

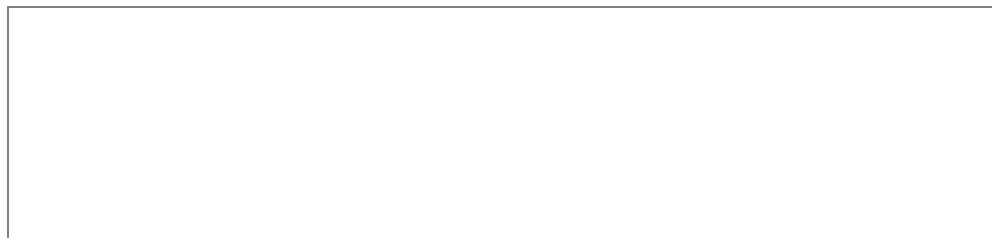


Mt Piper Power Station Ash Placement Project

ENVIRONMENTAL ASSESSMENT

CHAPTER 1 - INTRODUCTION

■ August 2010



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1. Introduction

This chapter provides information on the proponent (Delta Electricity), background on the project and its objectives, outlines the environmental impact assessment process and approval requirements and identifies the structure of the Environmental Assessment report.

The chapter also addresses the Director-General's requirement for:

- *consideration of any relevant statutory provisions including the consistency of the project with the objects of the Environmental Planning and Assessment Act 1979; and*
- *identification of any third party approvals that need to be in place to allow the development of the project and an overview of how the project would interact with any such approvals (where relevant).*

