



Figure 1.3

Property Ownership, Project Application Area and Mining Lease Boundaries



## 2.1 HVO SOUTH

### 2.1.1 Cheshunt And Riverview Pits

Cheshunt and Riverview Pits were consented for mining operations as Hunter Valley No. 2 in 1986 under DA 85/27. Mining was conducted initially by truck and shovel and coal transported from south of the Hunter River to the HVCPP across the HVO Hunter River high-level bridge. The re-alignment of Jerrys Plains Road and the western out of pit overburden emplacement (WOOP dump), were approved under DA 37/90 in 1990. The overland conveyor to HVCPP was approved under DA 114-12-98 but has not yet been constructed.

Since the original approval the area south of the Hunter River has undergone a number of name changes. It has been referred to as Hunter Valley No. 1 South Pit, Hunter Valley No. 2 Mine and South Pit.

The mines are now approved under the South Pit Consent DA 114-12-98, with modifications to mine plans, operational requirements, equipment and development timing made in 2001, 2002, 2003 and 2006. Refer to *Table 2.1* for a summary of the current approvals.

The current mine plan has two pits operating concurrently, Cheshunt Pit located in the north east corner of the area, and Riverview Pit, located in the south west section. Dragline mining was approved in the Riverview Pit in 2002 (DA114-12-98). Coal is approved for transport to both LCPP and HVCPP (DA 114-12-98 M2).

The total production approved from the Cheshunt and Riverview Pits is 8 Mtpa of ROM coal. Coal is currently transported by internal haul roads to the HVCPP prior to being conveyed to the HVLP for rail transport to the Port of Newcastle. Under DA 181-8-2005, an extension to Cheshunt Pit (Barry Property) allows for an additional 8 million tonnes of ROM coal to be mined. Mining in the Cheshunt Pit extension area is expected to commence in August 2006 and last for approximately two years.

**Table 2.1 Summary of Approvals for Cheshunt and Riverview Pits**

Approval No.	Approval Type	Issue Date	Consent Authority	Summary of Approved Activity
85/27	Consent	4/5/1986	DEP <sup>(1)</sup>	<ul style="list-style-type: none"> <li>Development of Hunter Valley No. 2 Mine</li> <li>Transport of 4.5 Mt ROM coal from south of the Hunter River to HVCPP, Liddell CPP or HVLP</li> <li>Short and long term re-alignments of Jerrys Plains Road to the south</li> </ul>
37/90	Consent	18/10/1990	SSC <sup>(2)</sup>	<ul style="list-style-type: none"> <li>Western out-of-pit emplacement of overburden in conjunction with development of Hunter Valley No. 2 Mine</li> <li>Rescheduling of mining of Riverview Pit</li> </ul>

Approval No.	Approval Type	Issue Date	Consent Authority	Summary of Approved Activity
81/828	Mod 1 of DA 85/27	12/11/1990	SSC	<ul style="list-style-type: none"> <li>Permanent re-alignment of Jerrys Plains Road</li> </ul>
114/96	Consent	24/1/1997	SSC	<ul style="list-style-type: none"> <li>Small extension (56 ha) to the south west of South Mine (former Hunter Valley No. 2 Mine) to re-orientate mining strips to increase mining efficiency</li> </ul>
114/96 (37) M1	Mod 1 of DA 114/96	27/8/1997	DUAP	<ul style="list-style-type: none"> <li>Modification of DA 114/96 to take weather measurements prior to blasting</li> </ul>
114-12-98	Consent	15/3/2000	DUAP <sup>(3)</sup>	<ul style="list-style-type: none"> <li>Increase rate of mining to 8 Mtpa and development of the Cheshunt Pit with mining to progress south west through Riverview Pit</li> <li>Out-of-pit emplacement of overburden on the Lemington Mine site</li> <li>Overland conveyor from HVO South to HVCPP</li> </ul>
85/27 M2	Mod 2 of DA 85/27	2/10/2001	DUAP	<ul style="list-style-type: none"> <li>Interim coal transport from Riverview Pit to LCPP for processing prior to CNA approval for revised Cheshunt/ Riverview mine plans</li> </ul>
14-01-01-M1	Mod 1 of DA 114-12-98	2/11/2001	DUAP	<ul style="list-style-type: none"> <li>Change in mine schedule</li> <li>Reduction in fleet size</li> <li>Amendment to Dewatering Management Plan and timing of submission of Environmental Management Plans (EMPs)</li> </ul>
114-12-98-M2	Mod 2 of DA 114-12-98	11/3/2002	DUAP	<ul style="list-style-type: none"> <li>Altering mine plan including concurrent mining at Riverview and Cheshunt pits</li> <li>Operation of dragline at Riverview Pit</li> <li>Haulage of coal from Riverview and Cheshunt pits to either or both the LCPP or the HVCPP</li> </ul>
114-12-98-M3	Mod 3 of DA 114-12-98 (S02/02690)	23/1/2003	SSC	<ul style="list-style-type: none"> <li>Establish 13 month blasting schedule from Feb 2003</li> </ul>
181-8-05	Consent	31/3/2006	DoP	<ul style="list-style-type: none"> <li>Extension of opencut coal mining from the Cheshunt Pit through the Barry Property enabling the extraction of approx 8 Mtpa of ROM coal</li> </ul>
114-12-98-M4	Mod 4 of DA 114-12-98	11/5/2006	DoP	<ul style="list-style-type: none"> <li>Extension of opencut coal mining to the south west of the Riverview Pit</li> </ul>

