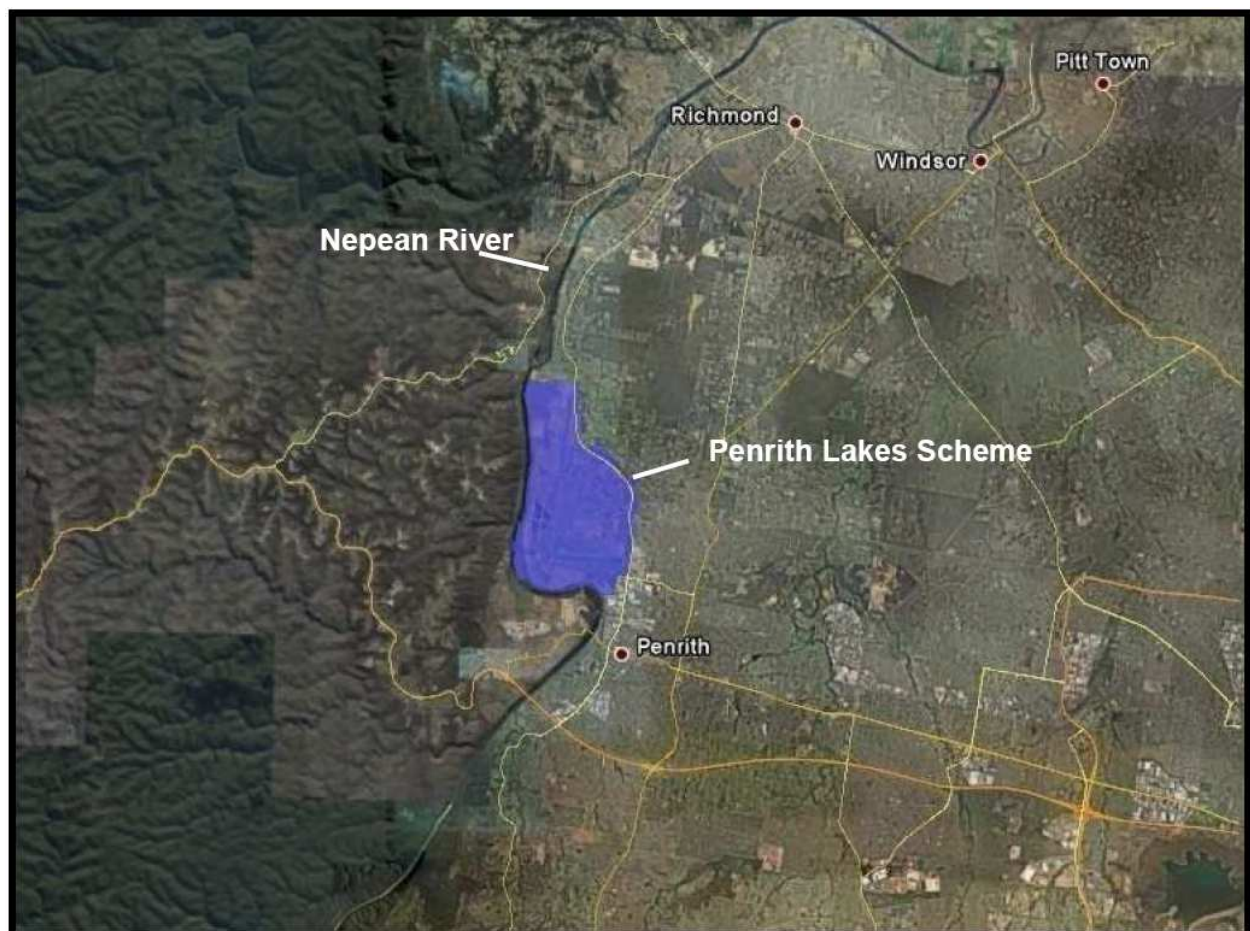


# ASSESSMENT REPORT

## Penrith Lakes Scheme Wildlife Lake Modifications (DA4 Mod 6)

### 1 BACKGROUND

The Penrith Lakes Scheme (the Scheme) currently supplies around half of Sydney's sand and gravel demand and covers an area of just under 2,000 hectares of the Penrith Castlereagh floodplain in the Penrith LGA (see Figure 1).