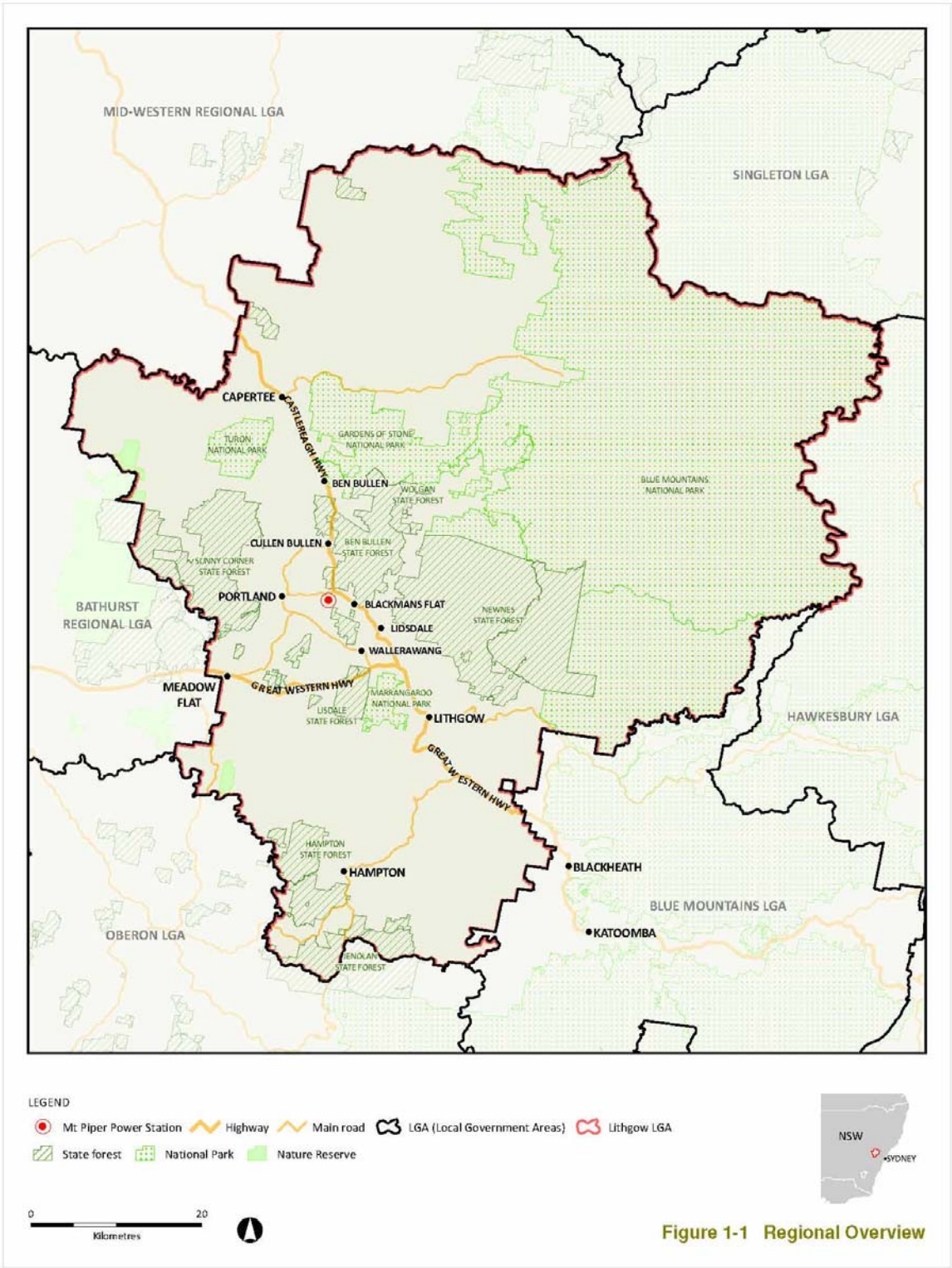
1.1. Background

Delta Electricity owns and operates Mt Piper Power Station, located approximately 17 km north-west of Lithgow (refer to **Figure 1-1**). The station currently comprises two coal-fired generating units, each of which is operating at 700 MW.

In 1990 Lithgow City Council granted Delta Electricity consent for ash placement in the former Western Main open cut mine void adjacent to the power station. This area is known as Area 1 and employs dry ash placement. Currently, approximately 780,000 m³ of ash is placed in Area 1 annually.

Based on the planned operation of the Mt Piper Power Station, the present ash placement area is expected to reach capacity in five to six years – i.e. by around 2015, well before the power station reaches the end of its economic life. Accordingly, there is a need to obtain development consent for ash placement beyond that time.

This Environmental Assessment (EA) report has been prepared to support Delta Electricity's application for relevant approvals for the construction and operation of four sites which represent the Mt Piper Ash Placement. It addresses the requirements for the preparation of an Environmental Assessment for the project, issued by the Director General of Planning under Section 75F of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The report supports an application to the Minister for Planning under Section 75O for concept approval for four sites and under Section 75J for project approval for two of those sites.



1.2. The Proponent

Delta Electricity (Delta) is a New South Wales State-Owned Corporation whose purpose is primarily to maintain and operate facilities for the generation and supply of electricity into the National Electricity Market (NEM). Delta was formed in March 1996, when the NSW Government Authority Pacific Power was separated into three State-owned generation companies.

Delta's business objectives are aligned with the legislation under which it operates and with Government policy direction. This legislation includes the *NSW Energy Services Corporations Act 1995 No 95* that lists the main objectives for electricity generators, as follows:

- To be a successful business and, to this end:
 - to operate at least as efficiently as any comparable business
 - to maximise the net worth of the State's investment in it
 - to exhibit a sense of social responsibility by having regard to the interests of the community in which it operates;
- To protect the environment by conducting its operations in compliance with the principles of ecologically sustainable development contained in section 6 (2) of the *Protection of the Environment Administration Act 1991*;
- To exhibit a sense of responsibility towards regional development and decentralisation in the way in which it operates;
- To operate efficient, safe and reliable facilities for the generation of electricity;
- To be an efficient and responsible supplier of electricity; and
- To be a successful participant in the wholesale market for electricity.

1.3. Overview of the Proposal

A full description of the proposal is provided in detail in Chapter 3— Project Description.

