LAKE MACQUARIE CITY LIBRARY

COALMINING AND POWER COLLECTION

ASSESSMENT OF SIGNIFICANCE

prepared by
Hunter History Consultants Pty Ltd
in association with
John Shoebridge

June 2008
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>EXECUTIVE SUMMARY</td>
<td>2</td>
</tr>
<tr>
<td>2.0</td>
<td>SUMMARY DESCRIPTION OF THE ORGANISATION AND ITS COLLECTION</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>2.1 Description of the Organisation</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>2.2 Description of the Collection</td>
<td>5</td>
</tr>
<tr>
<td>3.0</td>
<td>HISTORY AND SIGNIFICANCE OF THE COLLECTION</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>3.1 History of the Collection</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>3.1.1 The Coal Mining Collection</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>3.1.2 The Power Collection</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>3.2 Relationship Between the Collection and its Storage Facility</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>3.3 Condition of the Collection</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>3.4 Comparative Collections</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>3.5 Community Comments</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>3.6 Statement of Significance for the Entire Collection</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>3.6.1 Significance of the Coal Mining Collection</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>3.6.2 Significance of the Power Collection</td>
<td>12</td>
</tr>
<tr>
<td>4.0</td>
<td>METHODOLOGY</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>4.1 Authorship</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>4.2 Assessment of Coal Mining Collection</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>4.3 Assessment of Power Collection</td>
<td>14</td>
</tr>
<tr>
<td>5.0</td>
<td>KEY RECOMMENDATIONS</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>5.1 Preservation and Storage</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>5.2 Cataloguing</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>5.3 Digitisation</td>
<td>16</td>
</tr>
<tr>
<td>6.0</td>
<td>REFERENCES</td>
<td>17</td>
</tr>
<tr>
<td>7.0</td>
<td>APPENDICES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 Range and Scope of Collection</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 Summary of Examined Items</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 Examples of Randomly Selected Items with Suggested Cataloguing Format</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 Database of Examined Items</td>
<td></td>
</tr>
</tbody>
</table>
1.0 EXECUTIVE SUMMARY

The Lake Macquarie City Library Coalmining and Power Collection is a valuable collection of plans, charts and maps which relate to coal mining and electricity generation in the Hunter Region. Estimated to contain over 11,000 items, the collection was donated to the Library in 2000 by Coal and Allied Industries (Coal and Allied).

The coal mining collection is part of a much larger collection which belonged to Coal and Allied, a company which can trace its origins in the Hunter Valley to the early 1850s. It contains documents dating from the 1930s to the 1980s, primarily relating to collieries which were owned by the company. The significance of this portion of the collection is related to its ability to provide information relating to the complex and exacting requirements of the coal industry during times in great change, and the level of technical competence necessary and available to safely and economically mine the rich resources of Hunter Valley coal. It also provides a significant contribution to the understanding of the role played by Coal and Allied in the development and operations of coal mining in the Hunter Valley, and to the operation of over fifty coal mines which are represented in the collection.

The power collection appears to contain a complete set of construction plans for Wangi Power Station, which was decommissioned in 1986. The significance of this site is acknowledged by its listing on the State Heritage Register. As previous attempts by heritage professionals to locate such plans have been unsuccessful, this portion of the collection has a high level of significance. As well as their archival value, the documents in the collection are of value as possible aids to future re-use and adaptation of the buildings and services, and for possible use in conservation and interpretive displays. The value of this collection has recently become more apparent as there is a current proposal for refurbishment of the former power station.

There is an urgent need for the provision of a suitable storage facility for the entire collection, and for the preservation of the items which are currently stored in eleven plan cabinets which are housed in a shipping container adjacent to Morisset Library. The plan cabinets are old, worn and rusting. Some of the drawers in the cabinets are stiff, difficult to open, and some do not close completely. The majority of the documents are in good condition, but irreversible damage is being caused by the condition of the cabinets, while conditions inside the shipping container are also detrimental to the collection due to ranges and fluctuations in temperature and humidity.

Proper cataloguing, including digitisation, is also necessary in order to make the information contained within the collection accessible.

