Environmental Management System

Bloomfield Open Cut

MANAGEMENT PLAN

Doc No: EMP001- Historical Heritage Conservation Management Plan
Doc Owner: Environmental Advisor- Bloomfield Open Cut

Approval: Group Environmental Manager – The Bloomfield Group
Signed: ____________________________
Date: DD/MM/YYYY

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1. Introduction

1.1 BACKGROUND

The Bloomfield Colliery is an existing open cut mining operation located approximately 20 kilometres north-west of Newcastle. The Bloomfield Colliery is operated by Bloomfield Collieries Pty Limited (Bloomfield), part of the Bloomfield Group of companies. It currently operates in accordance with Project Approval 07_0087 issued under Part 3A (repealed) of the Environmental Planning and Assessment Act 1979 (EP&A Act), with approved production levels of 1.3 million tonnes per annum (Mtpa) of Run of Mine (ROM) coal.

The current operations at the Bloomfield Colliery also include various mining items and activities that are approved as part of the Abel Project Approval (MP 05_0136) for the Abel Underground Mine, granted by the Minister for Planning to Donaldson Coal Pty Limited on 7 June 2007. These infrastructure items and activities include:

- Coal Handling and Preparation Plant (CHPP) and associated water management;
- Rail loading facility; and
- Coarse reject and tailings disposal and coal handling.

While the Abel Underground Mine is currently in care and maintenance, Bloomfield continue to operate these facilities in accordance with the relevant Abel Project Approval conditions of consent.

On 16 August 2018, Bloomfield Collieries received approval under Section 75W of the EP&A Act to modify Project Approval 07_0087 to allow for the continuation of mining within Consolidated Coal Lease (CCL) 761 and Mining Lease (ML) 1738 to 31 December 2030. As a condition of that Project Approval modification (Mod 4), Bloomfield Collieries is required to prepare and implement a Historic Heritage Conservation Management Plan (HHCMP). This management plan has been prepared in fulfilment of that requirement.

1.2 PURPOSE

The purpose of this HHCMP is to comply with Schedule 3, Condition 31B of Project Approval 07_0087 (as modified) and, in doing so, facilitate the management of historic heritage impacts as a result of Bloomfield Colliery’s activities.

1.3 SCOPE

This HHCMP applies to the management of the following historic heritage items:

- Buttai No 1 and No 2 Reservoirs; and
- Buttai Cemetery.

The processes documented in this plan are applicable to all Bloomfield employees and contractors.
1.4 MANAGEMENT PLAN CONTRIBUTORS

A summary of the qualifications and experience of the contributors to this HHCMP is presented in Table 1-1.

<table>
<thead>
<tr>
<th>Contribution</th>
<th>Name</th>
<th>Qualifications</th>
<th>Experience summary</th>
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<tbody>
<tr>
<td>Co-author</td>
<td>James McDonough</td>
<td>BSc, MEnvMgt</td>
<td>12 years’ experience in environmental impact assessment and management for mining and infrastructure projects</td>
</tr>
<tr>
<td>Co-author</td>
<td>Michelle Kiejda</td>
<td>BEnvSc, PGCertAppSc, CEnvP</td>
<td>18 years’ experience in environmental impact assessment and management for mining and infrastructure projects</td>
</tr>
<tr>
<td>Technical review – heritage</td>
<td>Dr Mary-Jean Sutton</td>
<td>BA, Hons (Archaeology (Prehistorical and Historical), PhD (Archaeology), MEIANZ, MAACAI, MAAS.</td>
<td>20 years’ experience in Aboriginal and historical heritage assessment and management for infrastructure projects</td>
</tr>
<tr>
<td>Technical review – structural</td>
<td>Lester Gellately</td>
<td>BE (Hons 1)</td>
<td>25+ years’ experience in civil and structural engineering for building and infrastructure projects</td>
</tr>
</tbody>
</table>

2. Statutory Requirements

The following comprises a summary of statutory requirements relevant to this HHCMP.

2.1 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT

The relevant conditions of Project Approval 07_0087 and a reference to where each has been addressed in this HHCMP are presented in Appendix A.

2.2 HERITAGE ACT 1977

The NSW Heritage Act 1977 (as amended) was enacted to conserve the environmental heritage of NSW. Under Section 32, places, buildings, works, relics, movable objects or precincts of heritage significance are protected by means of either Interim Heritage Orders or by listing on the NSW State Heritage Register. Items that are assessed as having State heritage significance can be listed on the State Heritage Register by the Minister on the recommendation of the NSW Heritage Council.
Proposals to alter, damage, move or destroy places, buildings, works, relics, movable objects or precincts protected by an Interim Heritage Order (IHO) or listed on the SHR require an approval under Section 60. The ‘relics provision’ requires that no archaeological relics be disturbed or destroyed without prior consent from the Heritage Council of NSW. Therefore, no ground disturbance works may proceed in areas identified as having archaeological potential without first obtaining an excavation permit pursuant to Section 60 of the Heritage Act 1977 or an archaeological exemption.

Under Section 170 of the Heritage Act 1977, NSW Government agencies are required to maintain a register of heritage assets. The register places obligations on the agencies, but not on non-government proponents, beyond their responsibility to assess the impact on surrounding heritage items.

Archaeological features and deposits are afforded statutory protection by the ‘relics provision’. Section 4(1) of the Heritage Act 1977 (as amended 2009) defines a ‘relic’ as follows:

“(a) any deposit, artefact, object or material evidence that:
(b) relates to the settlement of the area that comprises NSW, not being Aboriginal settlement, and
(c) is of State or local heritage significance”.

Buttai Reservoir No 1 and No 2 are listed on the NSW State Heritage Inventory under Hunter Water’s register of heritage assets, as required under Section 170 of the Act. The significance of the reservoir sites are described in both the State Heritage Inventory listings and Hunter Water register of heritage assets:

*Buttai Reservoir No 1 is the oldest operating reservoir within the Hunter Water system. Constructed as an intermediate water storage for the original water supply scheme which pumped water from the Hunter River into Newcastle, it continues to function within the modern water supply system. The vaulted brick arch construction is uncommon and includes a finely detailed sandstone entry. The reservoir is unusual in that the tops of the arches are exposed, allowing the structure of the reservoir to be fully viewed.*

*Buttai Reservoir No. 2 is part of the 1920s expansion to the Walka system, following the commissioning of Chichester Dam. The Reservoir was built adjoining Reservoir No. 1 and represents an evolution in reservoir construction technique and a continuation of use of the Buttai Reservoir site.*

Buttai Reservoir No.1 and Buttai Reservoir No. 2 relate to the Australian historic theme of settlement building, the New South Wales historic theme of utilities, associated with the provision of services on a communal basis and the local theme of water. Buttai Reservoir No.1 meets the State Heritage Register significance criteria of historical, aesthetic and social significance, research potential, rarity and representativeness (refer to Table 2-1). The fabric is relatively intact with some modifications to the entrance portico and the construction of an internal connection to the later Buttai Reservoir No. 2.
Table 2-1  Buttai Reservoir No.1 Significance Assessment

