p>resolution of issues and perceptions so as to enable orderly mine development at the earliest practicable time.</p> <p>W2CP supports the Panel recommendation and seeks that such independent review be undertaken in timely and efficient manner which can build on the Strategic Inquiry findings.</p> <p>W2CP supports the Panel recommendation and has included a comprehensive assessment of noise and dust impacts and relevant mitigation strategies in this EA report.</p> <p>W2CP supports the Panel recommendation although it is confident that it can demonstrate that its proposed surface facilities' location and design are optimally configured for managing amenity (noise, dust, visual) impacts and controlling other land use impacts.</p> <p>W2CP supports the Panel recommendation for community consultation and engagement throughout the entirety of the project from tender stage through to mine operations and beyond.</p> <p>W2CP supports the Panel recommendation and looks forward to gaining positive and constructive participation from Council and the community in regard to its integrated environmental monitoring program that will continue throughout the life of the mine which will be of benefit not only to W2CP but also to Council and the wider community.</p>

4.21 Independent Expert Panel NSW Southern Coalfields Inquiry

The Final Report to the Minister for Planning and the Minister for Primary Industries *"Impacts of Underground Coal Mining on Natural Features in the Southern Coalfield: Strategic Review"* was released in July 2008. While there may be some similarities between the Southern Coalfields and the Wyong Strategic Inquiries, it is not possible to assume that all of the findings from the Southern Coalfields Inquiry are relevant or applicable to the W2CP.

Perceptions about coal mining are often formulated through misinformation or exaggeration and extrapolation of facts that are not relevant. The following sections outline some of the findings of the Southern Coalfields Inquiry that are **not** relevant to the W2CP, although may be perceived by the general community to be so.

4.21.1 Discoloration of Water

The precipitation of iron hydroxide and associated iron staining has been observed in some areas of the Southern Coalfield. These occurrences appear to be related to relatively saline, iron-rich groundwater seeping from mining induced fracture

systems in the floor of some gorges and mixing with fresh, oxygenated stream water. The associated chemical reaction produces an iron precipitate which, though non-toxic and readily filterable, can result in unsightly staining of the rock gorge. The source of the iron is thought to be ferruginous minerals within the sandstones that form the walls to the gorges.

The valleys in the W2CP are not only much broader than the gorges of the Southern Coalfield, they are filled with some 20-30 m of alluvium. As has been described in the Subsidence Study, while some shallow fracturing in response to upsidence of the bedrock beneath these valleys may occur, it will do so at the base of the thick alluvial layer. Piezometric testing has shown that not only is this alluvium saturated, the water that it contains is layered – with less dense fresh water at the top and denser saline water at the base.

Therefore, in the event that shallow groundwater should emerge from fractures in bedrock beneath the deep alluvium, the potential for iron precipitation to occur is limited by:

- ☐ The chemical conditions that drive the reaction not being available;
- ☐ Both water types will be relatively saline;
- ☐ The interface will be in a low oxygen environment; and
- ☐ The sandstones in the W2CP area being less ferruginous than their Southern Coalfield counterparts.

Furthermore, any precipitation that did occur would be filtered almost immediately within the alluvium and would be essentially contained within alluvial materials of limited transmissivity.

The western portion of the W2CP area consists primarily of forested hills. During the exploration of these areas drilling operations on the ridges were hampered somewhat by an almost total loss of water circulation until the drill holes reached the level of the adjacent valley floor. This observation supports another significant point of difference between the dissected plateau of the Southern Coalfield and the stress relieved ridges of the W2CP area. This stress relief over geological time has resulted in well-formed joint systems in the forested hills in the western portion of W2CP that are preferred pathways for infiltrated rainwater. This infiltrated water then gradually discharges through springs in the sides of the ridges. These springs tend to occur at interfaces of certain strata, particularly in the southern facing (down-dip) slopes. Hard rock aquifers do not occur in these well jointed areas.

With no known occurrences of iron staining from existing springs there is no basis to suggest it will result from mining activity. There is a more realistic case to suggest that the existing joint/ fracture systems may actually be enhanced by subsidence effects to potentially increase the water bearing capacity of these upland areas.

4.21.2 Unpredicted Subsidence Impacts

The Southern Coalfield Inquiry found that the majority of subsidence impacts on significant natural features are associated with valley closure and upsidence effects, leading to impacts on some rivers and significant streams and in particular the cracking of stream beds and underlying strata. Stream bed cracking was found to be most evident where the stream bed is comprised of solid rock and is less apparent where the stream bed is covered with sediment (including valley infill swamps) or deep water and sediment (such as the Nepean River). The

consequences of stream bed cracking are most severe in streams with significant amounts of exposed bed rock (eg in rock bars).

Unlike the Southern Coalfields, the broad alluvial valleys within the proposed W2CP mining area do not contain exposed or even near surface rock mass and are therefore not prone to surface cracking.

The Inquiry also found that conventional surface subsidence effects and their impacts are well understood and are readily and reasonably predictable by a variety of established methods. However the understanding of non-conventional surface subsidence effects (especially far-field horizontal movements, valley closure, upsidence and other topographical effects) is not as advanced. The Inquiry found that both valley closure and upsidence are difficult to predict. Upsidence is a highly variable factor, particularly at the local scale, and is less predictable than valley closure.

For the W2CP, the lack of steep gorges and associated cliff lines make subsidence predictions more accurate and reliable.

4.21.3 Loss of Catchment Runoff

The Southern Coalfield Panel stated that it was not aware of any scientific evidence supporting the view that subsidence impacts on rivers and significant streams, valley infill or headwater swamps, or shallow or deep aquifers have resulted in any measurable reduction in runoff to the water supply system operated by the Sydney Catchment Authority or to otherwise represent a threat to the water supply of Sydney or the Illawarra region. However the Panel reported that this does not discount the possibility that a reduction in runoff may be realised under certain conditions, including downwards leakage to mining operations, especially where a shallow depth of cover prevails or a structural feature provides a conduit for flow.

There is no shallow mining to take place in the W2CP mine plan. The extraction depth ranges from 350 m to over 690 m and the proposed mine plan has also incorporated subsidence management systems when mining beneath the Jilliby Jilliby Creek. These include reduced panel width and in some key areas reduced extraction height as well as strategically locating the main headings in the Little Jilliby Jilliby Creek valley. These issues are examined in detail in Chapter 6.