



Statement of Approval

as at 28 February 2014

issued under *Water Management Act 2000*.

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| Approval Number | 10CA117220 |
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| Approval Holder (See note 1) | EnergyAustralia NSW Pty Ltd | ABN: 67 139 819 642 |
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| Contact Details | |
| Name | EnergyAustralia NSW Pty Ltd |
| Customer ID | 1139922 |
| Contact Address | EnergyAustralia NSW Pty Ltd Locked Bag 1 Portland NSW 2847 |

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| Approval Details | |
| Status (See note 2) | Current |
| Water Source | Upper Nepean and Upstream Warragamba Water Source (hereafter described as 'this water source') |
| Water Management Area | Wywandy |
| Kind of Approval | Water Supply Work and Water Use |
| Date of Commencement of Conditions | 1 July 2011 |
| Expiry Date | 30 June 2031 |
| Authorised Water Supply Works | This approval is for the authorised water supply works described in Schedule 1 |
| Authorised Water Use | Power Generation as described in Schedule 1 |
| Conditions | This approval is subject to the conditions set out in Schedule 1 |
| Dictionary | Schedule 2 |

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| Notes | <ol style="list-style-type: none">1. Pursuant to section 106 of the <i>Water Management Act 2000</i>, an approval is taken to be held by, and for the benefit of, each successive landholder for the time being of the land specified in the approval as the land benefited by the approval. Pursuant to section 106 (3) of the <i>Water Management Act 2000</i>, a major utility is taken to be a landholder of land in respect of which a water management work approval held by it is in force.2. The status of an approval may change. An approval may be "current", in addition an approval is no longer in force if it has "expired", been "surrendered", "suspended" or "cancelled".3. During periods of severe water shortages, the Minister may suspend part or all of the provisions of a management plan under section 49A of the <i>Water Management Act 2000</i>. Whilst an order under s49A is in force, depending on the terms of the order, the mandatory conditions applying to this approval may be affected. The Approval Holder must comply with any notification issued by the Minister under section 60 of the <i>Water Management Act 2000</i>.4. See Dictionary in Schedule 2 to interpret words and expressions used in this approval.5. A requirement to notify the Minister in writing or to provide information or data to the Minister, under this approval, is satisfied by making the notification or providing the information or data in writing to the administrative contact detailed on this Statement. |
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NOTICE OF CHANGE OF HOLDER OR CONTACT

1. The NSW Office of Water is to be advised of any change of Approval Holder. This will occur whenever there is a change of ownership of works shown in this approval. The advice should be accompanied by evidence of transfer of ownership of the works.
2. If the Approval Holder wishes to nominate a new contact person a written statement signed by the holder should be submitted to the NSW Office of Water.
3. The contact person should advise the NSW Office of Water of any change of mailing address as soon as possible.

Administrative contact details

All correspondence and notifications in relation to compliance with the conditions of this approval must be addressed to:

Manager Water Regulation Hunter/ Sydney/
South Coast
NSW Office of Water
PO Box 3720
PARRAMATTA NSW 2124

Schedule 1 – Conditions

INTRODUCTION

Under section 100 (1) (a) of the *Water Management Act 2000* this approval is subject to such conditions as are from time to time required to be imposed on the approval by the Water Sharing Plan for the Greater Metropolitan Region Unregulated River Water Sources 2011 (hereinafter referred to as the Water Sharing Plan). Under section 102 (1) of the *Water Management Act 2000* this approval is also subject to such other conditions as the Minister may impose on the approval after it has been granted, including conditions relating to the protection of the environment.

The Operating Protocol referenced in this approval is a set of agreed documents between the Approval Holder and the Minister. The Operating Protocol takes into account the complex nature of operations and procedures that the Approval Holder needs to undertake to implement the requirements of this approval. The Operating Protocol is subordinate to the approval and does not constitute a regulatory instrument.

AUTHORISED WATER SUPPLY WORKS

1. The Approval Holder is authorised to construct and use the water supply works listed below and further described in Attachment 1 of this Schedule (‘the authorised water supply works’) to capture, store, extract, use and release water in accordance with the Water Sharing Plan or any direction from the Minister.