In brief, Delta has identified a need to expand its current ash placement facilities, which service the Mt Piper Power Station, to enable the further placement of ash once the existing ash placement area has reached capacity. Previous feasibility and site selection studies have selected four broad sites on which Delta is proposing to undertake planning activities and obtain relevant approvals for ash placement. The four sites are described as:

- Lamberts North;
- Lambert South;

- Neubecks Creek; and
- Ivanhoe No. 4.

With the ongoing operation of Units 1 and 2 at Mt Piper, the present ash placement area is expected to reach capacity within five to six years. Accordingly, there is need to obtain development consent for ash placement beyond this time and throughout the power station's economic life.

As such, Delta is seeking Concept Approval and Project Approval for two of the proposed placement sites Lamberts North and Lamberts South and Concept Approval for the future development of Neubecks Creek and Ivanhoe No.4. Lamberts North and Lamberts South are currently being mined for coal and Project Approval is being sought for these sites to allow for their development for ash placement from around 2015.

The ash storage available at Lamberts North and Lamberts South is sufficient to provide for the existing Mt Piper Power Station Units 1 and 2 until about 2042-2045, which is the nominal life of the power station. It is unlikely that further ash storage areas would be required beyond that time for this power station.

A proposal to extend the generation capacity at the power station site by the construction of an additional 2000MW of gas or coal fired generation capacity was considered by the Department of Planning under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act). Concept approval under Section 75O of the EP&A Act was issued for the new power station, called Mt Piper Extension, on 12 January 2010.

If the Mt Piper Extension project proceeds as a coal fired plant, the life of Lamberts North and Lamberts South would be less and they would effectively be filled by about 2026.

Concept approval is being sought for Neubecks Creek and Ivanhoe No 4 as it is necessary to provide an approval process for ash storage should Mt Piper Extension proceed as a coal fired plant and Neubecks Creek and Ivanhoe No 4 are required for both plants beyond 2026. Should Mt Piper Extension proceed, project approval for the use of Neubecks Creek and Ivanhoe No 4 as ash storage areas would be required before 2026.

The objectives of the proposal are therefore:

- To provide suitable ash placement areas to ensure the ongoing operation of the existing power station site beyond 2015, in order to maintain the existing level of power supply in NSW;
- To provide sufficient storage areas for ash from the proposed Mt Piper Extension power station should it be coal fired; and

- To minimise and manage any environmental or social impacts which may result from the construction and operation of the proposed ash placement areas.

The general location and land tenure of the Mt Piper Ash Placement areas is shown in **Figure 1-2**.

Land tenure and ownership of the proposed ash placement sites is described in **Table 1-1**.

Table 1-1 Land ownership details for proposed ash placement locations

| Ash Placement Area | Current Land Owner | Lot/Plan Details |
|--------------------|--|---|
| Lamberts North | Centennial Coal | 9 DP804929 15 DP804929 |
| Lamberts South | Centennial Coal | 15 DP804929 501 DP825541 13 DP751651 357 DP751651 |
| Neubecks Creek | Centennial Coal Delta Electricity | 12 DP751636 16 DP751636 342 DP751636 343 DP751636 43 DP827626 45 DP827626 46 DP827626 48 DP827626 50 DP827626 |
| Ivanhoe No. 4 | Centennial Coal Delta Electricity | 162 DP751638 108 DP751638 5 DP858201 1 DP1092737 7 DP1092737 59 DP751636 21 DP832446 |

1.4. Statutory Planning

1.4.1. Objectives of the Environmental Assessment

Development in NSW is subject to the requirements of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation). Environmental planning instruments prepared pursuant to the Act set the framework for approvals under the Act.