Positive responses from heritage professionals, community groups and individuals concerned with the coal and power industries are a clear indication of the importance of the collection.
2.0 SUMMARY DESCRIPTION OF THE ORGANISATION AND ITS COLLECTION

2.1 Description of the Organisation (provided by Lake Macquarie City Library)

Lake Macquarie City Library commenced service as Lake Macquarie Shire Library in 1950. The library serves a population of 193,092 (ABS June 2006 ERP). There are 56,995 registered active borrowers (who have used the library in the last two years). Visitors were 845,615 in 2005/06.

The Library currently operates 10 branches and a mobile library service. Special services include home library delivery, special needs, family history and general research assistance, and local history.

The local history collection is primarily housed at Speers Point and Morisset Branch Libraries. The Library actively seeks donations of local history materials and works cooperatively with local history and family history groups in the area. The Library records local oral history. The current project, following the Storms June 2007 project, is The Fernleigh Track oral history. Our image collection is available through Pictures Australia and at www.lakemac.com.au.

The library celebrates special events with the community such as History Week and Heritage Afloat with exhibitions and presentations.

Lake Macquarie City Council has published a number of historical items with the assistance of the Library:

100 years of Local Government in Lake Macquarie

From Mistake to Millenium: a pictorial history of Lake Macquarie

The Aboriginals of Lake Macquarie

Lake Macquarie Past and Present

The Human Face of Coal (Oral history)

Lake Macquarie the way it was (Oral history)

Lake Macquarie Heritage Study

Reid's Mistake: the story of Lake Macquarie from its discovery until 1890.

The History of Windale: a surprise township

Lake Macquarie Storm Stories 8-11 June 2007 (Oral history)
Lake Macquarie City Council Cultural Plan 2007-2013 recognises the crucial role of the library in collecting and preserving the City’s history. 

341,486 total Library items on our catalogue (March 2008).

The collection includes print, multi-media, electronic resources, manuscripts, original documents, clippings, ephemera and photographs. The material is housed throughout the 10 branch libraries and the mobile library. Each service point has access to the catalogue, electronic databases and the internet.

There are 1850 catalogued items in the Local History collection at Speers Point Branch and 5,499 photographs on the website. All of the catalogued items are available for viewing at the Library and some are available for loan. Many of these items are self-published by the authors with research assistance by Library Information Services. The history of Lake Macquarie suburbs is available at www.lakemac.com.au.

As well as many historical items which have been donated, the Library has three unique collections:

1. The Pickering Collection of photographs and memorabilia relating to Charlestown (suburb) housed at Speers Point Library

2. The Jones-Mashman Collection, a unique collection of historical material relating to the Morisset Cooranbong area housed at Morisset Library.

3. The Coal and Power Collection donated by Coal & Allied (Rhondda Colliery) in 2000 and housed adjacent to Morisset Library in temporary storage. There are at least 11,000 items in this collection. It is this collection which is the subject of this submission.

The Library Collection Development Policy aims to provide a balanced selection of library materials to cater for the personal reading, reference, self-education, leisure needs and interests of all the people of Lake Macquarie. The collection of the Library reflects the demographic, geographic and cultural characteristics of the community.

In addition, the main areas of specialisation are Local History (including the Local History Photograph Collection), Local Environment and Genealogy.

We aim to collect, catalogue and preserve all records relating to Lake Macquarie on our environmental, social, cultural and industrial history.
2.2 Description of the Collection

The collection consists of an extensive range of plans and diagrams which contain a wealth of information of a technical nature. It comprises two distinct parts, the larger part relating to the coal mining industry in the Hunter Region, while the other smaller but still significant part relates to power generation in Lake Macquarie. The documents relate mostly to the period between the 1950s and the 1980s, with some documents from earlier decades.

The mining collection consists of plans and diagrams from over 50 different Hunter Valley collieries, the majority of which were owned by Coal and Allied. It provides a comprehensive overview of many aspects of the coal mining industry over this period, including geology and geography, exploration and coal analysis, methods of mining, use of mechanical equipment, coal preparation, coal haulage, site rehabilitation and mine safety.

The power station collection contains engineering and architectural plans relating specifically to the buildings and plant of the State Heritage listed Wangi Power Station. It appears to be a complete and original set of drawings and plans, detailing the construction, commissioning and operational phase of the power station.

The items in the collection have been produced on various different materials, including linen, paper, drafting paper and acrylic sheet.