- Lilyvale Dam (Lake Lyell)
- Wallerawang Dam (Lake Wallace)
- Thompsons Creek Dam (Thompsons Creek Reservoir)
- Sawyers Swamp Creek Ash Dam

Note 1: Under section 90 (2) of the *Water Management Act 2000* the term ‘construct’ is defined to include install, maintain, repair, alter or extend the work.

2. The use and operation of the authorised water supply works are subject to the conditions of this approval.
3. Notwithstanding condition one (1) of this approval, the Approval Holder is not authorised to do anything to the authorised water supply works which would change the capacity of the works as described in Attachment 1 of this Schedule to affect the flow, volume, quality and behaviour of the water, without the written approval of the Minister.

Note 1: To amend an approval the process in section 107 of the *Water Management Act 2000* must be followed.

4. The Approval Holder must not use the authorised water supply works to take water under an access licence unless in compliance with the access rules for the taking of water as specified in the relevant access licence conditions.
5. Subject to the conditions of this approval, the Approval Holder is authorised to use water for the purpose of Power Generation.
6. The Approval Holder must not take any water using any work authorised by this approval if the water allocation account of the access licence under which the water is to be taken, is or will go into debit.

ENVIRONMENTAL MANAGEMENT

Environmental Flow Releases from Lilyvale Dam (Lake Lyell) when Storages are greater than or equal to 50,000 megalitres

7. Notwithstanding conditions nine (9) and fourteen (14) of this approval, the Approval Holder must ensure, when the daily inflows into Lake Lyell are less than or equal to 13.6 ML/day, that the daily release of water which is equal to the daily inflows is made from Lilyvale Dam.

Note 1: The release requirements may be temporarily altered under circumstances described in the Operating Protocol.

8. Notwithstanding conditions nine (9) and fourteen (14) of this approval, the Approval Holder must ensure, when the daily inflows into Lake Lyell are greater than 13.6 ML/day, that a daily release of water which is equal to 13.6 ML/day plus twenty five percent of the daily inflow volume above 13.6 ML/day is made from Lilyvale Dam.

Note 1: Note 1 from condition seven (7) of this approval applies.

Environmental Flow Releases from Lilyvale Dam (Lake Lyell) when Storages are less than 50,000 megalitres

9. The Approval Holder is not required to make releases under conditions seven (7), eight (8) and thirteen (13) of this approval when the total active storage in Lake Lyell, Lake Wallace and Thompsons Creek Reservoir is less than 50,000 megalitres.
10. The Approval Holder must ensure, when the total active storage in Lake Lyell, Lake Wallace and Thompsons Creek Reservoir has been less than 50,000 megalitres continuously for less than six months, that a daily release of water is made which is equal to the lesser of daily inflows to Lake Lyell and 9 ML/day.

Note 1: Note 1 from condition seven (7) of this approval applies.

11. The Approval Holder must ensure, when the total active storage in Lake Lyell, Lake Wallace and Thompsons Creek Reservoir has been less than 50,000 megalitres continuously for six months or more, that a daily release of water is made which is equal to the lesser of daily inflows to Lake Lyell and 5 ML/day.

Note 1: Note 1 from condition seven (7) of this approval applies.

12. The Approval Holder must notify the Minister before the total active storage in Lake Lyell, Lake Wallace and Thompsons Creek Reservoir either falls below or rises above 50,000 megalitres. The Approval Holder must provide a statement of its use of water allocated from the Fish River Water Supply Scheme, including the following:
 - a) minimum annual quantity allocated that water year;
 - b) amount of water used from the allocation to that time; and
 - c) any demand management restrictions that apply at the time under the scheme.

Annual Channel Maintenance Flow Releases from Lilyvale Dam (Lake Lyell)

13. Notwithstanding condition nine (9) of this approval, if in any water year a flow of 800 ML/day or more has not occurred for a period of at least one hour at the Coxs River at Lithgow, Gauging Station Number 212011, the Approval Holder must release an annual channel maintenance flow which is equal to the lesser of:
- a) a release rate of 800 ML/day; or
 - b) the maximum released rate obtainable from the outlet valves when fully open;

for a period of two hours continuously from Lake Lyell in accordance with procedures and a timeframe determined in writing by the Minister.