**Notes:**

1 =Department of Environment and Planning which is now DoP

2 =Singleton Shire Council

3 =Department of Urban Affairs and Planning which is now DoP

Mod = Modification

Works that have been approved, but not yet constructed for the Cheshunt and Riverview Pits are summarised in *Table 2.2* below.

**Table 2.2**      ***Summary of Works Approved but not yet Commenced***

<b>Approval No.</b>	<b>Summary of Approved Activity</b>
114-12-98	Overland coal conveyor to HVCPP

### **2.1.2**      ***Lemington Mine And Coal Preparation Plant***

Lemington Mine was acquired by CNA from Exxon in December 2000.

Lemington Mine commenced operations in 1971 with Lemington opencut mine and Underground Mine No. 1. In 1976 development of Underground Mine No. 2 commenced. Production from Underground Mine No. 2 ceased in 1987 but the access was maintained for ventilation to Underground Mine No. 1. All underground mining ceased in 1991.

In 1998 mining in the South Lemington area was approved with opencut truck and shovel operations consented under DA 84/115, DA 215/97 and DA 405/98.

The mining strategy approved for the South Lemington Pits was to mine two small opencuts, followed by a scraper slot and trench mining, each supplemented by highwall mining. Pit 1 is located to the east and south of Wollombi Brook and Pit 2 (not yet commenced) is located to the west of Wollombi Brook. The opencut pits were designed to be mined using an electric rope shovel to remove overburden in 100 wide strips and transported using 240 tonne trucks. The coal was to be ripped by dozer and then loaded by a front end loader onto a fleet of semi-trailer trucks for transport to the coal preparation plant.

The majority of the North Lemington Pit (with the exception of the south western corner) has been mined out and rehabilitation works have been undertaken on the northern and eastern sides of the overburden dump. The south western corner is planned be mined to a greater depth and would be incorporated into 'Deep Cheshunt' under this proposal.

Mining in the South Lemington Pit 1 was suspended in 2001 and the remaining void is currently used for temporary storage of mine water from both HVO and the adjacent MTW operation.

The No. 1 LCPP was established as part of the initial development of Lemington 1971. Later expansion and development of Lemington Underground Mine No. 2 in 1976 resulted in the construction of the No. 2 (current – referred to as LCPP throughout this report) coal preparation plant. The No. 1 LCPP was closed and decommissioned in 1987.

The existing LCPP has approval to process 660 tph of ROM coal (DA 79/48), which equates to 5.5 Mtpa. Approval to process coal from Lemington Mine (opencut and underground) was obtained under DA 215/97.2 and DA 405/98.2, and from the Cheshunt and Riverview Pits under DA 114-12-98 M2. The LCPP is currently under care and maintenance.

Approval for the transport of product coal via road haulage to Branxton rail siding was part of the original Lemington Mine consent granted in 1971. Road transport was redirected to the Mt Thorley Coal Loader (MTCL) after its construction in 1978. Coal transportation is currently consented under DA 215/97 and DA 405/98. A summary of the approvals relating to the Lemington Mine and LCPP are provided in *Table 2.3*. Works consented but not yet commenced are detailed in *Table 2.4*.