Due to time constraints and the methodology adopted for this assessment, it is not known exactly how many items are included in the collection. However, it is estimated that the mining collection contains around 6,800 items, and the power station collection approximately 5,000 items. The collection currently occupies eleven map cabinets, nine devoted to mining records and the remaining two containing plans of Wangi Power Station.

An understanding of the range and scope of the collection can be gained from information drawn from a report which was prepared by Sarah Skillen in 2007 (Appendix 1) and from a summary of the survey of mining plans which was carried out by J. Shoebridge (Appendix 2)
3.0 HISTORY AND SIGNIFICANCE OF THE COLLECTION

3.1 History of the Collection
The significance and value of the collection can be better understood by placing it within its historical context. The following section provides a brief overview of the history of the coal mining in Australia, and power generation in the coalfields.

Coal mining in Australia had its beginnings in Newcastle, where coal was first discovered and mined, and from where it was first exported in 1799. Its abundance in the area was a significant factor which influenced the decision to establish a settlement in the area. The early mining of coal was concentrated in Newcastle, but quickly spread to the surrounding areas of Lake Macquarie, Cessnock, and the Upper Hunter. The coal industry became a boom industry for the region, the State and Australia, generating both employment and economic wealth throughout the 19th and 20th centuries.

Coal is one of Australia’s most important primary industries and is the foundation upon which our secondary industries have been built. For decades, the production of iron and steel, the generation of electric power and town gas, as well as the propulsion of steam ships and trains, not to mention the production of process steam for factories, were all dependent upon access to coal. Despite the demise of some of these technologies, the Hunter coal industry has developed to such an extent that the Port of Newcastle is now the largest exporter of coal in the world, while the district’s power stations supply the major proportion of the State’s electrical energy.

The period covered by the collection was a time of enormous change and development in the industry. The major changes included:

- The mechanisation of mining practices
- The placement of restrictions on the mechanical extraction of pillars in 1941 (lifted in the late 1950s, when most mines became fully mechanised)
- The formation of the Joint Coal Board in 1947 to address problems in the industry
- The take-overs and mergers of coal companies in the late 50s and early 60s, the most significant being the merger of J & A Brown and Abermain Seaham Collieries, Caledonian Collieries, Cessnock Collieries, Hebburn Limited and R W Miller to form Coal & Allied Industries Limited
- The introduction of long wall and open cut mining
- The changes in demands on types, sizes and qualities of coals
- The construction of more advanced coal handling facilities (crushing, washing, treatment and transport)
- The decline in demand (and subsequent forced closures of mines) caused by the use of natural gas for domestic use instead of gas coal, and the replacement of coal with oil in railway engines and ships
- The move of coal mining from the Newcastle and South Maitland field to the Upper Hunter following the extensive geological survey and prospecting carried out by the Joint Coal Board in the immediate post-war years.
3.1.1 The Mining Collection
The collection is part of a much larger collection of plans which belonged to Coal and Allied. The company can trace its origins to the early 1850s when the coal mining firm, J & A Brown was established by brothers James and Alexander Brown. The company merged with Abermain Seaham Collieries Ltd. in 1930 to become J & A Brown Abermain Seaham (JABAS). A subsequent merger between JABAS, Caledonian Collieries, Cessnock Collieries, Hebburn Limited and R W Miller led to the formation of Coal & Allied which became the largest producer of coal in Australia.

The plans relate to collieries which were owned by the company, some of them acquired as a result of amalgamations with other mining companies. Many of the plans were produced at the company’s Hexham office. After several years of cost pressures and losses, Coal and Allied closed its Hexham Engineering business in 1989. In 1992 the company passed a significant portion of its collection (between 12,000 and 15,000 items) to the Richmond Vale Mining Museum. Other plans were passed to new owners when the company sold some of its mining interests.

The remaining items in the collection, including those now owned by Lake Macquarie City Library, were stored in the bath house at Stockrington Colliery. They were subsequently relocated to Rhondda Colliery, a base for Coal and Allied employees who were concerned with the company’s property, closed mines and associated lands. Coal and Allied subsequently decided to destroy the collection but that action was averted when plans, stored in their original plan cabinets and housed in a shipping container, were donated to Lake Macquarie City Library in 2000. The collection was initially stored adjacent to the Toronto premises of Lake Macquarie Historical Society, but it has now been relocated to Morisset Library. Lake Macquarie City Library has rehoused the cabinets in a new shipping container, as the original container was not watertight.