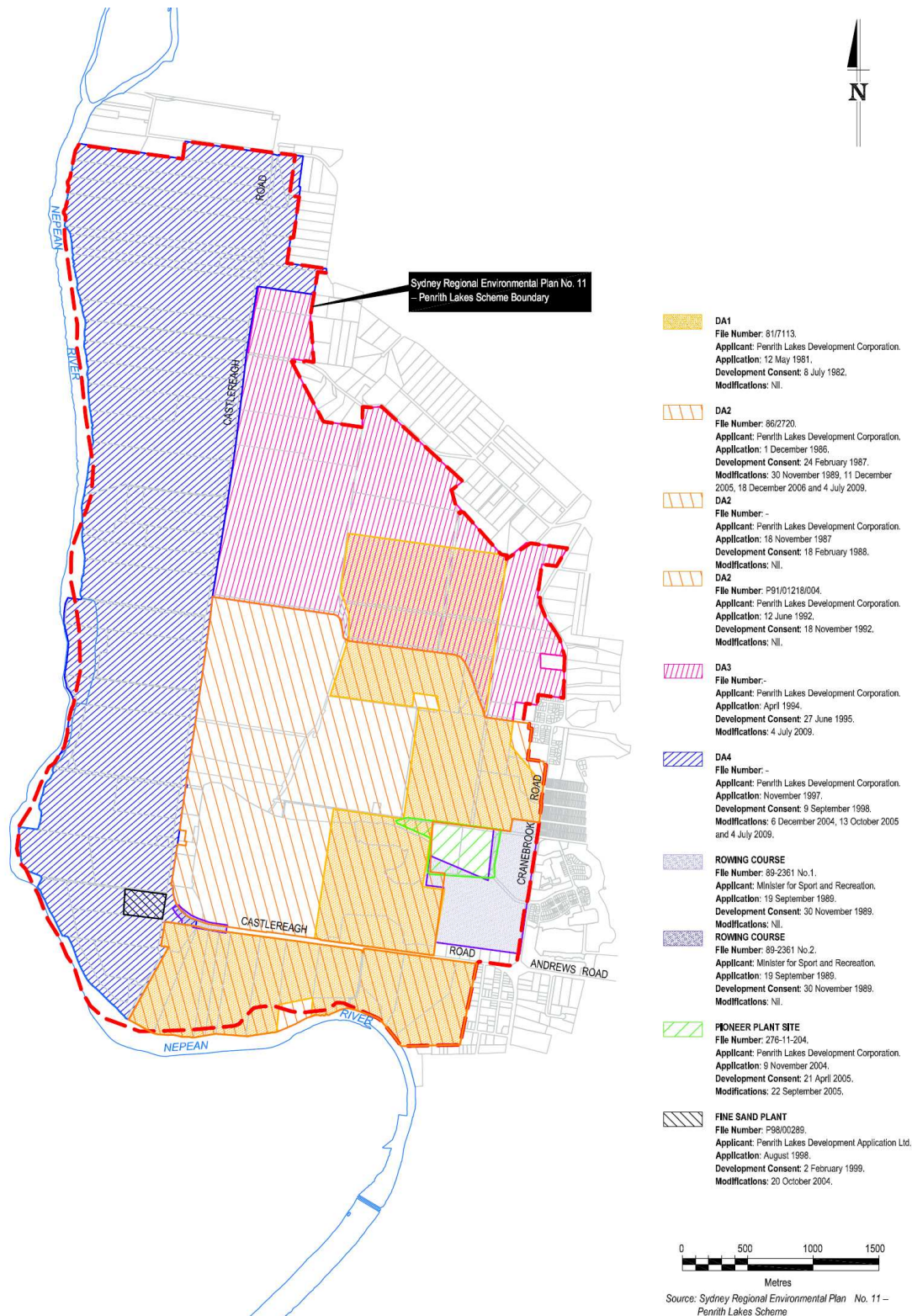
**Figure 1:** Location of the Penrith Lakes Scheme

Extraction operations are scheduled to be completed by around 2014 and the subsequent rehabilitation of the site for residential and recreational use is expected to be completed by 2023.