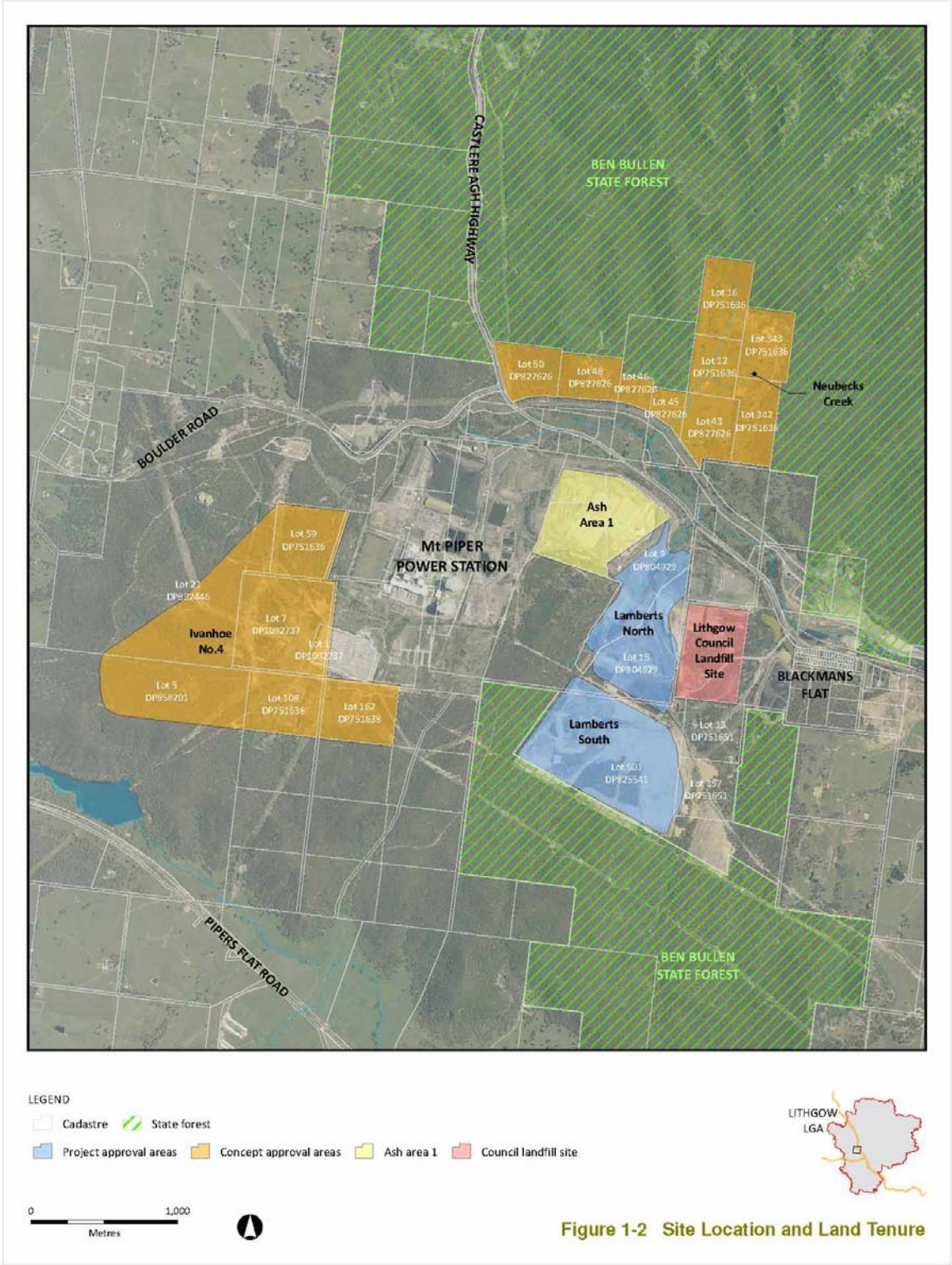


Figure 1-2 Site Location and Land Tenure

The Mt Piper Power Station Ash Placement Project is consistent with the objectives of the EP&A Act in that it seeks to provide utility services (power generation) while ensuring the proper management of resources and the protection of the environment.