3.1.2 The Power Collection
In about 1946 the construction of a power station in Lake Macquarie by the Department of Railways was approved by the Electricity Authority. The site at Wangi Wangi was chosen because of its access to water and to coal, and the new station commenced operations in 1958. This power station was the first of the big coalfields power stations and, for a time, the biggest power station in NSW. It was also “the last of the Railway’s power stations to be built, and the last one to close, and represents the transition from Railways to Elcom as the predominant power generation authority in NSW” (NSW Heritage Office Website). It was decommissioned in 1986. Its significance as a utility associated with the provision of services has been confirmed by being listed on the State Heritage Register in 1999. Recently these plans have become even more relevant given the current proposal to redevelopment the structure.

It is not known how the plans for Wangi Power Station came to be stored at Rhondda Colliery with the mining plans. Enquiries will continue in an effort to gain further information relating to this matter.
3.2 Relationship Between the Collection and its Storage Facility
The collection is currently housed in eleven map cabinets which are stored in a shipping container located adjacent to the Morisset Public Library and former Baby Health Centre. Given the age and condition of the map cabinets, it would be fair to assume that they are the cabinets in which the plans have always been stored. However, the shipping container in which the collection was originally housed was not watertight and has been replaced by Lake Macquarie City Library.

3.3 Condition of the Collection
Environmental conditions inside the shipping container in which the collection is stored are not ideal, and are detrimental to the preservation of the collection. The ranges and fluctuations in temperature and humidity would be well outside the recommended levels, and contributing significantly to the deterioration of the collection. In the following description of the condition and storage of the collection, photographs are used to illustrate the points made.

Inside the container are 11 map cabinets in varying conditions. The cabinets are old, worn and rusty. Some of the drawers in the cabinets are stiff, difficult to open and some do not close all the way. The condition of the cabinets is affecting the collection and causing irreversible damage.

However, the majority of the collection - large format plans, drawings and maps - is stored flat in these cabinets and is in good condition.
There are other parts of the collection that are rolled, folded or compiled in folders or in book form.

While the environment and conditions in which they have been stored are not ideal, the majority of the documents in the collection have retained their integrity and are in sound condition. The poor condition of the cabinets, and the difficulty in opening and closing the drawers has, however, affected some of the contents. Over-crowding in some drawers is also causing damage to edges and corners of plans inside.

In addition, because of these poor storage conditions, there appears to be evidence of damage to some documents in the collection caused by exposure to rust, insects and water.
Accordingly, the condition of documents within the collection varies from excellent to very poor, with the bulk of documents in good condition, as demonstrated in the following photographs.

3.4 Comparative Collections
Collections of mine survey plans and record tracings are held by various Government departments, including the Department of Mineral Resources, Mines Safety Department and Mines Subsidence Board.

Other comparative collections are held at
- Newcastle University Archives (part of J & A Brown Archive)
- Newcastle Region Library (part of Merewether Estate Archive)
- Edgeworth David Memorial Mining Museum, Kurri Kurri
- Richmond Vale Mining Museum
- Eraring Energy, Eraring Power Station (Elcom Collection)

The mining collection has a significant link to the Richmond Vale Mining Museum collection. Together, they represent the greater portion of the Coal and Allied collection which was held at the company’s Hexham office. More detailed research would be required to determine how many plans from the original collection have been lost or passed to purchasers of Coal and Allied properties.
The collection is also closely associated with, and supplementary to, the J & A Brown collection which is held at the University of Newcastle Archives. This collection was originally housed in the company’s Sydney offices and primarily consists of documentary material although it does contain some maps and plans.

The collection has relevance to a range of other collections and, if used in conjunction with them, has the potential to aid and enhance future interpretation and understanding of some of the technical aspects of coal mining and power generation during the 20th century. Collections which have been identified as having relevance to this collection are:

- Oral histories of mine workers - Newcastle Regional Museum
- Oral histories of engineers - Engineering Australia
- Oral histories of mine workers - “The human face of coal”, Lake Macquarie City Council
- Sir Edgeworth David Memorial Museum, Coalfield Heritage Group, Kurri Kurri High School
- Teralba Mining Museum
- Mining Museum, West Wallsend High School
- BHP mine correspondence documents dating to the 1920s - Lake Macquarie City Council Library
- Photographic records of the coal mining and power generation industries - Lake Macquarie City Council Libraries, Newcastle City Council Libraries, Cessnock Council Libraries, and the State Library of NSW;
- Architectural and engineering plans and drawings - State Records NSW;
- Mining artefacts, buildings and machinery - Richmond Main Mining Museum
- Elcom collection, Eraring Power Station