The Scheme's extraction and rehabilitation operations are governed by the *Sydney Regional Environmental Plan No. 11 – Penrith Lakes Scheme* (SREP 11) and co-ordinated by the Penrith Lakes Development Corporation (PLDC).

The Scheme is regulated by a number of development consents granted by the Minister. Operations to the west of Castlereagh Road are covered by Development Consent 4 (DA4), while operations to the east of Castlereagh Road are generally covered by Development Consents 2<sup>1</sup> & 3 (DA2 & DA3) (see Figure 2).

<sup>1</sup> DA2 is also identified as DA 86/2720



**Figure 2: Penrith Lakes Scheme Development Consents**

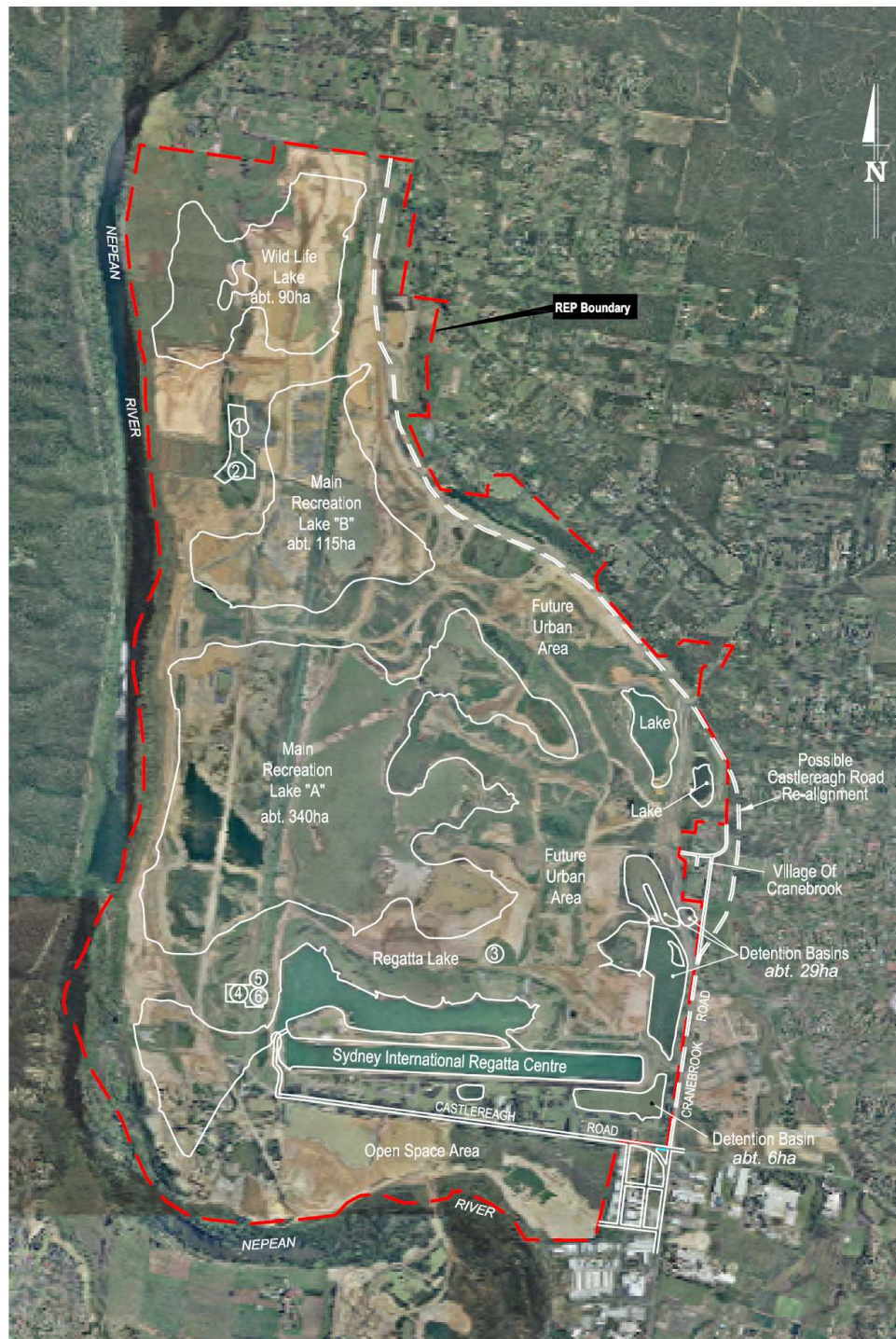
SREP 11 includes a provision for the final landform of the Scheme, set out in a Structure Plan, which comprises a series of lakes (see Figure 3). In recent times, PLDC has been consulting with the NSW Government regarding a proposed amendment to the final landform as set out in the Structure Plan. This amendment would involve a number of changes to the layout of the lakes within the Scheme, most notably the consolidation of the two main lakes into a single lake (see Figure 4). In December 2010, the Penrith Lakes Task Force reached an in-principle agreement for the proposed amendment to the Structure Plan, including the single-lake scheme, subject to obtaining the necessary approvals.