This Environmental Assessment (EA) of the proposed ash placement areas will be assessed under Part 3A of the EP&A Act. By order of the Minister, the Mt Piper Ash Placement Project was declared to be a project to which Part 3A of the EP&A Act applies, due to its State and regional planning significance, on 20 October 2009. The approval authority for Major Projects is the Minister for Planning.

The objectives of the EA are:

- To comply with the requirements of the EP&A Act, as formalised in specific requirements issued by the Director-General of the Department of Planning (DoP) issued 12 November 2009 and attached in Appendix A;
- To provide the Minister for Planning with sufficient information to make an informed decision on the environmental impacts and benefits of the proposal; and
- To inform the community about the proposal.

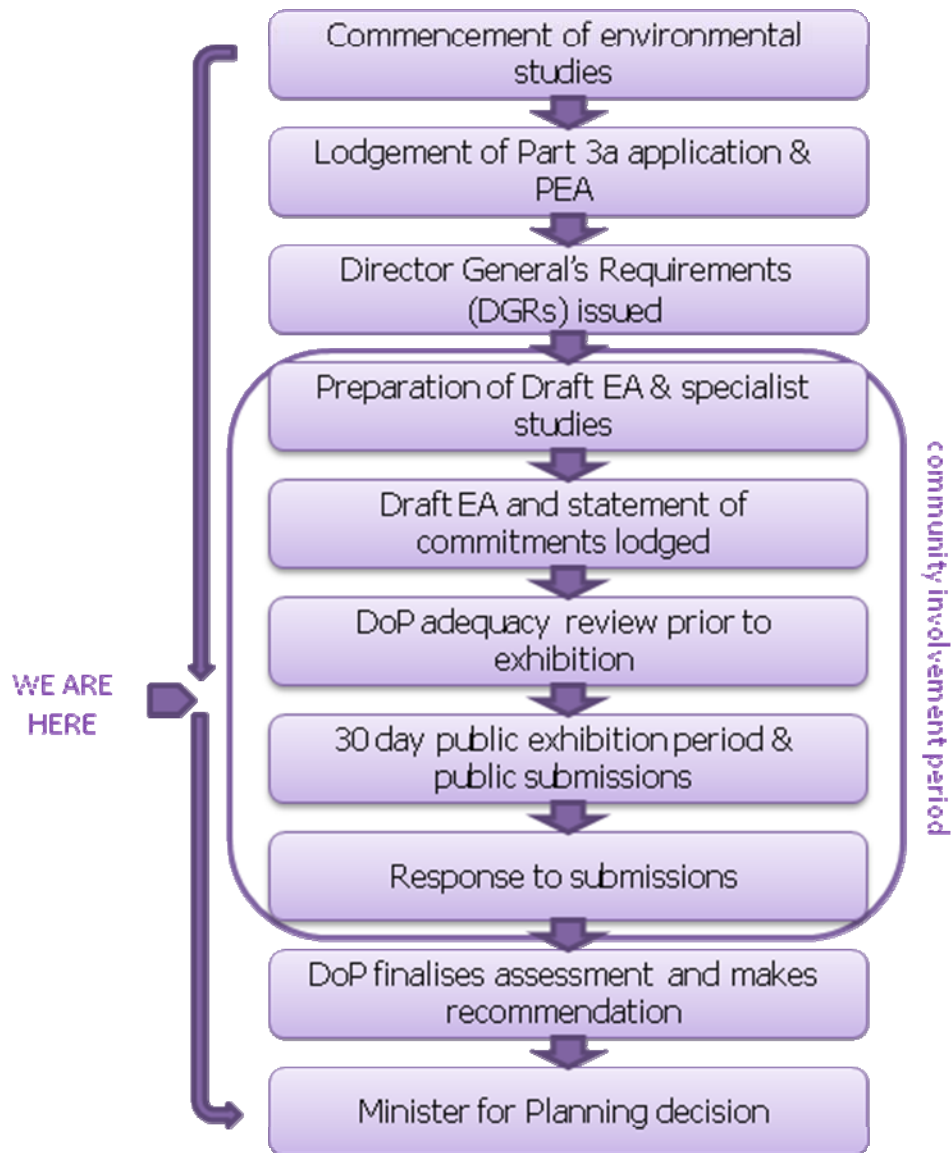
1.4.2. Environmental Impact Assessment Process