Note 1: The release must be stepped up and down to mimic the trigger event hydrograph as per the procedures described in the operating protocol.

14. The Approval Holder is not required to make releases under conditions seven (7) and eight (8) of this approval when an annual channel maintenance flow release is being made in accordance with condition thirteen (13) of this approval.

Methods to Determine Inflows and Releases from Lilyvale Dam (Lake Lyell)

15. For the purposes of conditions seven (7) to fourteen (14) of this approval, the Approval Holder must calculate the volume of water released by a method approved in writing by the Minister taking into account flows measured at the Coxs River at Lithgow, Gauging Station Number 212011, or such alternative flow reference points as determined in writing by the Minister.
16. For the purposes of conditions seven (7) to fourteen (14) of this approval, the Approval Holder must calculate daily inflows into Lake Lyell by a method approved in writing by the Minister taking into account:
- a) flows measured at the Coxs River at upstream of Lake Lyell, Gauging Station Number 212058) and Farmers Creek at Mount Walker, Gauging Station Number 212042), or such alternative flow reference points as determined in writing by the Minister; or
 - b) changes in water storage levels, net evaporation, other losses and outflows.

Environmental Flow Releases from Lake Wallace

17. The Approval Holder must ensure a daily release of water is made from Lake Wallace which is equal to or greater than 0.7 ML/day. This release requirement may also be met by water released below the Lake Wallace dam wall from the Wallerawang Power Station cooling towers.

Environmental Flow Releases from Thompsons Creek Reservoir

18. The Approval Holder must ensure a daily release of water is made from Thompsons Creek Reservoir in accordance with the following:
- a) between 1 September and 30 April inclusive, a daily release of water must be made which is equal to or greater than 0.8 ML/day;
 - b) between 1 May and 31 August inclusive, a daily release of water must be made which is equal to or greater than 0.3 ML/day; and

- c) the volume of water released must be calculated by a method approved in writing by the Minister taking into account flows measured at the v notch weirs at Thompson Creek Reservoir, or such alternative flow reference points as determined in writing by the Minister.

Environmental Flow Releases from Spilling Storages

19. The Approval Holder is not required to make daily releases of water under conditions seven (7) to eighteen (18) of this approval when the storage is spilling at a rate that equals or exceeds the release requirement.

Banked Environmental Flow Rules for Lilyvale Dam

20. The Approval Holder must create and manage a banked environmental flow account for Lilyvale Dam.
21. The Approval Holder must ensure that the difference between the recorded release and the required release is set aside in Lilyvale Dam and credited to the banked environmental flow account in accordance with the requirements of the Minister, where releases have been altered or were not required for the following reasons:
 - a) the release requirements cannot be met due to an emergency situation and the Approval Holder notifies the Minister in writing within seven (7) days of becoming aware of the emergency;
 - b) the Minister is satisfied that the release requirements cannot be met due to water supply work capacity constraints or necessary maintenance, refurbishment or modification work that has the potential to temporarily affect the flow rate or behaviour of water for a period of more than twenty four (24) hours and has granted permission in writing; or
 - c) the Minister requires an alternate release to be made due to an emergency situation or a maintenance activity and has notified this in writing.

Note 1: The circumstances referred to in condition twenty one (21) of this approval are further outlined in the Operating Protocol.

22. The Approval Holder must ensure that water required to be credited to the banked environmental flow account under condition twenty one (21) of this approval is released from Lilyvale Dam in accordance with any written direction from the Minister.
23. The Approval Holder must ensure that the volume of water credited to the banked environmental flow account is:
 - a) debited by the amount of a release made in accordance with condition twenty two (22) of this approval;
 - b) reset to zero if any water is spilling from Lilyvale Dam; and
 - c) reduced at a rate of one percent of the volume of water remaining in the banked environmental flow account per day.

Note 1: The one percent reduction rate accounts for evaporation and other losses, and mitigates potential risks to the reliability of the potable water supply as a result of the long-term storage of banked environmental water.