On 6 May 2011, the Director-General of the Department of Planning & Infrastructure (as delegate for the Minister) approved 2 modifications to DA4 (ie. Mod 4 and Mod 5) to address one component of the proposed change to the Structure Plan, namely the shape and discharge characteristics of the Wildlife Lake (ie. the northern-most lake in the Scheme). The modifications included changes to:



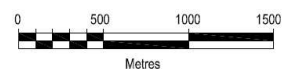
- the layout of the Wildlife Lake from that approved in the Structure Plan;
- the configuration and location of the Wildlife Lake Weir; and
- the configuration and location of the Wildlife Lake Flood Outlet Pipe.

The approved changes to the Wildlife Lake are shown on Figure 4.



Heritage Items

- 1 - Hadley Park
- 2 - Nepean Park
- 3 - McCarthys Cemetery
- 4 - Upper Castlereagh Church & Hall
- 5 - Upper Castlereagh School & Residence
- 6 - Methodist Cemetery



Source: Sydney Regional Environmental Plan No. 11 –  
Penrith Lakes Scheme (Amendment No. 4 Plan dated  
8 July 1998) ; Aerial Photo Department of Lands  
(SIX Image - Ausimage SKM 2008)

**Figure 3: Penrith Lakes Scheme Structure Plan – As Approved**



**Figure 4: Penrith Lakes Scheme Structure Plan – As Proposed (with approved changes to the Wildlife Lake)**  
 (Note. The left structure plan shows the proposed single-lake scheme, which has not yet been approved. The right structure plan shows the approved two-lake scheme, with the approved changes to the Wildlife Lake)

## 2 PROPOSED MODIFICATION

PLDC is proposing a number of additional minor modifications to DA4 under section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The modifications seek to:

- allow construction of infrastructure (including rip rap) to enable the discharge of water into the Nepean River;
- amend 5 of the conditions amended in Mods 4 and 5, including:
  - Condition 26A – relating to construction of a tree screen;
  - Condition 27 – relating to water supply;
  - Condition 27A – relating to the Water Management Plan;
  - Condition 39 – relating to Aboriginal heritage; and
  - Condition 65(a1) – relating to noise compliance monitoring;
- approve Erosion and Sediment Control Plans for various project components; and
- confirm construction details of the Wildlife Lake Weir.

The proposed modifications are outlined in more detail in Section 5 below.

## 3 STATUTORY CONTEXT

### 3.1 Consent Authority

The Minister was the consent authority for DA4, and is consequently the approval authority for the modification application. However, the Director Mining & Industry may determine the application under the Minister's delegation of 25 January 2010.