<table>
<thead>
<tr>
<th>State Heritage Register Criteria</th>
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<td>a) Historical significance</td>
<td>Buttai Reservoir No 1 was a major component of the Walka Scheme, which pumped water from the Hunter River into central Newcastle. The Reservoir served as an interim storage for the Scheme and helped maintain pressure within the system. It is the oldest operating reservoir within the Hunter Water system.</td>
</tr>
<tr>
<td>c) Aesthetic significance</td>
<td>The Buttai Reservoir No 1 has a finely detailed entrance portico contructed in sandstone, which demonstrates the civic pride taken in the public infrastructure of the day, even for remote and inaccessible items such as this site.</td>
</tr>
<tr>
<td>d) Social significance</td>
<td>Limited significance against this criterion while bringing water into Newcastle would have been of major social import in the late 19th century, this type of public service is commonplace and expected in modern Australia.</td>
</tr>
<tr>
<td>e) Research potential</td>
<td>Limited significance against this criteria the archaeological remains of the former Turncock's House are located near the entrance to the reservoir, however the building was only burnt down recently. The exposed upper surface of the brick arched roof is unusual and allows a good understanding of the construction of the reservoir.</td>
</tr>
<tr>
<td>f) Rarity</td>
<td>The item is rare as the oldest operating reservoir within the system.</td>
</tr>
<tr>
<td>g) Representativeness</td>
<td>The item is typical of underground brick arched reservoirs.</td>
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2.3 CESSNOCK LOCAL ENVIRONMENTAL PLAN 2011

Part 5, Section 5.10 of the Cessnock LEP 2011 deals with heritage conservation. All heritage items listed on the LEP are included in Schedule 5. The Cessnock LEP states:

(1) The objectives of this clause are as follows:
   a. to conserve the environmental heritage of Cessnock,
   b. to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,
   c. to conserve archaeological sites,
   d. to conserve Aboriginal objects and Aboriginal places of heritage significance.
(2) Development consent is required for any of the following:

a. demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance):
   i. a heritage item,
   ii. an Aboriginal object,
   iii. a building, work, relic or tree within a heritage conservation area,

b. altering a heritage item that is a building by making structural changes to its interior or by making changes to anything inside the item that is specified in Schedule 5 in relation to the item,

c. disturbing or excavating an archaeological site while knowing, or having reasonable cause to suspect, that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed,

d. disturbing or excavating an Aboriginal place of heritage significance,

e. erecting a building on land:
   i. on which a heritage item is located or that is within a heritage conservation area, or
   ii. on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance,

f. subdividing land:
   i. on which a heritage item is located or that is within a heritage conservation area, or
   ii. on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance.

The Buttai Cemetery/Elliot Family Graves are listed on the State Heritage Inventory as an item of local heritage significance under Schedule 5 of the Cessnock LEP. The significance of the cemetery is described in the State Heritage Inventory LEP listing as:

The cemetery documents the history of the Elliott family over a period of 100 years. The achievement of this family was their successful pioneering of the Hunter Valley District which is manifest in the continuity of their association with this cemetery (Pike, Walker and Associates, 1994).

The Buttai Cemetery/Elliot Family Graves relate to the Australian historic theme of phases of life, the New South Wales historic theme of birth and death, disposal of the dead, and local historic theme of the lifecycle.

2.4 RELEVANT STANDARDS AND GUIDELINES

2.4.1 Australia ICOMOS Burra Charter

The Australia ICOMOS Burra Charter (Burra Charter) is widely accepted in Australia as the underlying methodology used for all works to sites/buildings identified as having national, state and regional heritage significance.
Buttai Reservoir No 1 and No 2 are of demonstrated cultural significance. Buttai Reservoir No.1 demonstrates aesthetic, historic, scientific and social values that meet state heritage significance and future listing on the State Heritage Register (refer to Section 2.2 and Table 2-1). The Buttai Reservoir No.2 contributes to local character and should be conserved. Therefore, procedures for managing changes and activities at the site should be in accordance with the recognised conservation methodology of the Burra Charter. A CMP was previously prepared for the Buttai Reservoirs by Futurepast (2012) for these assets owned by Hunter Water Corporation, which is still current and the primary management document for these items.

Management at these items follows the conservation methodology of the Burra Charter and includes for Buttai Reservoir 1:

- Original details should be maintained including doors, windows and original signage.
- New materials should be sympathetic to the nature and character of the original building. In the event of major proposed changes, prepare a Conservation Management Strategy and undertake an archival recording.
- Wherever possible, changes should be restricted to the interior of the building and be designed to minimise impact to significant fabric.
- Routine maintenance of existing fabric is essential.
- Additionally, management for Buttai Reservoir No.2 should be followed as per: the Buttai Reservoirs Site Conservation Management Plan (FuturePast 2012) to facilitate appropriate long-term management and proposed changes should be assessed against the Standard Exemptions for Works Requiring Heritage Council Approval and, if necessary, seek approval under the Heritage Act.

2.4.2 Guidelines on conservation management plans and other management documents

The Guidelines on conservation management plans and other management documents (Heritage Office, 2002) provide information for the preparation of documents such as statements of heritage significance, conservation policies, conservation management plans and statements of heritage impact. The Guidelines (2002) require that a conservation management plan should state a conservation management policy and statement of significance and provide recommendations to achieve future viability of heritage items and to retain heritage significance in future development proposals.

The guidelines state that a statement of significance should be based on sound research and analysis and summarise:

- Facts about the item gathered from physical and documentary research;
- The nature and degree of an item’s significance; and
- Why an item is valued by the community.
The guidelines state that a conservation policy should:

- Explain the principles to be followed to retain or reveal an item’s significance;
- Be a positive set of guidelines for enhancing a heritage asset and its significance - not a restrictive set of rules; and
- Be closely related and cross referenced to the statement of significance.

Conservation policies should also consider the following management issues:

- Necessary emergency works;
- Security and maintenance;
- Conservation of the item's setting, where this is part of its significance;
- Financial resources;
- Management resources and issues;
- The need for signs (directional, interpretive, advertising) and how they should be designed and placed;
- Interpretation of heritage significance; and
- Community access to the item.

As the Futurepast (2012) CMP is prepared already for the Buttai Reservoirs this document should be followed as the primary document for future management for these heritage items and it meets the Heritage Division CMP guidelines. As the Buttai Cemetery is not of State heritage significance and is only a local heritage item, already the subject of detailed condition assessments by AECOM (2018), a detailed CMP to Heritage Division requirements is not appropriate.

### 3. Consultation

Consultation activities relevant to the preparation of this management plan are summarised in Table 3-1.