24. The Approval Holder must ensure that any reductions made in accordance with condition twenty three (23) of this approval are limited so that the banked environmental flow account does not have a negative balance.

Fire Fighting Releases

25. If the Approval Holder is required to make a release of water from any of the water supply works authorised by this approval for fire fighting purposes, the Approval Holder must notify the Minister in writing within seven (7) days of the release specifying the date, time and approximate volume of water released.

Note 1: A rural fire brigade may take and use water from any water source, and any water supply work under the management of a water supply authority in accordance with section 26 of the *Rural Fires Act 1997*.

MONITORING

Water Quantity Monitoring

26. The Approval Holder must have metering equipment installed that meets the following requirements:
- the metering equipment must measure and record the flow of all water taken through the authorised water supply works with less than 5% error;
 - the metering equipment must comply with the NSW Interim Water Meter Standards (issued by the NSW Office of Water) as may be updated or replaced from time to time;
 - the metering equipment must be operated and maintained in a proper and efficient manner at all times;
 - the metering equipment must be sited and installed at a place in the pipe, channel or conduit between the water source and the first discharge outlet. There must be no flow of water into or out of the pipe, channel or conduit between the water source and the metering equipment; and
 - any other requirements as to type, standard or other criteria for the metering equipment specified by the Minister by notice in writing.

Note 1: The Minister may direct the Approval Holder to install, repair, replace or to properly maintain metering equipment under section 326 of the *Water Management Act 2000*.

Note 2: Details of the Approval Holder's water quantity monitoring equipment and agreed procedures are described in the Operating Protocol.

27. The Approval Holder must keep a Logbook and record the following in the Logbook:
- each date on which water was taken under the access licence;
 - the access licence number of the access licence under which water was taken on that date;
 - the volume of water taken on that date;
 - the volume of water released as environmental flow on that date;
 - the volume of water released as spill on that date;
 - the data and calculations to determine the daily environmental flow release requirements;
 - the total system storage and volume/level of each storage;
 - where metering equipment has been installed for use in connection with the authorised water supply works, the meter reading before water is taken; or the start time and end time of extraction and the flow rate during extraction;

- i) confirmation that the environmental flow protection conditions do not apply at the time of extraction; and
- j) any other information required to be recorded in the Logbook under the rules of the Water Sharing Plan.

Note 1: A “Logbook” means a record, kept in hard copy or electronic form, which accurately records all information required to be kept for this approval. The requirement of this condition will be met when the Approval Holder continues to measure, record and report its extractions, inflows and outflows (releases) as agreed using Citect and described under the Operating Protocol.

Note 2: Spill volume calculations are based on the difference between the inflows and measured releases and extractions, and supported and verified by operational release strategies. Accurate outlet rating curves are available for a range of combinations of valves and storage heights allowing a full range of flows to be delivered.

- 28. The Approval Holder must produce the Logbook to the Minister for inspection, when requested.
- 29. The Approval Holder must retain the information required to be recorded in the Logbook for five (5) years from the date to which that information relates.
- 30. The Approval Holder must monitor and record daily inflows to, storage volumes of, releases and extractions from, its authorised water supply works and flows at the locations listed in Attachment 3 of this Schedule in accordance with the Operating Protocol approved by the Minister.

Access to Data

- 31. The Approval Holder must make data available to the Minister regarding flows at flow reference points at a frequency and time determined by the Minister.
- 32. The Approval Holder must make data publicly available at the earliest time that is practically possible and no later than 9:00 am regarding details of any releases from its storages for environmental and other purposes, and details of any run of river transfers, planned for the next twenty four (24) hours.

Water Quality Monitoring

- 33. The Approval Holder must monitor the effectiveness of environmental flow releases on river health parameters including water quality, ecological and geomorphological parameters to the satisfaction of the Minister.

Measurement and Data Quality Standards

- 34. The Approval Holder must undertake all monitoring, data management and reporting consistent with appropriate quality assurance and quality control procedures, to the satisfaction of the Minister. The Approval Holder may include data of acceptable quality from other sources to meet the monitoring requirements of this approval.