3.5 Community Comments
This collection has survived because members of the community notified Lake Macquarie City Library that the documents were in danger of being destroyed, and encouraged the Library to acquire them. All individuals who were contacted in the course of this exercise have expressed their delight when told of the existence of the collection, and have made it very clear that they believe it to be of great value and worthy of preservation.

3.6 Statement of Significance for the Entire Collection
Due to the extent and broad nature of the collection and the methodology employed for this assessment, it is not possible to rank individual items in order of significance. However, based on the sample of the mining collection which was examined it seems possible that there may be few individual items which are outstanding, but that the collection as a whole has great significance.

3.6.1 Significance of the Coal Mining Collection
While this collection of original maps, drawings and plans is extensive, it cannot be considered as representative of mining company records. Mechanical drawings are under-represented and there is minimal reference to the company’s private railways, power stations and electricity reticulation systems. Although plans dating from the 1930s are included in the collection, there appear to be relatively few plans which
were prepared prior to 1980. This could be explained by the fact that this portion of the collection was retained by Coal and Allied for some time after the Hexham office closed, perhaps because they were considered to be of potential relevance to currently operating mines or equipment.

Despite the above limitations, the collection does give an indication of the complex and exacting requirements of the coal industry during times of great change, and the level of technical competence necessary and available to safely and economically mine the rich resources of Hunter Valley coal.

The collection is strongly related to the development of the Hunter, with links to collieries, companies, towns, and employment in the region. As many of these collieries to which the collection refer to are now closed, this collection is a unique record of this history. It has the potential to assist the interpretation of a major theme in Australia’s history, and represents the impact and development of the coal industry in the economic development of Australia.

The information contained in the plans, diagrams and charts of the collection, when placed within their historical context, can contribute significantly to an understanding of the coal mining industry and to the role played by Coal and Allied in the development and operations of coal mining in the Hunter Valley.

3.6.2 Significance of the Power Collection
The portion of the collection pertaining to Wangi Power Station is significant because it would appear to contain the only known copies of construction plans for the complex, which is listed on the NSW State Heritage Register. As well as their archival value, the plans are of value as possible aids to future re-use and adaptation of the buildings and services, and for possible use in conservation and interpretive displays.

As noted by Ms Skillen the heritage listing of the Wangi Power Station building, coupled with current proposal for its refurbishment, make these plans in themselves an invaluable resource.
4.0 METHODOLOGY

4.1 Authorship
This report was prepared by Rosemary Melville of Hunter History Consultants Pty Ltd. Assessment of the mining-related records was carried out by John W. Shoebridge, F Aust IMM, MAIES with the assistance of Ms. J. Christie and Mr. G. Hardman from the Lake Macquarie Library, the owner of the collection. This report incorporates elements of a previous assessment of the collection which was prepared for Lake Macquarie Council by Sarah Skillen in January 2007.

Contact was made with the following people who provided information relating to the collection, its origins and preservation and to the extent of comparative collections:

- C. & M.J. Doring, Engineering Heritage Consultants
- John Donne, former mine manager 1950-1983, Stockrington 1 & 2, Chain Valley, Wallarah and Moonie collieries (JABAS, Coal & Allied)
- Tony Ryan, former mine manager
- Members of Richmond Vale Historical Society (G & W. Black, J. Mullier)
- G. DiGravio, Archivist, University of Newcastle
- Newcastle Region Library, Local Studies
- K. Inglis, NSW Department of Primary Industries
- R. Caldwell (former Manager, Northern Region, Electricity Commission/Pacific Power, and Chair, Engineering Heritage Australia, Newcastle Division)
- J. Golding, Corporate Information Manager, Eraring Energy

4.2 Assessment of Coal Mining Collection
After an initial visit by J. Shoebridge and R. Melville to view the collection, J. Shoebridge made a further three visits to the site to assess the mining records.