#### Table 3-1 Management plan consultation summary

<table>
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<th>Stakeholder</th>
<th>Consultation summary</th>
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<tr>
<td>Office of Environment and Heritage (OEH)</td>
<td>A letter was provided on 5 April 2019 requesting copies of any historical or technical information relevant to the preparation of the management plan. A response was received on 17 April 2019 confirming receipt of the letter and deferring consultation to the relevant local authority/landholder and to Department of Planning. Heritage Division’s library was consulted and reviewed for preparation of this HHCMP for relevant reports and documents.</td>
</tr>
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Stakeholder | Consultation summary
--- | ---
Hunter Water | A letter was provided on 5 April 2019 requesting copies of any historical or technical information relevant to the preparation of this management plan. A response was received on 9 April 2019. Hunter Water provided the Buttai Reservoirs Site Conservation Management Plan (Futurepast 2012).
A meeting between Bloomfield, GHD Pty Ltd, Virtus Heritage, and Hunter Water was held on Thursday 2 May 2019 to discuss the proposed historic heritage monitoring and contingency plan for inclusion in the management plan. This HHCMP has been prepared to reflect the proposed monitoring and contingency plan discussed at the meeting.

Cessnock City Council | A letter was provided on 5 April 2019 requesting copies of any historical or technical information relevant to the preparation of this management plan. A response was received on 9 April 2019. The Local Studies Librarian provided the following reports/documents:
- Environmental impact statement for proposed quarrying at Buttai (ERM Resource Planning 1995)
- Environmental impact statement for proposed rehabilitation program/landfill operation Lot 75 DP 755260, Buttai /Prepared for Carlewie Pty Ltd by Umwelt (Australia) Pty Limited (Umwelt 2000)
- Millfield, Ellalong, Brunkerville, Buttai, Glenmore, Mount Vincent, Mulbring and Rothbury cemeteries (Delaney 1982)
- Wilfred Elliot Private Cemetery Buttai (Parnell and Smith undated.)
Where relevant, information from these documents is integrated into this HHCMP.

Relevant landowners | As already outlined HWC, as the relevant landowner for the Buttai Reservoirs, has been consulted for preparation of the HHCMP. The Buttai Cemetery is owned by Bloomfield Colliery who has prepared this HHCMP.

4. Existing environment
The existing condition of Buttai Reservoirs No 1 and No 2 and the Buttai Cemetery is described in the following subsections.

4.1 BUTTAI RESERVOIRS NO 1 AND NO 2
Buttai Reservoirs No 1 and No 1 are located on Lot 1, Buttai Road, Four Mile Creek. The site’s immediate surrounds are characterised by remnant woodland vegetation, with mining operations to the north, east and south (refer to Figure 4-1).
4.1.1 Historical context

Construction on the Buttai Reservoir No 1 was completed in 1881. It was constructed of brickwork set in Portland cement with solid concrete foundations on a sandstone bed. The reservoir originally had a capacity of 1,000,000 gallons of water (4.2 megalitres) (Armstrong, 1967). The first water from Buttai came to the reservoir at Newcastle on 31 December 1885.

Originally, Buttai Reservoir No 1 received water from the Walka Waterworks. Extracting water from the Hunter River, Walka Waterworks filtered and treated this water before transferring it into the two summit reservoirs, situated at East Maitland and Buttai, respectively (Armstrong, 1967). As the Hunter River water delivered from Walka Waterworks needed to be sheltered from light to prevent recontamination after treatment, the reservoirs were covered (Armstrong, 1967). Buttai Reservoir No 1 was roofed over with brick arches that were covered with earth and grass, which helped maintain the water at a low temperature and keep it free from contamination (Armstrong, 1967). Buttai Reservoir No 1 was constructed on top of a range about 5 ½ miles (3.4 kilometres) from the pumps at Walka Waterworks and was supplied through a 15 inch (384 millimetre) rising main.

Buttai Reservoir No 1 supplied water, via gravitation, to six district reservoirs at Minmi, Hamilton, Wallsend, Newcastle, Lambton and Obelisk Hill, thus commanding reticulation to the City of Newcastle, Carrington, Wickham, Hamilton, Waratah, Merewether, Adamstown, New Lambton, Lambton, Wallsend, Plattsburg and Minmi (Armstrong, 1967).

In the late 1920s, due to the increases in water reticulation from the construction of Chichester Dam, Buttai Reservoir was extended to hold a further 3,500,000 gallons (14.7 megalitres) of water to obviate shortages of water supply to Cessnock (Armstrong, 1967). The reservoir extension, Buttai Reservoir No 2, was completed in 1928.

In 1984, epoxy injections were used to repair the walls and floor cracks in the Buttai Reservoirs. These repairs included cleaning out and rejoining vertical wall joints, epoxy pressure injections in some of the wall cracks and epoxy pressure injections in some of the floor cracks.

In December 1986, CCTV was used to inspect scour pipes from the No 1 Reservoir. Vitreous Clay pipes in several locations showed signs of severe cracks. Alterations were made so that the No 1 Reservoir would scour into No 2 and the scour line under No 2 Reservoir was abandoned.

Following the 1989 Newcastle Earthquake, increasing cracks were found in the floor of the Buttai Reservoir No 1, as well as cracks in the roof structure at the bottom of the brick arches and at the top of the column supports, with roof intrusion present.

In the late 1990s, it was decided to roof the remaining open reservoirs under the control of the Hunter Water Corporation. By June 1999, construction of the roof of the Buttai Reservoir No 2 had commenced (Hunter Water Corporation, 1999).

In 2002, it was reported that Buttai Reservoir was leaking in a number of places through cracked floor joints, wall joints and cracked floor slabs. Temporary patching was tried but failed. Permanent repairs to the reservoir to stop the leaks were eventually made by Hunter Water and the reservoir remains in service.
4.1.2 Physical condition of Buttai Reservoirs No 1 and No 2

A site inspection of Buttai Reservoirs No 1 and No 2 was undertaken on 6 July 2018 by AECOM (AECOM, 2018a). A pedestrian survey was completed around the exterior of the reservoirs. The purpose of the inspection was to undertake a detailed photographic recording of the exterior of the structure, and inspect the condition of the external reservoir components. A summary of the findings of the site inspection, with regard to the physical condition of the reservoirs, is presented in the following subsections. The layout of the site is illustrated in Figure 4-2. Hunter Water has undertaken repairs since the inspection was undertaken in 2018., and revised baseline conditions have been agreed upon based on recent visual inspections.

4.1.2.1 Northern façade

The northern façade includes the sandstone portico and entrance, concrete stairs that access the roof area, seven terracotta drainage pipes and five cast iron vents at the front of Reservoir No 1. The northern façade also includes the concrete and steel façade of Reservoir No 2 that abuts, and joints to, the western side of Reservoir No 1.

The condition of the key features along the Northern façade is summarised as follows:

- There is exfoliation of the skin of the sandstone on both columns and around the door within the arched sandstone entrance of the sandstone portico. Some of the sandstone blocks have started to separate around the doorway, and within the top section
- Terracotta pipes are in good working order. The ends of the pipes have been cracked and fractured.
- The bricks within the façade wall are considered to be in good condition with very few bricks having been repaired or replaced.
- Almost the whole of the northern façade brickwork has been repointed. No repointing has been done along the lowest visible course of brickwork.
- The sandstone capping stones appear in very good condition.
- The steel associated with Reservoir No 2 is all new and is all considered to be in good condition.
- The concrete walls are in good condition. There is one casting joint present approximately five metres in from the western corner that has cracking and some exfoliation of the outer skin of the concrete.