REPORTING

Water Quantity Report

35. The Approval Holder must, by or on the 15th day of each month submit a water quantity report for the previous month to the Minister. The report must be provided in electronic format and must contain, but need not be limited to, the following:
- a) total daily inflows to storages;
 - b) total daily environmental and other releases from storages;
 - c) total daily extractions;
 - d) storage levels;
 - e) banked environmental flow account transactions;
 - f) a summary of notified events including emergencies, variations from release requirements, failure to measure releases or extractions in accordance with the requirements, and
 - g) stream flow and river height data recorded at the gauging stations listed in Attachment 3 of this Schedule.

Note 1: This requirement will be satisfied by the Approval Holder providing the NSW Office of Water with the monthly environmental flow spreadsheet as outlined in the Operating Protocol.

Event Notification

36. The Approval Holder must notify the Minister in writing at the earliest practical possible opportunity following any event, but not exceeding seven (7) working days that has caused or is likely to cause, deviation to any of the conditions of this approval. The notification must include, but need not be limited to, the following information:
- a) whether the event has resulted in deviation to any of the approval conditions (at the date of the notification) and details of any altered release;
 - b) the date, time and location of the event, or works involved;
 - c) the cause and nature of the event, including details of any environmental harm or damage that may have occurred;
 - d) any action taken where it was necessary to avoid harm; and
 - e) any action that was, or will be taken to prevent a recurrence of the event.

Note 1: An event may include accident, equipment failure or any other such cause outside of the Approval Holder's effective control and planned events such as maintenance and refurbishment, which are described in the Operating Protocol.

37. The Approval Holder must comply with any requirements and take any actions specified by the Minister for the management of the event, and continue to report to the Minister to the satisfaction of those, or updated, requirements and actions, for as long as the event continues.