Prior to the preparation of this Environmental Assessment (EA), Delta submitted a Project Application for the proposal to the Department of Planning. A Preliminary Environmental Assessment (PEA) was prepared to support the application and outlined the potential environmental and social impacts associated with the project. The Project Application and PEA were made publicly available on the Department's website in October, 2009.

The Part 3A planning and approval process is outlined in **Figure 1-3** below.

Preparation and Exhibition of the EA

This EA, along with a draft Statement of Commitments, will be made publicly available by the Department of Planning for comment for a minimum of 30 days. Notice of exhibition dates and locations will be given by the Department in relevant newspapers. The EA will also be available for inspection on the Department of Planning Website (www.planning.nsw.gov.au).



■ **Figure 1-3 Planning Approval Process**

Delta has made available a 1800 project information line during the preparation of the EA. This line (1800 257 484 toll free) will remain available throughout the EA exhibition period to allow access to the project team should any further information be required. Alternatively there is also a project email address - mtpiperashstorage@de.com.au. The EA will also be available on Delta's web site (www.de.com.au).

Assessment and Decision

Following exhibition of the EA, copies of submissions received by the Department of Planning will be provided to Delta. Delta will review the submissions and consider and respond to issues raised, including the need or otherwise to modify the proposal. Delta's response to these issues will be submitted to the Department of Planning.

The Department will prepare an assessment report on the proposed Mt Piper Ash Placement Project which will take into account comments from the relevant Government authorities, the community and Delta's Submissions Report. The assessment report will be provided to the Minister for Planning, who will make a decision on approval and conditions in accordance with the EP&A Act.

1.4.3. Statutory Planning Framework

Environment Planning and Assessment Act 1979

Part 3A of the EP&A Act provides for project assessment and approval and/or concept assessment and approval for major projects. A concept plan is a non-detailed description and assessment of a project, outlining the scope of the project and any development options. As a detailed description of the project is not required for a concept plan, it is therefore suitable for projects where the specifics would be defined more accurately or altered at the project approval stage or where construction would not begin within the short term. In most cases, project approval still needs to be obtained for projects with an approved concept plan.

Due to the proposed timing and the number of development options associated with the ash placement project, a sufficient level of assessment has been undertaken for the Lamberts North and Lamberts South sites to allow project approval to be sought following concept approval being obtained for those sites. Since the existing ash placement area would have sufficient capacity to cater for Mt Piper Power Station for the next five to six years, and Lamberts North and Lamberts South would cater for a period up to about 2042-2045, effectively the life of the existing Mt Piper Power Station Units 1 and 2. Project approval would only need to be sought for Neubecks Creek and Ivanhoe No.4 if Mt Piper Extension is constructed as a coal fired plant and / or the life of Mt Piper 1 and 2 is extended beyond 2042-2045.

Even though project approval would not be sought until a later stage, from an operational perspective, it is important for this project to have some certainty provided by a concept approval for Neubecks Creek and Ivanhoe No 4 to ensure the ongoing viability of the Mt Piper Power Station and Mt Piper Extension should it be coal fired. It is also important for the concept approval to have an adequate level of assessment to ensure the environmental implications of the project are understood. Further detailed environmental assessments would then be undertaken for each proposed ash placement area as part of the project approval process.