4.1.2.2 Eastern façade

The eastern façade of reservoirs includes the brick and sandstone façade of Reservoir No 1, and the concrete façade of Reservoir No 2 that abuts and joins to Reservoir No 1.

The condition of the key features along the Eastern façade is summarised as follows:

- The brickwork along the eastern façade of Reservoir No 1 is generally in good condition. There is evidence of some repointing to the mortar joints and sections where the mortar has severely eroded out. This does not appear to have caused any structural damage.
- There is evidence of water damage to the brickwork, causing discolouration.
4.1.2.3 Southern façade

The southern façade of the reservoirs consists of Reservoir No 2 only. The shape of the reservoir along the southern façade includes two walls. A northeast to southeast orientated wall that comes off the eastern façade, and a southern façade wall. Both walls consist of concrete façade walls with a metal flashing that attaches to the steel roof.

The condition of the key features along the Southern façade is summarised as follows:

- The sandstone wall along the southern façade wall that is orientated northeast to southwest is in good condition.
- The concrete face is covered extensively with mould, but has caused any damage to the integrity of the wall.
- The concrete wall is also in good condition, with the exception of two sections where there is evidence of exfoliation. There is also one continuous crack from the top to below the visible section of the wall.

4.1.2.4 Western façade

The western façade of the reservoirs is associated wholly with Reservoir No 2, and consists of two separate façade sections. The southern portion of the façade wall consists of a wall running northwest to southeast, and the second section is the western wall that runs north-south. The first portion of the western façade includes the concrete spillway.

The condition of the key features along the Western façade is summarised as follows:

- There is cracking near the corner of the concrete façade wall and approximately 7 metres along the wall to the northwest.
- There is a casting joint present at approximately 12.4 metres from the south-western corner. The casting joint has some signs of exfoliation of the outer skin of the concrete.
- The spillway cover has been upgraded recently. This consists of a black rubber cover over the top of a steel mesh. This has been bolted to the concrete façade wall.
- There is another casting joint present approaching the north-eastern end of this section of the western façade. The joint is in good condition, with only minor cracking present along the joint. Two reinforcing rods are exposed at the casting joint.
- From the junction of the first western façade wall to the north-south orientated façade wall the roof of the reservoir is no longer higher than the metal flashing.
• There is one major crack and exfoliation of the concrete skin immediately to the north of this corner of the reservoir where the reinforcing rod has been exposed. This crack extends to the casting joint where it was formed.

• There is another casting joint near the northwest corner of the reservoir. This casting joint shows minimal signs of damage to the corners of the joints.

4.1.2.5 Reservoir No 1 roof

The roof consists of six brick arches that have been covered with bitumen. Between each of the arches are curved spoon drains that slope from the south towards the north, that exit through the terracotta pipes in the northern brick façade.

The brickworks associated with the second, inside, course of the façade walls associated with Reservoir No 1 have all been repointed. The repointing has been completed roughly in places and covers over whole sections of bricks. There does not appear to be damage to the inside wall of the brick façade.

4.2 BUTTAI CEMETERY

The Buttai Cemetery is located at 659 John Renshaw Drive, Buttai (refer to Figure 4-1). The cemetery consists of two separate burial areas, known as Buttai Cemetery No 1 and No 2. Buttai Cemetery No 1 consists of 21 headstones, and Buttai Cemetery No 2, located 100 m to the west of No 1, consists of two burials and five plaques.

An inspection of Buttai Cemetery was undertaken on 5 July 2018 (AECOM, 2018b). The inspection recorded the layout and condition of the cemetery, and each individual headstone and grave site that had physical remains present. The layout of the cemetery is illustrated in Figure 4-3.

4.2.1 Physical condition of Buttai Cemetery

There are five rows of visible extant headstones and graves present in the main section of the cemetery (Buttai Cemetery No 1). There are 21 visible headstones and/or graves present in the main portion of the cemetery. Some of the graves have two or more burials associated with each headstone. Buttai Cemetery No 2 is located 100 m to the west of Buttai Cemetery No 1 and consists of two grave sites.

The condition of the Buttai Cemetery has been impacted in some instances by weathering, breakage and lichen growth. This is to be expected given the age of the cemetery and graves. The overall condition of the grave sites is considered to be good.
5. **Heritage management**

5.1 **MONITORING**

5.1.1 **Blast monitoring**

Blasting undertaken as part of the mining process at Bloomfield Colliery is the key activity with the potential to adversely impact the Buttai Reservoirs No 1 and No 2 and Buttai Cemetery. Specifically, it is the ground vibration from blasting activities that has the potential to cause superficial and structural damage to these sites.

As described in the Blast Monitoring Program, Bloomfield operate four blast monitors, listed as follows:

- Blast Monitor Site M – John Renshaw Drive, Buttai;
- Blast Monitor Site N – Lings Road, Buttai;
- Blast Monitor Site G – Buchanan Road, Buchanan;
- Blast Monitor Site H – Mt Vincent Road, Louth Park.

A new blast monitor at the Buttai Reservoirs No 1 and No 2 will be established and used as the ground vibration monitoring location for comparison against trigger values only (refer to section 5.1.2).

The ground vibration measurements undertaken during routine blast monitoring at Bloomfield Colliery will be used as triggers to identify the need for further detailed investigations.

5.1.2 **Blast trigger values**

Bloomfield considered a range of information sources in establishing appropriate blast monitoring trigger values for the management of historic heritage impacts. The information sources considered, and an explanation as to the suitability of the each, are presented Table 5-1.

**Table 5-1: Information considered for establishment of blast monitoring triggers**

<table>
<thead>
<tr>
<th>Information source</th>
<th>Suitability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Standard AS 2187.2-2006</td>
<td>This standard does not specify guideline vibration criteria for heritage buildings and therefore was not considered appropriate.</td>
</tr>
</tbody>
</table>
Following consideration of the above information sources, two levels of trigger values for blast monitoring have been determined to be appropriate, as follows:

- Level 1 trigger set at >5mm/sec ppv; and
- Level 2 trigger set at >10mm/sec ppv.

### 5.1.3 Visual inspections

Visual inspections will be undertaken in response to pre-determined Level 1 blast vibration triggers (refer to Table 5-2) at the Buttai Reservoirs No 1 and No 2 and on an annual basis at the Buttai Cemetery to identify any damage to heritage assets that may have been caused by Bloomfield Colliery’s operations.
They will involve inspecting the visible elements of the heritage assets and comparing the condition of relevant elements against the established baseline conditions outlined in the physical condition reports refered to Section 4 (AECOM 2018a; 2018b), or subsequent physical condition reports which have been confirmed as the revised baseline. In the case of Buttai Reservoirs No 1 and No 2, revised baseline conditions will be agreed in consultation with Hunter Water.