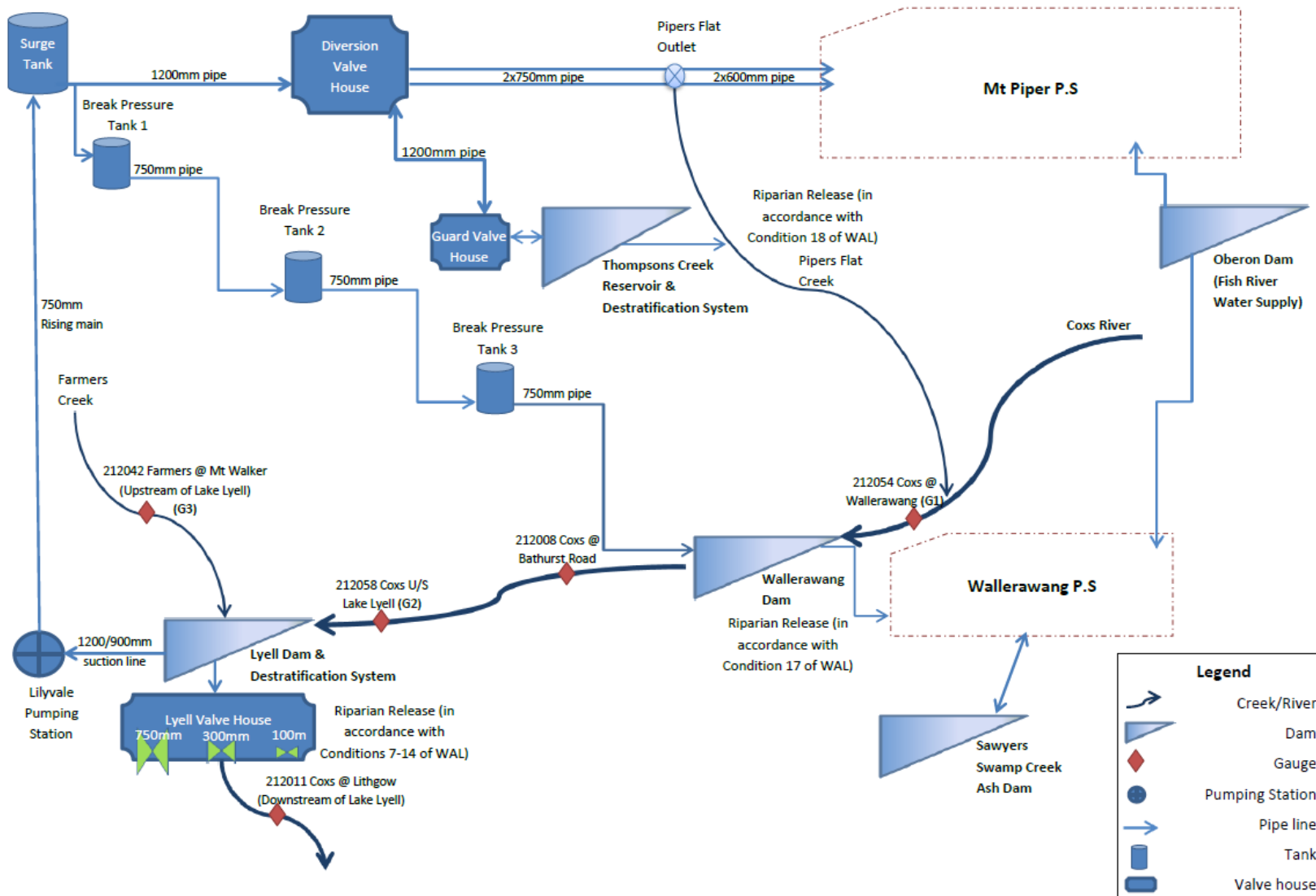
Annual Compliance Report

38. The Approval Holder must, by 30 November each year, submit an Annual Compliance Report for the preceding water year in electronic format to the satisfaction of the Minister. The report must contain, but need not be limited to, the following:
- a) an introduction, including an overview of the Approval Holder's water management activities associated with this water source;
 - b) updated maps to scale, depicting the location of this water source and the authorised water supply works listed in Attachment 1 and gauging stations listed in Attachment 3 of this Schedule;
 - c) detailed analysis of all data for environmental and any other flow releases and water extractions, including banked environmental flows, any releases made for fire fighting purposes, comparisons with data from previous years and an interpretation of the results;
 - d) results and interpretation/discussion of results of the ecological monitoring programs required by condition thirty three (33) of this approval;
 - e) evidence verifying that all monitoring, recording and assessment was conducted using appropriate quality assurance and control standards;
 - f) evidence verifying that the devices used for measuring and recording extractions and releases were subject to appropriate quality assurance and complied with appropriate or mandatory standards;
 - g) a summary of all notifiable events, including any non-compliance with the conditions of this approval;
 - h) performance reporting against any of the remaining conditions of this approval; and
 - i) an electronic appendix that includes all raw data used in the preparation of this report.

Provision of Data and Information

39. The Minister may, from time to time, request data arising from the operation of the authorised water supply works to undertake its resource management functions. Within one (1) month of the Minister making such a request, the Approval Holder must provide the required data.

SCHEDULE 1 – ATTACHMENT 1: SCHEMATIC OF AUTHORISED WATER SUPPLY WORKS



SCHEDULE 1 – ATTACHMENT 2: DESCRIPTION OF AUTHORISED WATER SUPPLY WORKS

The following tables provide detailed information on the authorised water supply works used by the Approval Holder within this water source.

| | Lilyvale Dam (Lake Lyell) | Wallerawang Dam (Lake Wallace) | Thompsons Creek Dam (Thompsons Creek Reservoir) |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Description | Concrete faced earth and rock-fill dam with concrete spillway | 105 m long central semi-gravity concrete spillway section with earth fill spur embankments | Zoned earth and rock fill with riprap upstream face |
| Use | Water storage for electricity generation | Water storage for electricity generation | Water storage for electricity generation |
| Location* | -33.526961°S, 150.081847°W | -33.424386°S, 150.079122°W | -33.42829°S, 149.998484°W |
| Wall Height (m) | 49.5 | 14.3 | 63.5 |
| Crest Length (m) | 200 | 600 | 1,911 |
| Spillway | Dual 40 meter wide concrete ogee crests with flip buckets, design flow approx. 5,900 m ³ /s (509,760 ML/d) | Concrete crest | Concrete nib to unlined natural watercourse |
| FSL (m AHD) | 785.5 | 871.5 | 1,033 |
| Total capacity (ML) | 34,192 | 4,004 | 27,500 |
| Operational Capacity (ML) | 32,109 | 2,206 | 27,500 |
| Outlet Works | 1,200 mm conduit from outlet tower | 500 mm ductile bypass riparian | Non-selective submerged intake tower with trash racks |
| Diversion Works | 750 mm rising main from 4 pumps with design flow 95 ML/d | 4 pumps (total capacity 55.3 ML/d) and pipeline to storage tank | 1,220 mm mild steel cement lined pipe with welded joints, gravity feed to Mount Piper Power Station |
| Flow/Level Measurement Device | Vega ultrasonic height recorder | Vega ultrasonic height recorder | Calibrated staff gauge |