### 3.2 Modification

Under clause 8J(8)(c) of the *Environmental Planning and Assessment Regulation 2000*, section 75W of the EP&A Act applies to any modification of a development consent for State significant development



granted by the Minister before 1 August 2005. DA4 was granted by the Minister prior to 1 August 2005; and must therefore be modified under section 75W of the EP&A Act.

The Department notes that:

- the proposed modifications would not change the essential function of the development for which consent was originally granted, namely a sand and gravel quarry to be rehabilitated to a system of lakes;
- the proposal would not change the quarrying, processing and transport methods, operating hours, rehabilitation methodology or life of the development consent; and
- the proposed additional disturbance necessary for the proposal would be minor.

Consequently, the Department is satisfied that the proposal can appropriately be characterised as a modification to the originally approved quarry, rather than a new project in its own right, and that the application may be determined under section 75W of the EP&A Act.

### **3.3 SREP 11 Penrith Lakes Scheme**

Clause 8 and schedule 2 of the SREP detail a number of matters that a consent authority must consider when assessing applications within the Scheme. The Department has considered these matters in its consideration of the proposed modifications, and is satisfied that the proposal is able to be undertaken in a manner that is consistent with the provisions of the SREP.

## **4 CONSULTATION**

Under section 75W of the EP&A Act, the Department is not required to notify modification applications. Nevertheless, the Department has consulted with the Office of Environment & Heritage (OEH) regarding the proposal.

The OEH does not object to the proposal, and provided general comments on the various aspects of the proposal. The Department has considered these comments in its consideration of the proposal (see Section 5), and incorporated OEH's recommendations into the recommended conditions.

## **5 ASSESSMENT**

The Department's consideration of each element of the proposed modifications is presented below.

### **5.1 Water Discharge Infrastructure (including Rip Rap)**

To date, PLDC's quarrying operations have had adequate capacity to store all runoff generated to/from the Penrith Lakes Scheme on site. With quarrying operations nearing completion this may no longer be possible, with some water potentially being required to be discharged from the site.

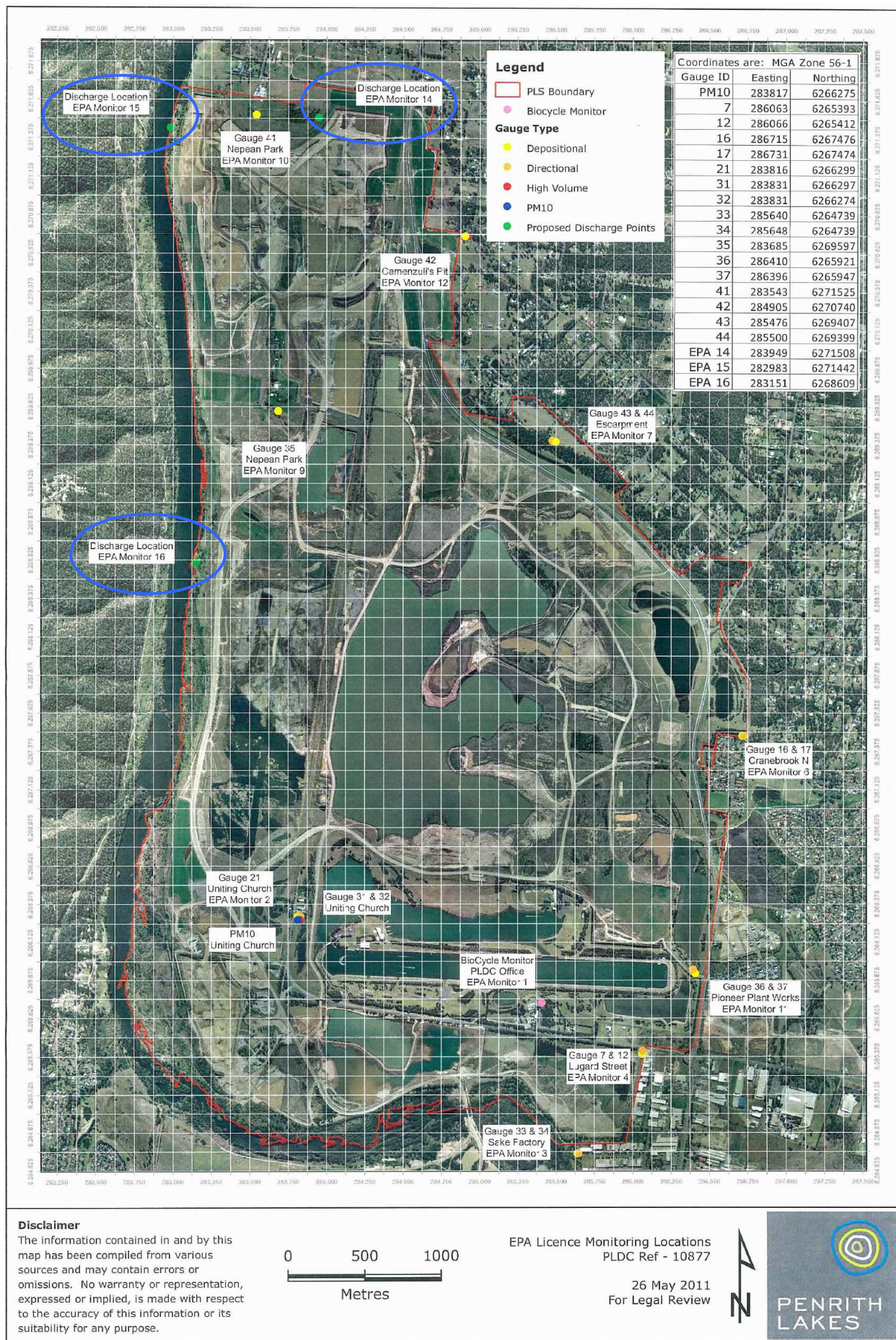
To address this issue, PLDC has sought a variation to its Environment Protection Licence (EPL) from OEH to allow discharge of treated water to the Nepean River (directly or indirectly) at 3 locations. These locations are shown on Figure 5, and include<sup>2</sup>:

- *Discharge Location 14* – Located at the northern end of the Wildlife Lake, treated water would be discharged via a pair of existing concrete pipes to Hunts Gully (Smiths Creek), which flows west to the Nepean River. Rip rap (rock) and other scour protection measures would be installed at the discharge location to reduce discharge velocities and manage erosion and sedimentation risks. PLDC notes that this discharge location would only be used as an interim site until Locations 15 and 16 are constructed and operating;
- *Discharge Location 15* – This discharge location is via the approved Wildlife Lake Flood Outlet Pipe, with discharge of treated water direct to the Nepean River; and
- *Discharge Location 16* – Located adjacent the Main Lake, treated water would be pumped directly to the Nepean River via 225mm diameter polypipes laid on the existing ground surface. Rip rap and other scour protection measures would be installed at the discharge location. PLDC notes that the discharge method is an interim measure, and that it intends to submit an application in the near future for a series of flood outlet pipes from the Main Lake to the Nepean River. The proposed discharge location is in the same location as the future proposed flood outlet pipes.

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<sup>2</sup> The OEH noted that it does not consider Discharge Location 15 to be a discharge location for the purposes of its licencing, as it relates to a flood outlet point and not a controlled discharge point for quarrying purposes.





**Figure 5: Proposed Water Discharge Locations (circled in blue)**



The proposed discharge infrastructure would not require any (woody) vegetation removal, with the locations generally comprising grass and/or weeds.

The discharge locations are however close to and/or within the Scheme's Smith Street and Riverbank conservation areas, which were originally set aside in DA4 to protect Aboriginal heritage values and biodiversity. The conservation areas, including known Aboriginal objects/sites, are shown on Figure 6.

Based on previous archaeological assessments, the lack of any significant vegetation in the discharge locations, and the relatively minor disturbance required for the proposal, the Department and OEH are satisfied that the proposal would not have any significant impact on the cultural heritage or biodiversity values of the conservation areas or the wider area.