Inspections of Buttai Reservoirs No 1 and No 2 will be commissioned by Hunter Water. The first inspection would be undertaken by suitably qualified and experienced reservoir inspectors, and depending on the outcome of the inspection, further investigations by a historic heritage management practitioner may be required. Hunter Water would recoup the cost of inspections from Bloomfield where they have been initiated due too the exceedances of trigger values. Inspections of Buttai Cemetery will be commissioned by Bloomfield. Further details regarding the triggers for inspections and the response actions to be undertaken by Bloomfield and Hunter Water are presented in Section 5.2.

5.1.4 Detailed internal inspections

Detailed internal inspections will be undertaken in response to pre-determined Level 2 blast vibration triggers (refer to Table 5-2) to identify any damage to the internal structure of the Buttai Reservoirs No 1 and No 2 that may have been caused by Bloomfield Colliery’s operations. The inspections will be undertaken using divers or Remote Operated Vehicles to inspect the inside of the water storage reservoirs to identify any structural damage that may require rectification.

Detailed internal inspections will be completed by suitability qualified and experienced personnel with appropriate scuba diving certifications. Inspections of Buttai Reservoirs No 1 and No 2 will be commissioned by Hunter Water. Hunter Water would recoup the cost of inspections from Bloomfield where they have been initiated due too the exceedances of trigger values. Further details regarding the triggers for inspections and the response actions to be undertaken by Bloomfield and Hunter Water are presented in Section 5.2.

5.2 CONTINGENCY PLAN

The contingency plan for managing impacts to historic heritage items as a result of Bloomfield Colliery operations is presented as a Trigger Action Response Plan (TARP) in Table 5-2 and Table 5-3.
### Table 5-2 Trigger Action Response Plan Buttai Reservoirs No 1 and No 2

<table>
<thead>
<tr>
<th>TRIGGER</th>
<th>HERITAGE SITE(S)</th>
<th>ACTION</th>
<th>RESPONSE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LEVEL 0 TRIGGER:</strong></td>
<td>Buttai Reservoirs No 1 and No 2</td>
<td>No action required</td>
<td>No response required</td>
</tr>
<tr>
<td>Bloomfield blast monitor records ground vibration &lt;5mm/sec peak particle velocity (ppv)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **LEVEL 1 TRIGGER:**           | Buttai Reservoirs No 1 and No 2 | • Bloomfield provides written notification of Stage 1 blast trigger to Hunter Water within 7 days.  
• Hunter Water coordinates a visual inspection of Buttai Reservoirs No 1 and No 2 (as per Section 5.1.3).  
• Hunter Water provides a copy of the visual inspection report to Bloomfield. | The response will be dependent on the outcomes of the visual inspection, as follows:  

**No impacts identified during visual inspection**  
• If the visual inspection identifies no change to the condition of the Buttai Reservoirs No 1 and No 2, then no remedial actions will be undertaken.  
• Bloomfield will report the outcomes of the Stage 1 trigger and response in the Annual Review, and if required, update this management plan.  

**Impacts identified during visual inspection**  
• If the visual inspection identifies a change to the condition of the Buttai Reservoirs No 1 and No 2 which is considered attributable to Bloomfield’s operations, then Bloomfield will liaise with Hunter Water to facilitate remedial works in accordance with relevant standards and guidelines. |
<table>
<thead>
<tr>
<th>TRIGGER</th>
<th>HERITAGE SITE(S)</th>
<th>ACTION</th>
<th>RESPONSE</th>
</tr>
</thead>
</table>
| LEVEL 2 TRIGGER*: Bloomfield blast monitor records ground vibration >10mm/sec ppv | Buttai Reservoirs No 1 and No 2 | Bloomfield provides written notification of Stage 2 blast trigger to Hunter Water within 3 days. Hunter Water coordinates detailed internal inspection of Buttai Reservoirs No 1 and No 2 (as per Section 5.1.4). Hunter Water provides a copy of the detailed internal inspection report to Bloomfield. | The response will be dependent on the outcomes of the detailed internal inspection, as follows:  
**No impacts identified during detailed internal inspection**  
- If the detailed internal inspection identifies no change to the condition of the Buttai Reservoirs No 1 and No 2, then no remedial actions will be undertaken.  
- Bloomfield will report the outcomes of the Stage 2 trigger and response in the Annual Review, and if required, update this management plan.  
**Impacts identified during visual inspection**  
- If the detailed internal inspection identifies a change to the condition of the Buttai Reservoirs No 1 and No 2 which is considered attributable to Bloomfield’s operations, then Bloomfield will liaise with Hunter Water to facilitate remedial works in accordance with relevant standards and guidelines.  
- Hunter Water will then coordinate a follow-up inspection of the Buttai Reservoir No 1 and No 2 to establish a revised baseline for ongoing management and provide a copy of the follow-up inspection report to Bloomfield.  
- Bloomfield will report the outcomes of the Stage 2 trigger and response in the Annual Review, and if required, update this management plan. |

*Note: *if the Level 2 Trigger is exceeded, the actions and responses will include those for the Level 2 Trigger in addition to those for the Level 1 Trigger.*
<table>
<thead>
<tr>
<th>TRIGGER</th>
<th>HERITAGE SITE(S)</th>
<th>ACTION</th>
<th>RESPONSE</th>
</tr>
</thead>
</table>
| Annual Visual Inspection    | Buttai Cemetery   | Bloomfield commissions visual inspection of Buttai Cemetery (as per Section 5.1.3) | The response will be dependent on the outcomes of the visual inspection, as follows:  

**No impacts identified during visual inspection**

- If the visual inspection identifies no change to the condition of the Buttai Cemetery, then no remedial actions will be undertaken.
- Bloomfield will report the outcomes of the visual inspection and response in the Annual Review, and if required, update this management plan.

**Impacts identified during visual inspection**

- If the visual inspection identifies a change to the condition of the Buttai Cemetery which is considered attributable to Bloomfield’s operations and is considered a risk to public safety, then Bloomfield will facilitate remedial works in accordance with relevant standards and guidelines.
- Bloomfield will then coordinate a follow-up inspection of the Buttai Cemetery to establish a revised baseline for ongoing management.
- Bloomfield will report the outcomes of the visual inspection and response in the Annual Review, and if required, update this management plan.
## 5.3 ROLES AND RESPONSIBILITIES

The roles and responsibilities relevant to this HHCMP are presented in Table 5-4.