Due to time constraints and the extent of the collection it was decided to limit assessment to the top drawer of each cabinet of mining records, and to every tenth document. Where this was not appropriate (the top drawer in cabinet 6 contained only blank paper, and in cabinet 8 the drawer was immovably jammed) another drawer in the cabinet was chosen.

All plans in the selected drawer were removed, laid flat and straightened and every tenth one was examined and the following details entered on a database (Appendix 3):

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
<th>Colliery</th>
<th>Date</th>
<th>Provenance</th>
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<tbody>
<tr>
<td>A number appearing on the document by which it may be subsequently identified.</td>
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<tr>
<td>A brief description of the purpose of the plan, generally taken from the title.</td>
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<tr>
<td>The colliery or property to which the plan refers.</td>
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<tr>
<td>If shown on document</td>
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<td></td>
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<tr>
<td>Under the following headings</td>
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</table>
4.3 Assessment of Power Collection

All drawers in these two cabinets were opened to confirm they did in fact contain drawings. No further examination of these plans was attempted but it was noted that it is an invaluable collection.

Discussions relating to the collection were held with C and M.J. Doring, Engineering and Heritage Consultants, who have a detailed understanding of Wangi Power Station which was the subject of an extensive heritage study carried out by them in 1990. R. Caldwell, former Manager, Northern Region, Electricity Commission/Pacific Power, and Chair, Engineering Heritage Australia, Newcastle Division was also consulted in relation to this portion of the collection.
5.0 KEY RECOMMENDATIONS

The collection yields the potential for extensive research into the technical, geological, engineering and social aspects of coal mining in that period. Despite this potential for research, the collection presently is limited in its capacity to provide easily accessible information, because of its poor storage and uncatalogued state. In order for it to be of any benefit to future research, it requires detailed, descriptive and sophisticated cataloguing of its contents.

5.1 Preservation and Storage

The storage of the collection needs to be addressed and is critical to its long-term preservation. It is recommended the collection be relocated to a more suitable archival repository, free from exposure to heat, light, insects, dust and pollutants, and with controlled environmental conditions.

All the plans should be removed from the plan cabinets they are currently stored in, as the cabinets are rusty and deteriorating, and causing damage to the documents. Also the cabinets are overcrowded, which is also causing damage to the documents.

Plans should ideally be stored in Mylar plastic sheeting and laid flat in a map/plan cabinet.

The optimum conditions for storage of the collection are a controlled environment that can assist in reducing natural deterioration processes. Ideal conditions for paper based items are in a stable and moderate environment, with relative humidity within a band of 45 - 55%, and a temperature range of between 18 - 22 °C generally recommended. Ideally they should be stored in the dark, with exposure to light only when necessary. The maximum recommended level of light for paper and organic materials is 50 lux.

Further information on the management and preservation of archival material can be found on the website of National Archives of Australia (NAA), at http://www.naa.gov.au/records-management/index.aspx

5.2 Cataloguing

In order to make the information contained within the collection available and accessible, it needs to be catalogued in a detailed and consistent manner. The cataloguing should include descriptive and computerised records of the collection together with digitised images thereby enabling it to be easily utilised for research purposes, to ensure its full significance is realised, and to ensure its preservation.

Currently there are persons alive who have been involved with mining technology and company structures of the 1930-1980 era and their input is essential to the proper cataloguing of this collection. Once this “window of opportunity” has passed, without documentation, hearsay will reign and it will be difficult, if not impossible, for historians and researchers to understand the reason for the preparation, and intended use of many of the items in this collection. Appendix 3 sets out some randomly selected examples to support this recommendation.
5.3 Digitisation
Digitisation of the collection should occur as an integral part of the cataloguing to further enhance its accessibility, and to reduce future handling and hence aid its preservation. The guidelines produced by the National Library of Australia for digitising collections should be followed in this process. The guidelines can be viewed at http://www.nla.gov.au/padi/
6.0 REFERENCES

Doring, C & M.J., Wangi Power Station Heritage Study, 1990
Skillen, S., Assessment of Collection: Coal Mining and Power Station Plans, Lake Macquarie City Council, January 2007
I Stewart (ed) Shaping the Hunter: The Engineering Heritage, Newcastle, 1983

Discussions with the following:

G & W Black (Richmond Vale Railway Museum)
R. Caldwell (Former Manager, Northern Region, Electricity Commission/Pacific Power, and Chair, Engineering Heritage Australia, Newcastle Division)
C & M.J. Doring, Engineering and Heritage Consultants
J. Golding, Corporate Information Manager, Eraring Energy
G. DiGravio, Archivist, University of Newcastle
J. Donne, former mine manager, Coal and Allied
K. Inglis, NSW Department of Primary Industries
J. Mullier (Archive Officer, Richmond Vale Railway Museum)
S. Ryan, Newcastle Region Library (Local Studies)
T. Ryan, former mine manager, Coal and Allied
APPENDIX 1

RANGE AND SCOPE OF COLLECTION
Based on Report prepared by
Sarah Skillen, 2007

COAL MINING COLLECTION

Collieries

The collection contains documents relating to the following collieries (or proposed collieries), all located within the Newcastle, Lake Macquarie, Cessnock and Upper Hunter regions:

Aberdare  Elrington  Rhondda
Aberdare East  Foybrook  Seaham
Aberdare North  Hebburn No.2  Stanford Main No.1
Aberdare Open Cut  Hunter Valley No 1  Stanford Main No.2
Aberdare West  Ironbark  Stockton No 1
Abermain No 2  Liddell  Stockton No 2
Ashton  Millfield  Stockton Borehole
Ayrfield  Minmi Open Cut  Swansea Open Cut
Bellford  Moonee  Teralba
Belltop  Mt Sugarloaf  Tomago North
Belmont  Mt Thorley  Ulan
Catherine Hill Bay  Neath  Wallamaine
Cessnock No 2  Newstan  Wallarah
Chain Valley  Northern Extended  Wallsend Borehole
Cooranbong  Ovingham No 1  Waratah
Crofton  Pelaw Main  Warkworth No 6
Delta No 1  Pelton Old  West Wallsend
Ellalong  Preston Extended  West Wallsend No 2

Companies and Organisations Represented in the Collection

The collection contains documents relating to the following organisations involved in the New South Wales mining industry: BHP, Newcom, Newstan, Caledonian Collieries, Cessnock Collieries, JABAS, Hebburn Limited, R.W.Miller, Coal & Allied as mine operators, and Hexham Engineering, Jeffrey, Fox, Joy, Lee Norse as mining equipment suppliers, along with the Joint Coal Board, the New South Wales Department of Mines and the New South Wales Lands Department (Statutory Authorities).

Coal Mining Content

The collection relates to all aspects of mining, including geology and geography, exploration and coal analysis, methods of mining, use of mechanical equipment, coal preparation, coal haulage, site rehabilitation and mine safety. The following list and photographs provide an outline of the content of documents in the collection:
Geology and geography

- Maps of mining leases
- Coal reserve maps
- Shire, county and parish maps
- Aerial land surveys
- Railway lands
- Railways on mining leases
- Colliery holdings and workings
- Position of water supply, power lines and sewer system on mining land
- Mine rehabilitation plans
- Surface subsidence plans
- Position and depths of bores
- Seam analysis (roof thickness, quality, occurrence, variations and faults)
- Coal haulage roads
- Minmi township plans
- Mine development plans

Methods of mining

- Plans for proposed longwall mining - design, procurement and installation
- Longwall mining panel layouts
- Pillar extraction sequence and support rules
- Applications for pillar extraction
- Roof fall plans
- Timbering diagrams
- Chemical roof bolting diagrams
- Systematic support rules
- Breakaway rules
Mechanical/electrical equipment

- Machinery alterations to fit particular conditions
- Transformer circuit arrangements
- Coal preparation plants
- Loading facilities/Machinery wiring diagrams
- Conveyor drift
- Fan control unit
- Underground water reticulation
- Underground transport systems
- Ventilation shafts
- Conveyor belt system installation schedule
- Site plans for buried machinery

General

- Site plans for accidents
- Plans of egress
- Accident report diagrams
- Organisational charts
- Ambulance trolley detail
- Shipping plans
- Hexham Workshops & Coal Preparation Plant
- Hexham Sidings
- Company cottage floor plans

POWER COLLECTION

The collection also contains documents from the Electricity Commission, the Department of Railways and various engineering companies in relation to the construction, commissioning and operation of Wangi Power Station.
APPENDIX 2

SUMMARY OF EXAMINED ITEMS

In all 117 plans were examined. The earliest was dated 16/11/1936 (Aberdare Central Colliery) and the most recent was dated 17/11/1988. (Hunter Valley Open Cut).