The Department notes that the existing conditions require PLDC to obtain approvals from OEH under the *National Parks and Wildlife Act 1974* (NPW Act) prior to disturbing Aboriginal objects/sites. Further, PLDC has recently submitted an application to OEH for an Aboriginal Heritage Impact Permit (AHIP) for proposed test excavations and salvage works associated with the recently approved Wildlife Lake Weir and Flood Outlet Pipe. PLDC has committed in the current application to extending this AHIP to cover the additional discharge locations, 'if deemed necessary by OEH'. The Department has recommended a condition requiring this to occur prior to construction works commencing.

With regard to water-related impacts, the Department is satisfied that such impacts are able to be adequately managed through the EPL variation. The Department notes that PLDC is likely to require a controlled activity approval for the works under the *Water Management Act 2000*, and has recommended a condition in this regard.

The Department is satisfied that other environmental issues associated with the proposed water discharge infrastructure are minor and are able to be managed under the existing consent conditions.



**Figure 6: Penrith Lake Scheme Conservation Areas**

## 5.2 Amendments to Mod 4 and Mod 5 Conditions

Consideration of PLDC's proposed amendments to conditions placed on the consent in Mods 4 and 5 is presented in the following table.

Table 1: Consideration of Proposed Amendments to Mods 4 and 5 Conditions

Condition No.	Condition	Consideration
26A	Tree Screen	<p>This condition requires PLDC to prepare (and subsequently) implement a Landscape Plan for a tree screen between the Wildlife Lake Weir and properties to the north, by the end of July 2011.</p> <p>PLDC seeks a minor change to the timing associated with the tree screen (ie. to prepare the plan prior to December 2011 and implement it prior to completion of construction of the Weir), and to clarify that the tree screen relates to screening views from the property to the north, rather than properties.</p> <p>The Department is satisfied that these amendments are reasonable, and has amended the condition accordingly.</p>
27	Water Supply	<p>This condition requires PLDC to ensure that it has sufficient water for all stages of the development, and if necessary adjust the scale of quarrying operations to match its available water supply. The condition reflects PLDC's statutory requirements under the <i>Water Management Act 2000</i> and <i>Water Act 1912</i>.</p> <p>PLDC seeks a minor change to the wording of the condition (ie. to remove specific reference to adjusting the scale of quarrying operations), as it is concerned that the condition 'subjugates quarrying to the management of water supply'.</p> <p>The Department notes that the condition merely reflects existing statutory requirements – that PLDC is required to comply with irrespective of the proposed condition – and has therefore recommended deletion of the condition. The Department is satisfied that water supply and management for the Penrith Lakes Scheme is adequately regulated through existing regulatory requirements, the existing conditions and the Deed of Agreement for the Scheme.</p>
27	Water Management Plan	<p>This condition requires that a revised Water Management Plan be prepared for the project by the end of October 2011 and prior to the construction of flood infrastructure for the Wildlife Lake.</p> <p>PLDC seeks a number of relatively minor amendments to the condition, including revising the date for completion of the revised plan (ie. by December 2011), deleting the requirement for the Erosion and Sediment Control Plan, and amending the other sub-plans.</p> <p>The Department accepts the proposed change to timing of the revised Water Management Plan, particularly as PLDC has provided Erosion and Sediment Control Plans for key works in the short term (see Section 5.3 below). The Department has also consolidated the requirements for the plan to reflect the existing development consent and the Deed of Agreement for the Penrith Lakes Scheme.</p>
39	Heritage	<p>Relevant sub-conditions of this condition require PLDC to:</p> <ul style="list-style-type: none"> <li>(a) obtain approval(s) for destruction of Aboriginal sites/objects under the NPW Act, reflecting existing statutory responsibilities;</li> <li>(b) consult with OEH and the Aboriginal community regarding management of the Aboriginal heritage values of the site; and</li> <li>(c) develop a conservation management plan (by the end of October 2011) to manage Aboriginal and non-Aboriginal cultural heritage on site.</li> </ul> <p>PLDC seeks to amend sub-condition (a) to clarify the need to obtain approvals under the NPW Act, to delete sub-condition (b), and to amend the timing for completion of the conservation management plan (ie. by the end of June 2012).</p> <p>The OEH recommended that sub-condition (a) be deleted, as it is potentially inconsistent with the statutory requirements under the NPW Act. The Department is satisfied that PLDC has statutory responsibilities under the NPW Act to obtain approval to destroy aboriginal sites/objects, and has recommended deleting the sub-condition in accordance with OEH's recommendation.</p> <p>The Department accepts that sub-condition (b) – which has been in place since the original 1998 consent – lacks some certainty and purpose, but acknowledges the intent to maintain the involvement of the relevant stakeholders in the heritage management of the site. The Department has recommended amended conditions that delete sub-condition (b), but strengthen sub-condition (c) to require the conservation management plan to provide for the ongoing involvement of the Aboriginal community.</p>