<table>
<thead>
<tr>
<th>Roles</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>
| Manager of Mining Engineering/Mine Manager | • Ensure adequate resources are available to enable implementation of this HHCMP;  
                                          • Provide the requisite personnel and equipment to enable this HHCMP to be implemented effectively; and  
                                          • Report exceedences of trigger levels to Hunter Water.                                                                                           |
| Environment Manager                  | • Authorise the HHCMP and future amendments;  
                                          • Ensure inductions and training relevant to the HHCMP are implemented;  
                                          • Review and ensure implementation of the HHCMP;  
                                          • Coordinate historic heritage monitoring and, if required, corrective actions;  
                                          • Act as the interface for environmental matters between government authorities, private industry, contractors, community groups and the wider community;  
                                          • Inform the relevant Operations Manager and Manager of Mining Engineering of unexpected or serious environmental impact issues;  
                                          • Respond to community complaints (including the completion of appropriate corrective and presentative actions);  
                                          • Promptly notify relevant regulatory agencies of any incidents or non-compliances;  
                                          • Assess the implementation of this HHCMP; and  
                                          • Report exceedences of trigger levels to Hunter Water.                                                                                           |
| Shift Supervisors                    | • Maintain accountability for the overall environmental performance of the Mine;  
                                          • Respond to any unplanned events that may potentially result in, or cause, negative environmental impacts;  
                                          • Ensure reportable incidents are investigated and reported to the Environmental Officers; and  
                                          • Report exceedences of trigger levels to Hunter Water.                                                                                           |
| All personnel                        | • Adhere to the requirements of this HHCMP;                                                                                                                                                                       |
5.4 INCIDENT RESPONSE

All environment incidents will be reported to the Bloomfield Environment Manager. Following an incident, the Bloomfield Environment Manager is responsible for assigning any corrective or preventative actions.

In accordance with Schedule 5, Condition 6 of the Project Approval, Bloomfield will notify, at the earliest opportunity, the Department of Planning and Environment and any other relevant agencies of any incident that has cause, or threatens to cause, material harm to the environment. For any other incident associated with the project, Bloomfield will notify the Secretary of the Department of Planning and Environment (the Secretary) and any other agencies as soon as practicable after Bloomfield becomes aware of the incident. Within 7 days of the date of the incident, Bloomfield will provide the Secretary and any other relevant agencies with a detailed report on the incident, and such further reports as may be requested.

Where an exceedance of trigger values at the Reservoirs or the annual inspection at the cemetery identifies impacts have occurred, Bloomfield will, at the earliest opportunity:

- In the case of trigger value exceedences at the Reservoirs, take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;
- Consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Secretary describing those options and any preferred remediation measures or other courses of action; and
- Implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary.
5.5 COMMUNITY COMPLAINT MANAGEMENT

Complaints will be managed in accordance with the Environmental Management Strategy. In the event that a community complaint is received regarding historic heritage impacts, the Shift Supervisor will record the complaint on the Bloomfield complaint/incident form, and notify the Environment Manager.

As a minimum, records of the complaint will include:

- Date and time the complaint was logged;
- Personal details provided by the complainant;
- Nature of the complaint;
- Action taken regarding the complaint, or if no action was taken, the reason why; and
- Follow up contact with the complainant.

6. Reporting and review

6.1 REPORTING

In accordance with Schedule 5, Condition 3 of the Project Approval, Bloomfield will include the following information in the Annual Review, as relevant to the conservation and management of the historic heritage:

- Describe the works that were carried out in the past year, and the works that are proposed to be carried out over the next year;
- Include a comprehensive review of the monitoring results and complaints records over the mine complex over the past year, which includes a comparison of these results against the:
  - Relevant statutory requirements, limits or performance measures / criteria;
  - The monitoring results from the previous years; and
  - The relevant predictions made in the Environmental Assessment.
- Identify any non-compliance over the last year, and describe what actions were (or are being taken into consideration to ensure compliance;
- Identify any trends in the monitoring data over the life of the Project;
- Identify any discrepancies between the predicted and the actual impacts of the Project, and analyse the potential cause of any significant discrepancies; and
- Describe what measures will be implemented over the next year to improve the environmental performance of the Project.
6.2 PLAN REVIEWS

In accordance with Schedule 5, Condition 4 of the Project Approval, Bloomfield will review, and if necessary revise, this HHCMP within three months of:

- The submission of an Annual Review under Schedule 5, Condition 3 of the Project Approval.
- The submission of an incident report under Schedule 5, Condition 6 of the Project Approval.
- The submission of an audit report under Schedule 5, Condition 7 of the Project Approval.
- Any modification of the conditions of the Project Approval (unless the conditions require otherwise).

Any revision of this HHCMP will be made to the satisfaction of the Secretary.

7. References

AECOM, 2018a, Butta Reservoirs No 1 and No 2 Heritage Condition Assessment, Sydney, NSW, Bloomfield Colliery.

AECOM, 2018b, Buttai Cemetery Heritage Condition Assessment, Sydney, NSW, Bloomfield Colliery.


Delaney, J. W. 1982, Millfield, Ellalong, Brunkerville, Buttai, Glenmore, Mount Vincent, Mulbring and Rothbury cemeteries

ERM Resource Planning, 1995, Environmental impact statement for proposed quarrying at Buttai Maitland, N.S.W.


Parnell, D. and Smith, C. (undated) Wilfred Elliot Private Cemetery Buttai


Umwelt 2000, Environmental impact statement for proposed rehabilitation program/landfill operation Lot 75 DP 755260, Buttai. Prepared for Carlewie Pty Ltd by Umwelt (Australia) Pty Limited. Umwelt (Australia) Pty Limited, Toronto, NSW.
Appendix A

Approval Conditions and where they are addressed in the HHCMP
## Table A1  Approval conditions and where they are addressed in this HHCMP

<table>
<thead>
<tr>
<th>Schedule / Condition</th>
<th>Where addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Schedule 3, Condition 31B:</strong> The Proponent must prepare a Historic Heritage Conservation Management Plan for the Buttai No 1 and No 2 reservoirs and the Buttai Cemetery, to the satisfaction of the Secretary. This plan must:</td>
<td></td>
</tr>
<tr>
<td>(a) Be prepared by a suitably qualified and experience person/s;</td>
<td>Section 1.4</td>
</tr>
<tr>
<td>(b) Be prepared in consultation with OEH, Hunter Water, Council and relevant landowners;</td>
<td>Section 3</td>
</tr>
<tr>
<td>(c) Be prepared in accordance with Heritage Council of NSW guidelines (where relevant);</td>
<td>Section 2.3</td>
</tr>
<tr>
<td>(d) Outline the results of the condition surveys required under Condition 31A of Schedule 3;</td>
<td>Section 4</td>
</tr>
<tr>
<td>(e) Include a program for the regular monitoring of the condition of the No 1 and No 2 reservoirs throughout the life of the project; and</td>
<td>Section 5.1</td>
</tr>
<tr>
<td>(f) Include a contingency plan in the case of any damage to the No 1 or No 2 reservoirs, or Buttai Cemetery cause by Modification 4.</td>
<td>Section 5.2</td>
</tr>
</tbody>
</table>

The Proponent must implement the Historic Heritage Conservation Management Plan as approved by the Secretary.