| | Sawyers Swamp Creek Ash Dam |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description | Ash dam: Large zoned earth fill dam Coffer dam: Earth dam with concrete spillway for diverting upstream flows Diversion dams: Two small earth dams used for diverting flows from northern gullies into the coffer dam |
| Use | For storage of ash and station wash-down water |
| Location | -33.387629°S, 150.101137°W |
| Wall Height (m) | Ash dam: 40 Coffer dam: 6 Diversion dams: Nominal |
| Crest Length (m) | Ash dam: 900 Coffer dam: 150 Diversion dams: Nominal |
| Spillway | Ash dam: Broad crested concrete 30 m Coffer dam: Concrete (10 m) with fuse plug Diversion dams: No spillway |
| FSL (m AHD) | Ash dam: 941.6 Coffer dam: 946 Diversion dams: No storage |
| Total capacity (ML) | Ash dam: 8,500 Coffer dam: No significant storage Diversion dams: No storage |
| Operational Capacity (ML) | Ash dam: 1,197 ML Coffer dam: Nil Diversion dams: Nil |
| Outlet Works | Ash dam: 600 mm offtake syphon Coffer dam: No outlet works Diversion dams: No outlet works |
| Diversion Works | Ash dam: 600 mm HDPE pipe and open canal Coffer dam: 900 mm earth encased concrete pipe and 5 m wide earth bypass channel for diverting water to downstream of the ash dam Diversion dams: 150 mm HDPE and 300 mm 'rib loc' HDPE diversion pipes diverting fresh water from northern gullies into coffer dam |
| Flow/Level Measurement Device | Ash dam: Calibrated staff gauge Coffer dam: No measurement Diversion dams: No measurement |

SCHEDULE 1 – ATTACHMENT 3: GAUGING STATIONS

| Gauging Station Number | Gauging Station Location | Stream |
|------------------------|------------------------------------------------------|---------------|
| 212011 | Coxs River at Lithgow (Downstream of Lake Lyell) | Coxs River |
| 212042 | Farmers Creek at Mt Walker (Upstream of Lake Lyell) | Farmers Creek |
| 212054 | Coxs River at Wallerawang (Upstream of Lake Wallace) | Coxs River |
| 212058 | Coxs River Upstream of Lake Lyell | Coxs River |

Note 1: The following gauging stations are not required by the water supply work and use approval but are used by the Approval Holder for background information:

- Coxs River at Bathurst Road Gauge downstream of Lake Wallace, Gauging Station Number 212008 (Coxs River)
- Coxs River at Island Hill, Gauging Station Number 212045 (Coxs River)
- Neubecks Creek upstream of Wallerawang, Gauging Station Number 212055 (Neubecks Creek)

Schedule 2 – Dictionary

Words and expressions that appear in this approval have the meanings set out in this Dictionary. Words and expressions defined in this Dictionary that appear in the Dictionary of the Water Management Act 2000 (WMA) are the same. A reference in this Dictionary to a section is a reference to a section of the WMA.

Access licence means an access licence referred to in section 56.

Altered water release events are water releases that vary from the water release rates required under this approval.

Approval means a water supply work approval and water use approval.

Blowdown Water means water released from Wallerawang Power Station No. 7 and No. 8 Cooling Towers and under EnergyAustralia's Environment Protection Licence issued by the Office of Environment and Heritage.