Section 75U of the EP&A Act specifies certain approvals that are not required for an approved project under Part 3A. Consequently, if the Minister grants approval to carry out the project under section 75J (1) of the Act, the following approvals would not be required:

- An approval under Part 4 or an excavation permit under section 139 of the *Heritage Act 1977*;
- A permit under section 87 or a consent under section 90 of the *National Parks and Wildlife Act 1974* in relation to Aboriginal objects or places; and
- A water use approval under section 89, water management work approval under section 90 or an activity approval under section 91 of the *Water Management Act 2000*.

Under section 75V of the EP&A Act, if the project is granted approval under Part 3A of the EP&A Act, certain approvals, if necessary for carrying out the approved project, cannot be refused by the relevant approval authority and such approvals must be substantially consistent with the terms of the project approval. These approvals are described below.

Protection of the Environment Operations Act, 1997

The *Protection of the Environment Operations Act, 1997* (POEO Act) is the primary piece of legislation regulating pollution control and waste disposal in NSW and is administered by the Department of Environment, Climate Change and Water (DECCW). Under Section 48 of the POEO Act, premise-based scheduled activities (as defined in Schedule 1 of the Act) require an Environment Protection Licence (EPL).

Electricity generating works (including associated water storage, ash and waste management facilities) that supply or are capable of supplying more than 30 MW of electrical power from energy sources (including coal), are listed under Schedule 1. The existing power station at Mt Piper is subject to EPL 13007.

The Mt Piper Ash Placement Project would require an Environment Protection Licence (EPL) for construction and operation. An amendment to EPL 13007 would be required by Delta Electricity for the proposed ash placement.

Roads Act, 1993

Under the *Roads Act, 1993* consent under Section 138 is required to erect a structure or to carry out a work in, on or over a public road. For State or regional roads the road authority is the Roads and Traffic Authority. For local roads, the authority is the local council.

No access to public roads would be required for works proposed at Lamberts North or Lamberts South. It is possible, however, that approval by the relevant road authority under Section 138 of

the Roads Act would be required for works associated with the provision of a new access routes for haulage of ash to Neubecks Creek or Ivanhoe No.4.

Water Management Act, 2000

Under the Water Management Act, 2000 (WMA) a water use approval under Section 89, water management work approval under Section 90 or an activity under Section 91 may be required, except where the project is a major project approved under Part 3A of the EP&A Act.

Under the WMA the NSW Office of Water can prepare a range of statutory water management plans covering aspects such as water sharing and water use. Draft Water Sharing Plans (WSPs) for the Greater Metropolitan Region have been prepared and are on public exhibition. The WSPs are scheduled to be implemented in the second half of 2010. Until the WSPs are implemented there remains an embargo on new water extraction activities in the area and the existing water entitlements remain in place.

Mt Piper Power Station obtains its water supplies from the Fish River and Cocks River Water Supply Scheme. Delta is entitled to extract from the Cocks River Scheme under the terms of its Water Management Licence issued under Part 9 of the *Water Act, 1912*. Following the acceptance and implementation of the WSPs the water extraction licence for Mt Piper Power Station will be considered in the context of the WSPs and will be issued under the terms of the WMA. There will be no need to seek a change to the water extraction limits specified in the existing licence as a result of this project, as no extra water would be required for activities at the ash placement site.

1.4.4. Environmental Planning Instruments

A number of State Environmental Planning Policies (SEPPs) are relevant to the proposed development. As part of updates to the State's planning system, as of 1 July 2009, regional environmental plans (REPs) are no longer part of the hierarchy of environmental planning instruments in NSW. All existing REPs are now deemed State environmental planning policies (SEPPs). The relevant SEPPs and former REPs relevant to the proposed development include:

Drinking Water Catchments Regional Environmental Plan No. 1

The Drinking Water Catchments Regional Environmental Plan No 1 (the REP) is one of a range of initiatives to address water quality issues in the catchment areas. The REP sets water quality objectives for the catchments, requires the Sydney Catchment Authority to develop rectification action plans (RAPs), requires councils to prepare and review local environmental plans (LEPs), including considering strategic land and water capability assessments (SLWCAs), and requires councils to assess and approve new developments and activities in the catchments, and to apply the requirement for proposals to have a neutral or beneficial effect (NorBE) on water quality.