**Schedule 5, Condition 2** The Proponent must ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:

<p>| (a) Detailed baseline data | Section 4 |
| (b) A description of: The relevant statutory requirements (including any relevant approval, licence or lease conditions); Any relevant limits or performance measures/criteria; The specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures; | Section 1.4 and Section 5 |
| (c) A description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria | Section 5 |</p>
<table>
<thead>
<tr>
<th>Schedule / Condition</th>
<th>Where addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>(d) A program to monitor and report on the: Impacts and environmental performance of the project; Effectiveness of any management measures (see (c) above);</td>
<td>Sections 5.1 and 6.1</td>
</tr>
<tr>
<td>(e) A contingency plan to manage any unprecedented impacts and their consequences;</td>
<td>Section 5.2</td>
</tr>
<tr>
<td>(f) A program to investigate and implement ways to continually improve the environmental performance of the project over time;</td>
<td>Section 6</td>
</tr>
<tr>
<td>(g) A protocol for managing and reporting any: Incidents; Complaints; Non-compliances with statutory requirements; and Exceedances of the impact assessment criteria and/or performance criteria; and</td>
<td>Section 5.4</td>
</tr>
<tr>
<td>(h) A protocol for periodic review of the plan.</td>
<td>Section 6.2</td>
</tr>
</tbody>
</table>
Appendix B

Consultation
Registered Post – Lodgement Receipt
Item addressed to: CESSNOCK CITY COUNCIL
For the attention of: Heritage Advisor
PO Box number or street address: PO Box 152
Suburb or town: CESSNOCK State: NSW 2325
Receiver's name: Mary Jean Sutton
Sender's name: Rachel MacKay
Signature: ≠
Date: 8.4.19

WARNING: This envelope is not suitable for sending jewellery or precious stones. Small rigid items such as keys or coins should be securely packed to avoid loss or damage.

Registered Post – Lodgement Receipt
Item addressed to: CESSNOCK FAMILY HISTORY GROUP
For the attention of: Dawn Reid / Lynette Hamer
PO Box number or street address: PO Box 152
Suburb or town: CESSNOCK State: NSW 2325
Receiver's name: Rachel MacKay
Sender's name: Mary Jean Sutton
Signature: ≠
Date: 8.4.19

WARNING: This envelope is not suitable for sending jewellery or precious stones. Small rigid items such as keys or coins should be securely packed to avoid loss or damage.

Registered Post – Lodgement Receipt
Item addressed to: Heritage Division
For the attention of: Locked Bag 5000
PO Box number or street address: Locked Bag 5000
Suburb or town: PARRAMATTA State: NSW 2184
Receiver's name: Rachel MacKay
Sender's name: Mary Jean Sutton
Signature: ≠
Date: 8.4.19

WARNING: This envelope is not suitable for sending jewellery or precious stones. Small rigid items such as keys or coins should be securely packed to avoid loss or damage.
05 April 2019

Heritage Advisor,
Cessnock City Council
PO Box 152
Cessnock NSW 2325
Email: council@cessnock.nsw.gov.au

Dear Sir/Madam,

**Re: Consultation for Conservation Management Plan Inputs for Buttai Reservoirs No 1 and No 2 and Buttai Cemetery for Bloomfield Colliery**

We are writing to formally consult with your organisation on behalf of Bloomfield Colliery as part of the preparation and research for preparation of a conservation management plan (CMP) for the Buttai Reservoirs No 1 and No 2, and a CMP for the Buttai Cemetery (refer to attached Figure 1). We have been engaged by GHD Pty Ltd (GHD) on behalf of Bloomfield Colliery to prepare the revised CMP and CMP for these items.

"The preparation of the CMPs is a requirement of Schedule 3, Condition 31B of the Project Approval (MP 07_0087), this requirement is condition of Modification 4 of MP 07_0087, which was approved 16 August 2018. The requirement for preparation of the CMPs was as a result of concerns raised by the Heritage Council of NSW during exhibition of the environmental assessment (EA), in relation to potential for adverse impacts on the Buttai Reservoirs No 1 and No 2 and the Buttai Cemetery."

As part of this consultation, we are requesting formally if Cessnock City Council has any information, including technical or historical reports or archival documents (plans, photographs, correspondence or aerial imagery), sources for oral history or other resources that may assist with understanding the:

a) History of land tenure for lands where the Buttai Reservoirs No 1 and No 2 and Buttai Cemetery are identified (refer to Figure 1) (for example, settlement history or changes of ownership or management, historical and title searches or portion plans)

b) History of the construction and use/disuse of the Buttai Reservoirs No 1 and No 2 and Buttai Cemetery

c) Understanding the significance of the Buttai Reservoirs No 1 and No 2 and Buttai Cemetery.

This information would be integral to developing a well-informed CMP and your assistance would be greatly appreciated.

We will be undertaking research and collating this information over the next fortnight and would appreciate if Cessnock City Council could respond by **Thursday 18 April**. We are happy to make a time to collect/copy any records or discuss this research over the telephone at a time that suits. Any information provided would be appropriately sourced and acknowledged within the CMP report.

Should you wish to provide feedback or comments to be considered during the development of the CMPs, please reply to **mj.sutton@virtusheritage.com.au**, or directly on (02) 6676 4354 or 0439 703 886.

Yours Sincerely

Mary-Jean Sutton
Principal Archaeologist
5 April 2019

Att: Dawn Reid or Lynette Hamer
Cessnock Family History Group/Cessnock and District Historical Society
C/- Cessnock City Library
PO Box 152, Cessnock NSW 2325
Email: council@cessnock.nsw.gov.au

Dear Dawn and Lynette,

Re: Consultation for Conservation Management Plan Inputs for Buttai Reservoirs No 1 and No 2 and Buttai Cemetery for Bloomfield Colliery

We are writing to formally consult with your organisation on behalf of Bloomfield Colliery as part of the preparation and research for preparation of a conservation management plan (CMP) for the Buttai Reservoirs No 1 and No 2, and a CMP for the Buttai Cemetery (refer to attached Figure 1). We have been engaged by GHD Pty Ltd (GHD) on behalf of Bloomfield Colliery to prepare the revised CMP and CMP for these items.

The preparation of the CMPs is a requirement of Schedule 3, Condition 31B of the Project Approval (MP 07_0087), this requirement is condition of Modification 4 of MP 07_0087, which was approved 16 August 2018. The requirement for preparation of the CMPs was as a result of concerns raised by the Heritage Council of NSW during exhibition of the environmental assessment (EA), in relation to potential for adverse impacts on the Buttai Reservoirs No 1 and No 2 and the Buttai Cemetery.

As part of this consultation, we are requesting formally if Cessnock and District Historical Society has any information, including technical or historical reports or archival documents (plans, photographs, correspondence or aerial imagery), sources for oral history or other resources that may assist with understanding the:

a) History of land tenure for lands where the Buttai Reservoirs No 1 and No 2 and Buttai Cemetery are identified (refer to Figure 1) (for example, settlement history or changes of ownership or management, historical and title searches or portion plans)

b) History of the construction and use/disuse of the Buttai Reservoirs No 1 and No 2 and Buttai Cemetery

c) Understanding the significance of the Buttai Reservoirs No 1 and No 2 and Buttai Cemetery.