**Table 2.3** *Summary of Approvals for Lemington Mine and Coal Preparation Plant*

Approval No.	Approval Type	Issue Date	Consent Authority	Summary of Approved Activity
Unknown	Consent	24/6/1971	SSC <sup>(1)</sup>	<ul style="list-style-type: none"> <li>Establish opencut mine and No. 1 underground mining complex with 1 Mtpa ROM coal limit</li> </ul>
88/76	Consent	24/2/1976	SSC	<ul style="list-style-type: none"> <li>Construct first LCPP</li> <li>Extend mining into No. 2 underground mining complex area and increase ROM coal to 2 Mtpa</li> <li>Construct second (current) LCPP at 440 tph of ROM coal</li> </ul>
T12-1 DA/JH	Consent	5/3/1976	SSC	<ul style="list-style-type: none"> <li>Extend opencut mining operations to the west of Comleroi Rd</li> </ul>
78/42	Consent	27/10/1978	SSC	<ul style="list-style-type: none"> <li>Extract 3,000 tonne bulk sample (trial pit) over 12 month period</li> </ul>
79/48	Consent	17/6/1980	SSC	<ul style="list-style-type: none"> <li>Extend opencut and underground mining operations within Buchanan-Lemington Colliery</li> <li>Construct haul road from South Lemington to Lemington across Wollombi Brook.</li> <li>Increase capacity of No. 2 LCPP to 660 tph ROM coal</li> </ul>
80/71	Consent	24/11/1980	SSC	<ul style="list-style-type: none"> <li>Extend opencut mining operations within Buchanan-Lemington Colliery Holding</li> </ul>
80/70	Mod 1 to DA 80/71	10/8/1981	SSC	<ul style="list-style-type: none"> <li>Increase product coal production to 3 Mtpa</li> </ul>
83/145	Consent	3/1/1984	SSC	<ul style="list-style-type: none"> <li>Erect an office block for mine administration</li> </ul>
83/153	Consent	10/2/1984	SSC	<ul style="list-style-type: none"> <li>Establish and rehabilitate out-of-pit overburden dump within a Crown Road Reserve and the Colliery Holding</li> </ul>
80/961	Consent	19/8/1985	SSC	<ul style="list-style-type: none"> <li>Northern extension of opencut mining within Buchanan-Lemington Colliery Holding</li> </ul>
84/115	Mod 1 of DA 80/961	19/8/1985	DEP <sup>(2)</sup>	<ul style="list-style-type: none"> <li>North west extension of Lemington Mine</li> </ul>
86/75	Consent	24/07/1986	DEP	<ul style="list-style-type: none"> <li>Establish Lemington bath house</li> </ul>
86/104	Consent	4/11/1986	SSC	<ul style="list-style-type: none"> <li>Extensions to No. 2 Mine workshop</li> </ul>
86/119	Consent	4/11/1986	SSC	<ul style="list-style-type: none"> <li>Erection of a 40 unit carport</li> </ul>
115/90	Consent	20/9/1990	SSC	<ul style="list-style-type: none"> <li>Conversion of part of an existing carport into a laboratory</li> </ul>
73/91	Consent	10/7/1991	SSC	<ul style="list-style-type: none"> <li>Erect a store building extension to the existing Open Cut Mobile Equipment Workshop</li> </ul>
101/92	Consent	9/7/1992	SSC	<ul style="list-style-type: none"> <li>Establish V-demountable offices</li> </ul>
225/92	Consent	29/1/1993	DEP	<ul style="list-style-type: none"> <li>Install a coarse reject transport conveyor. Fill and progressively rehabilitate underground mine No. 2 portal using coarse reject from</li> </ul>

Approval No.	Approval Type	Issue Date	Consent Authority	Summary of Approved Activity
215/97	Consent	17/7/1998	SSC	<ul style="list-style-type: none"> <li>the CPP (over 4-5 years)</li> <li>Establish mining in South Lemington – two opencut pits, a scraper slot and trench, supplemented by highwall mining operations to 0.6 Mtpa product</li> <li>Total combined product limit of 3 Mtpa</li> </ul>
84/115 M2 (N93/00245/009)	Mod 2 of DA 80/961	23/1/1998	DUAP <sup>(3)</sup>	<ul style="list-style-type: none"> <li>Minor modification of DA 84/115 regarding required apprentice ratios</li> </ul>
405/98	Mod 1 of DA 84/115 and DA 215/97	11/1/1999	SSC	<ul style="list-style-type: none"> <li>Increase production to 3.5 Mtpa of product coal (north to 2.9 Mtpa and south to 0.6 Mtpa)</li> </ul>
215/97.2 and 405/98.2	Mod 1 of DA 405/98 and DA 215/97	9/1/2001	SSC	<ul style="list-style-type: none"> <li>Increase saleable production to 4.4 Mtpa (north to 3.2 Mtpa and south to 1.2 Mtpa)</li> </ul>
195/2000	Certificate	6/2/2001	SSC	<ul style="list-style-type: none"> <li>Establish Comleroi farm interim hay shed</li> </ul>
396/2001	Consent	22/10/2001	SSC	<ul style="list-style-type: none"> <li>Temporary crossings and relocate dragline and electric shovel</li> </ul>
114-12-98 M2	Mod 2 of DA 114-12-98	11/3/2002	DUAP	<ul style="list-style-type: none"> <li>Second modification of DA 114-12-98 to allow permanent transport of ROM coal to LCPP in addition to HVCPP</li> </ul>
651/2001	Consent	13/2/2002	SSC	<ul style="list-style-type: none"> <li>Temporary shovel crossing (Wollombi Brook)</li> </ul>
215/97.3 and 405/98.3	S.96(1A) Mod 2 of DA 405/98 and DA 215/97	22/11/2002	SSC	<ul style="list-style-type: none"> <li>Modification for the extension of time limit for the road haulage of 0.9 Mtpa product coal from Lemington South only, from LCPP to MTCL until 9/1/2006 (Coal from North Lemington treated at LCPP can still be transported by haul road to MTCL)</li> </ul>