Sydney REP No. 20 - Hawkesbury–Nepean River (No. 2 - 1997)

The aim of this plan is to protect the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context.

1.4.5. Local Planning Controls

The development site is located within the Lithgow LGA and is subject to the provisions of the *Greater Lithgow Local Environmental Plan (LEP), 1994*. The development site is zoned Rural (General) 1 (a). This zone was established to provide flexibility whilst protecting rural land. Certain industrial developments, including the proposed works, are permitted within the zone with consent.

The LEP also notes that Council's *Development Control Plan (DCP) No. 6 – Industrial Development* sets development standards, including that the impact of industrial development on neighbouring land users must be considered. In particular, the DCP considers the principles and requirements for industrial development in rural zones. Hence, the development standards outlined in the DCP were generally followed in the concept development of the site.

1.4.6. Commonwealth Legislation

Approval of the Commonwealth Minister for the Environment is required for any actions that may have a significant impact on matters of National Environmental Significance, except in circumstances which are set out in the Commonwealth *Environment Protection and Biodiversity Conservation Act, 1999* (EPBC Act). Approval from the Commonwealth is in addition to any approvals under NSW legislation.

Matters of national environmental significance include:

- World heritage properties;
- Commonwealth heritage properties;
- Ramsar wetlands;
- Nationally threatened species and ecological communities;
- Migratory species;
- Commonwealth marine areas; and
- Nuclear actions, including uranium mining.

Studies undertaken for the project identified the presence of suitable habitat for EPBC Act listed threatened species within the proposed ash placement site areas. In addition, a number of these species have previously been recorded near the vicinity of the power station and surrounding lands. The project was referred for the consideration of the Commonwealth Department of

Environment, Water, heritage and the Arts as to the status of the project as a “controlled action”. DEWHA notified Delta on 16 July 2010 that the proposed action is not a controlled action.

1.5. EA Structure

This assessment has been prepared in accordance with relevant guidelines and the Director-General’s Environmental Assessment requirements. A summary of the information contained within each chapter of the report is provided below:

- **Chapter 1** - introduces the project and provides an overview of the environmental assessment process and statutory requirements;
- **Chapter 2** - provides the strategic planning and justification of the project, outlining the need for the proposed ash placement, consideration of alternatives and an analysis of the suitability of the preferred site. It also addresses ash management options (in terms of reuse) with the aim of maximising the use of the resource;
- **Chapter 3** - provides a detailed description of the project;
- **Chapter 4** – discusses the consultation processes undertaken with the community and Government agencies. The issues for consideration in the assessment are identified;
- **Chapters 5-10** - provide an assessment of the key issues identified by the Director-General in terms of air quality, noise and vibration, water management, ecology, indigenous heritage, and visual amenity. Where impacts were identified or anticipated, mitigation measures were described and residual environmental impacts assessed;
- **Chapter 11** - provides a general environmental risk analysis to identify potential environmental impacts associated with the project (construction and operation), proposed mitigation measures and potentially significant residual environmental impacts after the application of proposed mitigation measures;
- **Chapter 12** - provides a justification for undertaking the project, with consideration of the benefits and impacts of the proposal, and an overall conclusion;
- **Chapter 13** - summarises environmental management and mitigation measures and provides a draft Statement of Commitments;
- **Chapter 14** - lists the references used during the study.

Appendices to this report provide information relevant to the Environmental Assessment. Appendices included in the report are as follows:

- Appendix A – Project Declaration and Environmental Assessment Requirements;
- Appendix B – Air Quality;
- Appendix C – Noise and Vibration;
- Appendix D – Water Management;
- Appendix E – Biodiversity;
- Appendix F – Heritage.