This information would be integral to developing a well-informed CMP and your assistance would be greatly appreciated.

We will be undertaking research and collating this information over the next fortnight and would appreciate if Cessnock and District Historical Society could respond by Thursday 18 April. We are happy to make a time to collect/copy any records or discuss this research over the telephone at a time that suits. Any information provided would be appropriately sourced and acknowledged within the CMP report.

Should you wish to provide feedback or comments to be considered during the development of the CMPs, please reply to mj.sutton@virtusheritage.com.au, or directly on (02) 6676 4354 or 0439 703 886.

Yours Sincerely

Mary-Jean Sutton
Principal Archaeologist
5 April 2019

Heritage Division
Locked Bag 5020,
Parramatta NSW 2124
Email: heritage@heritage.nsw.gov.au

Dear Sir/Madam,

Re: Consultation for Conservation Management Plan Inputs for Buttai Reservoirs No 1 and No 2 and Buttai Cemetery for Bloomfield Colliery

We are writing to formally consult with your organisation on behalf of Bloomfield Colliery as part of the preparation and research for preparation of a conservation management plan (CMP) for the Buttai Reservoirs No 1 and No 2, and a CMP for the Buttai Cemetery (refer to Figure 1). We have been engaged by GHD Pty Ltd (GHD) on behalf of Bloomfield Colliery to prepare the revised CMP and CMP for these items. AECOM have previously prepared detailed condition reports on the two reservoirs and Futurepast have prepared an earlier CMP for the reservoirs.

The preparation of the CMPs is a requirement of Schedule 3, Condition 31B of the Project Approval (MP 07_0087), this requirement is condition of Modification 4 of MP 07_0087, which was approved 16 August 2018. The requirement for preparation of the CMPs was as a result of concerns raised by the Heritage Council of NSW during exhibition of the environmental assessment (E.A), in relation to potential for adverse impacts on the Buttai Reservoirs No 1 and No 2 and the Buttai Cemetery.

We note the conditions of consent refer to the Heritage Division’s CMP standard as a reference point for guidance only, and that the actual CMPs for these items would be structured to an operations document. This would allow the CMPs to be used on the ground without a formal thematic history or detailed development of conservation policies. Therefore, while the CMPs would be prepared to address the requirements of Schedule 3, Condition 31B of MP 07_0087, this document does not strictly meet the Heritage Division guidelines for a formal CMP. We are working with GHD to develop this document.

As part of consultation for the development of the CMP, Bloomfield Colliery are required to consult with the Heritage Division. As part of this consultation, we are notifying the Heritage Division that this project has commenced and we will be consulting with the Heritage Division’s library and other online databases and publications to utilise relevant research and source material. In addition, consultation would be carried out with the Cessnock and District Historical Society, Hunter Water Corporation, Cessnock City Council and other local landholders as part of the research for this project.

Please contact me directly on (02) 6676 4354 or 0439 703 886, if you need to discuss anything further.

Yours Sincerely

Mary-Jean Sutton
Principal Archaeologist
5 April 2019

Hunter Water Corporation  
Section 170 Heritage Register  
36 Honeysuckle Drive  
Newcastle NSW 2300

Dear Sir/Madam,

Re: Consultation for Conservation Management Plan Inputs for Buttai Reservoirs No 1 and No 2 and Buttai Cemetery for Bloomfield Colliery

We are writing to formally consult with your organisation on behalf of Bloomfield Colliery as part of the preparation and research for preparation of a conservation management plan (CMP) for the Buttai Reservoirs No 1 and No 2, and a CMP for the Buttai Cemetery (refer to attached Figure 1). We have been engaged by GHD Pty Ltd (GHD) on behalf of Bloomfield Colliery to prepare the revised CMP and CMP for these items.

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As part of this consultation, we are requesting formally if Hunter Water Corporation has any information, including technical or historical reports or archival documents (plans, photographs, correspondence or aerial imagery), sources for oral history or other resources that may assist with understanding the:

a) History of land tenure for lands where the Buttai Reservoirs No 1 and No 2 and Buttai Cemetery are identified (refer to Figure 1) (for example, settlement history or changes of ownership or management, historical and title searches or portion plans)
b) History of the construction and use/disuse of the Buttai Reservoirs No 1 and No 2 and Buttai Cemetery
c) Understanding the significance of the Buttai Reservoirs No 1 and No 2 and Buttai Cemetery.

This information would be integral to developing a well-informed CMP and your assistance would be greatly appreciated.

We will be undertaking research and collating this information over the next fortnight and would appreciate if Hunter Water Corporation could respond by Thursday 18 April. We are happy to make a time to collect/copy any records or discuss this research over the telephone at a time that suits. Any information provided would be appropriately sourced and acknowledged within the CMP report.

Should you wish to provide feedback or comments to be considered during the development of the CMPs, please reply to mj.sutton@virtusheritage.com.au, or directly on (02) 6676 4354 or 0439 703 886.

Yours Sincerely

Mary-Jean Sutton  
Principal Archaeologist
Appendix C- Evidence of Consultation in preparation of this Management Plan
20 August 2019

Project: Bloomfield Heritage Report

Subject: GHD Offices/2 May 2019/9am

Venue/Date/Time: GHD Offices/2 May 2019/9am

Copies to: All attendees and Name (Company)

Attendees: Chris Knight (Bloomfield)
            Greg Lamb (Bloomfield)
            Margaret Balandin (Hunter Water)
            Jarrod Wynn (Hunter Water)
            Mary-Jean Sutton (Virtus Heritage)
            Michelle Kiejda (GHD)

Apologies:

Minutes

Key discussion points:

- Hunter Waters planned repairs to both reservoirs to be undertaken in late May
- Repairs works will require a new baseline for condition
- What the blast level triggers should be for investigation and discussions
- Who would undertake further investigation and what types of investigation would be undertaken

Points of agreement:

- Hunter Water agree with a TARP approach and setting different triggers for further investigation
- Hunter Water and Bloomfield will both undertake dilapidation surveys following the repair works as a new baseline
- Bloomfield will install a new monitoring point just outside Hunter Water land to be used as the monitoring point
- Bloomfield will notify Hunter Water if the new monitor registers a reading over the trigger value threshold to instigate an investigation
- Investigation actions would be undertaken by Hunter Water, initial investigation would be a visual assessment if the monitor registers higher than the lower trigger value threshold and internal inspection using drivers if the readings over the higher trigger value threshold
- Heritage structure impact based trigger value and trigger value based on earthquake loading
Minutes

- Following further investigation Bloomfield and Hunter Water would discuss and agree on any further actions

Actions

- Hunter Water to confirm point of contact for reporting of exceedance of trigger values for further investigation
- Bloomfield to provide the draft management plan to Hunter Water for comment

Michelle Kiejda
Technical Director - Environment
Appendix D- Copy of Approvals- DPE
Appendix D to be inserted at a later time.