The number of plans falling under the various headings is noted in brackets:-

(26) **Engineering:** Plans which enable an item to be manufactured or a structure erected. Includes electric circuit diagrams and washery flow sheets.

(2) **Environmental:** Plans to accompany Environmental Impact Statements.

(20) **Geology:** Borehole logs and sites, coal seam sections, coal seam contours.

(14) **Leases:** Surveys in connection with surface and underground leases. Includes cadastral maps.

(1) **Miscellaneous:** In this case relating to the Richmond Vale Railway

(17) **Report:** Plans prepared to accompany specific reports - often difficult to interpret without relevant documentation.

(3) **Statutory:** Plans required by the Coal Mines Regulation Act (eg Roof Support Standards) or for the Coroner (Fatal accident site)

(34) **Survey:** Plans of underground mine workings, open cuts and mine surface layouts.
APPENDIX 3

EXAMPLES OF RANDOMLY SELECTED ITEMS
WITH SUGGESTED CATALOGUING FORMAT

1 H/a-4 : (Lease)
Part colliery holding; West Wallsend Colliery
Plans were regularly prepared to indicate surface features above colliery holdings for subsidence control and royalty accounting. In this case it is not clear why this plan was prepared. (West Wallsend Colliery was in West Wallsend)

20 H/q-194 :
Proposals for longwall working; Wallarah Colliery
This is an overall plan of the colliery for consideration prior to making a recommendation to introduce longwall mining. Such a recommendation would take into account geological, quality and haulage constraints. Probably prepared in conjunction with a report to the Superintendent of Collieries. (Wallarah Colliery was at Catherine Hill Bay)

30 H/a3- 25: (Survey)
Outlying timber properties... Various collieries
Mine timber for roof support was a vital item of consumable stores. Major coal companies owned or leased their own forest areas. Records were maintained with regard to re-growth, species and size of trees. Even with land worked by private contractors, reliability of supply, access during wet weather and economical haulage distances were matters to be regularly monitored.

40 H/a4-106 : (Survey)
Proposed roadwork acquisition; Mount Thorley Colliery.
With all surface mines, “haul roads” situated beyond the area of the mine workings were necessary for removal of overburden and transport of coal. This plan appears to indicate land which had to be purchased or leased for this purpose.

50 H/a4-204 : (Geology)
Bore section No 35; Northern (Rhondda) Colliery.
Boreholes were drilled across most mine properties and the geological information revealed in the cores was recorded to permit mine planners to design the most economical mine layout. (Northern Colliery was between Teralba and Wakefield)

60 08-031 : (Geology)
Greta Northern Seam ; Northern Extended Colliery.
For the same reason as above, Company geologists routinely took and recorded vertical sections of the coal seam being worked in all coal mines. (Northern Extended Colliery was at Teralba)
70 02-3: (Engineering)  
Bin support, screening plant; Stockrington No 2 Colliery.  
This is an engineering drawing to permit the fabrication of a support leg for a small-coal bin at Stockrington Colliery. (Stockrington Colliery was near Minmi)

80 37-002: (Survey)  
Refuse disposal area; Aberdare Extended Colliery open cut.  
When older mines reached their economic life, at times, otherwise inaccessible coal was mined by means of an open cut. This was the case at Aberdare Extended Colliery and this plan appears to have been drawn to indicate where the overburden and refuse from the seam could be temporarily stowed prior to backfilling. (Aberdare Extended Colliery was in Cessnock)

90 AN-a1-1: (Survey)  
Slurry pipeline; Aberdare North Colliery.  
Coal-slurry which was generated when small coal was washed, was always difficult to dispose of in a environmentally acceptable manner. In this case, it was run into the worked-out portion of the mine (goaf) and the plan indicates the route of a pipeline between the Neath Coal Preparation Plant and the Aberdare North Tunnel. (Aberdare North Colliery was between Cessnock and Neath)

10 19-192: (Report)  
Proposal for longwall mining; Wallarah Colliery 5/6/1984  
Following investigation of several districts in the mine, this appears to be the final proposal recommended by Colliery Manager and submitted to the Chief General Manager and thence to the Board. It would have been accompanied by a comprehensive report. (Wallarah Colliery was at Catherine Hill Bay)