Emergency may include an event that is pending, or an event that has already occurred but could not be reasonably foreseen or scheduled, including occurrences such as:

- a) major infrastructure failures, or
- b) a water contamination incident that may place the Approval Holder in serious breach of either its Operating Licence or the *Protection of the Environment Operations Act 1997* (NSW), or
- c) declared disasters or any other event considered by the Ministerial Corporation to constitute an actual or potential emergency.

Environment includes all aspects of the surroundings of human beings, whether affecting them as individuals or in their social groupings.

Full Supply Level (FSL) means the normal maximum water level of a water storage when not affected by floods.

Megalitre (ML) means one megalitre, which is equivalent to 1,000,000 litres.

Minister means the Minister responsible for the *Water Management Act 2000*. The Minister may delegate functions under section 389.

Outlet (works) (conduit) means infrastructure built to control the release of water from a water impoundment or distribution system.

Percentile (flow rate) is the flow rate that is exceeded for that percentage of the relevant unit of time (usually year). The value of the percentile varies depending on the period length analysed. For example, the 95th percentile is the flow that is exceeded 95 percent of the time.

River includes:

- a) any watercourse, whether perennial or intermittent and whether comprising a natural channel or a natural channel artificially improved, and
- b) any tributary, branch or other watercourse into or from which a watercourse referred to in paragraph (a) flows, and
- c) anything declared by the regulations to be a river,

whether or not it also forms part of a lake or estuary, but does not include anything declared by the regulations not to be a river.

Spill means the uncontrolled discharge of water from an impoundment to the natural watercourse when the storage level rises above the full supply level.

Total active storage means the entire volume of water in the water storage at Full Supply Level minus the volume of dead storage capacity.

Unregulated river means a river that is not declared by the Minister to be a regulated river.

Water allocation means the water to which the holder of an access licence is entitled from time to time under the licence, as recorded in the water allocation account for the licence.

Water management area means an area of land that is constituted as a water management area by an order in force under section 11.

Water source means the whole or any part of:

- a) one or more rivers, lakes or estuaries; or
- b) one or more places where water occurs naturally on or below the surface of the ground;
and includes the coastal waters of the State.

Water supply work means:

- a) a work (such as a water pump or water bore) that is constructed or used for the purpose of taking water from a water source;
- b) a work (such as a tank or dam) that is constructed or used for the purpose of:
 - i. capturing or storing rainwater run-off; or
 - ii. storing water taken from a water source;
- c) a work (such as a water pipe or irrigation channel) that is constructed or used for the purpose of conveying water to the point at which it is to be used;
- d) any work (such as a bank or levee) that has the effect of diverting away from a water source any overflow from the water source; or
- e) any work (such as a weir) that has the effect of impounding water in a water source; including a reticulated system of such works, and includes all associated pipes, sluices, valves and equipment, but does not include:
 - i. any work (other than a water supply work under the control or management of the Sydney Water Corporation, the Hunter Water Corporation or a local water utility) that receives water from a water supply work under the control or management of the Sydney Water Corporation, the Hunter Water Corporation or a local water utility; or
 - ii. any work declared by the regulations not to be a water supply work.

Water supply work approval means an approval referred to in section 90 (2).

Water year means a year commencing 1 July.

ABBREVIATIONS

| | |
|-------------|-----------------------------------------------------------------------------|
| ABN | Australian Business Number |
| AHD | Australian Height Datum (elevation relative to standardised mean sea level) |
| FSL | Full Supply Level (as designed) |
| GPS | Global Positioning System |
| m | Metre |
| ML | Megalitre |
| ML/d | Megalitres per day |
| NSW | New South Wales |

Appendix 1 – Operating Protocol

An Operating Protocol has been developed by EnergyAustralia in consultation with the NSW Office of Water. The Operating Protocol is in the process of being updated and will be included in the Water Supply Work and Water Use Approval soon.

Appendix 2 – Monitoring Manual

A Monitoring Manual has been developed by EnergyAustralia in consultation with the NSW Office of Water. The Monitoring Manual is in the process of being updated and will be included in the Water Supply Work and Water Use Approval soon.