<b>Condition No.</b>	<b>Condition</b>	<b>Consideration</b>
		The Department has also amended sub-condition (c) to require the conservation management plan to be prepared by the end of December 2011, unless otherwise agreed by the Director-General. The Department believes that this provides adequate time for PLDC to prepare the plan.
65(a1)	Noise Compliance Monitoring	<p>This condition requires PLDC to undertake noise compliance monitoring during quarrying operations and construction of the Wildlife Lake Weir, in relation to a nearby residence.</p> <p>PLDC seeks to amend the timing for preparation of the noise compliance monitoring program, to reflect the current status of quarrying operations.</p> <p>The Department accepts the revised timing (ie. prior to construction of the Wildlife Lake Weir), and has amended the condition accordingly.</p>

### **5.3 Erosion and Sediment Control Plans**

PLDC has prepared, and seeks approval for, Erosion and Sediment Control Plans (ESCPs) for various components of the development, including the:

- rip rap zones and other scour protection measures associated with the proposed water discharge locations (as discussed in Section 5.1);
- Wildlife Lake Weir; and
- Wildlife Lake Flood Outlet Pipe.

The Department has reviewed and accepts the Erosion and Sediment Control Plans. The Department has recommended a condition requiring PLDC to implement the works in accordance with these ESCPs.

### **5.4 Wildlife Lake Weir Construction Details**

The Environmental Assessment in support of Mod 5 outlined that the Wildlife Lake Weir was likely to be constructed of conventional concrete.

Following detailed design, PLDC has confirmed that the weir would be constructed using a combination of concrete (conventional or roller compacted concrete) and rock armouring. PLDC states that detailed plans identifying materials and construction details (including exact crest height and length) would be identified in subsequent 2 year plans<sup>3</sup> for the infrastructure works.

The Department is satisfied that the clarification of the construction details for the proposed Wildlife Lake would not result in any adverse environmental impacts.

## **6 RECOMMENDED CONDITIONS**

The Department has drafted recommended conditions for the modification applications. These conditions are required to:

- prevent, minimise, and/or offset adverse impacts of the project;
- set standards and performance measures for acceptable environmental performance;
- ensure regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.

PLDC has reviewed and accepts the proposed conditions.

## **7 CONCLUSION**

The Department has assessed the modification application in accordance with the relevant requirements of the EP&A Act. Based on this assessment, the Department is satisfied that:

- the proposed changes are consistent, where relevant, with the provisions of the relevant planning instruments;
- the potential environmental impacts are not significant and can be adequately minimised, mitigated and/or managed;
- the site is suitable for the development; and
- the proposed modifications (where adopted) can be carried out in a manner that is consistent with the objects of the EP&A Act, including the principles of ecologically sustainable development.

The Department therefore believes that the proposed modifications are in the public interest and should be approved, subject to conditions.

<sup>3</sup> Condition 10 of the existing consent requires PLDC to prepare and implement detailed 2 year plans for the development.

## 8 RECOMMENDATION

It is RECOMMENDED that the Director:

- **consider** the findings and recommendations of this report;
- **determine** that the proposed modifications are within the scope of section 75W of the EP&A Act;
- **approve** the proposed modifications under section 75W of the EP&A Act; and
- **sign** the attached notice of modification.



Howard Reed  
Manager Mining

12.8.11



David Kitto.  
Director Mining & Industry