**Notes:**

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2 =Department of Environment and Planning which is now DoP

3 =Department of Urban Affairs and Planning which is now DoP

Saleable equivalent to Product coal = ROM coal multiplied by 75%

Mod = Modification

**Table 2.4 Summary Of Works Approved But Not Yet Commenced**

Approval No.	Summary of Approved Activity
215/97	South Lemington Pit 2, scraper slot and trench, highwall mining

## 2.2

### **HVO NORTH**

HVO North comprises:

- The operational West Pit, Carrington Pit and North Pit. West Pit is currently consented to produce 12 Mtpa of ROM coal and Carrington 10 Mtpa of ROM coal. Mining has ceased in North Pit however the area is receiving overburden backfill from Cheshunt Pit, coarse reject and tailings with areas undergoing rehabilitation;
- Alluvial Lands (portion of North Pit), where mining has been completed, is currently undergoing rehabilitation;
- Coal Preparation Plants located at West Pit (HCPP), Hunter Valley (HVCPP) and Newdell (NCP). HCPP is currently consented to accept a total of 6 Mtpa of coal from all pits north and south of the Hunter River. HVCPP is currently consented to accept coal from all pits north and south of the Hunter River to 20 Mtpa. Of this 20 Mtpa, a maximum of 16 Mtpa of coal may be hauled from HVO South pits. The NCP is not in current use to wash coal, but is used to stockpile and train load;
- Newdell and Hunter Valley Load Points (NLP and HVLP) and train loading facilities; and
- Other related infrastructure.

Operations north of the Hunter River were consolidated in 2003 (DA 450-10-2003). In general, activities undertaken within HVO North are not part of this proposal. However the ability to transport ROM and product coal, overburden, water and rejects from HVO North to HVO South will be addressed in this proposal.

A summary of the approvals relating to HVO North are provided in *Table 2.5*.

**Table 2.5**      **Summary of Approvals for HVO North**

Approval No.	Approval Type	Issue Date	Consent Authority	Summary of Approved Activity
450-10-2003 M2	Mod 2 of DA 450-10-2003	25/6/2006	DoP	<ul style="list-style-type: none"> <li>Extension of opencut mining to the south and east of Carrington Pit to access 19 Mt coal</li> </ul>
450-10-2003 M1	Mod 1 of DA 450-10-2003	16/8/2005	DoP	<ul style="list-style-type: none"> <li>Upgrade of HVLP</li> </ul>
884/2004	Consent	02/2/2005	SSC	<ul style="list-style-type: none"> <li>Construction and use of access road to Energy Australia Substation</li> </ul>
450-10-2003	Consent	12/6/2004	DoP	<ul style="list-style-type: none"> <li>Extension of opencut mining to the east of existing development</li> <li>Production of 12 Mtpa ROM coal from West Pit and 10 Mtpa ROM coal from Carrington Pit</li> <li>Coal haulage of 16 Mtpa from mining areas south of the Hunter River to HVCPP</li> <li>20 Mtpa throughput of HVCPP</li> <li>Movement of coal and rejects between areas of the Hunter Valley Operations, including south of the Hunter River</li> <li>Temporary heavy equipment crossings of the Hunter River</li> <li>Consolidation of 15 existing development approvals applying to Hunter Valley Operations north of the Hunter River, into a single consent</li> </ul>



